Academics’ conceptions of "good university teaching" and perceived institutional and external effects on its implementation

Anna Ólafsdóttir

Dissertation submitted in partial fulfilment of a Ph.D.-degree
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Abstract

This thesis reports a study that had the overall aim to identify what university teachers believe to be “good university teaching”, what they judge to be the conditions necessary to be able to teach in that way, and what factors, institutional and external, are seen to affect the implementation of good teaching practices. Thus, the study sought to bridge two different areas of research into higher education. One which covers important differences in how students learn, using empirical studies to identify influential concepts and then considering the implications of these for improving the quality and effectiveness of university teaching, and another area which has described and evaluated the ways in which universities as institutions function and also the higher educational system as a whole. Thus, the study involves three levels, the level of teaching, the institutional environment and the environment external to the institution.

This broad focus called for different data from various sources, and so a mixed-methods approach was used, conducting a case study of a single university institution in Iceland, and collecting and analysing data from different levels. Documentary data from the governmental level and the institution were reviewed, followed by individual in-depth interviews with a total of 14 members of academic staff from four different disciplines, some of which also had administrative roles, and two administrators outside faculty. Subsequently a questionnaire survey, based on an analysis of the interviews, but also including the Approaches to Teaching Inventory (ATI), was distributed to all staff in the institution that had a permanent academic position of which 235 responded, the response rate being 44 percent.

The findings are that teachers, on the whole, see good teaching as being characterized by emphasis on rich teacher-student interaction, preparation of a kind which fosters student understanding and good teaching experiences, the use of formative assessment designed to facilitate learning and foster understanding, and recognition of various generic aims as important in addition to theoretical knowledge in a specific field.

The conditions that teachers believe to be essential for them to carry out “good teaching” are conditions that “encourage active learning” and “show concern for the student perspective”. “Active learning” is seen as depending on appropriate class size, suitable classrooms, and having students who are actively responsive in class. “Concern for the student
perspective” is seen in terms of providing formative assessment, with prompt and helpful feedback. Additional dimensions of favourable conditions described being able to use own research or field of research as a part of the course content and move away from over-reliance on examinations.

Factor analysis of the questionnaire data confirmed the distinction, represented in the ATI, between teachers who focused mainly on the conceptual development of students’ knowledge and those who were more concerned with information transmission of content, covering and testing the syllabus efficiently. Cluster analysis of the questionnaire scales, revealed three main categories, two of which closely paralleled the distinctions characterised in the ATI, but the third and largest group, was more pragmatic in the use of a range of teaching strategies, drawn from both the other categories.

The findings revealed that the promotion criteria, used by the institution are perceived as not really rewarding teaching considering its importance, but explicitly emphasizing research. The general attitude among academic staff seemed to be that organizational changes, mainly due to cuts, diminished the quality of teaching and incentives for enhanced quality of teaching were hardly mentioned.

The findings indicate that governmental edicts work in various ways as moulding forces, affecting university teaching, when implemented at institutional level, through policy procedures. One such is the model that determines the financial contribution to universities. The findings indicate that the model, as it works, acts as an inhibitor to preferred approaches to teaching and contradicts ideas of what constitutes teaching of good quality. One such inhibiting factor was seen in the rewarding element, inbuilt in the model, towards large numbers of students, with relatively few contact hours, except in large groups, as this increases the completed credits (ECTS) for minimum cost and as a result a positive net financial contribution for each course. Thus, low-budget courses with large numbers of students were seen as limiting teachers’ flexibility to teach in ways which promoted quality learning. Concerns were also expressed that the system, by accepting non-standardized entry qualifications, might adversely affect the standards set for entering the university. This also applied to the level of demands set in programmes and courses, as the institution is ready to take in as large portion of the student population entering university education as possible for budgetary reasons.
The Bologna process, within which the main component affecting quality is the system of learning outcomes, is seen by staff as a powerful modulator of quality, and generally regarded as contributing positively to the discourse. A critical question arises whether the ideas entertained by the teachers on the basis of their own education or culture about what constitutes quality are powerful enough to lead the discourse on the issue of quality and thus to determine the criteria set for good university teaching. The findings from the data seem to indicate that it might rather be that the external influences determine what constitutes good teaching, and thus the ideological development of the issue will be led by influences outside the disciplinary fields or even outside the institution.

Based on the findings it is concluded that a better understanding of the way in which decisions at the three different levels interact could help to ensure that the implementation of policy works in ways which encourage quality teaching and learning and provides more effective advice to staff on how to cope in any unfavourable circumstances that might inhibit good teaching in their discipline. But, not least it is a matter of concern to what extent the ideas held by academic staff, and their expertise as scholars in their field, are allowed to guide and influence policy procedures.

Although the study focused on a single institution, it is argued that it has considerable external validity not just in Iceland, but also within other higher education systems. The contribution of the study is inter alia to connect how different levels interact in determining teaching, but different parts of the study correspond well with previous research. It draws attention to how teachers understand quality of teaching in higher education and how it may be achieved, and pinpoints some of the factors which affect the quality of the outcome of education. The study brings up issues that call for further study, suggests theoretical clarification and elaboration related to these influences and suggests steps that an institution can take to enhance quality in practical terms.
Ágrip

Hugmyndir háskólakennara um „góða háskólakennslu“ og þættir innan og utan stofnunar sem þeir telja að hafi áhrif á hvernig kennslan fer fram í ritgerðinni er greint frá rannsókn sem hafði að meginmarkmiði að greina hvað háskólakennarar álíta „góða háskólakennslu“, hvaða aðstæður í kennsluumhverfinu þeir telja nauðsynlegar til að hægt sé að kenna á þann hátt og hvaða þættir, hvort heldur er innan eða utan stofnunar, þeim finnst að ráði því hvort kennslan verði góð. Rannsóknin tengir saman tvö ólík svið rannsóknara. Annað hefur nýtt rannsóknir sem skoðað hafa viðtölum hví kennslurnar er nauðsynlegar til að hægt sé að kennla á þann hátt og hvort þeim finnst að þær fer fram á hverri stofnuninni. Á grundvelli þeirra rannsóknara hafa verið þróuð gagnleg hugtök sem verið var áhrif á hverri stofnuninni, en einnig kerfi æðri menntunar í heild. Í fyrsta lagi voru tekin viðtöl við hvar hafði áhrif ólíka sem þeirra rannsóknara hafa verið áhrif á hverri stofnuninni, umhverfi kennslurnar innan stofnunar og að þáttum utan stofnunar sem hafði áhrif hvernig kennsluna.

Þetta víða sjónarhorn krafðist margvíslega gagna og því voru notaðar blandaðar aðferðir (e. mixed-methods) í rannsókninni sem var tilviksrannsókn og tilvikkið háskólastofnun á Íslandi. Gagna var aflað á þremur stigum sem tengdust rannsóknarviðfangsferfinu. Í fyrsta lagi voru skoðuð skjöl frá stjórnuvöldum, svo sem stefnuyfirlýsingar, lög og reglugerðir og auk þess stefnuskjöl stofnunarinnar. Í öðru lagi voru tekin viðtöl við háskólakennara og stjórnendur í stofnuninni og voru þ þannegögn rannsóknarinnar. Tekin voru viðtöl við 14 háskólakennara í fjörum kennslugreinum innan stofnunarinnar og sinnu þrír þeirra einnig stjórnunarstykldum innan sinna sviða. Einnig voru tekin viðtöl við tvo einstaklinga í stjórnunarstöðum utan akademískra díelda. Í þriðja lagi voru spurningalisti lagður fyrir þær kennara sem gegndu fastri akademískri stoðu innan stofnunarinnar. Spurningalistinn var byggður á greiningu á viðtölunum en innihélt einnig fyrirlíögandi spurningalisti Approaches to Teaching Inventory (ATI) sem notaður hefur verið viðs vegar um heim til að kanna hvaða leiðir kennara fara í kennslu. Spurningalistanum svöruðu 235 manns og svarhlutfall væri 44 prósent.
Fjórir þættir einkenna hugmyndir háskólakennara um „góða háskólakennslu“. Fyrsti þátturinn snýst um ríkuleg gagnvirk samskipti nemenda og kennara. Annar um kennsluundirbúning sem miðar að því að hlúa að og efla skilning nemenda á viðfangsefninu, en tryggið um leið sem best jákvæða upplifun kennarranna sjálfra af samverunni við nemendur. Þriðji þátturinn snýst um notkun leiðsagnarmats sem hefur það að markmiði að styðja við námið og efla skilning. Sá fjórði snýst um mikilvægi þess að leggja áherslu á ýmis almenn námsmarkmið til viðbótar markmiðum sem tengjast beint fagbekkingu á því sviði sem námið tekur til.

Rannsóknin síndi að háskólakennarar álíta að til þess að þeir geti haldið úti slíkri kennslu þurfi að skapa kennsluundmáli sem hvetji til virks náms og hún kalli einnig á að kennarrinn horfi að námið af sjónarhóli nemendanna. Það er skýr skoðun kennarranna að fjöldi nemenda og skipulag kennslurýmis ráðið því hvort hægt sé að skipuleggja kennsluna þannig að nemendur verði virki virki en einnig ráðist það af því hvort nemendur séu sjálfræðibúnir til að vera virki þátttakendur í kennslunni. Kennarar telja sig geta betur sett sig í spor nemendanna með því að viðhafa leiðsagnarmat með skýr og styðjandi endurgjöf. Kennarar töldu mikilvægt að þeir hefðu tækifæri til að nýta eigin rannsóknir eða rannsóknir af eigin fræðasviði sem hluta af kennsluefni námskeiða og einnig töldu þeir æskilegt að geta minnkað vægi prófa í námsmati.

Þátttagreining (e. *factor analysis*) var unnin á hluta spurningalistans, þ.m.t. þeim þætti sem byggði á ATI. Greiningin staðfesti þær tvær ólíku leiðir í kennslu sem ATI könnumin er hönnuð til að prófa, þ.e. annars vegar nemendamiðaða kennslu þar sem athyglinni er beint að því að stuðla að auknum skilningi nemenda og hins vegar kennamiðaða kennslu sem beinir athyglinni að því að miðla ákveðnum fróðleik sem felst í efnin námskeiðsins, og komast yfir í tínum og prófa það sem sett er fram í kennsluáætlun. Greiningin síndi einnig innbyrðis tengsl annarra breyta sem mynduðu fjóra þætti. Klasagreining (e. *cluster analysis*) sem gerð var á öllum þáttunum sex, þ.e. ATI þáttunum tveimur og hinum fjórum, greindi þrá þjá klasa hugmynda, kennsluáðstæðna og leiða í góðri kennslu. Munurinn milli tveggja þessara klása var líkur muninum á ATI þáttunum tveimur. Þeir sem mynduðu þriðja klásan og jafnframt þann stærsta, virtust veljast í þann hóp á grunni praktískra viðhorfa því að þar var að finna hugmyndir, kennsluáðstæður og leiðir í kennslu sem höfðu samsvörun við báða hina klasana.

Niðurstöður rannsóknarinnar síndu að kannurunum finnst almennt að viðmiðin sem stofnunin notar við að veita framgang í starfi gefi kennslu ekki
nægjanlegt vægi miðað við mikilvægi þess þáttar í starfi háskólakennara, en leggi þess í stað afdráttarlaus þá hvarslu á rannsóknarþáttinn. Það var almennt viðhorf að breytingar sem gerðar hefðu verið, að megninu til vegna niðurskurðar á fjárfrumlegum, hefðu dregið úr gæðum kennslu og fá dæmi voru nefnd um aðgerðir sem sérstaklega var ætlað að efla gæði kennslu.

Niðurstöður rannsóknarinnar gefa vísbendingar um að kennarar telji að ákvarðanir tekna á stjórnvalsstiginu virki, innan stofnunar, á ýmsan hátt sem mótaði kraftur í kennslunnun. Einn sílkur þáttur er reiknilikan stjórvalda sem notað er til að ákvarða fjárframlag til háskólastofnana. Niðurstöðurnar benda til að líkanið eins og það birtist í framkvæmd hindri að kennarar geti nýtt þær leiddir sem þeir annars kysu að nota í kennslun sinni og þannig vinni líkanið gegn hugmyndum kennara um hvað gðó háskólakennsla felur í sér. Ein síl hindrun að áliti kennara var að innbyggð væri í kerfið ákveðin fjárframlagumbun fyrr firfjölgum nemenda, þ.e. að kerfið hvetti til að stofnunin og einstakar greinar hefðu sem flesta nemendur.

Nemendahópar yrðu þannig stórir en kennslustundir hlutfallslega fárar, jafnvel þótt hluti kennslunnar væri í stórum hópum. Með því móti mætti hámárka námseiningar sem nemendur ljúka, með sem minnstum tilkostnaði og afriksturinn yrði jákvæð fjárframlags niðurstadaða fyrir sem flest námskeið. Námskeið í lánum reiknaflókkum með margar nemendur voru almennt álitið líða fyrir þessa reiknireglu því hendur kennara væru bundnar og þeir gætu ekki kennt eins og þeir teldu mikilvægt til þess að laða fram gæði í námi. Áhyggjur komu einnig fram í gögnum frá kennurum um að reiknilikanið gæti haft áhrif á kröfurnar sem háskólastofnanir settu fyrr innängöngu í háskólalanám, vegna þess að hægt væri að nýta svigrúm hvað íntökuskilyrði varðar. Þetta var einnig álitið geta haft áhrif á mælikvarða þegar settar væru kröfur innan námsleiða og námskeiða, vegna hvatningarinnar í líkaninum um að taka eins marga nemendur inn í nám og mögulegt væri því að þannig mætti auka fjárframlagði frá stjórnvöldum.

Bologna áætluninni sem háskólastofnanir á Íslandi eru þátttakendur í var gjarnan lýst sem jákvæðu og kröftugu breytingaflí þegar horft var til gæða, og almennt var hún álitin hafa jákvæð áhrif á umræðuna um gæði. Þetta átti sérstaklega við um þann hluta áætlunarinnar sem snýr að setningu hæfniviðmiða fyrir námsleiðir og námskeið.

Áleitnar spurningar vakna þegar þessar niðurstöður eru skoðaðar. Til dæmis má spryja hvort hugmyndir kennaranna sjálfra um hvað gerir háskólakennslu góða, byggðar á menntun þeirra eða menningu innan kennslugreina hafi nægjanlegt vægi eða afl til að geta orðið leiðandi í umræðunni um gæði og ákveða þar með viðmiðin sem sett eru fyrr fyrir góða
háskólakennslu. Niðurstöðurnar gefa vísbendingar um að þessu geti hugsanlega verið öfugt farið, þ.e. að það séu fremur ytri áhrifatættir sem skilgreini háskólakennsluna og ákvarði þannig gæði hennar og að þar með sér líklega en ella að hugmyndafæðileg þróun í þessu efni stýrist af áhrifum sem koma að utan, þ.e. utan kennslugreinanna sjálfra og jafnvel utan stofnunarinnar.

Meginniðurstaða rannsóknarinnar er að mikilvægt sé að efla skilning allra sem koma að ákvörðunum um málefi og starfsemi háskóla á gagnvirkni ákvarðana sem teknar eru á þeim þremur aðskildu stigum sem rannsóknin tók til, stjórnvaldsstiginnu, stofnanastiginnu og einstaklingsstiginnu og hverju hvert þessara stiga ráði í raun. Með því væri betur tryggt að framkvæmd stefnu háskólastofnana geti orðið kennurum hvatning til að efla gæði eigin kennslu og um leið auka gæði núms hjá nemendum, en einnig að stefnan í framkvæmd næi betur að halda utan um kennara og veita þeim leiðsögn þegar fengist er við krefjandi og erfiðar aðstæður, sem hindrað gætu góða kennslu í kennslugrein þeirra. En ekki er síst umhugsunarefni að hvað má marka fagmennska fræðimanna háskóla fái að ráða ferð eða hafa áhrif á framkvæmd hennar.

Rannsóknin beindist að einni háskólastofnun og áhrifaþáttum sem henni tengja megi yfirfæra á aðrar háskólastofinanir, ekki eingöngu á Íslandi, heldur einnig innan annarra háskóla kerfa. Nýnæmi rannsóknarinnar felst m.a. í að tengja saman ólík stig háskólarferfis en hvað varðar einstaka þætti hennar þá fannst góð samsvörun við það sem aðrar rannsóknir hafa sýnt.

Rannsóknin varpar ljósi á skilning kennara á því hvað hugtakið „gæði“ merkur þegar það er tengt háskólakennslu, hvernig þeir telja að hægt sé að ná fram slíkum gæðum, en jafnframt hvað þeir telja að trufli þá viðleitni. Fjölmargt í rannsókninni kallar á betri skýringar á hugmyndum kennaranna. Hún kallar einnig á opna umræðu um gæðamál tengd háskólakennslu, m.a. um áhrif stjórnvalda og stofnunar á umgjörð náms og kennslu.
# Table of contents

Acknowledgements .............................................................................................................. 3
Abstract ................................................................................................................................. 5
Ágrip .................................................................................................................................. 9
List of Figures ......................................................................................................................... 18
List of Tables ......................................................................................................................... 20
1 Introduction ......................................................................................................................... 23
   1.1 The expansion of higher education .............................................................................. 24
   1.2 Globalization .............................................................................................................. 25
   1.3 Information- and communication technology ......................................................... 25
   1.4 Diversity of higher education institutions .............................................................. 26
   1.5 Defining quality of university education ............................................................... 27
   1.6 The idea of a university ............................................................................................ 31
   1.7 The structure of the thesis ......................................................................................... 34
2 Previous research into quality aspects of higher education, relevant to the study ........ 37
   2.1 Research into students’ approaches to, and conceptions of learning .................. 37
   2.2 Research into teachers’ approaches to, conceptions of, and beliefs about teaching ...................................................................................... 45
   2.3 Research into quality assurance related issues ..................................................... 69
       2.3.1 Assessing the quality of university institutions and their operations ........... 69
       2.3.2 Assessing the quality of research ................................................................. 79
       2.3.3 Assessing the quality of teaching ................................................................. 80
   2.4 Research questions formed ...................................................................................... 85
3 Methodology ...................................................................................................................... 89
   3.1 A mixed methods approach ....................................................................................... 89
   3.2 Research paradigm .................................................................................................. 90
   3.3 Research design ...................................................................................................... 91
   3.4 An embedded mixed methods design ..................................................................... 92
   3.5 Issues concerning validity and reliability ............................................................... 94
   3.6 Ethical issues .......................................................................................................... 97
4 The macro level: Government policy and the framework set for higher education in Iceland .......................................................... 101
   4.1 Historical overview ................................................................................................ 101
   4.2 Government policy and legislation on higher education in Iceland .................... 105
4.2.1 Document analytic methods .................................................. 105
4.2.2 Analysis of governmental documentation ................................. 106
  4.2.2.1 Governmental policy on higher education ......................... 106
  4.2.2.2 Higher Education Institution Act 2006 .......................... 108
  4.2.2.3 Act on Public Higher Education Institutions 2008 ............ 113
  4.2.2.4 Accreditation of higher education institutions ................. 115
  4.2.2.5 Policy statement for public universities 2010 .................. 118

5 The meso level: The University of Iceland ..................................... 121
  5.1 Historical overview .................................................................. 121
  5.2 Institutional policy .................................................................... 125
    5.2.1 Document analytic methods ............................................. 125
    5.2.2 Analysis of institutional documentation ............................... 126
      5.2.2.1 Institutional policy ..................................................... 126
      5.2.2.2 Faculty policy ........................................................... 132
        5.2.2.2.1 Faculty of Social Sciences – Policy 2006-2011 ........ 133
        5.2.2.2.2 Faculty of Medicine – Policy 2006-2011 ............... 137
        5.2.2.2.3 Faculty of Science – Strategic Plan 2006-2011 ....... 139
    5.3 The contract between the Ministry of Education and the
        University of Iceland in effect 2007-2011 ............................. 143

6 The micro level: “Good university teaching” and influences on its
  implementation – findings from analysis of interviews ...................... 145
  6.1 Methods ................................................................................. 145
    6.1.1 Interviews with staff ....................................................... 145
    6.1.2 A piloting process ......................................................... 146
    6.1.3 Sampling strategy .......................................................... 146
    6.1.4 Pilot interviews .............................................................. 147
    6.1.5 The question framework ............................................... 149
    6.1.6 Analysis of the pilot interview data ................................ 149
    6.1.7 Semi-structured interviews ........................................... 150
    6.1.8 The question framework ............................................... 151
    6.1.9 Analysis of the semi-structured interview data ............... 152
  6.2 Findings ................................................................................. 153
    6.2.1 “Good university teaching” ............................................. 154
      6.2.1.1 The teacher-student nexus ...................................... 154
      6.2.1.2 Planning ................................................................. 159
      6.2.1.3 Assessment ............................................................. 162
      6.2.1.4 The outcome of learning ....................................... 167
      6.2.1.5 Additional aspects brought up as constituting good
               teaching ................................................................. 170
6.2.2 Institutional and external influences affecting the implementation of good teaching ............................. 172
  6.2.2.1 Class size in courses ................................................. 173
  6.2.2.2 Teaching room allocation ...................................... 174
  6.2.2.3 Time distribution of academic duties and the impact of the promotion criteria ............................... 177
  6.2.2.4 Institutional policy on teaching and teaching-learning cultures at faculty level ........................................ 183
  6.2.2.5 The impact of financial factors on the quality of teaching ........................................................................ 193

6.2.3 The meaning of the Bologna process and its impact upon quality ................................................................. 197
  6.2.3.1 The 3+2+3 setup of study programmes ...................... 198
  6.2.3.2 The coordinated system of credits (ECTS credits) ......... 199
  6.2.3.3 The quality assurance aspect of the Bologna Process ....... 201
  6.2.3.4 International recognition as a result of accreditation according to Bologna standards ............................. 203

7 The micro level: “Good university teaching” and influences on its implementation – Findings from analysis of a survey questionnaire .... 205
  7.1 Methods ........................................................................... 205
    7.1.1 A Survey methodology .................................................. 205
    7.1.2 The survey instrument development ............................... 206
    7.1.3 The survey questionnaire structure .................................. 207
    7.1.4 Piloting process and questionnaire refinements ................... 209
    7.1.5 Sampling ...................................................................... 210
    7.1.6 The Survey implementation ............................................ 211
    7.1.7 Data analysis .................................................................. 213
      7.1.7.1 Descriptive statistics .................................................... 213
      7.1.7.2 Factor analysis .......................................................... 213
      7.1.7.3 Cluster analysis ........................................................ 214
      7.1.7.4 Inferential statistics .................................................... 215
  7.2 Results from section I .......................................................... 216
    7.2.1 The questionnaire respondents ......................................... 216
    7.2.2 The Approaches to Teaching Inventory (ATI) ..................... 217
    7.2.3 Descriptive statistics ....................................................... 217
    7.2.4 Factor analysis ............................................................... 219
    7.2.5 Conditions for Good Teaching ......................................... 221
    7.2.6 Descriptive statistics ....................................................... 221
    7.2.7 Factor analysis ............................................................... 223
7.2.8 Differences between categories of disciplines .......................... 226
7.2.9 Cluster analysis ....................................................................... 228
7.3 Results from section II................................................................. 230
  7.3.1 The organisation of academic duties .................................... 230
  7.3.2 Facilitators and inhibitors to teaching of good quality .......... 235
  7.3.3 The meaning of the Bologna process for the quality of study programmes offered by the institution .......... 240
  7.3.4 Focusing on the student and important qualities embodied in the final outcome of learning .......... 245

8 Discussion .................................................................................... 251
  8.1 Conceptions of “good university teaching” ............................... 252
  8.2 Revisiting the first broad research question ......................... 255
  8.3 Teachers’ approaches to teaching .............................................. 259
  8.4 Revisiting the two remaining research questions – and an extended model ........................................ 263
  8.5 Perceived institutional and external effects on the implementation of “good university teaching” .......... 265
    8.5.1 Specific institutional conditions affecting teaching .......... 266
    8.5.2 Broad institutional influences affecting teaching ............ 271
    8.5.3 External influences affecting teaching ............................. 279
  8.6 Drawing together the lines of institutional and external influences affecting teaching .......................... 284

9 Conclusions .................................................................................. 289
  9.1 The micro level ......................................................................... 290
  9.2 The meso level ......................................................................... 291
  9.3 The macro level ....................................................................... 292
  9.4 Strengths and weaknesses of the study .................................... 293
  9.5 Further research ..................................................................... 294
  9.6 Personal reflections - afterthoughts ......................................... 295

References ...................................................................................... 299
Appendices ....................................................................................... 315
Appendix A Confirmation from The Data Protection Authority ....... 317
Appendix B List of government documents analysed ..................... 319
Appendix C List of institutional documents analysed ...................... 321
Appendix D An informed consent .................................................... 323
Appendix E The Approaches to Teaching Inventory ....................... 325
Appendix F The survey questionnaire used in the study ................ 327
Appendix G English translation of the survey questionnaire ............ 335
Appendix H The survey questionnaire – an introduction e-mail to the participants
Appendix I Classification of disciplines
Appendix J Reliability tests for the ATI
Appendix K Reliability test for the “Conditions for good teaching” items
Appendix L Figure 22 enlarged version
Appendix M Figure 23 enlarged version
Appendix N Figure 24 enlarged version
List of Figures

Figure 1 Comparison between categories describing conceptions of knowledge and of learning ................................................................. 42
Figure 2 A multiple-level categorisation model of conceptions of teaching .......................................................................................... 50
Figure 3 Evolving sophistication in an understanding of the discipline and teaching. ........................................................................... 52
Figure 4 The five global conceptions of teaching and their constituent dimensions .................................................................................. 55
Figure 5 The 3P model of teaching and learning ......................................................................................................................... 58
Figure 6 A model of the experience of teaching ....................................................................................................................... 60
Figure 7 Knowledge and disciplinary grouping .............................................................................................................................. 62
Figure 8 Conceptual Map of the “Inner” Teaching-Learning Environment ................................................................................................. 64
Figure 9 Differing forms of congruence within teaching-learning environments ..................................................................................... 67
Figure 10 Heuristic model identifying important influences on student learning ..................................................................................... 68
Figure 11 An overview of the design and methodological procedures of the study ................................................................................ 93
Figure 12 The organisational structure of the University of Iceland ........ 123
Figure 13 The central administration of the University of Iceland .......... 124
Figure 14 Estimate and preferences for rate of time spent on administration ......................................................................................... 231
Figure 15 Estimate and preferences for ratio of time spent on teaching ................................................................................................. 232
Figure 16 Estimate and preferences for ratio of time spent on research ................................................................................................. 233
Figure 17 Respondents’ view on the impact of coordination of the system of credits (ECTS) on programme quality ................................. 241
Figure 18 Respondents’ view on the impact of the 3-2-3 structure of programmes on programme quality .................................................. 242
Figure 19 Respondents’ view on the impact of identifying intended learning outcomes on programme quality .......................................... 243
Figure 20 Respondents’ view on the impact of accreditation according to Bologna criteria on programme quality ................................. 244
Figure 21 Respondents’ view on the impact of the accreditation according to Bologna criteria on recognition of programmes ................................................................. 245
Figure 22 Generic features of good university teaching ....................... 257
Figure 23 Institutional and external influences affecting the implementation of perceived good teaching practices ............... 265
Figure 24 Suggested interrelationships between and among institutional and external influences on the quality of teaching ................................................................................. 285
List of Tables

Table 1 Defining features of approaches to learning and studying .......... 44
Table 2 Comparison of orientations to teaching and learning identified in the 1992 paper and in the 2001 research .......... 56
Table 3 Generic features of High-Quality Teaching-Learning Environments ............................................................................. 65
Table 4 The higher education system in Iceland (2001, 2008 and 2013) .................................................................................................................. 104
Table 5 Respondents: Division between fields of science .................. 216
Table 6 Number of respondents in categories of discipline .......... 217
Table 7 Respondents’ context in answering the 30 first items of the questionnaire: Study level and year of studies .......... 217
Table 8 Frequency distribution of individual items of the ATI .......... 218
Table 9 ATI-items: Principal Components Analysis ............................. 220
Table 10 Frequency distribution of “Conditions for Good Teaching” items ................................................................................................................. 222
Table 11 “Conditions for Good Teaching” items: Principal Components Analysis ............................................................................................................. 224
Table 12 ATI and “For Good Teaching“ scales: Principal Components Analysis ............................................................................................................. 226
Table 13 Differences between categories of discipline: One-way between groups ANOVA ................................................................................................. 227
Table 14 The two ATI-scales and the four “Conditions for Good Teaching” scales: Cluster Analysis .................................................................................. 229
Table 15 Ratio of time spent on administration, teaching and research. Differences between categories of discipline: One-way between groups ANOVA ................................................................................................. 234
Table 16 Respondents’ reflections on the allocation of time in their working duties ............................................................................................................... 235
Table 17 Facilitators and inhibitors to teaching of good quality - Frequency distribution .......................................................... 236
Table 18 Respondents’ reflections on facilitators and inhibitors to teaching of good quality ............................................................................................................. 237
Table 19 Facilitators and inhibitors to teaching of good quality. Differences between categories of discipline: One-way between groups ANOVA ................................................................................................. 238
Table 20 Respondents’ emphasis in teaching

Table 21 Respondents’ emphasis in teaching. Differences between categories of discipline: One-way between groups ANOVA

Table 22 Respondents’ reflections on emphasis in teaching
1 Introduction

For the last few decades various forces of change have been at work influencing and shaping the developments of higher education systems. These are forces such as globalization, new technology and constantly growing competition, to name only a few. All these forces have had strong impact on functioning and growth in higher education, all over the world.

The number of institutions offering higher education has been growing rapidly in most western countries the last two to three decades. One of the consequences has been an increasing concern with quality issues (Tight, 2003, p. 108). This concern is manifested, among other things, in the Bologna Process which was launched in 1999 by ministers of education and university leaders from 29 countries in Europe. Although, initially, the main aim of the Bologna Process was to build a common framework which would allow for adequate recognition of students’ degrees between institutions and countries, it was also seen as a means to encourage the development of what was referred to as “a quality culture” within European universities (European University Association, 2008, p. 7).

This thesis addresses an issue that has its roots in this concern about the quality of university education. It aims to explore how academics in one Icelandic university conceive of “good university teaching” and how ideas about it are being represented within policies affecting quality assurance procedures more generally. The thesis is also concerned with identifying ways in which these policies may be affected by forces external to the university, and the extent to which teachers and administrators perceive these forces to be affecting the conditions they believe to be necessary for “good teaching” to take place.

My interest in this topic was evoked when, in an earlier study, I investigated the ways in which university students and university teachers used information and communication technology in their studying and teaching. Being at the time a project manager for distance education, and later taking an academic position in the same institution, I was curious to know whether, and if so, how ICT had changed students’ and teachers’ ways of working and whether these changes had added to the quality of their learning and teaching. I also wanted to know how the development of educational technology had translated into institutional policy in higher
education. In my review of literature relevant to the study topic, I came across a book with the title “Deep Learning for a Digital Age”, by Van B. Weigel (2002). I was curious to know more about what the author meant by “deep learning” and saw that he cited an article with the title “Promoting Deep Learning Through Teaching and Assessment” by Noel Entwistle, published in 2001. When exploring the issue further I found that an extensive literature existed, focusing on the phenomenon, based on studies into qualitative different ways of handling the learning situation, later being referred to as deep and surface approaches to learning. These had originally been conducted by a research team in Gothenburg in the 1970s (Entwistle, Hanley, & Ratcliffe, 1979; Marton & Säljö, 1976, 1984). Although not concerned with this literature for the purpose of my study then, the distinction between deep and surface approaches to learning served, to some extent, as a background in developing the criteria used for the evaluation study.

After finishing the evaluation report, I remained interested not only in this literature but also in various aspects of the discourse into quality of university education in general. I continued exploring related studies, among them those studying conceptions of, and approaches to, university teaching, steadily discovering more about the various different issues that come into play and need to be brought into the discourse when handling learning and teaching in universities, and quality in higher education in general. And, to make a long story short that is the origin of this thesis.

In this first chapter, recent developments in the higher education sector will be introduced in order to give insight into the various different forces that have been at work, impacting upon higher education institutions during the last decades. Higher education has expanded dramatically, with globalization and information technology having increased exponentially in scope, as well as the diversity among the students enrolling. At the same time, universities are grappling with ideas such as quality and the university’s role in society. These ideas and forces will be discussed in the coming sections.

1.1 The expansion of higher education

One of major forces of change which has been impacting upon higher education has been the rapid growth within the higher education system for the last few decades. As described by Fägerlind and Strömqvist (2004a), the number of university institutions and students studying at all levels, be it undergraduate or postgraduate, has in recent decades risen dramatically,
and reached a point of mass higher education becoming something like a norm in most western countries (p. 19). This has meant a significant rise in class sizes and a much more diverse student population which is forcing higher education institutions to address a much wider range of needs from the student body (Brennan & Shah, 2000, pp. 20-21; Evans & Nation, 2000a, p. 3).

The expansion in the higher education system can be, at least partly, explained as being one of the consequences of globalization which has had huge impact upon all three, ideas, capital and people in higher education systems (Fägerlind & Strömqvist, 2004b, p. 13).

1.2 Globalization

Globalization has been described as a multidimensional phenomenon, involving multiple and diverse domains, such as the cultural, the environmental, the economic and the political arena (Yang, 2003, p. 271). Yet, it seems that changes referred to as caused by globalization, tend to be, to a considerable degree, motivated by economic and commercial forces. The impact of these forces is manifested in the discourse of higher education in many ways. Higher education institutions are labelled as a part of the higher education market, and there has been an increasing demand from the market for curricular standards. Another manifestation has been seen in the employment of economic standards, or benchmarks, as one of the tools used in quality assurance procedures in higher education institutions. This has been seen as having resulted in a tendency to overemphasise values of a more practical and technical nature, rather than focusing on genuine educational values. Thus, market-driven fundamentals of globalization may be seen as bringing even more challenges, than opportunities, into education (Yang, 2003, p. 277).

But, as Evans and Nation (2000b) have drawn attention to, there is probably one factor which has, more than any other, created a highly globalized environment and as such brought with it profound changes in educational functions and operations within the higher education system. Here we are referring to information and communication technology (ICT) (p. 165).

1.3 Information- and communication technology

As early as in the nineteen nineties, technology was described as a major force of change. In this context it was pointed out that the joint forces of rapidly changing technology together with notably increasing demands for
excellence from the marketplace, was making the teachers’ jobs more complex than ever before (Fullan, 1993, p. 5).

The evolution of Information and Communication Technology (ICT) has caused more rapid changes in the higher education sector than one probably could have imagined when it came into existence. The use of ICT has not only changed learning and teaching environments in higher education in various ways, but also the way in which the administration environment operates (Anna Ólafsdóttir & Ásrún Matthíasdóttir, 2004, p. 195). More importantly, the use of ICT, has been given a prominent role, in institutional policy procedures as an instrument to improve the quality of learning and teaching (Anna Ólafsdóttir, 2007, Oct. 17th). Thus, higher education institutions have, in addition to on-campus study, increasingly focused on offering on-line study programmes in their effort to raise student numbers and thus meet the challenge of growing competition (Anna Ólafsdóttir, 2004, p. 153).

This draws attention to an important question of the drive behind students’ engagement in university education.

1.4 Diversity of higher education institutions

It has been pointed out that university students do not only seek credentials, as a means to strengthen their competency in the job market, but also to enhance their social, or cultural capital in general (Brown, 2001, p. 20). This competitive element has been described as working in the direction that if “certain credential turns out to be valuable, the more people seek it, and the more people receive a credential the greater the inducement for other people to follow suit” (Jónasson, 2004a, p. 4). This drift in the student body has been, at least partly, as bearing in it the danger of a development towards an educational system of a homogenous nature (p. 11).

Decreasing diversity within the higher education sector has also been described as linked to the way in which quality assurance systems tend to work. Thus, studies in Sweden have shown that quality procedures, as they have been practised, have appeared to encourage academic drift and homogenization within the system. Another aspect brought up in this context have been concerns about the common criteria, apparent in the national quality assessment, which has been described as being of a nature, that might work as a threshold to change and diversity in the higher education sector (Kim, 2004, pp. 234-235). Lastly, there have been alert calls, warning that when setting criteria for quality in their institution, those
involved in quality procedures need to consider the danger of being more focused on issues related to service, productivity and accountability, at the cost of genuine educational values (Jónasson, 2005a).

This draws attention to the way in which quality of higher education is defined, that is, what determines the quality of university institutions, their operations, and the final outcome of studying for a university degree.

1.5 Defining quality of university education

Despite the many attempts made to determine the nature of the very concept “quality”, the task of defining the term has in all respects turned out to be a much more complex task than it first has seemed, or as Vroeijenstijn (1995a) once noted:

People often think that quality can be defined, but quality is like love. Everyone talks about it, and everyone knows what he or she is talking about. Everyone senses when it is present. Everyone recognizes it. When we try to define it, however, we come up empty-handed (p. 13).

However, as Barnett (2003) points out, there is in fact hardly a feature in the operations of universities today that doesn’t fall under quality inspection. This drive for quality “has right on its side, because the idea of quality has right explicitly written into it” (p. 91). Although the idea of quality may be expressed using different concepts all of them “share an interest in doing something well”. However, well can be a problematic concept to address for the reason that:

... the family of concepts of quality differs over by whom or by which criteria that ‘doing something well’ is to be judged: it might be against the actor’s intentions or against the institution’s objectives, or by the actor’s peers, or by the voice of the consumer or by third parties such as employers or even against considerations lodged by the state itself (p. 91).

Thus, the concept has been seen to mean different things to different people and for that reason the criteria set for quality must be seen to be depending on the perspective from which quality is judged.

In the last two decades of the 19th century various definitions of quality, with reference to higher education, emerged. Among the best known is a
framework offered by Harvey and Green (1993), wherein various stakeholders’ perspectives are clarified. In addition to emphasising that quality is bound to mean different things to different people the authors stress the relative nature of the quality concept (p. 9).

As an example of the quality concept as “stakeholder-relative”, governments may define quality in terms of pass and fail rates, whereas students may define quality with reference to their individual development, and how they are being prepared for a future position. The profession may focus on the skills developed during the study, whereas academics may define quality with reference to the transfer of knowledge, and academic training (Harvey & Green, 1993, p. 28; Vroeijenstijn, 1995b, p. 60).

The framework offered by Harvey and Green (1993) presents five categories of definition. One refers to quality as Exception; something being exceptional or distinctive; the next defines quality as Perfection; something which is without defect; the third one links quality to Fitness for purpose; the purpose is defined by the provider and quality relates to that purpose; the fourth refers to quality as Value for money; outputs which are measured against inputs, having efficiency and effectiveness as the main focus; and last, quality is defined in terms of Transformation, which refers to change, and bears within it concepts such as enhancement and empowerment (Harvey & Green, 1993, pp. 11-27).

The authors emphasise that their conclusion on different understandings of quality in higher education is “merely the adoption of a pragmatic attitude” which entails determining a set of criteria which reflect “common-sense quality aspects” (p. 29) and aims at finding measures which prove convenient for quantifying quality. However, as the authors further note:

Unfortunately, this approach sometimes works in reverse. Convenient measures are eagerly seized upon and a rationale constructed to give them credibility in measuring quality. The ad hoc use of performance indicators is a case in point. ... if we want to find a core of criteria for assessing quality in higher education it is essential that we understand the different conceptions of quality that inform the preferences of different stakeholders (p. 29).

This statement is in line with critical questions posed by Bowden and Marton (2004) who also have attempted to illuminate the various
conceptions of the quality concept. They note that in the *Oxford Dictionary* definition, the concept is explained as meaning that something is excellent; but it is also referred to as attributes of something. Thus, we speak of something being excellent to describe high quality and we talk of qualities to explain the attributes of something. When referring to higher education, the former meaning seems to be the one most common in the discussion and even used as if the meaning of the very word *quality* is obvious (p. 214). But such definitions are not without complexity; we need to know what allows some object to be judged as being of high quality, we need to know something about the capacity of the judge as well as his or her standpoint, we need to know something about criteria, that is, what values are placed by the judge and we need to know something about comparison. Or as the authors conclude, “any simple statement that an object is of high quality begs the question: high relative to what?” (pp. 213-214).

There have been even more critical views of the discourse into quality aspects of higher education, such as the one of Readings (1996), who, talked about the “de-referentialization” of terms like “excellence” and even “university” at times, as these terms no longer had any specific referents, “... they no longer refer to a specific set of thing or ideas” (p. 17). Yet the talk of excellence, as Readings put it, has “become the unifying principle of the contemporary University” (p. 22), and the one often used colloquially by university administrators in their talks. “Today, all departments of the University can be urged to strive for excellence, since the general applicability of the notion is in direct relation to its emptiness” (p. 23).

Another salient part of the discourse of quality has been the one of “quality assurance” in higher education. The use of the term, which has been defined as “systematic, structured and continuous attention to quality in terms of quality maintenance and quality improvement”(Vroeijenstijn, 1995a, p. xviii), has been and most likely will continue to be a subject of debates. Thus, as early as in the nineteen nineties, Ellis (1993) questioned the appropriateness of using it in the context of university education and pointed out that the term partly is derived from manufacturing and service industry and partly from health care. There is a difference, Ellis argued, in meaning between talking of “the quality of teaching” which might refer to something being of high or low standard and “quality teaching” which implies excellence. Associating quality assurance with excellence might be misleading, for the reason that “standards, like beauty, are usually in the eyes or perceptions of observers. ... In its simplest form quality in university teaching would be that which satisfies ... the student” (p. 3).
Bowden and Marton (2004) have also more recently highlighted this very controversy entailed in the judgement of quality, and posed the question “whether any of the quality demands referred to, and the quality assurance processes they instigate relate to the qualities of the universities per se or to the qualities developed by graduates” (p. 212). The question addresses two important aspects, that is, the one of how the quality demands that quality assurance procedures are based on are chosen, and that of what qualities contribute to a judgement that states that a university or a certain graduate’s degree is of high quality.

The various issues that have been raised regarding quality and quality assurance in higher education seem to call for further inspection into what trends are affecting developments in the higher education system, and in particular if, and if so, how these are affected by trends in the quality discourse.

As noted earlier, there are indications that university institutions may gradually be drifting towards homogeneity, rather than diversity (Birnbaum, 1983; Brown, 1999, p. 9). Jónasson (2004a) has suggested, that academic drift may have its roots in the quest for higher status and that this higher status is believed to be accomplished through becoming a research university (p. 4). Thus, there are indications, that the tendency of academic drift, in the higher education sector, may have a particular significance for the quality discussion. From the present perspective, there are three important questions about institutional diversity. These are: Is it important, and then why is it important, is it increasing, and how does it impinge upon the quality issue?

As early as in the nineteen eighties, Robert Birnbaum (1983) argued convincingly for the importance of diversity, and later, Brown (1999) gave a similar argument in pointing out that the more institutions differentiated, and focused on their specific mission, the effectiveness of the system as a whole would increase (pp. 4-5). Both expressed concern about the move away from diversity in educational systems. This concern is still in place. Thus, Skúlason (2008), has expressed his concern about the drift towards homogeneity, as a consequence of a quest for higher status, and pointed out how simple measures such as the highest number of students graduating with a doctoral degree and number of articles published in scientific journals seem to be the main criteria for universities earning the label of being ranked among world leading universities, but leaves the question unanswered whether these same universities are:
good universities in the meaningful sense of educating their students, of providing enriching services to their local communities, and of advancing our understanding of ourselves and the world. One negative consequence of this development is that all universities tend to emphasise the same things, and uniformity becomes the rule at the cost of a diversity which might be much more useful to the society (p. 6).

It can be argued that concerns expressed about trends in the development of university institutions, and their quality, are also concerns about the development of the very idea of a university higher education sector and how it has developed. We will now attempt to give a brief overview of the history of the idea of a university, and attempt to throw light on the present situation, and the challenges that recent developments are seen to bring about.

1.6 The idea of a university

The university, its role in the society, and how it has developed through history has been a subject of investigation in various fields of the academic community. Philosophers, historians and educators, to name a few, have in many different ways attempted to approach the task of defining what a university is or should be about.

Thus, taking a quick glance into the history of European universities can help to illuminate how the university’s institutional identity has evolved since it first was established and what are the main challenges that European universities are faced with in present times.

The year 1088 is considered to be the founding year of the University of Bologna. A little over one century later, in 1208, students and teachers in Paris, from different disciplines, decided to form a corporate body in Paris for their studying and teaching. In the thirteenth century the students’ association in Bologna and the association of teachers and students in Paris were given formal permission to form what was called *studium generale*. This organisational framework of higher education has been marked as the predecessor of the university we know today (Bowden & Marton, 2004, p. 3).

In medieval times universities had two fundamental aims. One was to provide students with general education of a kind that was considered necessary for every professional, the latter was training them as professionals in a specialised field (Jónasson, 2008, p. 36).
organisational framework had characteristics which Bowden and Marton (2004) have described as the *University of Teaching* (p. 3).

The Humboldt University in Berlin, established in the beginning of the 19th century, has been marked as a revolutionary break in the history of the university (Nybom, 2007, p. 60). Its importance has been considered to lie first and foremost in the ideology it represented. An important part of Humboldt’s vision was the building of a national culture of scientific knowledge and education where the university played a central role. Humboldt introduced the concept “*University of Research*” when presenting his idea, as to emphasise the importance of the nexus between research and teaching, that is, teachers and students working together in the pursuit of knowledge, forming a community of scholars, who were, as Graham (2005) puts it: “devoted to intellectual inquiry entirely for its own sake, without any requirement that their studies be practical or profitable” (p. 12).

John Henry Newman, often referred to as “Cardinal Newman”, presented his idea of a university in the middle of the nineteenth century. The main theme in Newman’s idea was what is labelled today with the term “liberal education”. In Newman’s view the university’s role was to provide students with liberal (knowledge) education no matter what profession they were studying for (Maskell & Robinson, 2002, p. 25). Or as Cardinal Newman (1910) described it, himself:

> He [the student] profits by an intellectual tradition, which is independent of particular teachers, which guides him in his choice of subjects, and duly interprets for him those which he chooses. He apprehends the great outlines of knowledge, the principles on which it rests, the scale of its parts, its lights and its shades, its great points and its little, as he otherwise cannot apprehend them. Hence it is that his education is called “Liberal” (pp. 101-102).

Newman’s idea of the role of research in universities was that if research was emphasised as a central part of the university’s operation it would not nurture the philosophical mind, it only would confirm the presence of non-educational interests in the university (Barnett, 2003, p. 146). Thus, research should be handed over to other institutions (Kerr, 1995, p. 2).
The developments of the European university in the period from 1800 till present time has been characterised with reference to these three main academic traditions (Jónasson, 2008, p. 34).

In the nineteen eighties, Fuller (1989) expressed his concern about developments within the university sector, and the consequences with respect to the idea of the university, when he stated that academic institutions had in many cases become little more than “weak alliances” among entrepreneurs who welcomed the of extrinsic values and goals. Or as he further explained:

Academic institutions, it would appear, are in varying degrees disintegrated communities of scholars. They remain places physically set apart for teaching and learning, but entering their premises no longer guarantees encounter with a self-understanding, however mysterious and complex it may initially seem that gradually discloses a distinctive manner of activity that really does set them apart. What has been obscured, if not lost, is the idea of a school, a college, a university (Fuller, 1989, p. 3).

More recently, Skúlason (2008) has provided an analysis of the idea of a university and its development, by highlighting the different missions, educational aims and governing structure of the three main ideas, the French, the German and the British tradition. As described, the Napoleonic tradition holds the mission to provide the nation with “the knowledge and expertise it needs”, accordingly the main educational aim or objective being “the training of professionals”, and governing structure of “hierarchical” nature, that is, the universities being “submitted to the state that funds them”. The mission in the Humboldtian tradition is “service to scholarship or science”. Accordingly its educational aim is “the formation of the students for the advancement of the sciences”. The governing structure is collegial governance by academics themselves. Service to the individual student is the mission in the Newmanian tradition. Accordingly the educational aim is “the development of the character and competences of the individual person”. The governing structure is “professional management of the educational institution” (Skúlason, 2008, pp. 1-2).

One of Skúlason’s conclusions is that there is no reason to fear that the idea of a university is obscure or lost; it rather seems that the present situation is that the three traditions, the French, German and British have merged. The Bologna process, Skúlason argues, “contributes directly to the
amalgamation of these different traditions by introducing a common degree structure, standardized recognition procedures, qualifications frameworks and systems of quality assurance” (p. 2) and as a consequence:

A typical European university today is trying to fulfil—in its own special way—at the same time all the three different missions of serving the nation, the sciences, and the individual student; it is striving to reach the three different educational aims that I mentioned, and it attempts to have a governing structure which takes into account hierarchical regulation and academic self-governance while applying professional rules of management (p. 2).

Thus, as Skúlason notes, “A typical European university is full of tensions that stem from the fact that it is trying to respect all these various missions, aims and governing structures” (p. 2).

This introductory chapter has sought to provide some insight into the spectrum of issues that form the setting of the research, that is, the background to, and context within which the present study was conducted.

Thus, the overview has attempted to illuminate how wide ranging the issues that come into play when discussing quality aspects of university education are, but also suggested that potential conflict of interest, and differences in understanding may exist among those that influence or are influenced by quality assurance procedures in higher education.

1.7 The structure of the thesis

This first chapter has described the background to this study and introduced the research topic. Chapter 2 offers an overview of previous research into quality aspects of higher education. In that context, three topics will be the main focus. The first is research into qualitative differences in university student learning. This research later fed into the second research topic reported in the chapter, namely quality aspects of university teaching, which developed in the light of the findings from research into student learning. The final aspect addresses issues related to quality assurance. In Chapter 3 the methodology adopted is explained in general terms, with detailed descriptions of specific methods being deferred until the following chapters where they relate directly to those parts of the investigation. Chapter 4 serves to give an overview of the
governmental framework within which the university institution under study operates. The chapter begins by offering a brief overview of the history and developments of the higher education system in Iceland followed by a review of documentation, such as governmental policy papers, legislation and other edicts, which serves to provide insight into the context within which university institutions in Iceland set their policies. Likewise, Chapter 5 starts with a historical overview of the subject of study, the University of Iceland, followed by a review of institutional policy documentation, as to describe the characteristics of the policy set for the University’s operations at the institutional as well as the faculty level, but focusing in particular on quality related aspects. Thus, the information provided in chapters 4 and 5 serve as to set the background for the analysis of the empirical data collected in the study. Inter alia it brings to light the institutional and operational continuum that accounts for some of the practices described in the study. Chapter 6 and Chapter 7 report findings from an analysis of the empirical data collected within the institution under study. Chapter 6 begins by describing the specific methods adopted for the interviewing phase of the study, followed by the reporting of findings. Chapter 7 first describes methodological issues relevant to the quantitative data collection, followed by reporting of the questionnaire survey conducted within the institution. Chapter 8 then highlights and discusses the overall results of the study, with Chapter 9 providing the main conclusions.

In the following chapter an attempt will be made to throw some light on previous research and literature into quality aspects of university learning and teaching, as well as reviewing literature into quality assurance operations of universities which was seen to have relevance for the subject under study.
2 Previous research into quality aspects of higher education, relevant to the study

The overview given in Chapter 1 shows that the European university is faced with tensions which affect its operations in various ways and cause potential conflicts, both at institutional level and outside the university. And this applies, to a greater or lesser extent, in each and every European country (Skúlason, 2008, p. 1).

In the following sections, a historical overview of previous research into three aspects of university education will be provided. First, we will address research into learning and studying in higher education. Secondly, research into quality aspects of teaching will be reviewed, and lastly, quality assurance issues related to higher education in general, will be addressed, wherein the focus is set on aspects which are seen to have the closest relevance for the subject under study.

2.1 Research into students’ approaches to, and conceptions of learning

In his essay, *The Idea of a University*, written in the midst of the twentieth century, the English historian and philosopher Michael Oakeshott drew attention to the fact that the operation in the medieval university was called *studium*, which, put into a more up contemporary language, would mean “the pursuit of learning” (Oakeshott & Fuller, 1989, p. 96). Oakeshott further explained that:

What distinguishes a university is a special manner of engaging in the pursuit of learning. It is a corporate body of scholars, each devoted to a particular branch of learning: what is characteristic is the pursuit of learning as a co-operative enterprise (p. 97).

Thus, as Oakeshott stated, the university’s business should first and foremost be with the pursuit of learning (Oakeshott & Fuller, 1989, p. 104), which implies that university teaching should be concerned with helping students to acquire the skills and understanding necessary to pursue academic learning effectively. But that still leaves open the question of precisely what kinds of learning students typically undertake, and that is
where empirical studies into students’ experiences of their own ways of
learning and studying can guide us towards the nature of teaching that is
needed to help students to develop high quality learning.

In more recent literature, Bowden and Marton (2004) put learning at the
forefront, as the defining element when addressing the idea of a university.
They point out that the relationship between the students and the teacher
has changed for many reasons. These are changes such as steadily
increasing number of student enrolment in higher education and
distributed and internationalized higher education, as a consequence of the
growing use of information technology. Now, learning needs to take place
through any range of means, individual learning, as well as collective, and
ranging from human to electronic means (p. 6). Thus, although there are a
number of issues to be addressed when examining what defines quality in
higher education, most people would undoubtedly agree that the pursuit of
learning is a critical feature and as such should be considered a principal
concern of the university (Jónasson, 2008, p. 43).

In earlier research into the psychology of learning in higher education
researchers mainly relied on the experimental design when dealing with
various aspects of learning, and normally they used concepts and methods
from psychology and sociology when trying to explain differences in student
achievement. Individual differences as well as learning outcomes were most
commonly described in quantitative terms referring to differences as
variations of correct answers and learning outcomes in terms of numbers of
correct answers (Marton, Hounsell, & Entwistle, 1997, p. 3).

In spite of this dominant approach of defining learning as a quantitative
phenomenon there was already in the nineteen thirties a concern with
learning defined in quantitative terms. Bartlett’s study on students’ recount
of a story they had read, published in 1932, led him to reject that memory
was a reproduction of storage mechanism. Instead he argued that memory
depended on the student’s reconstruction of meaning in terms of schemata
which represented the student’s personal reinterpretations of the learning
material (Bartlett, 1932). As Dahlgren (1997) later pointed out, Bartlett’s
notion thus concerned itself with “what is learned” instead of “how much is
learned” (p. 27).

A study conducted in the late nineteen sixties, by Perry (1970), showed
that in the beginning of their study university students use what he labelled
as “dualistic thinking” meaning that they believe in wrong or right answers
to every question. Later, as they progress during their study, this dualistic
conception of knowledge is replaced by a way of thinking labelled by Perry
as “relativistic reasoning”, which refers to the notion that students have realised that, when engaging in academic work, there are hardly ever clear-cut answers to be offered to any questions (pp. 9-10).

These studies show that already in the mid twentieth century researchers showed a growing interest in the nature of academic understanding. However, there were no signs yet of research into “the content of academic discourse or of the everyday context of teaching and studying” (Entwistle, 1998, p. 11).

In the 1970s, Ference Marton and his research team at Gothenburg University conducted a set of studies on student learning in higher education. The findings were reported in a series of articles, published in the British Journal of Educational Psychology. All had in common that the focus was pointed towards “qualitative differences in learning” (Fransson, 1977; Marton & Säljö, 1976; Svensson, 1977). The articles, as described by Entwistle (1998), “fundamentally changed the direction of research into student learning” since until then, it had not been accepted that qualitative differences in students’ understanding could be investigated in a rigorous manner and in addition it had not been recognised that the nature of the subject matter could fundamentally affect the type of learning involved (p. 11).

The point of departure in the Gothenburg studies was that learning should be described in terms of its content and should be focused on describing differences in what is learned rather than how much is learned.

New methodology, labelled later by Marton as phenomenography was used in the studies (Marton et al., 1997). Individual university students were asked to read a certain article, the content of which they then would discuss with the researcher. During the interview, students were also asked how they had experienced the situation and how they had gone about the learning task (Marton & Säljö, 1976). The findings revealed that for some students reading the text was an act of learning where the main focus was to try to move the text as it was from the pages into the memory. This way of setting about the learning task was referred to by the researchers as surface-level processing meaning that the students did not go beyond the surface of the text when reading. For other students the focus, when reading, was on the point the author was making about the subject he was writing about, this was identified as deep-level processing (p. 7). As the students’ intention evoked the distinctive processes of learning, the combination of intention and process was described in later literature as an approach. The qualitatively different ways of handling the learning situation
were referred to as deep approach and surface approach to learning (Entwistle et al., 1979; Marton & Säljö, 1984, p. 44).

Svensson (1977) in his study collected data from interviews with first-year students where they had described approaches to their normal studies. He analysed the outcomes and identified processes, thus combining the two sources that Marton and Säljö (1976) had used to obtain information about students' ways of trying to learn from text (Marton & Säljö, 1984, p. 43). Svensson (1977) reported similar distinction between approaches but used different terminology, that is, cognitive approach and distinguishing between holistic approach and atomistic approach in describing the way that knowledge had been constructed. Svensson found out that the distinction between the two approaches was consistent when students were asked to read and to recall their knowledge of the two texts and that this “concept of cognitive approach also had a functional relationship with academic attainment, helping to explain not only examination success, but also other aspects of the students' approaches to studying” (p. 233). As Entwistle (2012) has since noted:

Svensson reinterpreted ‘levels of processing’ in terms of the differing cognitive approaches used by students, based on the extent to which they were actively seeking to make connections between parts and wholes (evidence linked to ideas, and concepts to theories) in a holist way (p. 19).

This sense of making connections was included in Marton and Säljö’s description of deep approach to learning (p. 22).

In Fransson’s study (1977), students were asked to read an article under different conditions of intrinsic and extrinsic motivation. The results showed that three factors, that is, lack of interest; students effort to adapt to expected test demands, and high test anxiety all increased the tendency towards “surface-processing and ineffective, reproductive attempts at recall” whereas “an adaptive approach allied to strong interest and low anxiety produced a high proportion of deep-level approaches with good factual recall” (p. 224).

Säljö (1979), in his study, classified different conceptions of learning into five categories based on an analysis of how the subjects answered the question: “Well, what do you actually mean by learning?”. These categories were identified as ranging from learning as rote memorisation to learning
as process towards understanding of reality. The categories were summarised as:

1. Learning as the increase of knowledge.
2. Learning as memorising.
3. Learning as the acquisition of facts, procedures etc, which can be retained and/or utilized in practice.
4. Learning as the abstraction of meaning.
5. Learning as an interpretative process aimed at the understanding of reality (p. 19).

Säljö (1982), notes that all previous studies using the same research approach on people’s conceptions of learning and knowledge, such as his first study (1979), and Dahlgren and Parmling (1981) who described three categories; learning as reproduction, learning as preparatory to action and learning as bringing about understanding, reveal that there is “an underlying pattern of assumptions on the part of a learner which we can interpret as predisposing him to approach a given situation with a particular orientation” (Säljö, 1982, p. 183). Or, as he further explains:

it seems to be the individual’s conception of what counts as knowledge in educational contexts which determines how a text is approached and what the outcome is likely to be. In the present study, a ‘static’ or ‘factual’ conception of knowledge is closely associated with a tendency to be insensitive to the messages of the text read, and in a fundamental sense it seems to be the intention to learn which for some people leads to a difficulty in understanding (Säljö, 1982, p. 9).

One of Säljö’s (1982) conclusions was that the study showed that a surface orientation was a very inefficient mode of approaching texts, but despite this fact there seemed to be a tendency within the educational system to “provoke” this kind of approach or at least it did not seem that the system had managed to any noticeable degree to work against it. And Säljö further concluded:

Exposing generations of young people to ‘learning’ experiences of this kind, of course, is also a form of cognitive socialisation which has direct consequences for our well-being and for the possibilities we have of participating as active citizens in
society. ... Several researchers have pointed to the similarities between the money-economy and the grade-economy in terms of the basic attitudes to one’s work which they engender (cf. Kvale, 1980; Rowntree, 1977). In this sense the educational system can be said to produce competence although of a different kind than that which this system would itself be prepared to acknowledge as its goal (p. 197).

The Gothenburg studies are widely recognised as having made history in the sense that they presented a new perspective and led to some major changes in academic understanding of how university students learn (Ramsden, 2005).

More recently, Entwistle and Peterson (2004) have analysed literature into conceptions of learning, resulting in the diagram shown in Figure 1. The diagram suggests clear parallels between the hierarchies identified by Perry and by Säljö, associating dualism with reproductive conception of learning and the descriptive resemblance continuing through the two series of categories (p. 18). In describing the development of conceptions of learning as identified by Säljö the category of transformation was extended, adding learning as “developing as a person”. This extension was based on a subsequent study (Marton, Dall’Alba, & Beaty, 1993; Marton & Säljö, 1997).

![Figure 1 Comparison between categories describing conceptions of knowledge and of learning (Entwistle & Peterson, 2004).](image)
All the studies conducted by the Gothenburg team had focused on academic text reading. But, subsequently, Ramsden and Entwistle (1983) conducted a study where they extended the notions of deep and surface approaches to a range of other academic tasks besides reading. These were tasks such as learning from lectures; writing essays and revising for examinations (p. 133).

Table 1 describes in detail the defining features of the different approaches identified in the study. In addition to confirming the qualitative differences in approaches to learning, which had been identified in the Gothenburg studies, referred to as deep and surface, differences were also found in the way students dealt with their academic work. It was found that assessment played an important role in the way students approached their studying. This led Entwistle and Ramsden (1983) to add another category labelled as strategic approach as to describe how students’ intention to achieve high grades affected their studying. This intention was either driven by achievement motivation or a sense of responsibility which can now, based on further research, be seen as a “competitive, well-organised way of studying” (Entwistle, 2009, pp. 37-38).
Table 1 Defining features of approaches to learning and studying

<table>
<thead>
<tr>
<th>Deep Approach</th>
<th>Seeking Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intention</strong> - to understand ideas for yourself</td>
<td>by</td>
</tr>
<tr>
<td>Relating ideas to previous knowledge and experience</td>
<td></td>
</tr>
<tr>
<td>Looking for patterns and underlying principles</td>
<td></td>
</tr>
<tr>
<td>Checking evidence and relating it to conclusions</td>
<td></td>
</tr>
<tr>
<td>Examining logic and argument cautiously and critically</td>
<td></td>
</tr>
<tr>
<td>Being aware of understanding developing while learning</td>
<td></td>
</tr>
<tr>
<td>Becoming actively interested in the course content</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Surface Approach</th>
<th>Reproducing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intention</strong> – merely to cope with course requirements</td>
<td>by</td>
</tr>
<tr>
<td>Treating the course as unrelated bits of knowledge</td>
<td></td>
</tr>
<tr>
<td>Memorising facts and carrying out procedures routinely</td>
<td></td>
</tr>
<tr>
<td>Finding difficulty in making sense of new ideas presented</td>
<td></td>
</tr>
<tr>
<td>Seeing little value or meaning in either courses or tasks set</td>
<td></td>
</tr>
<tr>
<td>Studying without reflecting on either purpose or strategy</td>
<td></td>
</tr>
<tr>
<td>Feeling undue pressure and worry about work</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strategic Approach</th>
<th>Reflective Organising</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intention</strong> - to achieve the highest possible grades</td>
<td>by</td>
</tr>
<tr>
<td>Putting consistent effort into studying</td>
<td></td>
</tr>
<tr>
<td>Managing time and effort effectively</td>
<td></td>
</tr>
<tr>
<td>Finding the right conditions and materials for studying</td>
<td></td>
</tr>
<tr>
<td>Monitoring the effectiveness of ways of studying</td>
<td></td>
</tr>
<tr>
<td>Being alert to assessment requirements and criteria</td>
<td></td>
</tr>
<tr>
<td>Gearing work to the perceived preferences of teachers</td>
<td></td>
</tr>
</tbody>
</table>


The identification of different approaches to learning aroused interest and became a point of departure in a number of studies conducted within the academic community in Britain and led to further developments by Swedish, British and Australian researchers (Entwistle, 2007, p. 3).

Many studies, such as those by van Rossum and Schenk (1984), Prosser and Millar (1989), Trigwell and Prosser (1991b) and Ramsden (1992), have consistently shown a positive relationship between deeper approaches and higher quality learning, and studies of a similar kind have also suggested
that approaches to learning are relational, that is, there is a relationship
between students’ awareness of the learning environment they are
studying in, and their learning approaches.

The work derived from the original findings of the Gothenburg studies
eventually formed a conceptual framework known as the SAL theory
(Student Approaches to Learning), a meta-theory for conceptualizing
learning and teaching (Biggs, 1993b; Kember, Biggs, & Leung, 2004).

Hence, based on the findings from the above reported studies it can be
concluded that the way in which university students go about their learning
and how they experience their learning environments affects the quality of
the final outcome of studying for a university degree and must be seen as
an important dimension to consider as a part of any quality assurance
framework aiming towards high quality university education.

However, this thesis is not directly concerned with students’ experiences
of learning, or about their ideas about the nature of “good university
teaching”. The research into students’ approaches to learning is important
here only because it was the starting point of research into academics’
contrasting conceptions of teaching, and how the approaches to teaching
which stem from those conceptions affect the quality of learning achieved
by students. The next section discusses the research which followed on
from the student learning research to investigate academics’ conceptions of
teaching in general, as a path towards the central concern of this thesis
which is the conceptions of “good university teaching” described by
university teachers and administrators. Again the focus will be set on
reviewing the literature, as much as possible, in a chronological way.

2.2 Research into teachers’ approaches to, conceptions of, and beliefs about teaching

The research into students’ experiences of learning and studying in
universities provided a set of concepts and categories which have proved
robust across a wide variety of studies in differing educational contexts
(Marton & Booth, 1997). Thus, the concepts that evolved have, based on
several studies in the field, proven to have implications for university
teaching.

In a study conducted by Trigwell, Prosser and Taylor (1994), the point of
departure was the identification, by Marton and Säljö, of students’ different
approaches to learning, described in section 2.1. The study by Trigwell et al.
investigated, through a phenomenographic approach, if teachers’
approaches to teaching would have some relationship to students’
approaches to learning. Twenty four physical science teachers were interviewed about their experiences of teaching in one of their first science courses. The interviews were analysed in terms of the strategies claimed to have been adopted and the intentions associated with the strategies, as described by the teachers. Five approaches were found. The first, labelled as Approach A, represented a teacher-focused strategy where the intention was to transmit knowledge; the second, Approach B, was also teacher-focused, but here the intention was to have the students acquire the concepts of the discipline. The third approach, Approach C represented a strategy which involved teacher-student interaction with the intention that the students would acquire the concepts of the discipline. In Approach D the strategy adopted focused on the students with the intention to help them construct their knowledge and in that way develop their conceptions. The last approach, Approach E, also represented a student-focused strategy, but differed from Approach D in that the teacher understood that a new conception cannot be transmitted from the teacher to the student. Instead “the intention is that the students have to re-construct their knowledge to produce a new world view or conception” (Trigwell et al., 1994, pp. 78-82). The descriptions of approaches found in the study had elements which were common with those that had been identified for students’ approaches to learning. In particular the teacher focused strategies seemed to have characteristics in common with surface approaches to learning, and the students-focused strategies approaches seemed to have common characteristics with deep approach to learning. The categories of approach to teaching found in the study exemplified “the logical relationship between intentions and strategies”. At one extreme were teachers whose intentions were to transmit information only, and those teacher adopted teacher-focused strategy, and at the other extreme were those whose intentions were to help students in developing and/or changing their conceptions, and these teachers adopted a student-focused strategy (pp. 82-83).

Another study drew on these results and used the Approaches to Teaching Inventory (ATI), which had been developed based on the phenomenographic study. One of the purposes of the development of the ATI was to build an instrument that would be “ontologically consistent with the instruments used to measure students’ perceptions of their environment and their approaches to learning” (Trigwell & Prosser, 2004, p. 412). The study using the ATI investigated the congruence between intention and strategy of university science teachers’ approaches to teaching (Trigwell & Prosser, 1996). The results confirmed relations
between intention and teaching strategy: “A Student-focused Strategy was associated with a Conceptual Change Intention, while a Teacher-focused strategy was associated with an Information Transfer Intention” (p. 77). Based on the results it was concluded that, in order to produce effective academic development in teaching, it was not enough to focus on teaching strategies, the intentions associated with the strategies also needed to be taken into account (p. 77).

Gow and Kember (1993) studied departmental scores for what they referred to as two main orientations to teaching; knowledge transmission and learning facilitation. These two orientations were linked to students’ approaches to learning using the Study Process Questionnaire (Biggs, 1987). As described by Kember, the results showed:

... that underlying conceptions or orientations to teaching had a significant effect on students’ learning approaches. High mean scores for knowledge transmission orientation tended to depress the use of a deep approach to learning while the learning facilitation orientation was less likely to promote a surface approach to learning (Kember, 1997, p. 269).

Other studies have found deep approach to be associated with perceptions of high quality teaching, some independence in choosing what is to be learned, and a clear awareness of the goals and standards required in the subject (Trigwell, Prosser, Ramsden, & Martin, 1998, p. 97).

Trigwell, Prosser and Waterhouse (1999) investigated the relations between the approaches that teachers reported they had adopted in class, and the approaches of students in their classes. The Approaches to Teaching Inventory (Trigwell & Prosser, 1996) was used, collecting data from well over 40 chemistry and physics teachers, and a modified version of Study Process Questionnaire (Biggs, 1987) was given to some 4000 students attending their courses. The findings showed that qualitatively different approaches to teaching were linked with qualitatively different approaches to learning. The results indicated, that in cases where teachers described their approach to teaching as having a focus on transmitting knowledge, students were more likely to report a surface approach to the learning of that subject. Conversely, but not as strongly, students who reported adopting significantly deeper approaches to learning, were the ones attending classes in which the teachers themselves reported adopting approaches to teaching that were more oriented towards students and to changing the students conceptions (p. 57). In a subsequent study Martin,
Prosser, Trigwell, Ramsden, & Benjamin (2000) studied teachers’ different intentions when constituting a subject or topic for their students, how they then taught the subject, and subsequently how consistent they were in their intentions and practice (p. 387). Based on the findings they concluded that:

... it is not just how we teach that is important to students learning, nor what we teach, but what it is we constitute in particular teaching and learning contexts ... Programs of academic development for teachers in higher education need to focus on the vexed question of subject matter and how it is constituted for students before considering how teachers should approach their teaching (p. 409).

One implication suggested, based on the findings, was that one needs to think about an approach to teaching in terms of its relation to the object of study and vice versa. This internal relationship suggests that it is not likely that teachers will adopt more conceptual change or student-focused approaches to teaching unless they conceive of their objects of study in terms of knowledge being constructed and/or being problematic (p. 410). In addition it is concluded that the practical implications of the results are that the way teachers approach their teaching and the strategies they deploy is directly related to what it is they want their students to know, “the object of the study”. Thus, as a result of the study, they suggest that “the object of study” will, more than anything else, determine the quality of teaching and probably the quality of learning outcome as well (p. 411).

This draws attention to studies that have investigated teachers’ conceptions of teaching. Previous research on conceptions of teaching has mainly derived from three distinct areas; interviews with students and staff in higher education, investigation of the conceptions and beliefs of schoolteachers, and lastly, from a more general consideration of the nature of conceptions themselves (Entwistle, Skinner, Entwistle D., & Orr, 2000a, p. 5).

Kember (1997) reviewed thirteen articles reporting studies which had investigated the conceptions of teaching of university academics. But first, before reporting his findings, Kember addresses terminological issues, and points out that “several terms have been used by the various authors including orientations, conceptions, beliefs, approaches and intentions, but few of the studies give a definition of the terms used” (p. 256). He further notes that in the reviewed papers conceptions of teaching was the term
most commonly used, however one of the few offering a definition being Pratt (1992) who defines conceptions in the following way:

Conceptions are specific meanings attached to phenomena which then mediate our response to situations involving those phenomena. We form conceptions of virtually every aspect of our perceived world, and in so doing, use those abstract representations to delimit something from, and relate it to, other aspects of our world. In effect, we view the world through the lenses of our conceptions, interpreting and acting in accordance with our understanding of the world (p. 204).

Beliefs, which was a less used term than conceptions, however seemed to be synonymous with the definition of conceptions given above in all main respects. Orientation was yet another term used, and in the study by Gow and Kember (1993), reported above, we saw its use in referring to two main orientations to teaching; knowledge transmission and learning facilitation. Kember (1997) explains that:

Orientation is taken as a broader level of categorisation encompassing two or more conceptions. This relationship utilises the common conceptual model of an inverted tree with main categories having a number of subordinate categories. An analogy to quantitative research would be the relationship between second- and first-order factors (p. 257).

Lastly, teaching approaches is a term which, as reported earlier in this section, has been analysed in terms of the strategies that teachers adopt for their teaching and the intentions underlying the strategies (Trigwell et al., 1994, pp. 75-77).

The findings of the thirteen articles reviewed by Kember (1997) showed a high degree of commonality. Based on the results, he offered a multiple-level categorisation model shown in Figure 2. The conceptions could be characterised under two broad orientations, as teacher-centred/content-oriented and student-centred/learning-oriented which each subordinated into two conceptions.
As Kember further explains:

The boundary between each pair of conceptions is shown as diffuse, implying a relatively easy development across each pair. Transitions between the two orientations are envisaged as requiring a more significant change. A fifth intermediate conception, in which teacher-student interaction is first recognised as necessary, is included as a transitional bridge between the two orientations and their subordinate conceptions (p. 264).

Under the teacher-centred/learning-oriented category the most teacher-centred conception views teaching as presenting information and nothing else; teachers focus on the notes they have prepared and teaching means lecturing; a good teacher is considered to be the one who has sound academic knowledge (p. 265).

The second teacher-centred conception also focuses on transmitting knowledge and sees sound academic knowledge as the most important attribute of a good teacher, but unlike the first, the importance of structuring and arranging, the presented knowledge is recognised, in order for the student to have more chance of receiving the information, but the emphasis is now more on “the quality of the presentation which can be viewed as a stage performance” (pp. 265-266).

Under the student-centred/learning-oriented umbrella, the focus moves away from the teacher towards the student. One conception within this category is the one that focuses on “facilitating the development of understanding or conceptions of knowledge”. Teachers holding this conception, “accept that they do have a responsibility towards students...
learning and that they can influence outcomes. Teaching becomes a process of helping students towards desirable outcomes” (p. 267).

The other conception within this category has two different facets. The first one focuses on changing student conceptions and the second envisages a holistic developmental process resulting from the establishment of inter-personal relationships between teacher and student (p. 267).

Several studies have been conducted with the aim to examine the link between teachers’ conceptions of teaching and student learning. Entwistle and Walker (2002), by examining previous research, several of which have been reported previously (Kember, 1997; Perry, 1970; Säljö, 1979; Trigwell et al., 1994; Trigwell et al., 1999), and relate these research to data collected in a case study of one lecturer’s changing conceptions of learning and teaching, offered a diagram, shown in Figure 3, which “represents a recognisable view of both the epistemological development of students and the emergence of a sophisticated conceptions of teaching” within which, as described, the “educational development of university teachers” being based on “an equivalent view of learning and teaching” is expected (p. 35).
The authors note that there seem to be good reasons why professional training initially should require of teachers that they mastered the basic techniques, but it may be that some experienced colleagues have not fully acquired necessary skills, because they did not get systematic training opportunities in the past. However, as the authors further point out:

... to limit the accreditation of experienced staff to a series of narrowly defined learning outcomes seems inappropriate. An emphasis on acquiring specific defined competencies can be
justified in counteracting incompetence, where it may exist, but the target set for experienced staff should surely be more ambitious, and encourage colleagues to develop more sophisticated conceptions of learning and teaching (p. 35).

Based on their analysis, the authors argue that it can be assumed that appropriate conceptions are an essential precondition for using efficient and flexible teaching techniques and without having such conceptions, trying new methods will almost certainly be doomed to fail:

Conceptions of teaching, as we have seen, are built up from knowledge, experience and associated feelings, often over substantial periods of time Conceptual change only begins to take place if the existing conception is felt to be inadequate or incomplete. ... Staff who have had no opportunity to develop a conceptual underpinning to their teaching may have an underlying uncertainty about their teaching skills. Reinforcing feelings of inadequacy is hardly sensible. Rather, the possibility of alternative ways of thinking about teaching and learning have to be brought up in more indirect ways (pp. 36-37).

However, research has also shown that conceptions held by university teachers do not necessarily have a functional role in specific, individual teaching activities. For example Eley's (2006) study into the relationship between teaching conceptions and actual teaching practices showed that although teachers could describe what they believed was involved in good teaching, they did not seem to use their conceptualisations explicitly when planning their teaching (p. 208).

A related study, which compared teachers’ thinking about a course they were teaching, and their thinking about specific classes within that same course, showed that there were differences in teachers’ thinking between planning and carrying out their teaching (McAlpine, Weston, Berthiaume, & Fairbank-Roch, 2006, p. 147).

Another, but also related study (Kember & Kwan, 2000, p. 1), which explored the relationship between conceptions and approaches to teaching found that preferred approach would to a large extent be determined by the conceptions held by teachers, but if they adapted a different approach, they did so because of some factors affecting their teaching. This could be institutional influences, something in the curriculum design or some factors stemming from the students. The authors emphasised that these factors
would impinge upon the teaching approach rather than the conception of
teaching, and listed the following factors as playing part in modifying
teachers preferred approaches to teaching:

- An extensive and intensive procedure for course development
  and approval, particularly if external members or bodies have a
  significant role
- Intensive procedures for monitoring and reviewing teaching
- Team teaching
- Large classes
- Teaching rooms which are not conducive to the type of teaching
  preferred by a lecturer
- Heavy teaching loads (p. 487).

Earlier, Samuelowicz and Bain (1992) had identified five qualitatively
different conceptions of teaching, ranging from teaching as supporting
student learning, as level one, to teaching as imparting information as level
five. In comparing the conceptions five dimensions were revealed in terms
of similarities of, and differences between, the conceptions and how these
could be described. The process of breaking conceptions into their
constituent dimensions resulted in a coding system which was used to
check the consistency of the conceptions, and to assign conceptions to
individuals. For each dimension a teacher’s expressed attitude could be
coded A, B, or a blend of both, as indicated in Figure 4:
One of the authors' conclusions was that the implications of a distinction between concepts, suggested the possibility that conceptions were based on an “ideal” view of teaching, while approaches were grounded in everyday experiences. They commented:

If this is the case, research might profitably be directed towards the factors (teacher, student, institution-related) which prevent academic teachers from acting according to their ideal conception of teaching and thus contribute to one of the mysteries of higher education – the disjunction between the stated aims (promotion of critical thinking) and educational practice (unimaginative coverage of content and testing of factual recall) so often referred to in the literature (p. 110).

In later research Samuelowicz and Bain (2001), have reassessed the adequacy of the belief dimensions and categories of conceptions identified. The results show a considerable overlap with previous findings but has led the authors to propose and extended framework in which seven orientations, described in terms of nine qualitative belief dimensions are suggested. Table 2 shows the comparison between the two studies:

![Table 2: Comparison between the two studies](image)

**Figure 4 The five global conceptions of teaching and their constituent dimensions** (Samuelowicz & Bain, 1992, pp. 98-103).

Dimensions

<table>
<thead>
<tr>
<th>5. Contents:</th>
<th>A teacher controlled</th>
<th>B student controlled</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Teaching</td>
<td>A one-way transmission</td>
<td>B two-way cooperation</td>
</tr>
<tr>
<td>3. Students' conceptions:</td>
<td>A not taken into account</td>
<td>B taken into account</td>
</tr>
<tr>
<td>2. Knowledge:</td>
<td>A curriculum bound</td>
<td>B interpretation of reality</td>
</tr>
<tr>
<td>1. Learning outcome:</td>
<td>A know more</td>
<td>B know differently</td>
</tr>
</tbody>
</table>

Conceptions of teaching

| 2. Changing students’ conceptions | B | B | B | B | A | 5 |
| 3. Facilitating understanding | B | B | A | B | A | 3 |
| 4. Transmitting knowledge | AB | A | A | AB | A | 2 |
| 5. Imparting information | A | A | A | AB | A | 3 |

* The total number of cases (15) exceeds the number of respondents (13) because two respondents held two different conceptions of teaching.
Table 2 Comparison of orientations to teaching and learning identified in the 1992 paper and in the 2001 research

<table>
<thead>
<tr>
<th>Orientation</th>
<th>Teaching-centred</th>
<th>Learning-centred</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imparting information</td>
<td>Imparting information</td>
<td>Help students develop expertise</td>
</tr>
<tr>
<td>Transmitting knowledge</td>
<td>Transmitting structured knowledge</td>
<td>Preventing misunderstandings</td>
</tr>
<tr>
<td></td>
<td>Providing and facilitating understanding</td>
<td>Negotiating meaning</td>
</tr>
<tr>
<td>Facilitating learning</td>
<td></td>
<td>Supporting students’ learning</td>
</tr>
<tr>
<td>Changing students’ conceptions</td>
<td></td>
<td>Encouraging knowledge creation</td>
</tr>
<tr>
<td>Supporting students’ learning</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Italicics denote orientations to teaching and learning common to the 1992 paper and the present study. The names of two of the original orientations have been altered to characterise the orientation more adequately.*

(Samuelowicz & Bain, 2001, p. 308).

The authors have concluded that although more is needed to be done to fully substantiate their position, they claim that:

... the belief orientations we have reported here reflect our participants’ characteristic perspectives and dispositions to teach in particular ways. These claims derive from the method which, during interviewing and coding, sought the characteristic perspectives of the participants exemplified with descriptions of their usual educational practices (p. 322).

Thus, this method has allowed for the nexus between belief and practice to be illustrated and these have demonstrated that the differences between teaching-centred and learning-centred orientations are substantial (p. 322).
In addition to the previously reported research into teaching beliefs and the nexus between beliefs and practices, Entwistle, McCune and Hounsell (2003) have found out that teaching staff also couch their everyday thinking and discussions within their everyday classroom discourse in terms of specific teaching and assessment methods. This perspective can be seen as the *inner teaching-learning environment*, which is directly perceived by staff and students (pp. 93-94).

A study by Prosser, Martin, Trigwell, Ramsden, & Lueckenhausen (2005) investigated the ways in which university teachers understand the subject matter they are teaching and how this relates to their teaching and their students’ learning. An aspect of this was to study “what it is that teachers experience to be the subject matter of their teaching and how different aspects of the subject matter are structured and relate one with another” (pp. 138-139). Their main implications from the study were that in order to change and develop the ways in which teachers approach their teaching and help their students to learn, they need to be helped to think carefully about what they are teaching and how it relates to and coheres with the field as a whole (p. 153).

Various models building on the theory of qualitative differences in approaches to learning and its relationship with teaching orientations and learning-teaching environments have been developed. Their main purpose has been to help university teachers to think more clearly about quality in learning and teaching in universities. Biggs (1993a) developed a model of teaching and learning, the 3P-model (presage-process-product), shown in Figure 5. He describes his model as being constructivist-driven in that “the idea that what the learner has to do to create knowledge is the important thing” (Biggs, 2003, p. 12).
Biggs’ (1993a) constructivist model is based on the view that it is the perspective of the learner that affects what is learned. It considers teaching as being a matter of changing the learner’s perspective on the world (Biggs, 2003, p. 12). Biggs also stresses the importance of constructive alignment when referring to the learning-teaching nexus on the ground that “a good teaching system aligns teaching method and assessment to the learning activities stated in the objectives, so that all aspects of this system act in accord to support appropriate learning” (Biggs, 2003, p. 11).

Like Biggs (2003), Prosser and Trigwell (1999) address the learning-teaching nexus in presenting what they label as “a constitutionalist model\(^1\) of student learning” (p. 17), and a corresponding model, shown in Figure 6, developed to show similar aspects of teaching. They point out that although the origin of their model lies in the 3P- model adapted from Biggs (1993a), such models raise many questions about interpretation. These concern issues such as, if the various aspects within the model should be viewed as constituted independently or in causal relationship, and, whether they describe an extended period of time or a momentary act. Prosser and Trigwell (1999) note that in the model the learning situation is considered

\(^1\) The model has since been revised and presented, labelled as “relational model” (Keith Trigwell, 2006, verbal source).
as involving “the students’ prior experiences, their perceptions, their approaches and their learning outcomes. All these are interrelated and all simultaneously present in their awareness” (p. 24). Or, as they further explain:

... a student with some prior experience of learning in a particular situation will perceive his or her situation in a certain way because of his/her prior experiences, and adopt a certain approach to learning. All aspects of this situation will be a part of the student’s awareness at all times, but some components may be more to the foreground that others at any instant (p. 24).

Prosser and Trigwell (1999) describe the teaching model, shown in Figure 6, as having a similar structure and pattern as the learning model. Thus teachers, when entering teaching and learning contexts, have both prior conceptions and prior experiences of teaching and learning and these experiences affect the teaching and learning situations they find themselves in which interacts with the context in certain ways and result in “certain perceptions of the teaching situation”, and as the authors further explain they:

... adopt certain approaches to teaching related to their perceptions of the situations and their prior experience which are associated with certain outcomes in terms of the students’ experience. The teacher’s experience is related to the students’ experience (p. 162).
Thus, teachers’ conceptions of teaching, prior experiences and perceptions of the teaching situation play an important part in the implementation of university teaching.

Various additional aspects of university teaching, relevant for the topic of the present study, have been studied, one of them being differences in academic cultures and different discourse within disciplines and how these affect teaching and learning environments (Becher & Trowler, 2001). These have their roots in ideas introduced by Biglan (1973a). Based on the studies, academic areas were categorised into hard and soft, pure and applied. Biglan identified three dimensions that were common in the samples he used, (a) existence of a paradigm, which distinguished hard sciences, agriculture and engineering from social sciences, humanities and education, labelling the dimension “hard-soft” (p. 201); (b), concern with application, distinguishing education, engineering and agricultural areas from hard sciences, social sciences and humanities based on the concern of the area with application to practical problems. Based on these attributes this dimension was labelled “pure-applied”. The last dimension was (c) concern with life systems, referring to scholars distinguishing “biological areas and social areas from those that deal with inanimate objects” (p. 202). When exploring relationships between subject matter characteristics and the structure and output of university departments the results, as Biglan (1973b) describes, further showed that:
Depending on the characteristics of their area, scholars differed in (a) the degree to which they were socially connected to others, (b) their commitment to teaching, research, and service, (c) the number of journal articles, monographs, and technical reports that they published, and (d) the number of dissertations that they sponsored (p. 204).

Biglan (1973b) concluded that the results of the study point to the need of considering subject matter characteristics in studying academic organizations, as well as the appropriateness to the particular activities and outputs of the academic area when setting evaluative standards (p. 213).

Becher (1994) addressed the same issue in pointing out that disciplines have their “distinctive cultural characteristics” which tend to be overlooked both in research into, and in policy-making within, higher education (p. 151). In this context he pointed out that if the disciplinary perspective was taken fully into account, “one could see the scope for better cross-fertilisation and a better sense of unity between them”. For example, what could be discovered about the physics community “as an international phenomenon at the macro level” might well have direct relevance to research at the micro level research in a single physics unit, and similarly:

... micro level enquiries into patterns of teaching and learning in, say, modern languages, political science and social work could have a direct bearing on the development of performance indicators or of study skills programmes at the meso level of the institution. Seen in this light, disciplinary-focused research could provide an element of mutual coherence that is currently lacking in much of the work in this field (p. 159).

Becher and Trowler (2001) have studied the relationships between cultures within academic communities, based on two separated studies where academics in twelve disciplines were interviewed. By “cultures” they refer to “sets of taken-for-granted values, attitudes and ways of behaving, which are articulated through and reinforced by recurrent practices among a group of people in a given context” (p. 23). They offer a framework, adapted from Becher (1994), but originally based on Kolb (1981), whose data were derived from students’ learning strategies, using psychometric test, that is, the Kolb Learning Style Inventory (LSI), and Biglan (1973a) categorisation of hard-soft, pure-applied disciplines, reported above. The
framework is shown in Figure 7 and, as described, “summarizes the characteristics of each of these categories as they are portrayed in realist accounts; those that see disciplinary knowledge as reflecting real-world differences in subject matter” (p. 36).

<table>
<thead>
<tr>
<th>Disciplinary groupings</th>
<th>Nature of knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pure sciences (e.g. physics):</td>
<td>Cumulative; atomistic (crystalline/tree-like); concerned with universals, quantities, simplification; impersonal, value-free; clear criteria for knowledge verification and obsolescence; consensus over significant questions to address, now and in the future; results in discovery/explanation.</td>
</tr>
<tr>
<td>‘hard-pure’</td>
<td></td>
</tr>
<tr>
<td>Humanities (e.g. history) and pure social sciences (e.g. anthropology):</td>
<td>Reiterative; holistic (organic/river-like); concerned with particulars, qualities, complication; personal, value-laden; dispute over criteria for knowledge verification and obsolescence; lack of consensus over significant questions to address; results in understanding/interpretation.</td>
</tr>
<tr>
<td>‘soft-pure’</td>
<td></td>
</tr>
<tr>
<td>Technologies (e.g. mechanical engineering, clinical medicine):</td>
<td>Purposive; pragmatic (know-how via hard knowledge); concerned with mastery of physical environment; applies heuristic approaches; uses both qualitative and quantitative approaches; criteria for judgement are purposive, functional; results in protocols/procedures.</td>
</tr>
<tr>
<td>‘hard-applied’</td>
<td></td>
</tr>
<tr>
<td>Applied social science (e.g. education, law, social administration):</td>
<td>Functional; utilitarian (know-how via soft knowledge); concerned with enhancement of [semi-] professional practice; uses case studies and case law to a large extent; results in protocols/procedures.</td>
</tr>
<tr>
<td>‘soft-applied’</td>
<td></td>
</tr>
</tbody>
</table>

Figure 7 Knowledge and disciplinary grouping (adapted from Becher, 1994).

In explaining further the basis of the characteristics of the four areas, the authors point out that clear distinction can be found between the knowledge domains in terms of:

... characteristics in the objects of enquiry; the nature of knowledge growth; the relationship between the researcher and knowledge; enquiry procedures; extent of truth claims and criteria for making the; the results of research (pp. 35-36).

They also stress that caution needs to be made in using such broad-brush depictions and simplified delineations to characterise the four
knowledge domains as these cannot do more than provide a rough outline of these differences, but nevertheless serve useful purpose as they identify useful dimensions for describing disciplinary variations and help to “show up continuities and interconnections that more minute and localized scrutiny cold obscure, or at best, fail to bring to light” (p. 39).

Numerous research projects have focused on the learning-teaching nexus and these have close relevance to the studies reported above. One such project, closely related to the topic of the present study, is a project called *Enhancing Teaching and Learning in undergraduate courses* (The ETL project), conducted by a research team from three universities in the UK.

The overall purpose of the project was to develop subject-specific conceptual frameworks which would serve as to guide institutional and faculty or departmental development of teaching-learning environments (Hounsell & Entwistle, 2005). The project had its background in an extensive body of research findings, some of which have been reported in previous sections. These include research into students’ experiences and perceptions of learning and studying (Marton et al., 1997); studies into the way teaching and assessment influences student learning both directly and indirectly (Hounsell, 1997); research into the way staff commitment, curriculum choice and workload affect learning (Entwistle & Ramsden, 1983; Ramsden, 1997). It also included studies into differences in academic cultures and different discourse within disciplines (Becher & Trowler, 2001), as these were considered an important dimension for better understanding of contemporary teaching and learning environments. In addition, the project was rooted in research into the management of educational change, such as change processes in educational systems today (e.g. Fullan, 1993; Trowler, Saunders, & Knight, 2003) along with other studies into educational development in higher education (e.g. Hounsell, 1994; Land, 2004). All these were considered an important background, as they draw attention to the fact that initiatives to improve teaching and learning environments are not only conceptually derived but also enhanced through policy and practice (Hounsell & Entwistle, 2005, pp. 2-3).

As described, the main aims of the project were twofold:

The first was to investigate what makes for effective teaching and learning in contemporary higher education, bearing in mind the scale and pace of developments in universities over the last twenty-five years. These developments have included, for instance, larger classes, more diverse students, leaner unit costs, heightened concern for teaching-learning quality and accountability, and the take-up of information technology in communications between university teachers and their
students. The second aim, closely linked to the first, was to use that understanding to try to bring about improvements in students’ learning (p. 1).

There were four themes underpinning the work carried out in the ETL project. The first theme was high-quality undergraduate learning, the second undergraduate teaching-learning environments, the third was referred to as evidence-informed pedagogical change and the final theme was subject requirements and practices.

Figure 8 Conceptual Map of the “Inner” Teaching-Learning Environment (Hounsell & Entwistle, 2005).

The themes that emerged from the literature review, shown in Figure 8, and the identified characteristics of high quality teaching-learning environments derived from the analysis of interviews with staff (see Table 3), together underline “the complex interplay of features contributing to effective provision and the need to take account of staff and peer support
for students, and how well courses were organised and content structured” (Hounsell & Entwistle, 2005, p. 6).

**Table 3 Generic features of High-Quality Teaching-Learning Environments**

*Course organisation and administration*
- Effective quality assurance procedures
- Course handbooks detailing aims, teaching, learning resources, assignments and assessment
- Well-managed staff appraisal and active encouragement of staff development
- Well-designed, well-maintained and accessible accommodation, equipment and facilities

*Curricula, teaching, learning and assessment*
- Overall programme design, inclusive wide/coherent choice of options
- Structure of module/course, and of individual teaching sessions, made clear and linked to aims
- Content chosen to match students’ prior knowledge, abilities, interests, and understanding
- Challenging content focusing on understanding, and academic and generic skills
- Good teaching, making appropriate use of supporting resources and teaching/learning technologies
- Careful control and monitoring of student progress, particularly in the early stages
- Encouraging progressively more self-regulation in learning
- Stressing relevance of content to aims/vocational value, interplay between theory and practice
- Wide range of appropriate and varied assessment, backed up by timely, helpful feedback
- Small-group teaching / tutor-student closeness

*Student support*
- Staff-student relationships showing mutual respect and good rapport
- Identifying and supporting specific learning needs, including language, maths and study skills
- Seeking and acting on student feedback on courses and teaching
- Meeting ‘personal tutors’ regularly

(Hounsell & Entwistle, 2005).

Several concepts unfolded through the work within the project’s themes, the two most relevant for the present study being the phrase, or construct, *ways of thinking and practising (WTP) in a subject area* and the
term congruence. The phrase ways of thinking and practising (WTP) in a subject area strongly relates to the disciplinary conventions and practices identified by Becher and Trowler (2001). As described by McCune & Hounsell (2005):

... the ETL team coined the phrase ‘ways of thinking and practising’ (WTP) in a subject area, to describe the richness, depth and breadth of what students might learn through engagement with a given subject area in a specific context. This might include, for example, coming to terms with particular understandings, forms of discourse, values or ways of acting which are regarded as central to graduate-level mastery of a discipline or subject area (p. 257).

This construct was not least apparent in exploring the last theme of the project, that is, subject requirements, conventions and practices as this was a major determinant when considering characteristic ways of thinking and practising (WTP) within a given subject area. But the cross-disciplinary observations also revealed differences in WTPs between the subjects observed, thus confirming that caution has to be taken when extrapolating findings in institutional and disciplinary settings because of both the possible distinctiveness and commonality between subject areas (Becher & Trowler, 2001; Hounsell & Entwistle, 2005). Another concept, congruence revealed itself when working with the second theme Undergraduate teaching-learning environments. In the opening phase of the project, Biggs’ (2003) idea of constructive alignment was used as a guiding concept for studying undergraduate course settings as teaching-learning environments (McCune & Hounsell, 2005). As the work progressed, it was found that the complexity of the interaction in the teaching-learning setting called for Biggs’ constructive alignment to be widened if it were to encompass all the features contributing to effective provision in teaching-learning environments (Hounsell & Entwistle, 2005, para 17; McCune & Hounsell, 2005). Through the analysis it also became apparent “that outcomes and methods of teaching and assessment were not tightly interlocked, as Biggs’ model had suggested: ‘goodness-of-fit’ was highly contextualised and relative, rather than absolute, depending on the constraints and opportunities within a given course setting” (Hounsell & Entwistle, 2005, para 17). This resulted in a revised framework using congruence instead of alignment to capture the nexus between “various key aspects of TLEs and the facilitating of WTP and other high-quality learning processes and outcomes” (para 17).
As Figure 9 shows, congruence was investigated in relation to various aspects such as teaching and learning activities, and learning support, and assessment methods, guidance and feedback. Students’ backgrounds, knowledge and aspirations, course organisation and management as part of TLEs were also part of the various factors explored with regard to congruence in the teaching-learning nexus:

Surveying congruence between the aspects shown in Figure 9 provided valuable information about the pedagogical effectiveness of individual courses and thus relating to the theme of evidence-informed pedagogical change. Thus, the ETL-project added several new concepts to the network of ideas that have sought to reveal what is embodied in high quality learning and how teaching influences learning.

Entwistle (2009) has since, based on previous research and results from the ETL project, developed a “heuristic model identifying important influences on student learning”. Figure 10 shows the model.
Figure 10 Heuristic model identifying important influences on student learning (Entwistle, 2009).
The upper half of the model shows the student characteristics influencing learning. On the left we have abilities, knowledge and learning processes, while feelings motives and organized effort are placed on the right hand side. The bottom line of the diagram forms the interface between the student characteristics and the teaching–learning environment. The lower left hand part of the model shows external influences which come from the academic community and also from validating bodies. Here the phases that teachers go through when thinking about and planning teaching are followed. The bottom right hand side shows the institutional and departmental influences (Entwistle, 2009, pp. 115-116).

One of the factors revealed through the ETL project and Entwistle’s developmental work, shown in the heuristic model, is that the impacts of decisions made at institutional and governmental level need to be taken into account, when addressing what features play a part in the effectiveness of the teaching-learning environments. One of the issues that come to play in addressing these two dimensions are the frameworks and systems internal as well as external that are used to ensure and or enhance the quality of university institutions and university education in general. In the following sections these will be addressed.

2.3 Research into quality assurance related issues

All activities of a university contribute to the outcomes by which it is judged. This means that all three; research, teaching and learning activities are included in such a judgement (Bowden & Marton, 2004, p. 226).

In the following sections the focus will be turned to discourses on issues related to quality and quality assurance in universities, but now the issue of quality will be viewed from the outside, that is, the focus will mostly be on quality as discussed in institutional and governmental context.

2.3.1 Assessing the quality of university institutions and their operations

The question of quality of universities has since very early on in the history of universities been an issue, both for the universities themselves and also for their stakeholders. Universities used to be “licensed” meaning that their teaching quality was guaranteed, allowing them to graduate masters or doctors. In fact, when exploring the history of universities it so appears that quality assurance in some form existed already in medieval times. In the 13th century universities were being accredited by the pope and in
Germany by the emperor. Being accredited meant that teachers in the institutions were licensed to teach in a certain university and also in other university institutions. Thus, universities established by the end of the 13th century were accredited based on some form of quality criteria (Jón Torfi Jónasson, 2008, p. 5; Jónasson, 2008, p. 96).

In section 1.5 we described the quality framework for higher education offered by Harvey and Green (1993). In explaining the framework the authors stressed the importance of recognizing the “stakeholder-relative” nature of the quality concept (p. 9). This raises questions, such as, for whom the universities operate, whom they serve, who the stakeholders are. Jónasson (2008) addresses the very term university stakeholder, and in his account points out that the term has been taken to refer to “individuals, groups or organizations that have a legitimate interest in the operation of the university” but also to “abstract entities like democratic processes and constructs, like knowledge and science”. Furthermore we discuss generic entities, like society or the economy, as stakeholders. When the operation of a university is of success we consider all these bodies have something to gain from it and likewise if it’s not successful, we, at least in some cases see it as something to lose (pp. 72-73).

However, as noted by Bowden and Marton (2004), the quality of university student learning seemed at one time to have been viewed as more of an internal matter for the university. But, since the late 1980s quality matters have increasingly aroused general interest within the community and not least been focus of government attention. In fact, national and regional governments were among those who first started discussing quality assurance with universities. The industry and business have also increased their status as university stakeholders for the reason that they view themselves as the potential employers of university graduates. The authors seek to explain this growing interest in quality assurance, especially at a government level. The interest is linked to the increased concern in recent decades for ensuring that the government gets value for money from the institutions it funds. In that context, governments had a particular question in mind: “is quality going to suffer if resource levels reduce or is quality independent of resources beyond certain level” (p. 211). In this very context they draw attention to the increasing numbers in the student population within universities, as one of the reasons for more concerns about quality issues at the governmental level:

... the recent urge for accountability, quality control and quality assurance can be understood against the background of
increasing student numbers, ... decreasing funding per student, increasing heterogeneity among university systems, increasing importance of higher education and decreasing trust in it, and a general concern that there is value being provided by universities for the taxpayer dollar (p. 212).

Tennant, et al. (2010) also attempt to analyse recent developments in higher education and have listed the following as the key features of the trends within the sector in the past few decades:

... the growth of participation in higher education worldwide, the increasing diversity of the student population, the transforming effect of information and communication technologies, the demand from stakeholders that education be relevant to working life, the growing global competition in the production and distribution of knowledge and the renewed concern with accountability, standards and quality assurance (p. 1).

In further explaining these trends, they describe the combination of rising student numbers, rising student-staff ratios and more diverse student body, and how these bring in new challenges for university teachers. They also draw attention to the trend embodied in steadily growing global competition, and as a consequence universities being increasingly operating and evaluated in a global marketplace. The authors pinpoint “the growing significance and impact of world league tables” as one of the testimonies of this trend (p. 3).

League tables and ranking systems have, since the 1990s, become ubiquitous and are now published by governments, accreditation agencies, higher education institutions, and research institutions as well as the popular media (Hazelkorn, 2007, p. 88). Based on a comprehensive survey of higher education leaders and senior managers worldwide, Hazelkorn (2007) provides an analysis of the influences of league tables and ranking systems on strategic and operational decision making and choices, as well as institutional reputation and prestige. In her account, she describes how league tables and ranking systems have been perceived as providers of critical information which help inform choice to different audiences, “inter alia: internationally mobile students and faculty, parents, government, sponsors and private investors, academic partners and academic
organisations, industrial partners and employers”. And, as she further notes:

They are a cue to consumers regarding the conversion potential of a qualification for occupational opportunities and personal attainment, e.g. salary range, a cue to employers about what they can expect from graduates, and a cue to government and policy makers regarding international standards and contribution to national innovations strategies (p. 89).

One of the results, drawn from Hazelkorn’s survey, was that a vast majority of the respondents held the opinion that league tables and ranking systems did not give any complete overview of an institution. Instead the strengths of well-established university institutions and research and postgraduate strengths were favoured. Thus the league tables and ranking systems, instead of promoting institutional diversity, helped to establish hierarchy of university institutions. Hazelkorn argues that “getting a higher rank – in worldwide rankings” has for many institutions become a key goal in institutional policy, and concludes that:

... despite criticisms of methodology or concept, HEIs are taking the results of LTRS seriously and using them to inform institutional decision making and to make changes. This is not surprising given the fact that respondents firmly believe that rankings are influencing reputation, status, stakeholders and policy makers (p. 108).

Salmi and Saroyan (2007) give a similar argument in drawing attention to the high stakes involved when it comes to the publishing of league tables, making both governments and the public at large ever more preoccupied with the relative performance of tertiary education institutions. One of their conclusions is, that despite their controversial nature and methodological shortcomings, university rankings are unlikely to disappear (p. 58).

The impact of ranking on academics work and their field of study within the university has also been a matter of studying. Hazelkorn’s survey showed that the majority of respondents reported that there was an ongoing process of improving their institution’s ranking (Hazelkorn, 2007; Tennant et al., 2010, p. 4). Tennant et al. conclude by emphasising that “academics cannot isolate themselves from how the world defines and
constrains what it means to be an excellent university and ... what it means to be an excellent academic”. At the very least they should “engage in this debate as it is increasingly being shaped by the metrics used in world and national rankings” (p. 4).

One aspect of ranking systems has been the criteria used for the assessment, in particular the emphasis put on academic research, which seems to be crucial criteria in such rankings. In many countries research assessment programmes have been developed, an example being the RAE (research assessment exercise). Although various criteria are used, much weight is given to scholarly output, as measured by refereed papers. This way of measuring has been seen to give little attention to the academic quality of the results, but more on the points that are being added up for the department or institution based on these simple measures (Jónasson, 2008, pp. 100-101).

The relationship between teaching and research has been a subject of discussion in various contexts. In earlier literature various different variables have been suggested as influencing the relationship between teaching and research, such as: time spent on teaching and research; activity in teaching and research, that is, the actual activities that academics take on with regard to the pursuit of teaching and research outcomes; teaching and research ability; teaching and research satisfaction; personal goals; beliefs about the nexus between teaching and research and departmental ethos for teaching and research (Marsh, 1987; Mooney, 1991; Neumann, 1992). Two additional variables have been observed in the literature as affecting the relationship between teaching and research. These are perceived constraints and reward systems. Thus, previous studies have reported constraints perceived by academics who complain that research interferes with the room for teaching capabilities and productivity in that sphere, or conversely, that teaching load works as a major constraint to improving research productivity (Marsh, 1987). Additionally, earlier literature found that academics at US research universities believed that the pressure on conducting research resulted in reduced quality of university teaching (Boyer, 1990). This has since been supported by Ramsden (1998). Extrinsic rewards for teaching and research have also been reported, in previous research, as one of influencing relations between teaching and research. Named examples of such rewards have been public recognition, teaching awards, promotion or salary (Marsh, 1987).
Thus, the different quantitative measures used in the academic community as part of promotional systems, institutional evaluation and ranking systems, have been seen as problematic for various different reasons. Although thoughtfully constructed, they have been removed from the individuals involved, the teacher, student, researcher and administrator and their immediate environment, which has resulted in these measures having the tendency to become mechanistic and bureaucratic. “Frameworks building on such measures tend to use a variety of scores that are transparent and understandable ... but at the same time are far from being suitable to convey many important aspects of the institution” (Jónasson, 2008, pp. 110-111).

Skúlason (2008) has pointed out that the instruments originally come from the industry and business sector but have been adopted by universities to measure academic activity. The question raised must be whether such measures give a proper evaluation of the quality of the academic work, if important aspects of the academic activity may be neglected, especially those aiming at improving education and administration, where objective standards for measurement are more problematic. In addition, the fact that there are financial stakes involved in such measures raises questions about their appropriateness. For example it could push individual scholars as well as institutions in certain direction based on the nature of the criteria being used. In this context he points out that the criteria entail quantitative measures which concern in particular two sides of academic activity; academic degrees and scientific publications. Or as he further explains:

A university that produces the highest number of PhD students and articles in scientific journals and that harbours professors that are most cited in these same journals is likely to be ranked among the leading world universities (pp. 5-6).

Another consequence, as argued by Skúlason (2008), is that uniformity becomes the rule at the cost of a diversity as all universities tend to emphasise the same things (p. 6).

Tennant et al. (2010) address same issue in what they refer to as the “drive to establish more uniform systems and processes in higher education” and argue that this can be seen partly as “a risk management response to the increasing demands for the mobility of qualifications, students and staff”. An example of such an effort can be found in the
Bologna Process which aims at establishing a European Higher Education Area among the 46 signatory nations (p. 4).

As we reported in section 1.6, the Bologna Process has been described as having contributed directly to the amalgamation of the different university traditions, the Napoleonic, the Humboldtian and Newmanian traditions through its introduction of a common degree structure, standardized recognition procedures, qualifications frameworks and systems of quality assurance (Skúlason, 2008, p. 2). Thus, the Bologna Process must be seen as an important actor, when developments in quality assurance of higher education are being addressed.

The Bologna process was launched when representatives from 29 European countries signed the Bologna Declaration in 1999, but in 2006 the number of participating countries had risen up to 45. The Bologna declaration is meant to serve as a means to increase cooperation between universities in Europe. As explained, the aim of the partnership is to make it easier for students, teachers and researchers to study and work outside their home country. Participation in the implementation of the process is optional. The ultimate goal of the Bologna process is to create one joint European higher education system and an important part of that goal was to find ways to compare higher education between different countries and thus facilitate the mobility of students as well as teachers in between countries (European University Association, 2008).

This ultimate goal has resulted in the establishment of a joint system, using so-called ECTS credit units (European Credit Transfer System) and a 3+2+3 degree structure, that is, three years undergraduate study, two years postgraduate study for a master degree and 3 years doctoral study.

In addition, students graduating from European universities in the participating countries are provided with a so-called “Diploma Supplement” which describes the content of the completed study programme (Frumvarp til laga um háskóla - Þskj. 654 — 433. mál., 2006).

Great emphasis is being placed on quality control in the participating countries, in order to make sure that the university degrees which the students seek, meet international standards, both with regard to further study and employment. The Trends 2010 report, published by the EUA (European University Association), examined the achievements of Bologna-driven reforms since 2002. The project report emphasised that quality has been “at the heart of the Bologna Process as demonstrated by institutional quality developments”. Further, it was reported that the common “standards” introduced in The European Standards and Guidelines (ESGs)
which were developed to “support diversity across – and within – 46 countries”, while adhering to unifying principles and values, were “framed in such a way as to promote quality levels through the central role of HEIs”. The authors of the report point out that the current emphasis put on indicators in the Bologna Process should not “overshadow the importance of keeping a balance between accountability and improvement, quality measurement and quality assurance”, nor should it outshine a thoughtful articulation between what needs to be done at the level of institutions and what is needs to be acted upon externally, that is, by governmental or quasi-governmental agencies (Sursock & Smidt, 2010, p. 10).

As described, the purposes of the European Standards and Guidelines are fourfold:

- to improve the education available to students in higher education institutions in the EHEA [European Higher Education Area];
- to assist higher education institutions in managing and enhancing their quality and, thereby, to help to justify their institutional autonomy;
- to form a background for quality assurance agencies in their work;
- to make external quality assurance more transparent and simpler to understand for everybody involved


All universities in Iceland are active participants in the Bologna Process. Adapting to the process has been seen as a means to strengthen their position in the European educational area and internationally (Frumvarp til laga um háskóla - Þskj. 654 — 433. mál., 2006).

One aspect of quality related procedures as part of the Bologna process has been the introduction of defined learning outcomes for all courses, modules and study programmes.

The identification of intended learning outcomes has been seen as an important part of strengthening the pedagogical discourse within higher education and promote developments towards a more learner-centred teaching. Thus it has been argued that adopting a learning outcomes based approach in curricular practices remains a key medium-term challenge, as this will “enable students to become the engaged subjects of their own learning process, and also contribute to improving many issues of
progression between cycles, institutions, sectors, the labour market and countries” (Croiser, Purser, & Smidt, 2007, p. 8).

But there have also been mixed views about the usefulness of learning outcomes. James (2005) has argued that despite the fact that learning outcomes can be useful, using them for the purposes of control has had various negative impacts. In this context, he lists three key objections:

... (1) that learning outcomes have a largely spurious clarity, explicitness and objectivity; (2) that they bring to bear an unwarranted homogeneity across academic disciplines, which have within them different ideas of level and necessarily different concepts of what skills are appropriate at what stage; (3) that they can, and in all likelihood do, restrict learning, either by helping students to aim at only threshold passes, or by undervaluing all-important emergent, less predictable educational outcomes (p. 89).

The views expressed by Hussey and Smith (2008) provide additional aspects of criticism in pointing out that learning outcomes, when used in individual teaching events:

... (1) are the most useful kind if employed flexibly, but that they cannot be specified exactly or used for auditing performance, and their relationship with assessment is complex. Learning outcomes specified for modules or short courses (2) state little more than a list of contents; they cannot be stated precisely and have limitations in guiding assessment. Learning outcomes specified for whole degree programmes (3) is a misuse of the term 'learning outcome' (p. 107).

Lastly, Entwistle (2009) has pointed out that despite the fact that the framework of producing intended learning outcomes has been seen as an effective quality assurance procedure, creating more uniformity in course descriptions and increasing efficiency in higher education, it has also had unintended consequences:

The advantage in making clear what has to be learned is unarguable, but in some degree courses students face literally hundreds of such descriptions of the component outcomes, which encourages student to ‘tick the boxes’ and move on. In
so doing they are left with no real sense of what the underlying nature of the discipline involves and may also fail to use past knowledge to build up integrative understandings (p. 123).

The above reported literature has provided an insight into various aspects that have been prominent in current discourses into quality assurance related issues of higher education. These aspects show that in the last few decades, governments have changed their higher education policy and this can mostly be seen as a response to mass access to higher education which has resulted in a much more complex system. As a consequence central control has appeared to be inefficient. The development and change in scientific and technical knowledge has also called for a more flexible system which in turn calls for decisions to be made to a greater degree at the institutional level. Governmental authorities have therefore moved to a considerable degree away from central control towards autonomy; however, in exchange for quality being assured (Vroeijenstijn, 1995a, pp. 3-4). Thus, university institutions have been developing in the direction towards more accountability and stronger quality assurance processes and in fact the two terms, “autonomy” and “accountability”, have become key concepts in European university policy (Skúlason, 2008, p. 4; Tennant et al., 2010, p. 9).

In the present situation most European universities make contracts with their governmental authorities, which not least serve to make their autonomy and accountability clear. These contracts specify the tasks that the universities take on within a given period and how much financial contribution from the state they will get to fulfil these tasks. The development of an internal quality-control system for the universities has been seen as an important part of such a contract, and likewise the contract has placed an obligation on the state to establish an external quality-assurance mechanism. This has particular relevance for the present study as such contracts have been established for all universities in Iceland (Skúlason, 2008, p. 4). The contract in effect when the study was conducted is described in a later chapter.

One aspect of the quality debate has been criticism towards the jargon used in the quality discourse, that is, that how certain terms are used makes the quality discourse become shallow, the terms used in the discourse tend to lose their deeper meaning and turn into some kind of “worn out clichés” (Jónasson, 2008, p. 105). An example of such criticism is the argument made by Readings (1996) about the discourse with regard to the use of the term “excellence”. Readings argued that what exactly gets
taught or produced in universities seemed to matter less and less, whether it was excellently taught or researched had become what mattered most. Readings described the discourse of excellence as non-ideological in the sense that relation is not ideologically determined. “Excellence” is like the cash-nexus in that it has no content; it is hence neither true nor false, neither ignorant nor self-conscious“(p. 13).

2.3.2 Assessing the quality of research

In section 2.3.1, attention was drawn to quantitative measures used in assessing scholarly output, for example the way of measuring publications in refereed journals. But, these measures don’t tell the whole story about the way in which quality of research activity in universities is being determined. Assessment of research has a long tradition of researchers being judged by peers and this goes for both, assessment in a local and in an international context. Researchers submit their work to academic journals for rigorous review; research councils assess proposals before allowing grants. Researchers also present their work at conferences where they meet with colleagues and exchange ideas and discuss each other’s research activities (Jónasson, 2008, p. 97; Vroeijenstijn, 1995a, p. 27).

Jónasson (2008) provides a convincing analysis of the reasons why the international peer review system has through the decades remained sound and strong, in pointing out such a system calls on professional judgement, which means that those who know the field well judge the work from “every substantive angle” and based on that offer constructive criticisms. Or as he further notes:

In order to ensure the transparency of substantive judgements and thus prevent ad hominem influences, anonymity is ensured as much as possible (p. 103).

Another aspect that Jónasson (2008) draws attention to in this context is the strong international emphasis which takes in two arguments:

Firstly, scientists of most disciplines must prove they belong to the international scientific community. ... Secondly, it is also wise to play according to the international rules of the game, in order to be recognised as a proper actor in the global field (pp. 103-104).
Bowden and Marton’s (2004) account of peer review systems is in line with the rationale given above, in that they state that such systems have served the research community well in terms of quality assurance. However, they express their doubts on the grounds of “the massive increase in the number of researchers over recent decades and in turn their attempts to publish”. This, they say, has led to an explosive increase in the number of journal titles worldwide making judgements about quality more difficult to make:

It is less likely that the quantitative measures (numbers of publications of various kinds) correlates as well with the quality of the research as it once did. Even in the past, such correlations carried weight only within a field and not across fields. Recent government reviews in many Western countries have generated heated debate about appropriate performance indicators for research and these matters have yet to be resolved (p. 227).

Jónasson (2008), in his analysis, also draws attention to defects that can be seen from inside the academic community, one of them being that the system “discriminates fields like the humanities and social sciences and small linguistic communities”. Here, Jónasson is referring to what he describes as “the hegemony of natural sciences” and the fact that “the English language dominates the prestigious journals”. However, these, according to Jónasson, are rather practical problems that have more to do with how the system has been implemented rather than being faults inbuilt in the process (p. 105). Despite the fact that the peer-review system has not proven flawless it can be stated that there is more consensus regarding how research should be assessed than are found when it comes to judging the quality of teaching.

In the next session literature into quality assurance aspects of teaching will be a subject of inspection.

2.3.3 Assessing the quality of teaching

Bowden and Marton (2004), in their approach to quality assurance in universities emphasise the importance of focusing on learning when addressing quality issues regarding teaching, and pinpoint three underlying principles that should, in their view, guide the design of an educational quality assurance system for universities. First, the focus should be on improving quality with accountability being a consequence of the
educational quality assurance system, not the other way around. Secondly
improvement of educational quality should be concerned with the quality
of student learning, and third, for claims to be made, be it for accountability
purposes or for improvement, educational quality assurance requires some
basis in evidence (Bowden & Marton, 2004, p. 227). Or, as they further
note:

Any educational quality assurance system concerned with
improvement in teaching and courses must place the students
and their learning at the centre. Improvements have therefore
to be judged in terms of the outcomes of learning in the first
place (p. 233).

However, when exploring the literature it seems that, unlike the current
situation in assessment of research, no consensus can be found about the
issue how the quality of university teaching should be judged. Or as
Jónasson (2008) notes:

Even if it could be established that a student is well educated,
has solid knowledge of a certain field, exhibits good judgment
and shows critical ability to analyse and synthesise, we would
not know at what point in time it would be most appropriate
to ascertain this or whom to thank. To what extent would we
attribute such achievement to his or her teacher, or to all of
them not to speak of his or her own efforts, which certainly
aided appropriate teaching? (p. 107).

Tennant et al. (2010) have explored some views on teaching which have
their basis in empirical work, scholarly as well as theoretical. In their
approach they treat these as “discourses” that have “found their way into
the everyday work practices of teachers” as understandings of what good
teaching is about. Such discourses can be categorised in many ways but
Tennant et al. use Skelton’s (2005) categorisation who identified four
categories of what he referred to as “understandings of teaching
excellence”. These are: the traditional liberal; the psychologised; the
performative; and the critical understandings of teaching excellence (p. 24).
However, as they point out, these labels cannot be argued as being neutral.
For example, “psychologised” suggests that “something untoward has
happened to our understanding of teaching excellence ... that our
understanding of teaching excellence is drained of any historical, social and
While this may be true, “the point can be made in the text under a more neutral label like ‘psychological’ rather than pre-emptying the debate with a loaded term” (Tennant et al., 2010, pp. 21-22).

Within the traditional liberal understanding, education aims at acquiring universal and timeless knowledge that “transcends the mundane needs of everyday life. It is education for its own sake – a quest for knowledge for what it is rather than for what it does”. Thus the emphasis is on general education, classic texts and accumulated wisdom. Good teaching within this approach means having mastery in the discipline taught and being able to provide a “clear exposition of disciplinary knowledge – normally in the form of a lecture”. The traditional liberal position does not favour student evaluation of teaching for the reason that disciplinary and pedagogic authority is vested in the teacher and students are not seen as being in the position to judge the quality of their teacher (Tennant et al., 2010, pp. 14-16).

As is embedded in the label, the psychologised approach is originated in psychology. Malcolm and Zukas (2001) have pointed out that there has been a tendency in literature into higher education to use psychology and psychological methods to determine understanding of the learner and what outcomes the teacher is supposed to bring about. In line with this, the psychologised approach focuses on qualities, such as the personality of the learner, his or her intelligence, learning styles, preferences in learning and the learner’s behaviours. Thus, the psychological approach finds expression in the literature into higher education, and the theoretical trends that exist at each time are used to inform higher education policy makers and the area of academic development within departments (Malcolm & Zukas, 2001, pp. 34-35; Tennant et al., 2010, p. 16). This means that the psychologised position cannot be seen as uniform in how it impacts upon the discourse for the reason that within psychology there have been shifting theoretical positions. Yet, it can be said that the psychological theories, many of which have faded through the decades, still put their mark on the discourse. How to form objectives is still debated, as well as how educational outcomes should be written, how much weight should be put on establishing good classroom relationships when determining indicators of teaching competences, how student participations in the direction of their own learning can best be incorporated and how rich learning experiences can best be promoted, to name some examples of the influences of psychological theories. It can convincingly be stated that student-centred approaches and constructivist ideas have been the theoretical trend in the last decade. Constructivist ideas hold that students “actively construct meaning in the light of their existing knowledge and
experiences” and therefore “teachers need to offer learning experiences that recognize and extend the student’s existing frame of reference and understanding” (Skelton, 2005, p. 32). Thus, “good teaching starts from where the students are at, and provides experiences to extend and deepen their understanding” (Tennant et al., 2010, p. 19).

Skelton (2005) has argued that the performative understanding of good teaching have emerged as nation states respond to globalization pressures (p. 29). Three features characterise good teaching as approached within the performative position. The first is the view that education “contributes directly to national economic performance through teaching that contributes to the effectiveness and competitiveness of commerce and industry” (Tennant et al., 2010, p. 19). This is a kind of education which is targeted towards “producing a competent and efficacious person, one who has mastered the knowledge and acquired the skills to act in the world with confidence”. Secondly teachers need to adopt a global perspective towards their work, part of which is to be familiar with information and communication technologies in order to be able to open access to students online and manage to adapt to teaching across different cultures. Lastly, teachers need to be mindful of the way in which they align with the measures used to ensure “maximum returns on public investment”. Data need to be gathered for these purposes, for example data related to admission standards, graduations, retention, employment outcomes and teaching evaluation (Tennant et al., 2010, p. 20).

The last approach, the critical understanding of teaching, bears within it various different strands, as is also the case with the psychologised approach. However, as Skelton (2005) explains, all these strands have in common that they are concerned with promoting emancipation and they see teaching as an activity of political nature. Thus, good teaching involves asking questions which relate to authority and control over what it is that counts as knowledge, how it is organised and transmitted, who has access to it whose interests it serves in the current system. Good teacher is the one that aims to “support a process of student emancipation” as to give the “greater control over their lives”. According to this view the teacher’s role is to “act as a critical or transformative intellectual who disturbs the student’s current epistemological understandings and interpretations of reality by offering new insights” (p. 33).

The above reported account of the different perspectives, found when exploring discourses on what constitutes quality in higher education teaching, calls to mind Jónasson’s (2008) note about the situation when it comes to quality assessment mechanisms in universities, saying that although:
... most universities would assert that they give the same weight to teaching and research and that their students deserve teaching, i.e., education, of the highest quality ... there is no consensus about how and when teaching should be judged, but the evaluation discourse seems to evade that problem (p. 106).

However, although no uniform mechanism exists for assessing the quality of teaching in universities, unlike what is the case for research, various sorts of evaluations of teaching and courses are delivered to university students on an annual basis in most universities. Most commonly these are in the form of survey questionnaires. Examples of such surveys are the National Student Survey (NSS) in the UK, a Course Experience Questionnaire (QEA) used in Australia and the National Survey of Student Engagement (NSSE) in the US. Tennant et al. (2010), provide an analysis of these three types of survey. They describe the NSS as having characteristics of “clear performative discourse” but point out that when exploring the items, they can be seen to support Skelton’s findings of both, performative and psychologised discourse. Their conclusion is that the NSS mainly emphasises “the individual performance of the duties of the teachers and the organisational performance in fulfilling its role in supporting students”. They judge that similar comments can be made about the CEQ, apart from the fact that less emphasis is put on organisational performance. As the system works in Australia, typically each university designs its own student survey, but all of them are influenced by the CEQ. The results are publicly available and are being used for example to prepare for quality audits. In addition, they have been used to determine “dividend payments to universities under the Teaching and Learning Performance Fund”, which is a scheme that is administered by the federal government. The last survey explored, the NSSE, is quite different from the other two, as noted, probably because of the different relationship between the government and universities. As Tennant et al. (2010) describe this survey, “the characteristics of the student experience are used as a proxy for quality”. The items address experiences, such as “learning and living while a student; generic cognitive skills such as memorising, synthesising, and thinking critically; and generic personal skills”. The survey entails few evaluative questions and does not have the characteristics of a student satisfaction survey. The authors judge the survey to fall, at least to some degree, into the psychologised discourse, but the performative discourse seems in most respect to be absent. Thus, little emphasis is on the qualities and skills of
individual teachers, more on “how the system as a whole shapes the experiences of students”. The authors conclude that on the whole “the NSSE does not seem to foreclose debate about what constitutes quality teaching ...” (pp. 24-32).

In their concluding remarks Tennant et al. (2010) stress that every tool used to judge teaching contains within it implicit assumptions about what is embodied in good teaching. These assumptions often originate in “wider public and scholarly debate about the purposes and goals of education and the nature of leaning” they state. They also emphasise their understanding of “good teaching” as a “highly contested notion” and therefore it should be seen as crucial to “adopt a critical approach to any instrument that serves to delimit and frame what it means to be a ‘good teacher’” (p. 14).

As has been described above, different discourses exist of the meaning of “good teaching”, and the instruments used, such as the different student evaluation questionnaires, do not seem to use any uniform criteria. Thus, such judgements seem to remain open to further discussion and debates.

However, as a final thought it needs to be recalled that the reporting of previous research into university teaching as well as learning reveals that attempts are constantly being made to investigate what counts as high quality teaching at university.

The review of literature, has attempted to provide some overview of the various issues that have been raised in previous research about quality aspects of learning and teaching in universities. The focus was also set on research into various macro aspects that come into play and have been reported in the literature as affecting both the discourse on quality of university education and quality procedures in general terms.

We will now turn to the questions that we see as important to pose in light of the information that the literature review has provided and that we see as an appropriate point of departure when considering the overall aim of the present study.

2.4 Research questions formed

In reviewing the literature we have found that studies have shown clear distinctions in students’ own descriptions of the way in which they think about their studying and go about their learning, and that this affects the quality of learning outcomes achieved. We have then described how the information that this research provided led to attempts to grasp the
conceptions held by university teachers about teaching, and investigate the way in which teachers go about their teaching. We saw that the main focus in many of these studies was on considering the implications of the empirical evidence provided through the studies into student learning for improving the quality and effectiveness of university teaching. The review revealed that the results from the studies supported the conclusion that a student-focused approach to teaching, heading towards developing students’ own understanding, encouraged a deep approach to learning, and as a consequence learning outcomes of higher quality. In other words, the studies confirmed that relationships existed between teachers’ approaches to teaching and students’ approaches to learning, and these were of a nature that affected the quality of the outcome of learning. A question that we see as important in this context, but not yet fully covered in the literature, is the one that seeks not only to explore conceptions of teaching, but also to attempt to describe conceptions of what defines the core elements or features of “good university teaching” from the perspective of the university staff. In other words, what needs strengthening is a better grasp of the ideas held by university staff about what constitutes good quality of teaching. Thus we pose the following question:

1. What are the conceptions of “good university teaching” held by academic and administrative staff?

Teaching practices of good quality not only have their base in ideas, decisions and procedures within the teachers’ purview, they also depend upon various decisions made at different levels within university institutions. The review of literature revealed that research into the relationship between teaching conceptions and actual teaching practices has shown that conceptions held by university teachers do not necessarily have a functional role in specific, individual teaching activities. Thus, differences have been found in how teachers think about a course they are teaching, and their actual teaching practices. This indicates that teachers do not necessarily act in accordance to their ideal conception of teaching. Thus, the literature has suggested that teachers have a preferred or predominant approach to teaching, but adopt different approach when encountering something in the teaching-learning environment which they feel demands it. This raises important quality issues, including what institutional forces are impinging upon teaching-learning environments and how they affect perceived good teaching practices. This leads to the next research question:
2. What aspects of institutional provision are seen by academic and administrative staff as affecting the implementation of perceived good teaching practices?

The review of literature showed that various global trends have been at work impacting upon developments in the higher education sector. In this context attention was drawn to the growth of participation in higher education worldwide, and as a consequence increasing diversity of the student population. Global competition in the production and distribution of knowledge and increasing concern with accountability, standards and quality assurance were named too as examples of such trends. The literature review also reported the steadily increasing impact of league tables and ranking systems which are now being widely published, such as by governments, accreditation agencies, higher education institutions, research institutions and the media. We also saw that criteria in such ranking systems use quantitative measures which are to a considerable degree concerned with outcomes or products of academic activity and academic degrees. Another impact reported in the review was the Bologna Process which was described as contributing directly to the merging of different university traditions through its introduction of a common degree structure, standardized recognition procedures, qualifications frameworks, and systems of quality assurance. All these must be seen as impacting in one way or the other upon the operational environment within university institutions, and this goes for both the managerial sector and the everyday practices of academic staff. How these forces work in that respect thus becomes important within this thesis. We therefore ask the following question:

3. What aspects of governmental frameworks, or other external influences, are seen by academic and administrative staff as affecting the implementation of perceived good teaching practices?

In the next chapter the methodology adopted for the study, designed to answer these questions, will be explained.
3 Methodology

The research questions posed for the present study called for various data to be collected from different levels, adopting appropriate methods. Thus, the study drew on different forms of evidence which were inspected in terms of three different foci. In the following sections, the methodology adopted for the study will be explained initially in general terms, but more detailed descriptions of the specific methods of data-collection and analysis will be provided within the chapters where they were used.

3.1 A mixed methods approach

The broad focus chosen to investigate the topic under study, as well as the nature of the research questions called for both qualitative and quantitative data to be collected, and therefore a mixed methods approach was identified as best suited for the purpose of the study.

The historical argument for combining qualitative and quantitative methods in a single study has been that the mixing of methods provides strengths that make up for the weaknesses of both quantitative and qualitative research used exclusively (Creswell, 2003, pp. 15-16).

Creswell and Plano Clark (2011) argue for a definition of “core characteristics of a mixed methods research”, one which incorporates various diverse viewpoints as well as combining methods, a philosophy, and a research design orientation, but at the same time highlighting the key components of designing and conducting a study using mixed methods (p. 5). They define mixed methods in the following way:

In mixed methods, the researcher:

- collects and analyses persuasively and rigorously both qualitative and quantitative data (based on research questions);
- mixes (or integrates or links) the two forms of data concurrently by combining them (or merging them), sequentially by having one build on the other, or embedding one within the other;
- gives priority to one or to both forms of data (in terms of what the research emphasises);
- uses these procedures in a single study or in multiple phases of a program of study;
frames these procedures into specific research designs that direct the plan for conducting the study (Creswell & Plano Clark, 2011, p. 5).

As explained by Creswell and Plano Clark (2011), this definition also serves as to provide criteria by which the quality of a mixed methods study can be judged (p. 267). The issue of evaluating the quality of the research will be further addressed in a later section. Bryman (2006), notes that researchers using mixed methods design can have multiple reasons for combining methods. It can also happen that new reasons for mixing emerge during the research process (Bryman, 2006, p. 110). This is in line with inferences made by Greene et al. (1989), that “mixed method strategies are often guided by more than one purpose” (p. 266).

Using a mixed methods approach in the present study served several purposes, complementarity being one of them (Greene et al., 1989). “Complementarity seeks elaboration, enhancement, illustration, clarification of the results from one method with the results from the other method” (p. 259). Secondly, the mixing of methods had a developmental purpose. As Greene et al. (1989) explain, developmental mixed methods approach seeks to “use the results from one method to help develop or inform the other method …. To increase the validity of construct and inquiry results by capitalizing on inherent method strengths”(p. 259). Finally, the mixing of methods had the purpose of triangulation. Using qualitative approach for an in-depth exploration of the topic under study, and based on the results, seek corroboration and correspondence though quantitative data, was considered a useful way to increase the validity of the overall findings (Sigurlína Davíðsdóttir & Anna Ólafsdóttir, 2013, pp. 400-401).

3.2 Research paradigm

The qualitative data collected through interviews to explore the conceptions of “good university teaching” held by academic and administrative staff were given priority in the study. Based on analysis of the interviews data were collected through quantitative methods. Thus it can be argued that the reported study was qualitatively driven, with regard to the mixing of methods.

Mason (2006) argues for a qualitatively driven way of mixing methods, which she describes as involving that we retain some key elements and principles of qualitative approaches at the same time as we push against the boundaries of purely qualitative paradigm. Or as she further explains:
[we] “move beyond paradigm wars and theoretical stalemates” in order to find “effective ways of proceeding and of facilitating creative and innovatory research ...”(p. 22). Creswell and Plano Clark (2011) suggest that, when conducting a mixed methods research, researchers should articulate what philosophical assumptions form the basis of their mixed methods projects (p. 38). The arguments above, are in line with the philosophical stance taken by deciding to adopt a mixed-methods approach for the study. These philosophical assumptions have been referred to as pragmatism (Onwuegbuzie, 2004; Tashakkori & Teddlie, 2003a).

Pragmatism is a widespread position among those who use mixed methods approaches in their research (Tashakkori & Teddlie, 2003a, p. 679). The pragmatic view sees the research questions as being more important than the methods used, or the paradigm that underlies the method (p. 679). Pragmatists argue that “research approaches should be mixed in ways that offer the best opportunity for answering important research questions” (Onwuegbuzie, 2004, p. 16). Or in other words, that methodological choices should be guided by a practical and applied research philosophy (Tashakkori & Teddlie, 2003b). This was the stance taken in the present study.

3.3 Research design

It has been pointed out that a case study, as such, offers potential as “a bridge across the traditional research paradigms”, as the case “provides a delineated boundary for inquiry, and a structural process within which any methods appropriate to investigating a research area can be applied” (Luck, Jackson, & Usher, 2006, p. 103). On these grounds, using a case study design was considered to be the appropriate strategy for investigating the topic.

Case studies are commonly used in educational research, not least for the reason that their emphasis is on the interpretive and subjective dimensions. Thus, they allow for an in-depth exploration of real-life events and phenomena but at the same time recognise the complexity and context of the setting under study and as such help to gain a holistic focus (Cohen, Manion, & Morrison, 2000, p. 181; Creswell, 2003, p. 15; Punch, 2005, p. 144; Yin, 2009, p. 4).

As has been pointed out, most studies focusing on organizations do not seek for “one-of-a-kind entities or events” but rather aim for developing an understanding of organizations that has “broader implications” (Fiss, 2009, p. 427).
The main focus in the study was on aspects of the topic under study as seen from the individual perspective. However, it was considered an important part of providing as credible and as holistic a picture of the topic as possible, to provide some insight into the wider context within which the individual aspects were expressed. This called for data from additional sources to be collected, that is, from sources at the institutional as well as the governmental level. Thus, the study had a broad focus, which required a considerable amount of data from multiple sources. For that reason, it was seen as a preferable choice to use only a single case design, as this would help limit the amount of data (Morse, 2003, p. 195).

The next step was to determine what type of case could best serve to provide the amount and kind of data needed to fulfil the aims of the study. In choosing the case it was seen as beneficial if the selected case would be of a type that had the potential to offer opportunities for further research, for example studies of a comparative nature in other university institutions. Choosing what has been referred to as representative or typical case was seen as best suited to meet these two criteria.

Representative case is, as described by Yin (2009), a case which is believed to represent a typical example of many other institutions operating in the same sector, and as such “assumed to be informative about the experiences of the average person or institution” (p. 48). In case of the present study, an Icelandic university institution with structure and operations typical of many other university institutions in Europe was seen to make the most representative case. A case of that type was seen to have the qualities that would provide the data needed to offer a convincingly clear and holistic picture of the study topic, and it also possessed the qualities needed to earn the findings a place in further research, in a broader, international context. Thus, the University of Iceland was selected as a case for the purpose of the study. The University of Iceland is the oldest and largest university institution in Iceland. It consists of five schools and has, of the seven university institutions operating in Iceland at present, the largest number of study programmes as well as the largest number of students enrolled. Further details on the case are provided in a later chapter.

3.4 An embedded mixed methods design

The mixed-methods design adopted for this study has been described by Creswell and Plano Clarke (2011) as a variant of an embedded design.
In an embedded design the collection and analysis of qualitative and quantitative data is combined within a traditional qualitative research design or quantitative research design, in this case a case study. “The collection and analysis of the second data set [in case of the present study, the quantitative data set] may occur before, during, and/or after the implementation of the data collection and analysis procedures traditionally associated with the larger design” (Creswell & Plano Clark, 2011, p. 90).

Luck et al. (2006) point out that methodological rigour can be established within the framework of the case study by “using measures already accepted for the specific methods used” (p. 107). They argue that this flexibility of method makes one of the key strengths of the case study as a research design. In a mixed methods case study, both qualitative and quantitative data are embedded within the boundaries of the case, that is, the case becomes a placeholder for both qualitative and quantitative data collection (Creswell & Plano Clark, 2011, pp. 90-95).

Figure 11 provides an overview of the design and methodological procedures, but the purpose of each data set, its place in the study as well as the methods used in analysing the data are further explained and accounted for, where appropriate, in later chapters.
3.5 Issues concerning validity and reliability

Validity and reliability are concepts which are central to any understanding of whether the findings of a research are of worth or not (Creswell & Plano Clark, 2011, p. 210; Langridge & Hagger-Johnson, 2009, p. 50). Validity and reliability, are applicable to qualitative as well as quantitative approaches in research (Sigríður Halldórsdóttir & Sigurlína Davíðsdóttir, 2013, p. 211). Therefore both terms are addressed here. Addressing validity and reliability with regard to the qualitative part of the study refers to assessment of the information obtained through the qualitative data collection; whether these were accurate, and whether there were errors and/or biases in the study.

In qualitative research, validity is more of a focus point than reliability, as reliability “relates primarily to the reliability of multiple coders on a team to reach agreement on codes for passages in text” (Creswell & Plano Clark, 2011, p. 211). Validity refers to the accuracy and trustworthiness of all three, instruments, data and findings in a study (Bernard, 2000, p. 46). As such, validity serves the purpose of ensuring the quality of the data, the results and the interpretation (Creswell & Plano Clark, 2011, pp. 210-211).

Four tests have been commonly used to establish the quality of any empirical social research. These are: Construct validity, internal validity, external validity and reliability. All four tests apply to case study designs (Yin, 2009, p. 40).

Construct validity, which also is referred to as triangulation, means “identifying correct operational measures for the concepts being studied” (Yin, 2009, p. 40). Construct validity has been seen as a challenging task when using case-based methods, but three main principles have been followed to increase it. The first has been to use multiple sources of data (Yin, 2009, p. 116); the second, to maintain a logical chain of evidence (p. 122); and the third has been to have the key informants evaluate the draft report from the case study (Creswell & Plano Clark, 2011, p. 211; Yin, 2009, p. 182). As has been explained in section 3.1, one of the purposes of combining qualitative and quantitative methods in the study was triangulation. Thus, the strategy of using mixed-methods approach plays a fundamental role, when considering validity issues, in that the mixing of methods was systematically used to increase the validity of the overall findings.

The logic of internal validity does not have relevance for this study as this kind of validity check is not applicable to studies that are not concerned with causal relationships (Yin, 2009, p. 43).
External validity in case studies “deals with the problem of knowing whether a study’s findings are generalizable beyond the immediate case study” (Yin, 2009, p. 43). In single-case studies the issue of external validity has been seen as particularly problematic, and a major barrier (Yin, 2009, pp. 43-44). In this context, Fielding and Warnes (2009, p. 285) have pointed out that the openness of the research to replication would be increased if it was used for comparative analysis in a holistic multiple case design rather than using only one case. However, as Yin (2009) notes, critics stating that case studies offer poor basis for generalizing:

... are implicitly contrasting the situation to survey research, in which a sample is intended to generalize to a larger universe. This analogy to samples and universes is incorrect when dealing with case studies. Survey research relies on statistical generalization, whereas case studies (as with experiments) rely on analytic generalization. In analytical generalization, the investigator is striving to generalize a particular set of results to some broader theory’ (p. 43).

Thus, using theory is seen as one way of increasing external validity in single-case studies. What motivated the conducting of the reported study in the first place was the theoretical background, reported in the literature review. Thus, it can be argued that the forming of the ground for the study, can be viewed as the domain to which the results can be generalized (Yin, 2009, p. 43).

Another common criticism of case studies has been that results based on a case study are not generalizable. This viewpoint, according to Flyvbjerg (2011), is based on one misunderstanding out of five major misunderstandings about case studies, which systematically have undermined the credibility and use of the case study as a scientific method (p. 302):

One can often generalize on the basis of a single case, and the case study may be central to scientific development via generalization as supplement or alternative to other methods. But formal generalization is overvalued as a source of scientific development, whereas “the force of example” is underestimated (p. 305).
Two main ways have been pointed out that have the potential to produce generalizable results from case studies. Both depend on the purpose of the study and the way that the data are analysed. One is to focus on conceptualizing rather than describing. Through analytical methods that focus on conceptualizing when studying the case, new concepts can be developed, which then can be used to explain aspects of what has been studied. Secondly, the researcher can, based on the studied case, develop one or more propositions, that also could be called hypotheses, which link concepts or factors within the case. These propositions can then be assessed for their applicability and transferability to other situations. By doing this the traditional model of research is turned around, because the hypothesis thus becomes an output of the research (Punch, 2005, pp. 145-146). However, as Punch (2005) notes, it can not be argued that generalizability of the findings has been proved in these instances, but by putting forward concepts and propositions such generalizability can be suggested.

In reporting how validity was addressed, with respect to the quantitative part of the study, it needs to be recollected that one of the purposes for combining qualitative and quantitative data-collection methods, was triangulation. Using a qualitative approach for an in-depth exploration of the topic under study, and based on the results, quantitative methods to seek corroboration and correspondence were considered a useful strategy to increase the validity of the overall findings (Greene et al., 1989).

Reliability means stability and consistency of measured scores and is the final test in judging the quality of a study (Creswell & Plano Clark, 2011, pp. 210-211; Langridge & Hagger-Johnson, 2009, p. 50). This consistency has two aspects, one being consistency over time and the other internal consistency (Punch, 2005, p. 95). If these aspects are applied to a case study, the objective would accordingly be to make sure that an investigator, conducting the same case study as someone else had done previously, would arrive at the same findings and conclusions (Yin, 2009, p. 45). Yin (2009) notes, that making as many steps as operational as possible is the general way of approaching the reliability problem in case studies. This means, in other words, conducting the study in a way that would in principle make it possible for an auditor to repeat the procedures of the case study and arrive at the same results (p. 45). If applied to this study, it can be argued that documenting and recording each step of the study, and using computer software to retain all qualitative data in a logical form in one database, served as ways to increase the reliability of the study (Fielding & Warnes, 2009, p. 285; Yin, 2009, p. 45).
As Creswell (2012) explains, validity and reliability are bound together in complex ways. Sometimes they overlap and at other times they can be mutually exclusive (p. 159). When it comes to choosing instruments, validity can be thought of as the larger, more encompassing term than reliability. Also, as reliability means consistency of scores it is in general an easier term to understand than validity. Creswell (2012) explains this further when he notes the following:

If scores are not reliable, they are not valid; scores need to be stable and consistent first before they can be meaningful. Additionally, the more reliable the scores from an instrument, the more valid the scores may be (however, scores may still not measure the particular construct and may remain invalid). The ideal situation exists when scores are both reliable and valid. In addition, the more reliable the scores from an instrument, the more valid the scores will be (p. 159).

A part of the quantitative data collected for the purpose of the present study derived from an already existing instrument. The validity and reliability of this instrument has been tested through a number of studies (Trigwell & Prosser, 2004, p. 420). In their account of the validity of the instrument, the authors have pointed out that in all reported cases of its use, the instrument has provided interpretable data of the sort that one would expect given “the educational principles from which it has been developed” (2004, p. 420). However, all items of instruments which were tested for scales were tested for reliability, using a Cronbach’s alpha reliability test (Bernard, 2000, p. 298). The part of the instrument which derived from the qualitative data was tested against the qualitative results (triangulation) in order to test the items for validity. However, as the study was cross-sectional, it was not considered appropriate to address reliability for that part of the data.

3.6 Ethical issues

Creswell has pointed out that ethical issues should be a primary consideration when conducting research (Creswell, 2012, p. 23). Thus, it is appropriate at this stage to note that in the present study efforts were made in order to ensure that all required ethical issues would be addressed and accounted for. Hence, ethical questions were taken into consideration at every stage, from the very start to the final completion of the study (Creswell, 2012; Kvale, 1996, p. 110).
The Data Protection Authority was informed about the study (see Appendix A). Most part of the ethical considerations of the study were linked to the data-collection procedures. The ethical issues addressed through these procedures, and how they were accounted for, are described in more detail in later chapters where appropriate. However, there are additional aspects of an ethical nature which are seen as important to address at this stage. These have to do with potential weaknesses related to my background and as a consequence position as a researcher studying this very topic.

As has been described earlier, the thesis reports a study which investigated quality aspects of various operations of a university institution, but focusing in particular on quality aspects with regard to university teaching. Being a university teacher myself makes my position as a researcher different from the one held by a researcher which would have no beforehand knowledge or relationship to the organisational structure of a university, or the nature of academics duties. In addition, before becoming a member of faculty, I had a four year experience of working as a project manager for distance education in the same institution that I now have an academic position in. Although this background comes from another university institution than the one studied, it provides me with what might be referred to as insider’s knowledge about the study subject. On the one hand this knowledge may be assumed to strengthen my role as a researcher but on the other hand it can be expected that this background raises questions about potential bias.

Kvale (1996) lists various ethical questions which need to be addressed at a start of a study, of which the following have particular relevance when considering my position as a researcher studying this very topic:

- How will the researcher’s role affect the study?
- How can the researcher avoid or counteract over identification with his subjects, thereby losing critical perspective on the knowledge obtained (p. 120)?

In addressing these questions it first needs to be informed that my interest in the topic under study is initiated by my own experiences, beliefs and values as an academic and former project manager, specialised in educational technology. Holding the same position as a majority of the participants in the study meant that many of the aspects brought up by the participants were familiar to me and some of them were issues which I felt were closely related to my own values and beliefs as a university teacher.
Therefore, I felt that I had to take special care not to let my own background affect the truthfulness of my work as a researcher.

One aspect brought up by Kvale (1996) involves the person of the researcher. In that context he draws attention to an argument made by Eisner and Peshkin (1990), saying that researchers need to possess two attributes in particular, that is, “the sensitivity to identify an ethical issue and the responsibility to feel committed to acting appropriately in regard to such issues” (p. 244). I feel that I have made an adequate effort with regard to the first of the two, that is, by identifying the potential weaknesses that might be inherent in my own background. Regarding the commitment to act on the ethical issues identified, I argue that every effort was made to act on these potential weaknesses in a responsible manner.

As explained above, efforts were made to meet all required ethical standards and avoid bias at all stages through the study. In that matter my prior experience as a researcher turned out to be of considerable value, in particular the experience of conducting an evaluation study within my own workplace, the University of Akureyri, several years before the present study was launched. The evaluation study used a mixed methods approach. With regard to addressing ethical issues, such as the one of positioning oneself within a study, an evaluation within my own workplace was in many respects a challenging task. These potential weaknesses were addressed and accounted for through methodological choices and procedures. Thus, it can be stated that for the present study, this earlier study was in every respect a valuable experience with regard to handling the various choices that had to do with weighing “ethical versus scientific concerns” (Kvale, 1996, p. 117).

As Kvale (1996) explains, validation in a research “comes to depend on the quality of craftsmanship during investigation”. Such a validation involves “continually checking, questioning, and theoretically interpreting the findings” (p. 241). Validating through checking can mean various things, one of them being to analyse the many sources of potential biases that might invalidate the findings and interpretations (Sigriður Halldórsson & Sigurlína Davíðsdóttir, 2013, pp. 219-220). One of the suggested tactics when testing the validity of findings is triangulation. Triangulation has been described in section 3.1 as the methods used to validate the overall findings of the study. Thus, triangulation has an important relevance for the ethical issue addressed here, that is, the danger of potential bias due to my work background.
It has been explained earlier that the present study was qualitatively driven with regard to the mixing of methods. Creswell and Plano Clark (2011) note that it is important that researchers reflect on the criteria against which the quality of the research might be assessed. In this context they point out that the standards for evaluating a study of a qualitative nature depend on “how the researcher positions herself or himself in the study” (p. 267), that is, what criteria the researcher uses. Thus, a researcher can use philosophical, participatory and advocacy criteria, or procedural, methodological criteria. Criteria for evaluating mixed methods research “reflect trends that seem to exist within qualitative research” in that “one’s viewpoint depend on their orientation”. Examples of different orientation based on viewpoints can be that:

... this orientation may be as a methods person, a methodologist, a philosopher, or as a theoretically oriented scholar. Policy makers who fund research want to know whether the research questions are adequately answered, researchers who engage in mixed methods studies want to know if they can trust the findings and take action on them, ...

(p. 267).

In this context, Creswell and Plano Clark (2011) stress that criteria need to be established for all these stakeholders and argue for a methods oriented criteria for evaluating a mixed methods study. These methods oriented criteria were introduced in section 3.1, in reporting the definition of mixed methods research, that is the definition adopted for the purpose of the present study. Thus, the steps incorporated in the definition provided by Creswell and Plano Clark (2011), served as methodological guidelines through all phases of the present study, but in addition they served ethical purposes. Hence, it can be stated that the methods oriented criteria inherent in the definition serves to counteract the potential weaknesses reflected in the ethical questions, posed by Kvale (1996).
4 The macro level: Government policy and the framework set for higher education in Iceland

In the study the point of departure was to explore in general terms the characteristics of the framework set for higher education, by governmental authorities in Iceland. Thus, this chapter serves to provide insight into the context within which university institutions in Iceland set their policies.

The specific questions guiding this phase can be phrased in the following way:

- How do governmental authorities address higher education in their policy declarations?
- How do governmental authorities describe the role and obligations of higher education institutions in the society?
- How do governmental authorities address quality in referring to the operations of university institutions?

The chapter begins by offering a brief overview of the history and developments of the higher education system in Iceland followed by a review of documentation, such as governmental policy papers, legislation and other edicts. This provides understanding of the history and traditions on which the current practices are based.

4.1 Historical overview

The establishment of the School of Theology in 1847 is what has been marked as the beginning of the history of higher education in Iceland, as this was the first institution in Iceland to operate explicitly at university level. About thirty years later, in 1876, a medical school was established and in the first decade of the twentieth century, in 1908, a school of law was founded (Guðmundur Hálfdanarson, Sigríður Matthíasdóttir, & Magnús Guðmundsson, 2011). By the establishment of the School of Theology, the education system in Iceland was shifted upwards, because the Latin school, which originally had been established as a vocational school, was at that point of time acknowledged as a general preparatory school for academic studies at a higher level in the educational system (Jónasson, 2004b, p. 138). The establishment of the three schools in Iceland was seen as one of many steps in the progress towards independence from Denmark, and
Iceland being “granted home rule in 1904 with the appointment of a Minister for Icelandic affairs, who was subject to the parliamentary rule of Iceland’s legislature” was seen as a passing of a last hindrance on the way towards establishing a university in Iceland (Guðmundur Hálfdanarson et al., 2011, p. 781).

In 1909 the first law referring to studies at the university level, where salaries of university teachers were stipulated, was passed (Guðni Jónsson, 1961, p. 49) and in 1911 the three existing vocational schools, with an addition of a faculty of arts, merged into one institution and the University of Iceland was established (Guðmundur Hálfdanarson et al., 2011, p. 781). The first university regulation for this new university institution, based on the 1909 law with minor changes, became operative in October 1912 (Guðni Jónsson, 1961, p. 49).

During the first half of the twentieth century various non-university institutions, offering vocational programmes, were operating, such as schools for primary school teachers, technicians, nurses, pre-school teachers, social educators and Art schools. In the latter part of the century these vocational schools moved closer towards the university sector, for example by raising the enrolment requirements. This happened in gradual steps and without any changes in legislations, (Gyða Jóhannsdóttir, 2008, p. 35). The first of these non-university vocational schools to be elevated, through an act of law, to a university level was The Teacher Training College for primary school teachers (Jóhannsdóttir & Jónasson, 2012, September p. 8). This was in 1971 but in fact the study programme had been operative since 1951, based on the same admittance requirements as the 1971 act of law stipulated (Gyða Jóhannsdóttir, 2008, p. 35). Following that, in 1973, the vocational school for technicians which had operated at the upper secondary school level was to a certain degree recognized as having the same status in the educational system as a university (Gyða Jóhannsdóttir, 2008, p. 35).

In addition to the upper secondary level schools being shifted upwards in the system, new universities were also established (Jónasson, 2004b, p. 144). As Jóhannsdóttir & Jónasson (2012) have noted, “all these changes were ad hoc changes without a governmental policy for the higher education sector” (p. 8).

In 1987 the University of Akureyri was established being the first university to operate outside the capital area. It offered study programmes in two faculties, the faculty of health and the faculty of management.
In the nineteen nineties several other university institutions were established, that is, the Bifröst School of Business in 1994, the Agricultural University at Hvanneyri and the Icelandic Academy of the Arts in 1999.

The first legal framework to be written for the university system as a particular part of the educational system of Iceland was adopted by the parliament of Iceland in 1997 and became operative in 1998. Eight university institutions fell under this new act of law (Lög um Háskóla 136/1997). In addition to falling under the law, all eight institutions had their own regulations, each in some respect reflecting different requirements. To name an example, not all of the institutions were required to have research as a part of their operations according to the law. This is manifested in the second article: “a university is an educational institution which along with other duties conducts research if required in the specific act of law or regulation for each institution” ("Lög um háskóla," 136/1997). According to the regulations governing these institutions research was at the beginning of the 21st century an integral part in four out of eight institutions, study programmes at master level were offered in three of them and only two of them offered studies for doctoral degrees (Gyða Jóhanndóttir, 2008, p. 37).

The number of students studying in universities has grown rapidly in Iceland. To give some idea of the growth, they were around 3,600 in 1980 but that number had risen up to well over 10,000 ten years later. In 2006 over 17,000 students were enrolled in Icelandic universities (Hagstofa Íslands, 2013; Rúnar Vilhjálmsson, 2005).

The Law on Higher Education Institutions which was enacted in 2006 was the legal framework under which the institution selected as the case of the study, the University of Iceland, was working when the study was conducted and therefore it was considered an appropriate point of departure for the analysis work.
Table 4 lists how the institutions within the higher education system have developed at the time of study:

**Table 4 The higher education system in Iceland (2001, 2008 and 2013)**

<table>
<thead>
<tr>
<th>Institution</th>
<th>2001</th>
<th>2008</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Iceland (UI)</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Iceland University College of Education (UCE)</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>University of Akureyri (UA)</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>Iceland Technical School (ITS)</td>
<td>no</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>Reykjavik University (RU)</td>
<td>no</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>Iceland Academy of the Arts (IAA)</td>
<td>no</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>Agricultural University of Iceland (AUI)</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Bifröst University (BU)</td>
<td>no</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>Hálar University College (UCHI)*</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
</tr>
</tbody>
</table>

* Hálar University College obtained preliminary university status in 2003 and formal university status in 2007. Hálar University College offers both undergraduate and graduate studies, as well as research programmes in three fields: tourism, equine science, and aquaculture and aquatic biology. (Háskólinn Hárum) (Jóhannsdóttir & Jónasson, 2013).
4.2 Government policy and legislation on higher education in Iceland

The above reported overview shows that Iceland has a relatively short history of offering university education and it is not until in the nineteen nineties that a legal framework for the university system as a separate part of the educational system of Iceland comes into act. At that point of time the number of university institutions had risen from only one in the first half of the nineteenth century to become eight and now seven (see Table 4).

The study focused on activities in the period 2006-2011. During this period the institutional policy of the institution under study was in effect, and the empirical data for the study were collected in the period between 2008 and 2011.

In the following section the methods used to explore documentation at the governmental level will be explained,

4.2.1 Document analytic methods

Document analysis was the method used in order to gain insight into the legislation framework within which higher education institutions in Iceland operate.

When documents, such as the ones relevant to the study, are written, their content is based on certain ideas, trends or theories and therefore they need to be located within a particular context, be it a social, historical or an administrative structure or condition (Punch, 2005, pp. 184-185). Thus, the origin and time of publishing of the documents to analyse needed to be kept in mind when selecting documentation for the purpose of the study.

With this in mind, the selection of documents was limited to documents which were or entered into effect in the period within which the study was conducted, and thus were considered to have served as a framework for institutional policy making in that same period (See Appendix B for a list of government documents analysed).

The documents analysed for the purpose of the study were papers on governmental higher education policy as part of the governments’ general policy, acts of law and supporting documentation.

The documentation analysed also contained regulation regarding accreditation granted to universities according to criteria set to meet the Bologna standards. These had been published as guidelines for the Bologna
process in which the Higher education institutions in the country participate.

Exploring the documentation involved analysis of policy issues on higher education and higher education institutions, how their role and operations were described, how the concept under study, “quality” was used in the documentation and how the specific issues it raised were structured and organized (Rapley, 2007, p. 124). Thus, the analytical process aimed at pinning down the key themes regarding the topic under study, that is, seek to draw a picture of the presuppositions and meanings regarding quality in university education which the text was considered to represent, be it a direct or an indirect reference to quality (Peräkylän & Ruusuvuori, 2011, p. 530).

4.2.2 Analysis of governmental documentation

Analysing governmental policy documentation was seen as an appropriate point of departure in exploring the framework set for university institutions in Iceland.

4.2.2.1 Governmental policy on higher education

During the period being studied, two elected governments were in power in Iceland. The first one was a coalition of the Independent Party and the Social Democratic Alliance, which was formed in 2007. The second, a coalition of the Social Democratic Alliance and the Left-Green Movement, was formed in 2009. Both governments addressed educational issues in particular in their policy declaration.

The 2007 policy declaration did not explicitly refer to the higher education sector in particular, nor did it address in specific terms quality in the context of higher education. Rather, it emphasised that the “entire educational system, from nursery school to university level”, should aim towards being “in the vanguard internationally” (Policy Declaration of the Government of the Independence Party and the Social Democratic Alliance 2007, 2007, p. 4).

However, the declaration indirectly referred to the higher education system in stating that “Advances and economic growth in the years to come will be driven by education, science and research” (p. 4) and referred explicitly to quality of studies offered in describing that:

The Government will promote ongoing investment in research and the educational system. Focus will be on quality, flexibility
and diversity in supply of courses, to enable all students to find a suitable field of study (p. 4).

Thus right from the beginning the emphasis is on quality. The policy declaration also argued for more independence of educational institutions as well as changes in teacher training:

Increased professional and operational independence of schools will be aimed for, and less centralisation. Steps will be taken to extend and diversify teacher training (p. 4).

Thus even though the government wants to emphasise quality it is quite clear about the independence of the institutions in its political statement.

Finally, the 2007 policy declaration set goals to review the Act on The Student Loan Fund, with the aim of “improving student living standards even further” (p. 4).

Policy set in the 2009 policy declaration seemed in many ways to be influenced by the financial collapse in Iceland in October 2008. This was not the least apparent in addressing policy on education for the coming years, where it was stated that:

... Education, science and culture are important aspects of rebuilding Iceland. Creative and critical thinking, together with increased emphasis on democracy and human rights have an important place in the nation's education (Government Coalition Platform of the Social Democratic Alliance and Left-Green Movement, 2009, p. 5).

This must be taken to refer to all levels of education, also the university level; thus this may be taken as an encouragement to the universities to attend to these competencies. The declaration also revealed that research was seen as playing an important role when considering further developments within the Icelandic society.

... Emphasis needs to be placed on research funds, which are important for the advance of science and technology in Iceland. ... Maintaining the nation's high educational level is very important (p. 5).
Noting the importance of the universities in building the research competence, this surely indicates that this must be included in their agenda. In addition to placing emphasis on the role of education, science and culture as driving forces of the rebuilding of the country, the declaration argued for reassessment of the university structure and cooperation between parties within the university system:

After the rapid growth of tertiary level education, a reassessment is needed of universities’ structure and operations, possibilities for co-operation, infrastructure and financing, studies offered and increased distance learning options. It is important that this work be carried out through consultation between government and the academic community. Competitive grant funding will be maintained and continuing energetic research efforts ensured in Iceland (p. 6).

Here the government is asking the universities to attend to their infrastructure.

The declarations given by the two coalition governments in power during the time period of the study thus seemed to emphasise on one hand that the country’s whole educational system needed to aim towards being at the forefront internationally and on the other hand that education could serve as an effective means to rebuild the country after the financial collapse in October 2008. The emphasis on science and research is highlighted by both governments. Investment in research and the educational system is seen as an important means and driving force of economic growth.

4.2.2.2 Higher Education Institution Act 2006

It has been noted earlier that the governmental documentation analysed was limited to law, regulations and other relevant documents which were in effect at the period when the study was conducted.

It was considered appropriate to begin by analysing the 2006 Act of Law on higher education institutions (Higher Education Institution Act no. 63/2006 (Draft Translation), 2006) which was the first Act since the 1997 Act, reported in section 4.1.

Article 2 in the Act defines a higher education institution:

A Higher Education Institution is an independent educational institution which conducts teaching, research, preservation
and search for knowledge, and creativity in the fields of science, education, technology or arts.

The same article explains the role and operations of higher education institutions, wherein their contribution to knowledge creation and participation in education and the international science community is emphasised:

The role of Higher education institutions is contributing to the creation and dissemination of knowledge and skills to students as well as to society in general. The Higher Education Institution shall aim at strengthening the infrastructure of Icelandic society and its position in an international context. Higher Education Institution is a centre of knowledge and a part of international education and science community.

Higher institutions’ educational role is also addressed in the article and it stipulates their role of providing their students with teaching in scientific methods as well as preparing them for professional skills:

Higher education institutions educate students through teaching and participation in scientific research to prepare them for jobs that require scientific methods, knowledge and skills. Education provided by Higher Education Institutions take into account the needs of society and can have an academic, as well as a vocational focus.

The same article stipulates the autonomy of higher education institutions as well as the personnel’s academic freedom:

Higher Education Institutions are autonomous regarding their activities apart from provisions stipulated in laws and regulations or other public decisions based thereon. Higher Education Institutions shall establish an ethical code, incl. codes on academic independence of its personnel.

In the 2006 Act “quality” is almost entirely put into context with quality assurance procedures in higher education institutions, be it teaching, research or other operations. This is in line with explanatory memorandum which accompanied the bill in the Parliament. The main purpose, as
explained, was to establish a general framework for the operations of universities which would take into account the rapid developments of higher education in the country and abroad. But in addition it was noted that this new act addressed the important aspect of increased emphasis on quality control of higher education degrees and coordination in order to ensure students’ opportunity for mobility between universities within Iceland as well as internationally (Frumvarp til laga um háskóla - Þskj. 654 — 433. mál., 2006).

Article 3 describes what requirements higher education institutions need to fulfil in order to qualify “in accordance with internationally accepted criteria”. The requirements concern: The role and objectives of higher education institutions; their administration and organisation; organisation of teaching and research; qualification requirements of the personnel; student rights and duties and admission requirements; working conditions and support structures for students and teachers, including support for handicapped students; internal quality system; study descriptions in terms of learning outcomes; finances (Higher Education Institution Act no. 63/2006 (Draft Translation), 2006).

Article 11 describes the objectives of quality control of teaching and research in higher education institutions. The objectives are listed as being the following:

a. To ensure that the requirements for accreditation of Higher Education Institutions are met.

b. To ensure that the qualification framework for higher education and degrees is fulfilled.

c. To improve the quality of teaching and research in an efficient way.

d. To encourage increased responsibility of Higher Education Institutions for their own activities.

e. To ensure the competitiveness of Higher Education Institutions at international level.

The same article says that quality control of teaching and research both involves internal and regular external evaluation which are carried out
according to rules laid down by the Minister of Education, Science and Culture.

Article 12 explains the quality control procedures regarding teaching and research which higher education institutions are obliged to carry out in order to ensure that they meet the quality criteria set, part of which are internal evaluation procedures with active participation of staff and students where appropriate:

Higher Education Institution carries out systematic quality control of teaching and research on the basis of an internal evaluation. The internal evaluation of Higher Education Institutions and its individual units shall be carried out regularly and deal with policy and objectives, study content, teaching, teaching methods, assessment, research, research effectiveness, working conditions, administration and external relations. Active participation of staff and students, in the internal quality control process of Higher Education Institutions shall be ensured as appropriate. Higher Education Institutions shall publish information pertaining to their internal quality management (Higher Education Institution Act no. 63/2006 (Draft Translation), 2006).

Article 13 and 14 describe the external evaluation procedures that all higher education institutions are obliged to undertake. It explains that the Minister of Education, Science and Culture determines when an external evaluation is carried out and sets “the agenda for such evaluation for three years”. It is also noted that the Minister “may decide to conduct a special evaluation of a Higher Education Institution or its specific units upon the Minister’s discretion” and can involve one particular institution, or “individual fields of study or science, faculties, study programmes or other specified elements of a Higher education institutions operation”, but also external evaluation of “several institutions simultaneously”. It is noted that evaluation reports, produced on the basis of the law, are to be published “together with a statement regarding how the respective university intends to react to the evaluation results”. Lastly, it is noted that the “Implementation of an external evaluation shall be assigned to an independent agent. The evaluation process shall involve both domestic and foreign experts, as well as a student representative” (Higher Education Institution Act no. 63/2006 (Draft Translation), 2006).
Articles 21, 22 and 23 in the act all address how financial matters in higher education institutions are arranged, and in article 21 it says that the Minister has the authority to make 3-5 years agreements which decide the financial contribution for teaching and research in the institutions which have been accredited by the Ministry. It also says that these agreements are a prerequisite for financial contribution. The agreement has to specify:


b. A definition of the kind of teaching and research which is paid for by the state.

c. Main operational emphases of the Higher Education Institution and the common objectives of the agreeing parties.

d. Financial contribution and payments from the state for studies defined as continuing education and lifelong learning (Higher Education Institution Act no. 63/2006 (Draft Translation), 2006).

Article 22 describes what is stipulated in the rules laid down by the Minister of Education, Science and Culture, regarding financial contribution to Higher education institutions. These include:

... the studies and research covered by the financial contribution, relevance of subjects, scope of research and other elements which serve as frame of reference for the financial contribution.

It is also noted in the article that all provisions that regard authorisation to collect fees in public higher education institutions that are “under the auspices of the Ministry of Education, Science and Culture” are to be “stipulated in special laws concerning each institution”.

Lastly, in article 23, it is further stipulated how higher education institutions receiving financial contribution from the state treasury must report its financial status and the principal features of their operations where it says that they:
... shall hold an open annual meeting where the Higher Education Institution finances and the main aspects of its operational plan are presented (Higher Education Institution Act no. 63/2006 (Draft Translation), 2006).

4.2.2.3 Act on Public Higher Education Institutions 2008

In 2008, a new legislation on public higher education institutions was adopted and entered into effect in June 2008 (Act on Public Higher Education Institutions no. 85/2008 (Draft Translation), 2008).

Just like the explanatory note that accompanied the 2006 act, the note accompanying this act explained the aims of the law on public universities. In the introductory text it was explained that the committee appointed to prepare the bill had been asked to take note of the developments that had taken place in recent years in an environment of public universities in comparison with developments in other OECD countries. Further it was asked that the proposed text should empower the public universities and their programmes and ensure certain harmony in the basis for their operations. (Frumvarp til laga um opinbera háskóla 2008 - Þskj. 847 — 546. mál., 2008).

The law specifies, in article 5, what features of the operation of the universities are supposed to be harmonized wherein it is stipulated that the administration of universities is in the hands of the University Council and the Rector. The role of the University Council in policy matters as well as its monitoring role is then further specified:

The University Council shall define the general policy on teaching and research and formulate the university’s organisational structure. The University Council shall carry out general monitoring of all the university’s activities, of individual schools and university institutions and is responsible for ensuring that the university operates according to law and official edicts.

In addition, the University Council is responsible for cooperative agreements that are made between the university and other institutions and companies, as well as for managing funds and all property that belong to the university (article 5). The role and authority of the University Council is further stipulated in the specific regulations for the institution (Reglur fyrir Háskóla Íslands, 2009, 16. júni) wherein it is stipulated that the Council
can, if it wishes, have an external evaluation carried out, and that this authority applies to the operations of individual schools, faculties or other units of the institution if the council considers such an evaluation needed (Reglur fyrir Háskóla Íslands, para 24).

In article 12 in the 2006 general act, teaching, and teaching methods are addressed in the context of quality control. In the 2008 act on public universities (article 20) this control is further stipulated:

... Universities shall set general rules regarding teaching and teaching methods, which the University Council shall confirm ("Act on Public Higher Education Institutions (Draft Translation Revised December 2008), 85/2008; Lög um opinbera háskóla, 85/2008).

Article 18 addresses student enrolment to universities. It stipulates that students must have completed matriculation examination from upper secondary school or equivalent examination to be allowed to enter study programmes which lead to a first cycle university degree. However, universities may admit students who do not qualify according to this rule if they possess the experience, knowledge and skills that are equivalent to the university’s preparation requirements for studies at higher education level. These exceptions are managed by the Council, and in the article the issues to which they apply are further specified, according to the university’s recommendations as relevant:

a. specific requirements in addition to matriculation examination for particular undergraduate study programmes in the first cycle,

b. admission requirements for particular graduate study programmes in the second cycle,

c. entrance examinations or assessments examinations used in particular study programmes,

d. assessment of the experience, knowledge and skills of students who have not completed formal education at upper secondary level (Lög um opinbera háskóla nr. 85/2008).

The same article stipulates that the number of students admitted into individual study programmes can be limited, but such rules need to be presented for each academic year. In such rules the university’s requirements for providing instruction in the relevant study programme shall be taken into account. The University Council is authorized to set rules
that limit the number of students admitted into individual study programmes, whenever conditions prevent the admission of all applicants (Lög um opinbera háskóla nr. 85/2008).

Financial matters are addressed in article 24 in the act of law on public universities. The article says that an independent budget is allocated from the state budget. The financial contribution is proposed by the Minister of Education, Science and Culture. The budget allocated is based on a model of seven budget-categories, providing different funding for full-time student equivalents for each of the seven categories. The lowest level is provided for humanities and social sciences, riding in ascending order progressively through science and engineering to medicine and dentistry (Greinargerð fjárlagafrumvarps 2012, kafli 3 - Mennta- og Menningarmálaráðuneyti, 2012).

In the 2008 Act on public universities the very concept “quality” is only used twice, that is, in the context of describing the criteria used to evaluate students’ former studies, saying that it needs to be assured that “the studies fulfil comparable quality and educational requirements that are made on the basis of this Act and the Higher Education Act” (article 21), and in the context of the Deans’ responsibilities within the universities, saying that the Dean is “responsible for the school finances and quality requirements towards the Rector and University Council” (Act on Public Higher Education Institutions no. 85/2008 (Draft Translation), 2008, para 12).

4.2.2.4 Accreditation of higher education institutions

On the basis of the 2006 Higher Education Act, the Ministry of Education, Science and Culture issued a regulation regarding accreditation of higher education institutions, which states that a higher education institution (HEI) must comply with the law on Higher Education Institutions according to regulation No. 63/2006 and any provisions therein in order to receive full accreditation. (Accreditation of Higher Education Institutions according to Article 3 of Higher Education Act, No. 63/2006, No. 1067/2006 (Draft Translation), 2006, December 7th ).

In article 1, it is noted that “accreditation of higher education institutions is carried out according to an international standard and is set in place to guarantee that Icelandic Higher education institutions fulfil all the necessary standards of quality assurance and can withstand international comparison”.

Thus the demand of international comparison is very explicit. In some sense this is a part of the Icelandic university tradition because of the high
number of students that have through the 20th century gone abroad, either for their total university studies, but increasingly for a substantial latter part of their studies.

Article 2 then describes what should be included in universities’ application for accreditation. To give examples of the list of issues addressed, the article says that the application has to include detailed information of the role of the higher education institution and that “any aims and objectives that it intends to fulfil must be clearly set out”. It also says that teaching and research must be “conducted in a manner that closely follows the objectives of the law on HEIs”.

The same article refers to ethical issues in stating that “the HEI shall implement an appropriate protocol for all issues (i.e. academic independence of staff) in accordance with the law on HEIs”.

Article 2 also addresses student related issues, such as the requirements for entrance to a university and the rights and obligations of students, the standards needed in services and facilities in order to fulfil role and objectives, and it states that an outline of the learning outcomes of students at the completion of study, in a particular field of study or subdivision therein needs to be published in accordance to “the national qualification framework of Iceland”. It further states that higher education institutions that apply for accreditation need to describe the internal quality systems they use and that these have to be in accordance with the law on higher education institutions. Lastly, the article stipulates the financial responsibilities of higher education institutions, that is, stating that in applying for accreditation the higher education institution:

\[\ldots\text{shall outline the financial conditions of operation whether they are according to part VIII of the law on HEIs, state funded according to other laws or privately funded. HEI finances must be arranged in a manner that guarantees the fulfilment of all financial obligations and commitments toward students, members of staff, affiliates, corporations and the state (Accreditation of Higher Education Institutions according to Article 3 of Higher Education Act, No. 63/2006, No. 1067/2006 (Draft Translation), 2006, December 7th).}\]

In article 3 it is stipulated that a committee of three independent specialists shall “provide a review of applications for accreditation of individual fields of study and named subdivisions thereof” and that in
addition to a review of results from assessment of the criteria listed in article 2 the committee is to assess the following:

a. Academic knowledge and competence if HEI with the relevant field of study and subdivisions thereof, pertaining to the quality of teaching and research, academic facilities, dissemination of knowledge and connection to community.

b. The support structure of the HEI for; the academic community, teachers and experts in the relevant field of study and the education and training of students.

c. Special attention shall be paid to the strengths of the fields of study and the subdivisions thereof, with reference to course plans, particularly in relevance to links undergraduate and graduate studies and towards other appropriate fields of study.

d. Academic standard of the field of study and subdivision thereof, in national and international context. Regard shall be taken of i.e., national and international cooperation between HEI and intuitions (Accreditation of Higher Education Institutions according to Article 3 of Higher Education Act, No. 63/2006, No. 1067/2006 (Draft Translation), 2006, December 7th).

In the regulation it is noted that the review of the specialist committee “shall be based on detailed and substantive grounds”. Furthermore, it is explained that if the specialist committee does not recommend accreditation, it should “stipulate the criteria of art. 2 not met ... or point out improvements in order to attain accreditation in a field of study and subdivisions thereof”. Having received such review, the Minister of Education, Science and Culture grants the higher education institution in question specific time for amendments, which are then reviewed “by the relevant specialist committee and they shall report their results to the Minister of Education, Science and Culture. The HEI shall be informed of the results of the application” (Accreditation of Higher Education Institutions according to Article 3 of Higher Education Act, No. 63/2006, No. 1067/2006 (Draft Translation), 2006, December 7th).
4.2.2.5 Policy statement for public universities 2010

In 2010, a policy statement for public universities was published. As noted in the introductory text, the policy statement built on the results of a work conducted by a panel formed at, as a part of: “the establishment of a national task force to think about the future of Iceland’s education, research and innovation policy”. The role of the panel was “to take an „outside – inside’ perspective, and to help Iceland to move forward” (Taxell et al., 2009). The strategy set, according to this declaration was “to safeguard the activities of public universities by establishing partnerships with their potential integration in mind”. This had a threefold aim: First, to promote higher education, research and innovation to support the future development of Icelandic society; second, to optimize the operation of the University so that funds can be used as efficiently as possible; and lastly, to maintain a robust and diverse higher education operation across the country.

Participants in the partnership network would be the University of Iceland, the University of Akureyri, Agricultural University of Iceland and Hólaskóli – University College, under the leadership of the University of Iceland. The main objective was to harmonize, for the sake of efficiency and cost, all administrative functions that could be common to all the institutions, and the quality rules should also be harmonised.

If summarised, the analysis of documentation showed that the two coalition governments in power during the time period of the study emphasised that the country’s whole educational system needed to aim towards being at the forefront internationally. The emphasis on science and research was highlighted, and investment in research and the educational system was seen as an important means and driving force of economic growth. The analysis of legislation documentation revealed that higher education institutions are viewed as playing an important role as contributors to knowledge creation and participation in education and the international science community. Their autonomy is stressed in the legislation as well as the personnel’s academic freedom. However, increased emphasis on quality control of higher education degrees is stipulated as well as coordination in order to ensure students’ opportunity for mobility between universities within Iceland as well as internationally. The requirements higher education institutions need to fulfil in order to qualify in accordance with internationally accepted criteria concern among other: the role and objectives of Higher education institutions; their
administration and organisation; organisation of teaching and research; qualification requirements of the personnel; student rights and duties and admission requirements; working conditions and support structures for students and teachers, including support for handicapped students; internal quality system; study descriptions in terms of learning outcomes and finances. The law also requires higher education institutions to arrange for internal evaluation, but the Ministry of Education, Science and Culture sets the agenda for external evaluations. Regulations for the University of Iceland stipulate that the University Council can, if it wishes, have an external evaluation carried out, and that this authority applies to the operations of individual schools, faculties or other units of the institution if the council considers such an evaluation needed. Iceland is a participant in the Bologna Process which means that higher education institutions in Iceland are accredited based on regulation regarding accreditation granted to universities according to criteria set to meet the Bologna standards. Such accreditation includes fulfilling all the necessary standards of quality assurance, and withstand international comparison. Lastly, according to a policy statement for public universities, published in 2010, emphasis is laid on safeguarding the activities of public universities by establishing partnerships with their potential integration in mind. This is said to have the main purpose of promoting higher education, research and innovation as a means to support the future development of Icelandic society; to optimize the operation of the University in order to promote effective use of funds and thirdly, to maintain a robust and diverse higher education operation across the country.
5 The meso level: The University of Iceland

In Chapter 4 we provided insight into governmental policy for higher education in Iceland and the legislation framework within which the case selected for the study, the University of Iceland, works in setting its policy.

The following sections report an exploration into the characteristics of the policy set for the operations of the University of Iceland, and in particular how quality related issues are addressed, at the institutional as well as the faculty or departmental levels.

The following questions guided this exploration:

- How are terms and phrases which refer to the quality concept and quality assurance explicitly used in policy papers at institutional as well as faculty level?
- How do the primary goals in research, teaching and administration reflect the quality requirements set in institutional policy?

In order to provide insight into the history and traditions that have shaped the institution under study, we will begin by giving a brief historical overview of the University of Iceland, followed by information about the methods used to explore the documents. Finally, the results from the review of various documents are reported.

5.1 Historical overview

The University of Iceland was established in 1911 which makes it the oldest university institution in Iceland. As has been reported earlier, this was done through the merger of three professional schools, the schools of theology, law and medicine, with an addition of a new faculty of philosophy. In the nineteen thirties the number of students in these faculties had grown gradually which raised a concern about the risk of too many people being qualified for public office. At the beginning of the nineteen forties ideas of establishing programmes which would be useful for the countries’ main economic sector like fisheries, agriculture and industry were proposed resulting in the faculty of industries being established. In 1943 the first students graduated from a two year preparatory study programme in engineering. This was during World War II which made it impossible for these students to pursue their engineering studies in Copenhagen as
Denmark was still occupied by Germany. For that reason it was agreed in 1943 by the ministry of education that the University would be granted permission to offer full study programmes in engineering from which the first students graduated in 1946. Business studies were also introduced in this same decade as well as odontology. The number of students grew rapidly, but in the fifties this growth markedly slowed down (Guðmundur Hálfdanarson et al., 2011, pp. 782-783; Guðni Jónsson, 1961, pp. 154-156).

Various changes occurred in the educational system in the next decades after the Second World War, the biggest one being at the secondary school level. The number of secondary schools grew enormously in the sixties and several new schools were established in the seventies offering vocational study programmes. The expansion at the secondary school system affected the university level in various ways. Not least the growth called for reorganisation with regard to the number of study programmes offered by the University. In the seventies numerous study programmes were added to the existing ones, such as in sociology, political science and anthropology, which along with psychology, pedagogies and library sciences, some of which having before been part of the Faculty of Arts, formed a new faculty, the Faculty of Social Sciences. Nursing, which had been a vocational programme at non-university level, was incorporated into the University and soon a physiotherapy programme was established. The Faculty of Engineering also was changed and became the Faculty of Engineering and Science, including study programmes, such as mathematics, physics, chemistry, geology, and biology. In the last decade of the twentieth century several changes were made in the administrational environment of the University. Since its establishment it had been under strong control of governmental authorities but in the 1990s this tie was gradually loosened through various legislation most of which increased the autonomy of the University but at the same time requiring that it would take greater responsibility for its own activities. To give examples of changes of this nature the university could itself now appoint staff without any interference from the state. Also, in the years following 1990, the state gradually moved away from the practice of allocating funds, based on the University’s itemised individual expenditures. Thus, instead of allocating funds to the University on a yearly basis through legislations, the state now negotiates budget allocation, depending on the performance of the University. Examples of criteria used to determine the budget are “the number of credits completed, the number of graduates, [and] the research output of university teachers and other academic staff”. In addition, the University has used revenues from other sources to fund its operations,
such as the University Lottery which has for many decades played an important part in the covering of building and equipment costs. It has also obtained various grants both from local sources and coming from abroad (Guðmundur Hálfdanarson et al., 2011, p. 785).

In 2008 a major change was made in the operation of the University. The University and the Iceland University of Education, which had been operating at a university level since 1973, merged together and at the same time the University’s main organisational structure was changed. It was now divided into five schools, the School of Education, the School of Engineering and Natural Sciences, the School of Health Science, the School of Humanities and the School of Social Sciences (see Figure 12).

Figure 12 The organisational structure of the University of Iceland (University of Iceland, 2013).

The central administration operates in six divisions (see Figure 13). Since the study was conducted only minor changes have been made according to an overview provided on the webpage of the University. An Office of International Education has been added as one of the operations of the
Division of Academic Affairs, and the name of the Division of Science and Research has been changed to Division of Science and Innovation, but without changes being made to the information provided about the divisions operations.

The central administration protects the overall interests of the university and attends to the university’s collective concerns and communication with the authorities, on behalf of the Rector. The central administration is split into the following divisions:

- **Division of Academic Affairs** - main responsibilities are issues related to teaching, the course catalogue, administration of examinations, student counselling, equal rights issues, Teaching Centre, evaluation of previous studies, records management, regulations and legislation.

- **Division of Finance** - main responsibilities are financial control, budgets, accounting, salaries, procurement and scholarship funds.

- **Division of Human Resources** - main responsibilities are execution of the human resource policy, employment conditions, job advertisements and recruitment, advice for managers, employees’ rights and obligations, in service education, training and development and publication of operating procedures.

- **Division of Marketing and Public Relations** - main responsibilities are promotional material, the university website, public relations, organisation of events, scholarship funds, relations with the professional sector and alumni.

- **Division of Operations and Resources** - main responsibilities are new buildings, modifications and maintenance of buildings, management of grounds, purchasing and maintenance of furnishings, security, supervision of buildings and cleaning, tenancy agreements and insurance.

- **Division of Science and Innovation** - main responsibilities are issues related to science and research, research based funds, research assessment, matters concerning evaluation committees, basic assessment, recruitment of new employees and academic promotion, productivity evaluation, sabbaticals, list of publications.

The central administration also includes the Graduate School and Internal review in addition to service institutions and other university service units.

![Figure 13 The central administration of the University of Iceland](University of Iceland, 2013).

The university continues to expand its list of programmes, particularly at the master’s level. Also, changes have been made in the organisation of the programmes in line with the Bologna process so that the programmes are normally organized as three year bachelor programmes followed by two year master programmes and after that a three years doctoral studies programme.
Research-related graduate studies have been the programmes growing the fastest. To give an idea of the increase in graduate studies, there were 550 students enrolled in masters and doctoral studies in 2000 but in 2011 the numbers had risen to four thousand. The number of students studying at the University of Iceland in 2011 was approximately 14 thousand, study programmes offered were around five hundred in 90 fields, and courses offered were more than four thousand.

All teachers having permanent position at the University of Iceland are required to dedicate around 40% of their working hours doing research. The University has adopted an organised system to assess the research related work implemented by teachers. The criteria used in this assessment are translated into financial remuneration as well as promotion possibility. It has been pointed out that this may have “contributed to the substantial increase in research activities, since it alleviated the need for academic staff to supplement their income through part-time employment outside the University, but it is likely that a general change of perspective in the academic community played a role as well” (Guðmundur Hálfdanarson et al., 2011, p. 787).

5.2 Institutional policy

The overview given above has provided insight into the development of the operations of the University of Iceland during its over a hundred year history, as well as describing the structure and administrative environment within which the University staff works. Here it is recalled that the purpose of investigating documentation at the institutional level was to gather information that would show the context within which the aspects found in the empirical data at the micro level originate. As before the focus was set on the period 2006-2011. This meant exploring the characteristics of the institutional policy set for this period, and in particular how quality related issues were addressed in institutional policy, as well as in the policy at faculty level.

In the following sections the methods adopted for exploring the institutional dimension are explained.

5.2.1 Document analytic methods

The review of the institutional documentation had the main purpose to describe the framework at the meso level within which the actors concerned, that is, the teachers and administrators who participated in the study work. For that reason these data, just like the governmental
documentation, were considered to play more of a supplementary or complementary role in the study and as such did not call for very sophisticated analytical methods (Peräkylän & Ruusuvuori, 2011, p. 530). The approach used in analysing the documents was similar to the one used in reviewing the governmental documentation which sought, through informal review, to discern how the specific issues addressed in the policy documentation were phrased, structured and organized (Rapley, 2007, p. 124). How these guided the operations of the institution was the underlying point of focus, and in particular the review of papers aimed at revealing the use of the concept “quality” or its substitutes in the text. Thus, it was endeavoured to ascertain how common its use was, what could be assumed about the definition of quality, according to the content, and within which context the concept was used.

The documents selected for that purpose were all policy related papers. These were the official policy document published by the institution for the time-period 2006-2011, official policy papers published by faculties within which the interviewees worked in same time-period, and lastly documents and web material which focused in particular on quality related matters (See Appendix C for a list of institutional documents analysed).

In the following sections the results from the analysis of this documentation will be reported.

5.2.2 Analysis of institutional documentation

First, it was considered appropriate to explore the policy set for the institution as a whole.

5.2.2.1 Institutional policy

The official Policy of the University of Iceland 2006-2011 was confirmed by the University Council in May 2006. A step in analysing the policy document was to look for all explicit uses of the term “quality” or phrases and words which were considered to refer to the quality concept. These were terms like “excellence”, “outstanding”, “first-class”, “first rank”, “best” etc.

The first reference to the “quality” concept appears in the rector’s address where it says:

The prosperity of nations in the 21st century is contingent upon how rapidly and effectively they generate new knowledge and innovative scholarly thinking. For this reason, university education and scholarly activity in Iceland must
meet the highest international standards of excellence (Policy of the University of Iceland 2006 - 2011 (English translation), 2006, p. 1).

Later in the rector’s address, it is stated that the University wishes to “reach an agreement with the nation, to reach higher and farther”. It was noted that almost every member of the University staff had contributed to the policy making as well as representatives coming from the student body. It was also pointed out that numerous other parties had been consulted, such as political leaders and leaders coming from the business arena and the arts as well as the international academic community. The conclusion was stated as “unanimous”:

… that the University has the ability and resources to become a leading research university that offers first-rate undergraduate and postgraduate education (p. 1).

The section labelled “The University’s contract” explained that the evaluation of the performance of the University, its quality, efficiency and funding, involved using eight selected universities abroad as a reference frame. The aim, as described was the following:

… that the University’s work be always of the highest quality, that its finances be secure, but that emphasis always be placed upon operational efficiency.’ … We wish to offer students first-class education, and to ensure that the ratio of tenured faculty to students be similar to that at the reference universities (p. 3).

A section titled, “Future vision” sets the quality standard where it was stated that:

In order to best serve the Icelandic society the University of Iceland has set itself the long-term goal to become one of the 100 best universities in the world (p. 3).

The quality standard was also set for teachers and students in stating that, “at the University of Iceland students receive an outstanding higher education … faculty members at the University … attract outstanding students from Iceland and abroad” (p. 3-4).
Collaborative work in research and education with universities and university faculties “in the first rank in the world” was also part of the university’s future vision (p. 4).

Another explicit reference to the quality concept was in describing that “In its quest for excellence” the University took as its frame of reference certain listed universities in Europe and USA. It was explained that these were on the one hand universities which were used to compare the University to, in the audit of the Government’s Audit Department conducted in 2004, and on the other hand universities which were “ranked among the 100 best in the world”. The universities which formed this framework were listed as being:

- The University of Copenhagen (Denmark)
- The University of Helsinki (Finland)
- The University of Lund (Sweden)
- The University of Uppsala (Sweden)
- The University of Tromsø (Norway)
- The University of Bergen (Norway)
- The University of Aberdeen (Scotland)
- Boston University (USA) (p. 4).

In setting forth what was referred to as “core values” it was stated that the University recognized that:

... diversity and excellence go hand-in-hand. The emphasis on comprehensive research and studies in all the principal fields of scholarship is therefore entirely compatible with the aim of excelling in certain fields (p. 5).

The concept “outstanding” was used in all the three principal objectives stated in the policy, that is, outstanding research, outstanding education and outstanding administration and support services.

In explaining the principal objective referring to outstanding research it was stated that:

The University of Iceland intends to promote high-quality research which meets the strictest international criteria, in diverse fields of scholarship and science (p. 6).
It also was explained that included in the functions of a Postgraduate Study Centre, which would start operating by the year 2006, would be the monitoring of “quality of doctoral programmes” (p. 7).

In addition to the international criteria, “outstanding” research also required increased research activity which would be achieved by increasing the number of papers published in peer-reviewed international journals.

The quality concept was also linked to a statement saying that the University would set the aim to increase collaboration with higher education institutes and research bodies in Iceland “in order to foster outstanding achievement by Icelandic scholars in certain fields” (p. 9).

The objective “outstanding education” was introduced by referring to “world-class education” and stating the following:

The University of Iceland serves society, and its requirement for world-class education, by providing its students with outstanding learning and teaching environment, closely connected with the University’s research activity (p. 9).

Concepts referring to the quality aspect were explicitly used in several contexts when describing what was embodied in “outstanding education”. For example it was stated that to achieve its aim to offer “world-class” education, the University required “outstanding faculty” which would attract students from all over the world and “outstanding and promising academic staff” (p. 10).

It was also pointed out that “the University of Iceland sought to create excellent working environment” and that “the research facilities needed to be of the kind which would attract students to the University and “create the best working environment” (p. 10).

“Outstanding students” were seen as an important factor in the University’s quest for quality. This was manifested, among other things, in the University’s declared intention to offer grants to “outstanding students at the undergraduate and postgraduate level” and to “give special publicity to outstanding students” (p. 10).

The explicit emphasis on quality related teaching aspects was evident in various more contexts like when stating that “greater emphasis will be placed on teaching methods which promote quality of study, and take account of students’ needs and special status of disciplines” (p. 10).

Quality assurance systems were addressed explicitly in the very context of teaching in stating that support and “quality assurance systems for
teaching” were to be improved and evaluation system developed by 2008. This had, as it said, the purpose to “entail diverse methods of evaluating the quality of study and tuition”. In the same context it was announced that “By 2009, a new work-assessment system for teaching would be introduced with the aim of promoting excellence in new and innovative teaching methods”. Teaching surveys would be revised by 2007 and that in order to “enhance quality of teaching” participation of students in teaching surveys were to be increased to at least 80% (p. 11).

There were several explicit references to the quality concept in the principal objective labelled “outstanding administration and support services”. Most of them related to procedures that were seen as serving the purpose of strengthening quality assurance in order to improve the University’s operations. For example the University had the intention to “provide strong support for research and teaching through an efficient administrative infrastructure, and an effective quality assurance system”. It was announced that the University was going to make systematic efforts:

... to nurture quality culture at the University. A University Council Quality Committee is to be appointed by 1 July 2006. Its role will be, inter alia, to develop the University’s quality-assurance system, taking account of international standards and policies, e.g. in the forum of the EUA and in connection with the Bologna process (p. 13).

Both internal and external quality evaluations would be carried out on a regular basis, focusing on individual faculties as well as the institution as a whole and that “such quality evaluation is always to be done by a professional body or autonomous evaluation agency which applies recognised international standards” (p. 13). Towards the end of the document it was declared that:

The University of Iceland will encourage higher education institutes in Iceland to establish a common forum for development and promotion of matters of quality in higher education. A proposal is to be submitted to the Higher Education Collaborative Committee in the autumn of 2007 (p. 13).

The analysis showed that emphasising research and strengthening international connections was seen as important criteria in the quest for being ranked among the hundred best universities in the world. This was
manifested among other things in describing that when ranking universities the most important factors were:

... the publication of research findings in international ISI journals, number of papers published in the journals Nature and Science, scientific prizes won by faculty and students, influence of scholars’ research findings, number of faculty members from abroad, and peer-reviews of respected scholars (p. 5).

Several additional issues were presented in the policy paper as important quality criteria on the path of working towards becoming one of the 100 best universities in the world, such as the strengthening of doctoral studies, part of which would be to increase to a considerable degree the number of the institution’s yearly PhD graduations, and the offering of facilities that would attract the best-qualified students and teachers. In this context, the policy stated the following:

With the aim of creating an exemplary study environment, increased emphasis will be placed upon improving classrooms, technical equipment, reading facilities, students’ social facilities, and access to on-line journals and databanks. ... Stricter criteria for appointment and promotion of faculty will be introduced: a doctorate will normally be a requirement. In appointment of staff, emphasis is to be placed upon ensuring the University the latest knowledge in each academic field (p.10).

The organisation of academic duties of the staff was also addressed in this context wherein increased flexibility was introduced:

Individual flexibility [is] to be increased in the proportionate composition of duties of academic staff between research, teaching and administration, and reviewed regularly in order to make the best use of the University’s human resources. ... From the autumn of 2006, new faculty members will be required to attend courses on teaching methods and techniques held by the University’s Teaching Centre (p.11).

Finally in this context, the institution would set the objective to raise the ratio of faculty to students from 1:21 to 1:17 by 2011 (p.10).
As reported in the methods section, material addressing quality assurance issues in particular were also reviewed for the purpose of the study.

In a report published on the institution’s web, accessed for the purpose of the study in February 2008, the formal quality system adopted by the University of Iceland was introduced and described. On the webpage the purpose and aims of the quality system was explained, the strands of the operation quality would address and what would be the important criteria in each category.

First, it was noted that the quality system for the university had been designed to meet the expectations of good students, staff, Icelandic society and the international scientific community, and that it aimed to ensure the quality of the organisation and to promote improvements.

It was noted that the system had the aim to meet the requirements set in the contracts made with the government on teaching and research, but alongside that the policy set by the Association of European University Association (EUA) would also be taken into account as much as possible, especially in setting goals and specifying learning outcomes.

The quality management system had the aim to encourage innovation, improved performance and increased autonomy of academic staff, as well as teamwork within which planning, practices), monitoring and feedback would form a process of continuous improvement.

Lastly, it was noted that the quality management system would cover the following categories: General matters, teaching, research, students, departments which organise teaching and research, as well as joint governance (Háskóli Íslands, 2008).

5.2.2.2 Faculty policy

The faculty policy documents were analysed using the same approach as when reviewing institutional policy documentation. These were policy documents of three faculties, that is, those from which the sample for individual interviews had come. Earlier it was noted that the administrative structure of the university was changed in 2008, which also changed the administrative status of the academic units being investigated. The Faculty of Social Science became the School of Social Science and the departments of Political Science became the Faculty of Political Science and the department of Social Work the Faculty of Social Work. The Faculty of Medicine was subsumed under the School of Health Sciences and the
Faculty of Science was subsumed under the School of Engineering and Natural Sciences and split into three faculties, one of which was the Faculty of Earth Science, wherein Geology is one of the academic units. The references to units are as they were prior to the changes 2008.

Before reporting the findings from the analysis of policy papers from each faculty, it should be noted that the policy papers had a similar structure for all faculties, starting with the dean’s address, following a brief description of the faculty. The faculty’s values and vision were then explained and following that the objectives for research, teaching and administration were presented as well as giving a brief report of intended implementation and follow-up of the policy. It also should be noted that each faculty provided us with a translation of the policy paper in English, and in the translations, different terms were sometimes used for the same phenomenon. Thus, the term “strategic plan” was used in the title of the document coming from the Faculty of Science whereas the Faculty of Social Sciences and the Faculty of Medicine used the term “policy”. Likewise The Faculty of Science used the term “teaching” whereas the term “tuition” was used in the other two. In the reporting of the findings, the terms used in the documents will be used where relevant, for example when quoting text in the documents.

5.2.2.2.1 Faculty of Social Sciences – Policy 2006-2011

Quality and terms describing quality were explicitly used in several contexts in the policy set for the Faculty of Social Sciences.

In the dean’s address the purpose of the policy of the Faculty of Social Sciences was described in stating that the policy was intended to:

... help to bring Icelandic research and tuition in the social sciences into the front rank internationally, thereby enhancing the Faculty’s ability to fulfil its obligations to Icelandic society at the beginning of the 21st century (Faculty of Social Sciences Policy 2006-2011, 2006, p. 2).

The degrees from the faculty were described as having “proved a good preparation for postgraduate studies at many of the best universities in the world” and the teaching staff was described as “outstanding”, 95% of them holding PhDs from the most “prestigious universities in the world” and “highly productive in research” (p. 4).
The vision for the faculty was described in terms of the destination to be reached in 2011 in the faculty’s operations. Explicit use of terms referring to quality seemed mostly to be linked to quality standards set, such as in informing that in 2011 a “reasonable system will be in place for assessing the quality of teaching” and that the “number of students per tenured tutor will be consistent with international quality guidelines” (p. 6).

The core values of the faculty are described by referring more to the institution than the faculty itself. Examples of values listed are that the “University of Iceland is characterised by academic freedom” which “invariably adheres to the recognised principles of scientific ethics”. It is stressed that the “University is autonomous and responsible for using … funding in the service of society by providing efficient and effective research and tuition” as well as emphasising diversity, equality and democratic working practices in every area of its operations”. It also says that the “University of Iceland emphasizes the importance of honourable working practices in every area of its operations”, and that “Interaction is characterised by mutual respect and confidence” (p. 7).

In introducing the objectives and measures for 2006-2011 it was stated that the faculty set its objectives in tact with it’s ardour for:

... social sciences to take their place at the forefront of Icelandic scholarship and for research and tuition to be comparable to the best available overseas universities (p. 8).

In order for this to be accomplished the “rules of the game” needed to be comparable with other subjects within the academic community, which would call for:

... a major increase in support for the social sciences in the Icelandic and international research community, more funding for research in the social sciences and equal rights for social-sciences students in relation to other university students with regard to public funding for tuition, to enable the Faculty to modernise and take its place in the academic front rank (p. 8).

Here a reference is made to the funding formula from the state which stipulated that much of the social sciences and the humanities only obtained about 60% of the funding received by the many of the professional courses and the engineering and the natural sciences.
Three principal objectives were introduced in the policy, labelled “outstanding research”, “outstanding tuition” and “outstanding administration, support services and interaction”.

Accomplishing the aim of producing “top-quality research on Icelandic society” included strengthening doctoral studies; raising the quality of research and publication in international peer-reviewed journals, increasing emphasis on participating in conferences and collaboration with “top-ranking university faculties”, increasing applications to competitive funds for research and strengthening the research environment and facilities of Icelandic social sciences, “to enable them to take their place at the forefront of Icelandic scholarship”. This also involved strengthening the infrastructures e.g. by increasing access to on-line journals and databases, stimulating multidisciplinary research and strengthening the links made with research institutes. By extending the boundaries of the research arena the aim was to involve co-operation with the private sector and the regions. There was also the intention to facilitate “flexible retirement and utilise the energies of emeritus staff in research” (p. 8-12).

“Outstanding tuition” was described as an “indispensable aspect of any good university”. Teaching in the faculty was described as needing to be “closely linked to teaching staff’s research and based on a solid, scholarly grounding”. The aim of offering “outstanding tuition” was described as entailing the following: “Revolutionise teaching methods and bring them up to date” in order to “improve the quality of study and take account of students’ needs and the requirements of individual subject. The ambition was also to; “create an exemplary study environment for students”, by offering the “best available” reading facilities, classrooms and technical equipment for tuition; strengthening quality assurance and support systems for “studies and tuition” (p. 13-14).

In describing what strengthening of quality assurance involved it was stated that:

The Faculty is to play an active part in the development of a new work-assessment system for tuition, to be launched at the University before year-end 2008. The new system is to provide further incentives for good teaching practices and development projects, and to influence new appointments and staff promotions. ... The Faculty is to regularly assess its success in implementing objectives relating to teaching methods (p. 14).
Other issues listed, as part of creating outstanding tuition in the faculty, included: increased support offered to teaching staff; strengthening of work-related programmes through contracts with businesses and organisations; conducting regular reviews of the faculty’s study programmes and developing new ones; increasing the utilisation of information technology in studies as well as tuition, and lastly to strengthen education and public education in order to “meet the ever-increasing demand from professionals for continuing education” (p. 15).

Last of the three principal objectives was the one labelled as “outstanding administration, support services and interaction” wherein it was emphasised that an effective quality-assurance system, along with efficient and transparent administration and good support services were intended to serve as a means to provide “strong support for research and tuition” (p. 16).

The faculty set as its objectives, to “improve the Faculty’s administration and working environment” for example by increasing the number of staff and assistants in tuition and research as well as administrative staff; “work towards changes in the structure of the University of Iceland,” for example by actively participating in preparing structural changes, that is, the division into colleges and faculties; “strengthen quality-assurance systems and foster a quality-assurance culture within the Faculty of Social Sciences,” for example by appointing a quality-assurance committee for the faculty, by developing a quality-assurance system for the faculty which is “in line with international standards and goals, e.g. such as those of the EUA (European University Association) and Bologna Process” and by carrying out regular external quality evaluations as well as self-assessment both within faculty and individual departments; “strengthen the Faculty’s ties with the Icelandic business sector, educational and cultural institutions, government and University Friends’ Association, and participate actively in public debate,” for example by participating actively in debates on the education system, cultivate ties with alumni, make clear to the governmental authorities and other stakeholders the importance of tuition and research within the faculty, publish a summary in English of research within faculty every five years and increase collaborative projects with businesses and organisations; “coordinate and greatly augment the faculty’s marketing and outreach activities; enhance and standardize the websites of the faculty, departments and teaching staff to create a dynamic, standardized forum for announcements, interaction and dissemination of information” and lastly to “ensure that the finances of the Faculty of Social Sciences reflect its role, objectives and achievements” (p. 16-18).
Like in the Social Sciences faculty policy, terms referring to the concept “quality” were explicitly used in numerous contexts in the policy set for the Faculty of Medicine.

The dean’s address started with a brief historical account wherein it was emphasised that the faculty was one of the oldest in the University and had “striven from its foundation to be in the forefront of innovation in research and tuition”. It was also stated that “The Faculty assigns great importance to retaining the image it has had for nearly a century, and also to being one of the 200 best medical faculties in the world” (Faculty of Medicine Policy 2006-2011, 2006, p. 2).

The faculty’s vision the very term “quality” or its substitutes were not explicitly used, but more indirectly. Its vision in research, tuition, administration and interaction was described in terms of aims set for the future. These were aims such as the ones of ensuring that facilities for research were adequate and “making the research factor even more dominant in the work of all faculty members”. The future vision for tuition was set on “more varied teaching methods and study assessment” and for administration on being “administratively strong, ... more professional and more effective” (p.3).

A section titled “The Faculty of Medicine in a nutshell – role” the term “quality” was explicitly used in the context of teaching and research, saying that “The role of the Faculty of Medicine in tuition is ... to develop and maintain quality of tuition through international collaboration, coordination and performance evaluation” and its role in research was to “ensure the quality of research” (p. 4).

The values of the faculty were described in terms of what “we wish to seek to...” in particular fields of the faculty’s operations. Thus, in research the faculty wished to seek to “enhance quality and collaboration without encroaching on research freedom”; in tuition, it sought to “arouse students’ interest and ambition, while also being critical of study material in order to be conducive to its development” and in administration, it wished to seek for “processes to be transparent, in order to maintain confidence, as well as coordination and quality of management” (p. 6).

In introducing the faculty’s “objectives and methods 2006-2011”, four principal objectives were introduced, “outstanding research,” “outstanding tuition,” “outstanding administration” and “outstanding communication”.
In presenting the objectives for “outstanding research” the faculty said that it wanted to increase the faculty’s funding and improve research facilities to a major degree and in order to accomplish this objective the faculty would work towards moving related activities closer together, provide research facilities for all disciplines/subjects, offer all staff “the opportunity to pursue research, and publish their findings,” make better use of human resources by “increasing academic rankings by 100 in the University Hospital and healthcare sector;” increase the number of students in postgraduate studies as well as postdoctoral students and also the number of physicians in specialist training; Increase research collaboration internationally as well as applications to competitive funds, both in Iceland and abroad; “Ensure addition funding for overheads;” increase basic funding to research institutes and academic disciplines and lastly to grant newly-appointed academics 3 million ISK as initial research funding (p. 9).

In addressing the objectives of “outstanding tuition” the policy introduced that the faculty aimed to “meet the highest international standards for tuition, and to provide training which would be of the first rank internationally,” for example by using multifaceted selection system in admitting students, by advertising teaching posts internationally, use international criteria to evaluate tuition, have “well-defined curriculum” and “diverse and effective tuition”, have exemplary facilities, studying which is more independent, students with good communication skills, “use skills tests in medical training” and lastly “facilitate students entering postgraduate study” (p. 11).

Objectives set to achieve “outstanding administration,” entailed among other things, that the faculty wished to make the faculty’s administration more effective, “promote coordination and transparency, and reinforce the democratic base”. In order to achieve this the faculty set as its objectives that the Dean’s work would be measured (categorised) as a full-time position, that the faculty would receive “the funding due to it according to the Ministry of Education funding model with respect to tuition and research,” that costs of tuition and research at healthcare institutions would be made visible and comparable to neighbouring countries; “the office of the faculty is to be coordinated and organised into departments, with clear leadership” and the responsibilities of staff members clearly defined. The objectives set also said that matters which referred to the administration of the faculty “are to be handled in accord with a specified time-schedule, the aim being to achieve 90% performance” (p. 13). It also explicitly addressed quality in stated the following:
The Dean, in collaboration with the Faculty Council, will draw up definitions of work processes, carry out quality monitoring, and draw up time schedules. The Dean/Faculty Council will in due course make an assessment, and is to introduce continuous quality monitoring within two years (p. 13).

Lastly the objectives set for administration stated that support services, for staff as well as students would be strengthened and “Design of teaching material, promotional material etc. ... standardized” and “effective information channels” established, “so that minutes of meetings, announcements, news etc. are placed on the website within a week” (p. 13).

Numerous objectives were set in order to achieve the faculty’s principal objectives for communication, that is, the one “to strengthen both its international communication and its outreach and collaboration on tuition, research and services, and to increase the respect and confidence enjoyed by the Faculty”. These were objectives such as to “Promote further development and enhancement of collaboration between the Faculty of Medicine and research/service institutions;” “Be an influence in policy formation on health issues and health services;” “Develop a new policy on publicity for the Faculty;” make “performance in research and tuition ... comparable with universities in the Nordic countries;” produce standardized tuition survey for the faculty and aim towards getting “outstanding” judgement from students both for tuition and working methods (p. 14).

Lastly, it was stated that The Faculty of Medicine aimed to publicise itself through articles in the press, “increase its participation in work in the developing countries, in collaboration with businesses and agencies” as well as increasing the interaction between all three, students, faculty and administration (Faculty of Medicine Policy 2006-2011, 2006, p. 15).

5.2.2.2.3 Faculty of Science – Strategic Plan 2006-2011
Just like the other two policy documents, the policy presented for the Faculty of Science opened with the dean’s address following a brief description of the faculty, the faculty’s vision and values. The objectives for 2006 – 2011 were then presented following a description of their implementation and follow-up.

There were also similarities with regard to the use of the quality concept, that is, “quality” was commonly described in terms of how the operations of the faculty would be enhanced and/or increased. However,
the very term “quality” or its substitutes was explicitly used in several contexts.

The dean’s address emphasised the important role of the Faculty of Science for Icelandic society because of the constantly growing need in modern information-societies for people with good science education and the creation of new knowledge and technology. To fulfil that role it was introduced that the faculty:

... must be equipped to provide its students with the best possible education, and its research work must be comparable to the best in other countries (Faculty of Science - Strategic Plan 2006-2011, 2006, p. 1).

In describing the faculty, its role was described in saying that:

In research, the role ... is to take the lead in basic research in the field of the science in Iceland, and to be a national centre of research-based study and research facilities, in its fields of scholarship (p. 2-3).

In teaching, the faculty’s role was described as the one of training individuals “for diverse work in Icelandic society”, providing undergraduates with a “strong theoretical and practical knowledge base, independent methods and critical thinking” and thus lay “a foundation for postgraduate studies” (p. 3).

The role regarding external relations was, as described, to “disseminate knowledge and increase public interest in the sciences ... participate in and promote debate in the media on Nature and technology” and present its research “in the professional arena, both in Iceland and abroad” (p. 3).

The vision of the faculty was, like the policy of the other two faculties, introduced in terms of the destination reached at the end of the duration of the policy.

In research activity, the destination reached in 2011, was seen as being that the faculty would then be able to offer, “first-class facilities of research” offering “effective support system and greatly improved technical back-up”. In addition, the faculty and its institutes was seen as having reached the goal to enjoy more respect internationally and have become “a multinational research environment,” its research activity having risen and research funds in Iceland having been strengthened; the number of
technical staff was seen as having risen to a considerable degree and the faculty was seen as offering “vigorous research-based studies” for Icelandic students as well as students from abroad (p. 4).

In teaching, the destination reached in 2011 was the one of having increased the number of BS graduates considerably and improved good study programmes for undergraduates even further, by increasing choices, offering flexibility and improving teaching methods. In addition, the destination reached in 2011, would be that:

... The Faculty’s teaching work has been evaluated, and deemed to meet international standards. Links with universities abroad have been strengthened, and the number of faculty members and visiting lecturers from abroad has risen. The Faculty plays an active role in the education of science teachers for lower educational levels (p. 4).

In 2011 the administrators’ executive powers as well as internal administration was seen as having been strengthened, “with regard to both finances and accommodation” it would be more efficient in the “handling of independent income, more transparent, and access to information had been improved. The appointments process would be more efficient and modern, with a simpler evaluation-committee system” (p. 5).

In external relations, in 2011, the faculty would have increased its presentation of sciences to the public greatly, through lectures and meetings as well as through the Web. It would support and nurture the bonds with science teachers in upper secondary schools and provide them with assistance. The faculty would also have increased its interaction with educational institutions in Iceland, with universities abroad and with Icelandic governments, to keep all parties well informed about scientific issues (p. 5).

In the next section the faculty presented its values. These were described in terms of what the “Faculty wishes”. In research, the faculty introduced that it wished to give prominence to maintaining academic freedom of research and use “international standards of quality” as guidelines for research within the faculty (p. 7).

In teaching, the faculty presented that it wished to teach students “independent working methods and the importance of the quest for knowledge, and to stimulate their logical thinking”. It also stated that it
wished to emphasise the importance of practical training where this applies and strive to “apply innovations in teaching technique” (p. 7).

In administration, the faculty informed that it wished to “practice democratic procedures “and have “roles, responsibilities and powers of administrators” clearly defined. It also reported that it wanted the administration to be characterised by equality, fairness and consideration, but at the same time to show both boldness and initiative (p. 7).

In external relations, it was informed that the faculty wished to seek for confidence and respect in its relations with parties, both locally as well as abroad and have its external relations “be guided by the principles of honesty, modesty and respect for others” (p. 7).

Following the report on the values of the faculty, the policy introduced the principal objectives set for research, teaching, administration and external relations. Two principal objectives were set to be achieved in each category.

In research, the faculty set the objective to become “an internationally recognised research university in the field of science” and “be a powerhouse for scientific research”. The “working objectives” set to achieve these principal aims said that the faculty wished to “stimulate the research activity of staff;” “place emphasis on increased citations to scientific writings by its staff, inter alia by more frequent publication in the most respected journals;” further develop research facilities, increase “interaction and collaboration with Icelandic business ... provide consultation for government, to increase education of the public and to take lead in public debate on issues with scientific relevance” and “attract more students, which is the premise of further hi-tech development in Iceland” (p. 10-13).

In teaching, the aim was set to increase to a great degree “research-based studies in the sciences” and to “strengthen the already vigorous undergraduate programmes in the science”. In order to achieve this the working objectives said that “postgraduate study at both MS and PhD level” needed to be increased as well as the number of “faculty members and research related staff”; more accommodation for staff needed to be provided; the organisation of postgraduate study reviewed, and an “urgent need to provide specialised courses for postgraduate students” fulfilled; the faculty also set as its aim to increase the number of undergraduate programmes as well as “of tenured faculty”; acquire new accommodation “in which teaching and research take place under the same roof”. It also
said that the “equipment for practical teaching must be renewed” and “more flexibility must be introduced in teaching/research duties” (p. 14-17).

In administration the objectives were to provide responsible administration “with strong executive support” and “conducive to promotion of both teaching and research”. To achieve this, policymaking and executive powers needed to be “held exclusively by academic staff”; staff carrying out the operations and administration of the faculty needed to be employed “for that purpose” and administration staff numbers increased; “autonomy of departments and institutes” needed to be “enhanced, with regard to both teaching and research”; the “evaluation of administrative work should be reviewed” and the role of Heads of Department strengthened, “made attractive” and provided with more executive powers. It also said that research and “quality of teaching” needed to be promoted by “systematic incentives”; “Outstanding teaching to receive recognition and reward”; “work evaluation system” improved and support system for institutes strengthened (p. 18-21).

In “interaction” and “external relations”, the aim was to “promote scientific awareness in society” and to “promote international collaboration in the field of research and teaching”. The working objectives set, said that the scientific education of teachers in primary and secondary schools, the faculty’s links with the school system and media and the internet media, all this needed to be strengthened, but in addition the interest in sciences among national leaders and scientific knowledge of media personnel. Lastly it said that the faculty needed to be “actively in international collaboration, and to make more applications to funds abroad”; increase the number of foreign students, establish links with universities abroad, improve websites, “also in English” and “attract more scholars from abroad” (p. 22-25).

5.3 The contract between the Ministry of Education and the University of Iceland in effect 2007-2011

The contract, as reported, describes the policy emphasis set by the University of Iceland and the common goals set by the two parties, the government and the University, in order to ensure the quality of teaching and research and to promote ambitious developments during the period marked by the written agreement. It is based on the general policy into higher education as set by the governmental authorities; the Higher Education Act that entered into effect in 2006; the policy statement presented by the University Council Science Committee; policy making, conducted in 2005-2006; the University’s policy for 2006-2011, approved in
May 2006, and lastly the agreement took into account preoperational work that had been conducted in order for the merging of the University of Iceland and the Iceland University of Education.

The second article of the agreement introduced eight joint goals set for both parties to work on where a very general framework is set, which, however does not pin down any quality policy but rather general administrative and institutional goals which can be seen as a part of developing the HE system and reiterating its social role.

In the present context the financial section in the contract is of importance. It reiterates the form of financial agreement that had been in place for a while. But in addition it promises substantial additional funding based on specified performance criteria, mainly tied to research activity and doctoral students. In an itemised addendum which was the basis for a special agreement between the government and the University of Iceland for additional funding a long list of policy items was tabled which gave a fairly clear direction as to what aspects of the policy should be emphasised, and in what way, but however with fairly few detailed criteria which could be used for accounting purposes.

This chapter has, through analysis of policy related documentation, sought to reveal how the University of Iceland adapted to and translated the general requirements for universities set by governmental authorities which were presented in Chapter 4. The University of Iceland and then its faculties set itself both clear and ambitious standards. These covered the main functions of a university, research, teaching and administration but also with some quite specific additional aims such as cooperation with others and communication on a number of levels. The government policy, the policy of the institution and its units were in harmony. It, may, however not always have been clear how the synergy might best be achieved even though clear criteria of success were often present. But it still seems that the general course was quite well chartered and the institution started off on this road despite the dramatic set-back due to the financial banking crisis which gave the university staff perhaps the feeling that there was a discrepancy between the lofty aims set by the institution and its capacity to materialise its policy.

Thus, the review of institutional documentation has served to describe the framework within which the individuals, participating in the interviews, and those who responded to the survey questionnaire, operated at the time when the study was conducted. The next two chapters will report the findings from this phase of the study, starting with findings from the interviews.
6 The micro level: “Good university teaching” and influences on its implementation – findings from analysis of interviews

Chapter 4 and Chapter 5 have now provided insight into the legislative documents and other edicts coming from governmental authorities, and the policy set by the institution under study. Collecting this information was seen as important to set the scene for the main focus of the study, that is, how individuals, working within the described framework conceive of as teaching of good quality. Also, what aspects of institutional as well as external provisions and practices they see as affecting their ability to implement teaching in accordance with their own conceptions of good teaching.

In the following sections, the methods used in the qualitative phase of the data collection will be explained, followed by the reporting of the findings.

6.1 Methods

The qualitative procedure consisted of interviews with teachers and administrators.

6.1.1 Interviews with staff

Interviews are commonly used in case studies. Typically the purpose is to gain knowledge about one specific person or institution, or to describe a more general phenomena through a study of the case (Kvale, 1996, p. 98).

Yet, interviews have varied purposes as a data collection method in research, but mainly they serve three purposes. First, an interview may have the main purpose to collect information that is considered of value for the research objectives. Secondly, it can be used to either test hypothesis or suggest new ones. Lastly, the researcher may use the interview in conjunction with other methods (Cohen et al., 2000, p. 268).

Both the first and last of these three purposes, apply to the present study. The interviews were considered to be an effective approach in order to answer the questions focusing on individual aspects into quality in higher education, and the interviews also had the purpose to inform the quantitative phase of data collection.
6.1.2 A piloting process

Based on the research questions posed, a draft framework for interview questions was developed. To help refine the question framework and sampling procedures, a piloting process was carried out. As Yin (2009) points out, a pilot testing does not mean pretesting. It is more of a formative process where the purpose is to help develop the appropriate lines of questions (p. 92).

First, two trialling interviews were conducted as part of preparing for pilot interviewing. Gillham (2005) notes that trialling interviews can be very helpful as a part of the question development. In trialling interviews the questions are tested in “real-life” conditions, by interviewing an individual or individuals who have similarities with those who will be involved in the research, but who are not members of the group that the researcher is actually going to interview (p. 22).

In case of the study, one academic, in another university institution in Iceland than the one selected as the case, was interviewed. This interviewee had a permanent position as an assistant professor. In addition, one academic, working in the institution under study, was interviewed. This interviewee was working as a teacher at the time of the interview, but had, in addition, long experience of taking on an administrative role in the institution; as head of department and dean of faculty.

Notes were made during and after the interviewing, for example about the relevance and quality of the questions and the question whether all relevant dimensions were addressed in the framework. Based on these, amendments were made. For example, questions addressing quality as prescribed at the macro level were added to the framework. The revised framework of questions was then used in the following pilot interviews.

6.1.3 Sampling strategy

The main purpose of the pilot interviews was to inform further process, for example with regard to the content of questions, sampling and suitability of the interviewing technique.

The sample for the pilot interviews was selected from academic staff, among them academic staff having administrative role within faculty. As the purpose was to capture as best as possible breadth as well as depth of the topic studied, the most suitable sampling for the interviews was considered to be what has been referred to as purposive, that is, sample, adequate enough to capture the heterogeneity in the population (Hitchcock &
Hughes, 1995; Maxwell, 2005). As the number in the sample had to be limited for practical reasons it was considered necessary to choose a sample from only a limited numbers of disciplines within the university. Therefore, four disciplines were selected. The selection of the disciplines was based on identification made by Becher and Trowler (2001), of different disciplinary territories within the university, categorized into four domains, soft-pure, hard-pure, soft-applied and hard-applied. The distinctions between the knowledge domains are in terms of, as Becher and Trowler (2001) describe it: “characteristics in the objects of enquiry; the nature of knowledge growth; the relationship between the researcher and knowledge; enquiry procedures; extent of truth claims and criteria for making them, the results of research” (pp. 35-36).

On the grounds of the four domains categorization, participants were selected from Political Science in the soft-pure category; Geology in the hard-pure; Social Work in soft-applied category, and Medicine in the hard-applied. The fact that some of the disciplines within the case under study were fairly small units, with only few teachers in permanent positions, limited the criteria which could be used to select participants from each discipline. For that reason, the selection of sample was based on criteria such as: permanent position; teaching a course or courses within the selected disciplines; willing to participate in the study. Many of the individuals, teaching courses, also take on administrative roles within their School or Faculty. Therefore, sampling from the administration site was not decided upon at that stage of the study, and will be explained at later stage.

Four pilot participants, one from each discipline, were interviewed. All four had, at some point taken on the role head of department or dean of faculty, or had such a role, at the point when the pilot interviews took place.

6.1.4 Pilot interviews

It is appropriate at this stage to describe some ethical issues that needed to be accounted for, before reporting the piloting interview phase of the study. The ethical considerations addressed included acknowledging the rights of the individuals participating, to be informed about the purpose and aims of the study and how the results would be used (Creswell, 2012, p. 23). It also involved making sure that the participants’ anonymity would be guaranteed and that the interview data reported could not be traced. It also handled informing the interviewees that they had the chance of withdrawing at any stage if they so wished.
All the above listed issues were accounted for. E-mail was sent to each interviewee after contacting the dean of their faculty about the proposed study. In the e-mail, the proposed interviewee was informed about the aim and nature of the study and then asked to participate. Before starting the interviews an informed consent was obtained from all interviewees (see Appendix D). The pilot interviews took place in the interviewees’ offices and lasted from about half an hour up to one hour.

Based on their purpose, interviews are of a varying nature. They can vary from being open and unstructured to that of being completely structured, having standardized wording and sequence of questions.

Cohen, et al. (2000) describe the rationale for the researcher’s choice of suitable type of interview well when they say:

The issue here is of ‘fitness for purpose’; the more one wishes to gain comparable data – across people, across sites – the more standardized and quantitative one’s interview tends to become; the more one wishes to acquire unique, non-standardized, personalized information about how individuals view the world, the more one veers towards qualitative, open-ended, unstructured interviewing (p. 270).

The pilot interviews were semi-structured, meaning that when conducting the interview a predetermined framework of questions was used to guide the interviewing process (Kvale, 1996, pp. 97-98). Although semi-structured, the interviews were of exploratory nature. Typically, semi-structured interviews build on suggested questions, as well as themes to be covered. But they also offer a certain open-ness which allows both changes in sequence and questions posed (Kvale, 1996).

The pilot interviews, at certain points drew on the interviewing technique used in phenomenography, which is a research specialization where interviews are used as part of an experimental design for examining systematically different aspects of a certain problem (Entwistle, 1998; Marton, 1993). The phenomenographic interview technique differs from the one used when conducting a semi-structured interview in the way that, although guided by a predetermined framework, it allows natural conversation and discussion between the interviewer and the interviewee (Entwistle, 2005). Thus, although a predetermined framework of questions was used, the interview was partly directed by the issues raised by each interviewee. This was considered an advantage in the piloting process as
using this technique was seen to encourage the interviewees to explain their initial responses, sequentially, and in increasing depth, as to ensure that they reflected on their experiences fully and explained the reasons for their answers.

6.1.5 The question framework

The question framework prepared for the pilot interviews consisted of the following topics:

- Describing recent lived experience of successful teaching, that is, when the interviewee felt that everything had worked out in a way that she/he defines as quality in teaching (The issues that the interviewee described were then further discussed and explained)

- The opposite experience, when things didn’t work out the way that he/she defines as quality in teaching (The issues that the interviewee described were then further discussed and explained)

- What in institutional policy or structure facilitated and inhibited the way of teaching wh” as described by the interviewees

- Manifestation and meaning of the Bologna Process for the interviewee’s academic environment within the institution, and views on how the teachers saw its implementation materialise within the institution.

- What kinds of learning outcomes were considered of most value for students to possess when they graduate from university?

6.1.6 Analysis of the pilot interview data

The interviews were digitally recorded, using a voice recorder, and then transcribed. Before thoroughly analysing the text, all four transcripts were read through in order to get an overall insight into the content. This was also considered to help as a start for working on noticeable themes and categories (Gillham, 2005, p. 125). Following this reading, the transcripts were transferred into the computer software NVivo.

Computer software, such as NVivo, can be a powerful tool when analysing qualitative data. As such, it organises and keeps track of all the different records that can be part of a qualitative project. It also assists in managing ideas, as it provides quick access to “conceptual and theoretical knowledge that has been generated in the course of the study, as well as the data which support it, while at the same time retaining ready access to the context from which those data have come” (Bazeley, 2007, p. 3).
Before starting systematic coding, annotations were made in order to store ideas and questions that came to mind when reading the transcripts. Annotations are one of many tools offered in NVivo. They can serve as reminders on the text, but are particularly useful for storing reflective thoughts and ideas from the text (Bazeley, 2007, pp. 14, 63). In case of the data from the pilot interviews, annotations were mostly used to store questions that arose when reading the text. These annotations were later used, along with the outcomes of the coding and categorising process, to inform further development of the framework of questions for the next interviewing phase, that is, the semi-structured interviews.

Following the writing of annotations, an iterative coding process was conducted. As Saldaña (2009) explains, “a code in qualitative inquiry is most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data” (p. 3). The coding process is a core feature of qualitative analysis through which evidences and ideas can be grouped to reflect increasingly broader perspectives (Creswell & Plano Clark, 2011, p. 208). Thus, coding can be described as a first step towards a more rigorous analysis and interpretation of the data.

The data from the pilot interviews served the main purpose to inform further process, for example with regard to the appropriateness of the sampling strategies and the question framework. Special attention was paid to issues that would guide the sampling strategy of representatives from the administration level.

6.1.7 Semi-structured interviews

In the interviewing phase that followed, that is the semi-structured interviews, the sampling strategy that had been used in the pilot interviews was reviewed, and the conclusion reached that the categorisation, used for sampling had proved to provide adequate diversity for the purpose of the study.

The sample for the semi-structured interviews consisted of eight interviewees coming from the four disciplines previously listed; these eight individuals had normal academic duties (i.e. teaching – research – administration) within their faculty at the time they were interviewed; two individuals who had an administrative role over and above their normal academic duties; and two administrators who came from outside faculty.

The same ethical issues were accounted for as when conducting the pilot interviews, that is, introductory e-mails were sent to the proposed
participants, providing information about the aims of the study, and before starting the interviews an informed consent was signed. Like in the piloting phase, the interviews took place in the interviewees’ offices and lasted, as before, for half an hour, up to one hour.

6.1.8 The question framework

The interview data from the piloting process had provided rich information and offered valuable guidelines for the semi-structured interviews. Through the coding of the data, categories and subcategories had emerged (Saldaña, 2009, p. 8), based on the shared characteristics found in the interviewees’ responses and discussion on the issues addressed.

Although the question framework had proved effective in many ways, various additional issues had been raised by the interviewees, including the following:

- University teachers’ academic duties, how these duties were defined and the interviewees’ preferences if they had some flexibility regarding the time they spent in each, that is, administration, teaching and research.
- additional descriptions of high quality teaching, for example teaching preparation, teaching methods and student assessment
- the formula used to decide the financial contribution for each course, and how this affects the structure of the courses
- faculty policy and discussion between colleagues within faculty on quality issues related to teaching
- whether, and if so, what aspects of institutional policy contradicted to the interviewees’ ideas about good teaching.

Questions addressing these issues were added to the question framework used in the semi-structured interviews.

Also based on the analysis of the piloting data, the question framework was adapted to the additional interviewees who had been selected on grounds of their administrative roles. Some questions posed in the interviews with the two outside-faculty administrators needed rephrasing and some were left out. Questions were also added to include issues which were directly linked to administrative duties, but had none the less been brought up in the pilot interviews. Questions addressing these issues were added to the revised question framework, but only used when interviewing the individuals having administrative roles. These will be accounted for, where appropriate, in reporting the findings.
The additional issues called for the following questions to be posed:

- What would be their suggestions, if given the opportunity to make suggestions for changes and development within departments, what they would like to emphasise, for example with regard to organization of courses, teaching methods, assessment etc.

- what was their sense about whether the departments had some specific ideas and policies on teaching issues, for example on the issue what constitutes good teaching, and if so, how they saw this policy manifest.

- whether they felt that the institutional policy in one way or the other either supported or inhibited the emphasis they wanted to place on teaching issues. In addition they were asked what, in their opinion, was the standing of quality issues within departments regarding teaching quality, and what changes, in more general terms (than in question one) they would like to see as policy makers.

6.1.9 Analysis of the semi-structured interview data

Transcripts were made of the interviews and uploaded to NVivo. Following that, a first cycle coding of the transcripts was conducted, using exploratory coding methods. These served to provide preliminary assignments of codes to the data before developing more refined code systems. When the data have been analysed in this way, “the researcher can proceed to a more specific first cycle or second cycle coding methods” (Saldaña, 2009, p. 118).

Thus, the first step involved reading through all of the data, using various tools offered in NVivo. In NVivo each transcript file can be assigned a linked document, a memo, to record the researcher’s observations, reflections and other notes related to that particular data item. As these memos can be linked to a text in the data source they can easily be retrieved when working with the data (Bazeley, 2007, p. 55). In this initial phase of analysing, memos and free nodes in NVivo were the main tools used to help gain a general sense and understanding of the database (Creswell & Plano Clark, 2011, p. 207). Free nodes in NVivo allow the researcher to capture ideas without requiring a particular structure on those ideas. Therefore they can be very useful at the beginning of an analysing process (Bazeley, 2007, p. 32).

When comparing the results from the analysis of the pilot interview data with the memos and free nodes derived from the semi-structured interviews, these two data-sets were considered to have enough similarities
to allow for the same second cycle analytical methods. In addition, the pilot-interview data were considered to be of value in the sense that they added to the depth and breadth of the overall analysis of the qualitative data. On these grounds the data-sets were merged together and treated as one data-base in the analytical procedures that followed.

Following this process, the analysis proceeded into a second, more refined phase. Saldaña (2009) describes second cycle coding methods as “advanced ways of reorganizing and reanalysing data coded through First Cycle methods” with the aim to “develop a sense of categorical, thematic, conceptual, and/or theoretical organization” from the collection of first cycle codes (p. 149). In this second cycle, coding technique labelled as pattern coding was used. Pattern coding aims at identifying emergent themes or explanations and serves as a way to group a large amount of material from the data into a smaller number of sets, themes or constructs (Miles & Huberman, 1994, p. 69; Saldaña, 2009, p. 152).

Now, the methods used in the interviewing phase of the present study have been described. In the following sections the findings from the analysis of the interviews will be reported.

6.2 Findings

As has been explained earlier, the 16 interviewees (and now we are referring to the whole sample, that is the individuals participating in the piloting phase and those interviewed in the second phase) had three different roles within the institution. A total of 11 interviewees held permanent position as academics, and had only normal academic duties at the time point when the interviews were carried out; three had administrative roles over and above the normal ones, but also at the same time academic duties, and two worked outside faculty, having administrative roles in the institution. Before going further, we feel that the caution needs to be made that the views reflected in the findings are the views of the people we interviewed. The comments come from only a relatively small proportion of the academic population, who were, to some extent, self-selected. However, as we later will see, the aspects reflected in the interviews were tested in a survey questionnaire, at later stages in the conduction of the study.

When opening the discussion all the interviewees except the administrators working outside faculty were first asked to recollect a teaching session which they had perceived as being successful, that is, one that made them feel they had managed to offer the students teaching of
good quality. This very question needed to be rephrased when interviewing administrators serving outside faculty. They were asked to describe what they saw as the characteristics of good university teaching. Their responses were categorised within the relevant themes.

Based on the answers given by each interviewee, various different angles of the concept under study were addressed, as a means to capture as comprehensively as possible the interviewees’ ideas and understanding of the characteristics of “good university teaching”.

In the following sections the main issues in the interviewees’ accounts will be reported, starting with the findings from the analysis of the interviewees’ accounts of what constitutes good university teaching.

6.2.1 “Good university teaching”

It needs to be recalled in the beginning, that both the teachers, and those within faculty who had both teaching duties and an administrative role, were first asked to recollect a teaching session which they perceived as being successful, that is, one that made them feel they had managed to offer the students teaching of good quality. Based on each answer, various angles were addressed to give as clear a picture as possible of the very meaning of “good university teaching” as reflected in their accounts.

The interviewees used the two commonly used pedagogic ploys, that is, giving examples which defined the exclusive, or defining, features of teaching of good quality, and counter-examples, which showed the features that were not relevant.

The analysis of the accounts resulted in four main themes emerging that could be categorised as referring to: the teacher-student nexus; the planning of teaching; the ways of assessing student learning, and lastly, the outcome of learning. Several additional issues were brought up in the interviews as constituting teaching of good quality, and these will be introduced following the reporting of the main themes.

6.2.1.1 The teacher-student nexus

The most noticeable criterion that teachers discussed referred to students’ active involvement. Various different aspects of student involvement could be found in the teachers’ accounts. The most noticeable aspect was the importance of students being active, rather than passive in the teaching sessions, that is, that they asked questions and were actively involved in the discussion about the topic covered in class:
I feel that everything is working at its best when I succeed in producing a reaction from the class. It is, in a way, a bit like playing tennis, being a good tennis player ... balls are coming your way and you hit them all, and you manage to hit them back ... in a way that makes you very content. The teaching that I enjoy and works well is like that, that is, I am able to generate reactions and I am capable of managing those [Political Science].

In some cases the teachers’ accounts mirrored the view that questions coming from students in class, and their active participation in discussions about the topics, was of more importance for the quality of student learning than covering all the material prepared for the teaching session:

It is the participation of students in teaching that is number one, two and three ... you have to establish a dialogue with students. ... If we spend the time in dialogues, which I consider much more fulfilling for students, then that [dialogue] is more important than me zipping through the entire material via lectures [Medicine].

One aspect brought up, as a sign of successful teaching, was students being “well awake and keen on asking questions ... and even asking for more information about the subject outside the classroom”. This was described as verification that the content taught, and the presentation of it, had managed to evoke students’ interest. The opposite was mirrored by same interviewee in the following way:

You do not feel good when you leave a class in which you have been covering something that is distant to you, and you feel that the students have either not understood or are not interested in it, or they are simply passive [Geology].

What might be described as another side of the same coin was the aspect, that when the students had been actively involved in the session, had shown enthusiasm and “interrupted” the lecture repeatedly with questions and comments on the topic, this was the kind of class “where I can claim “this was fun”. I do not think that I consider it to a great extent after the lecture whether it went well, rather ... more along the lines of,
“this was fun”, perhaps a slightly egotistical perspective but I guess this is what I am searching for” [Medicine].

An additional aspect brought up by another interviewee was, that student involvement in teaching sessions, where the students “joined in” and “came up with questions” was an important part of bringing in “different perspectives” and better understanding of the topics addressed. This same interviewee gave an example of this kind of teaching session which had taken place the same day as the interview:

I think it matters most to get people to join you and have them bring in different perspectives, and that is what I perceived this morning, that the people I teach in the Master’s studies, and have a certain amount of experience in a way, ... can create interesting examples, in cases like that the dialogue becomes much more entertaining [Social Work].

When asked in more detail about the nature of student involvement, for example the degree to which the student group needed to be active in discussing the topics, for this interactivity to impact the quality of teaching, most of the interviewees agreed that it wasn’t enough that one or two students in the student group were active in class. As one interviewee described it:

There are often one or two who dominate or take command in the group and ask, and the others believe that they [do not] have to contribute anything ... that is not satisfying ... it’s better [when you] ... obtain more from each ... that is maybe the disadvantage of lectures, that there are no formal discussions [Geology].

In this same context it was pointed out by another interviewee, that there needed “to be general participation” in the class, both with regard to questions posed and comments made. Always having only two, three or four students active, most commonly the same individuals every session, might result in others being discouraged to take part in the discussion, the “entire group” would be the ideal, the interviewee stated, giving a description of the two types of students to explain the point made:

The same individuals that [always] ask [the questions] ... are often smart students, or just outgoing, and this decreases the
odds of others feeling confident enough to express themselves, while they have as a contrast kids who are bold and eager, and are well spoken, and that can undermine initiative if it’s always the same individuals who ask the questions [Political Science].

In discussing the nature of student involvement, the teachers brought up various additional aspects, many of which focused on student involvement in a broader context than the one, how active students were in asking questions and commenting on the topic covered in the classroom.

One aspect noted was that good teaching was, or should be, about active involvement in teaching in the sense that students themselves needed to be more involved in the “project” of attaining education ... that it was important that they did not attend classes just so ...

... we can spoon-feed them the knowledge; they should come here to obtain an education and for that to happen, some form of dialogue needs to take place between student and teacher. When things work in that way, then teaching is an enjoyable experience [Geology].

One particular side also noted of student involvement in teaching, was the importance of students’ active involvement in course planning, at the beginning of semester. One interviewee described this as an important part of the organising of the course, which should take place at the start of the semester. At that time point the opportunity rose to “actually put it to vote” whether the student agreed to do things as described in the syllabus, “... we are going to reach this destination, does this way of working, in order to reach it, seem accessible to you?” In that same context it was noted however, that this did not mean “negotiating this throughout the course; rather, this is the opportunity that the people are provided with, in order for us all to come to an agreement” [Social Work].

Another related aspect brought up was that of providing the students an opportunity to give feedback on the teaching, during the course as well as at the end of it. This along with giving the students feedback on their own participation and performance, as a way of motivating them, was in the interviewee’s opinion an effective way of adding to the quality of teaching:

They are very diligent about it and I appreciate it, and I explain to them that they are responsible for making the course better for the next group of students, and that this is their proper
role. And I also think it is important to provide the group some feedback in return; that is, what I thought about them as students. If this is supposed to be cooperation then I think it should not be in a way where they just give me feedback and I give them nothing in return [Social Work].

As was reported in the section describing the sample, two individuals having administrative roles outside faculty were interviewed. The question posed was: What do you see as characteristic for good university teaching? The interviewees are hereby distinguished by calling them Admin-one and Admin-two. Both admitted that it was a difficult task trying to answer the question, as there was no specific definition embodied in the concept, or as Admin-one phrased it:

There is no ... one conclusive definition of this, not at all. ... [It is] very difficult to define, it is particularly difficult because teaching and learning is an extremely complex, interactive and dynamic process between student and teacher, and it simply cannot be measured, a kind of learning creation process. This is something that everyone who has engaged in teaching and pedagogy knows, it is something that will never be conclusively measured or defined. We can only evaluate certain characteristic features of it [Admin-one].

Admin-two emphasised the importance of an interaction between the teacher and students, but in addition that the studying needed to be challenging:

Good university teaching must involve a kind of studying which is challenging for the student, where the student exerts himself as much as possible, and that he is allowed to participate in the teaching, because this is an interaction between the teacher and the student. This is not a solo performance. So the first verse in good teaching, as it is, is that the subject matter grappled with in the course is challenging, tests the student, matures him and strengthens, and not only as a passive receiver but also as a participant. But ... I think that no one can answer what good university teaching is as such. It is always good in some context, so it kind of depends a little bit on that [Admin-two].
Although the interviewees, in their accounts, addressed various different aspects of students’ active involvement in class, the analysis of the interview data showed a general consensus among them that quality with regard to the teacher-student nexus was one of the key contributors to quality in teaching.

Another aspect commonly mentioned as an important part of teaching of good quality was the way in which teaching was prepared.

6.2.1.2 Planning

Just like when discussing students’ active involvement in classes, the interviewees approached the subject of teaching preparation from various different angles. However, there seemed to be a general consensus about what good preparation did not mean. Most of the interviewees emphasised that preparing for classes did not mean only preparing for classes when teaching the material for the first time and then use the existing notes the next time. The preparation needed to involve “writing them up, even though I’m teaching a course for the second or third time” [Science – an interviewee with an administrative role].

In their accounts, the interviewees commonly gave examples of the consequences of not preparing themselves well enough:

> If I have an old lecture that has gotten “cold” in the sense that it is no longer something I’m emphasising and I haven’t had time, for some reason, to properly read it over before class, then that is quite the guaranteed recipe for a poor lecture ... if I haven’t had time to ... read the lecture and reflect on the topic and its context, and look things up which might be appropriate to it, if I have not had time for that, then things can go really badly [Political Science].

It was also brought up that one element of preparing for classes, when one had already existing notes, was to organize it in ones own mind “because you cannot trust your memory and do this in the same way as you did last year, the year before, or the year before that”. One needed to ensure that it would be delivered “in an organized fashion ... so that ... students receive some kind of thread, a kind of trajectory. Maybe some form of story, instead of jumping in the material, back and forth” [Geology].

When discussing the nature of the preparation process, it was pointed out that an important part of preparing for teaching sessions should be about adapting the material to local situations or reality, as most of the
literature appointed for the courses was not of native origin, commonly coming from English speaking countries and as such didn’t always fit into an Icelandic situation:

Well, I think that proper preparation [of the topic] for the teacher entails … having made certain connection with it to various other things, which can involve for example Icelandic research. If the course book is British or American, [it means] being able to connect it to the circumstance in Iceland. [Asking] what we have here in Iceland that corresponds to it … so that you get the students acquainted with present Icelandic reality and Icelandic research [Social Work].

The importance of keeping oneself updated in the science field as a part of preparation of good quality was also stressed when discussing preparation for teaching:

What I do, to keep up with the specialization … [is that] I, of course, keep up with the journals I receive and … I photocopy the title pages of the articles I want to have a better look at, it all goes into a folder and is collected there throughout the year. And when it is time for the course, I pull that out and also go online and check what the latest developments are. … So, I delve into what is new and then I pick up the lecture from the previous year in order to revitalise it [Medicine].

Some pointed out that they had taught the same course for many years and used the same notes, but still were “always changing things around” even in subjects that pretty much stayed the same through the years, like for example “in statistics which does not change all that much from one year to the other, then minor changes always being made; creating new examples which you thought would put things into a clearer perspective” [Political Science – an interviewee also having an administrative role].

One of the topics reflected upon, when discussing teaching preparation, was the benefit of giving lectures on subject in which the teacher felt at home field and was enthusiastic about, often closely related to their own research field:

I have felt the greatest about lectures when I have introduced something which I have a vast interest in and have been
grappling with myself, and made some contributions myself, and I can feel that the students are also interested [Geology].

Another aspect addressed was, that part of teaching preparation should be about “reading the students”, that is, an important part was to try to put oneself in the students’ footsteps in order to best understand what part of the learning material was the one most likely to evoke interest:

Being well prepared and attempt to read the students ... has to involve an interaction between teacher and student, ... it is actually like walking a tight rope; you know beforehand what you want to achieve, and you have to be determined in setting requirement, ... But on the other hand there is not much point if the students are not receptive, so you have to take them into account and make sure that you maintain their interest. Teaching is in a way a bit like art, where you play it by the ear and try to develop a sense for what works well and what does not [Political Science – an interviewee also having an administrative role].

There were additional aspects on preparation, related to the student dimension, but handling a different side, namely student preparation. Several of the interviewees reported their concern about students’ preparation for classes, describing how, like one of them put it, “poorly prepared for class” the students were most of the time, which in return affected their active involvement, “students have to be acquainted with the course material before the lectures begins ... they should have already found some material [when attending class] so that they can formulate and prepare questions”. In this context, the interviewee mirrored what several others had expressed their concern about, that is, how little effort students seemed to put into reading the literature, appointed for the course:

... It is very rare nowadays that people actually read the course books, that is what I think has changed the most. Getting students to read long texts is difficult and sometimes you become a bit pessimistic because of it. ... I think there are more elements that make a demand on people’s time these days than they did only 15-20 years ago. Not to mention before that. Young people today have so many things to attend to,
which we did not have to attend to when we were young. So I think it is a question of a lack of time [Geology].

In this same context, an interviewee mentioned that, “people are more used to imagery, rather than text, and [therefore] prefer to receive their first introduction to the material through imagery [Geology].

In discussing the lack of student preparation before class, another interviewee gave an example of what students expected and not expected of the teacher when attending class:

... One question I got the other day was ... when [my] student [said]: “Hey, sometimes you go outside the material” ... meaning ... that I went outside the material that was written in the book. This is ... maybe one of the things that surprise me and is probably due to the fact that I have such a long working experience that the idea of education [is something] I consider a luxury. The students certainly do not think so, they have spent most of their time studying and they think that a lot of it is simply an obligation ... then of course is the other side of it, that is, that these are grown-up individuals, participating in academic studies and should be responsible for it themselves. This is a bit of a headache for me ... you cannot produce a debate when [you] have such a limited awareness of the material [Social Work].

The interviewees’ accounts, when reflecting on preparation, addressed various aspects. If summarized, the bottom-line seemed to be that, no matter how many times courses had been taught by the same teacher, a systematic and thorough preparation for each teaching session was a vital part of ensuring and maintaining quality in teaching, and that part of it involved that students also were prepared for class.

6.2.1.3 Assessment

In interviewing the teachers, various methods were used in order to capture as holistic a picture as possible of teachers’ ideas of what constitutes quality in teaching. One way was to ask them how, in their opinion, the courses they taught would need to be designed to earn the label “the ideal course”. It should be noted that as the question referred to courses taught by the interviewees, this question was left out when interviewing administrators outside faculty.
The interviewees most commonly described what changes for example in structure, teaching methods and overall design, they would want to make in their own courses if they had complete freedom about how to organize it. A common suggestion made by the interviewees was to increase the emphasis of assignments instead of exams. In that context several stressed the importance of giving students assignments which had practical value for their future study or work:

I would ... have more realistic assignments where students were required to grapple with authentic subjects ... and include more time for discussions ... encourage the students to work more independently, write research reports or critical reviews. ... Then I would definitely use more ... video, both for recording people, but also to include specific material that I would use. These are mainly the things that I would consider, and maybe I would also try to extract more input from the students [Social Work].

A related issue was reflected in that some described their wish to provide the students with assignments which would relate the subject covered to local situations or research and thus add to the depth of the content taught. “I can see many ways of expanding the topics covered in this study programme, for example find ways to link it in a more thorough manner to the student’s future profession in their local surroundings”. When explaining the issue in more detail the interviewee noted that: “It’s a kind of Achilles' heel that the subject area has generally speaking not been researched that much on a local basis. Such a research is of course not only inspiring for students, it also contributes to the quality of learning and teaching in the discipline” [Medicine].

The interviewees reflected their thoughts on assessment in various contexts. Many of them reported obstacles which they saw as standing in the way of putting these ideas into practice. One aspect brought up in this context was the assessment methods practised in general, “the whole exam arrangement, the structure of exams as it is practiced in schools, both in secondary schools and in universities” which the interviewee described as being “utterly outrageous and contradictory to reality”:

... Has it ever happened to you that you have been shanghaied into some classroom and ordered to sit for four hours and churn out everything you know about some subject? ... That is
how exams are often conducted in universities and in a variety of other schools and I would argue that this actually undermines our goal of educating people. We shift from being the ones who bring up children, being teachers ... over to becoming some kind of knowledge-police. And students react to this in a way where they adopt various methods to aid themselves through exams. They only read the material which they are pretty sure will show up on the exam, they scrutinize old exams and they immerse themselves in learning the text by rote, which has nothing to do with understanding. And maybe they pass through the exams and receive a decent grade, but in reality they have not spent time and energy on what truly matters, that is, on understanding [Geology].

Another interviewee described a quite different view of exams, stating that it was “somewhat difficult to assess the students when they were working collectively” and therefore it was not certain that the grade given was justifiable “I rather choose exams, oral or written, I think they are more reasonable” [Geology].

The view, that “… there is not really a better way of judging the student’s knowledge than through a good oral exam” [Medicine] was also brought up.

Some pointed out that using other assessment methods than exams was probably not the most practical thing to do, considering how the financial system worked:

Despite the fact that nothing really encourages us in the financial model, or in our operational environment, because in reality written exams are much more practical ... our course material and our teaching are structured differently. ... They [students] write diaries, which they hand in every week and receive feedback ... I think this is a part of the process of learning ... it is not only me teaching ... but rather, we are probably creating something together [Social Work].

An effort of changing their assessment methods in order to make students change their way of studying was also brought up, and the following noted, as an example of such an effort:
... I have five assignments and then exams ... I have endeavoured to use the first assignments in order to motivate the students; I make them a bit difficult [to solve] in order to set the standard. ... I have tried to use cases where students link the theory together with something which is taking place in society. ... Of course, [no one] forces them to read because the fact of the matter is, and is most likely common in every university in Iceland, that the students are reluctant towards reading the course material, the notes are usually read and there we have a problem [Political Science].

A related aspect was also brought up, that of keeping the students busy working on assignments, and use quizzes along with the assignments as a means to make them study equally hard over the semester:

I also have experience with [mixing] oral exams ... and ... assignments which ... they work on throughout the semester. ... The quizzes were conceptualized so as to both include more means of evaluating ... and ... so that the students would gain some kind of idea of where they stood. ... This was also meant to keep the student focused on the material and that is of course one of the main benefits of having a lot of assignments. You are actually creating a working environment ... [and in this way] the student remains focused on the task at hand and this is vastly important. ... I am completely convinced that a certain working routine should be established. ... That they are contributing something, they deliver something each week. ... This is what I think should be aimed for. Then the assessment and teaching is actually interwoven [Political Science – an interviewee also having an administrative role].

One additional aspect, brought up in discussing assessment methods, was that lack of knowledge when it came to pedagogical matters often resulted in choosing assessment methods which one was comfortable with:

... I often feel limited, and I am keenly aware of the fact that I am not an educated teacher. ... And [then] you maybe fall back on things that you are familiar with and something that you are quick to construct because there are so many other things that need to be done. So, my assessment is rather monotonous;
there are essays, reports ... and there are written exams, it is actually just these three things that I utilize for assessments [Social Work].

In discussing the characteristics of good university teaching the two administrators outside faculty both brought up issues on assessment and assessment methods together with teaching methods. When asked to reflect in more detail on these, Admin-one referred to the quality discourse on teaching and assessment, and drew attention to the coordination of grades and credit units as quality related matters:

Yes, these are well known elements from the quality discourse in schools, so this is not my personal opinion as such and it is for example a very widely distributed belief that there should be a diversity of teaching methods and ways of teaching. It is considered old-fashioned ... to conduct all teaching in the form of one-sided lectures ... diversity in teaching is believed to be more likely to stimulate students and encourage them. ... Regarding assessment, it must be a question of quality that grades, for example, testify for something, and that a certain consistency characterizes grading, so that the grade 7 actually stands for something, and does not stand for something completely different in another course ... yes, that a certain consistency is aimed at and a specific meaning of for instances grades or credits, that there is in reality similar effort underlying each credit [Admin-one].

Admin-two emphasised that different disciplines called for different approaches in teaching, there could never be one best approach to teaching and assessment:

No single teaching method can be considered to be the best one, I mean, the teaching methods must suit the subject matter ... the method must suit the subject in almost everything that you engage with. This applies equally to teaching as to whatever else, and also to the assessment. I mean, teaching ... and assessment ... these are subjects that are continuously discussed, and they should be. ... [but] it is clear that many other factors, rather than some educational viewpoints, influence how teaching is carried out, and how the
studies are assessed. Wage agreements are one thing ... but what I believe most teachers would wish for, that is some kind of continuous assessment ... I would argue that diverse assessment is advisable, but it has to suit the subject matter itself ... but there is no single method that is the greatest [Admin-two].

6.2.1.4 The outcome of learning

Another way of capturing the teachers’ ideas of what constitutes quality in teaching was, to ask the teachers to reflect on their students’ graduation and try to describe what, in their view, was of most value as the final outcome of their students’ studying.

Nearly all of the interviewees seemed to focus more on issues which might be categorized as more generic aims of education, rather than objectives related to disciplinary knowledge.

Aspects related to academic skills and critical thinking was the most commonly reflected issue. One interviewee reported that a survey had been conducted at the University of Iceland, asking about the expectations that new students had about the outcome of their study:

The question that received the highest scores and most of them checked was that they wanted to obtain critical thinking upon leaving the university. I think this is the most important [skill], because the information fragments become outdated, while the method of obtaining knowledge hopefully does not expire. ... Yes, what truly matters is dedicating oneself towards the academic method or the academic approach to a subject, and critical thinking [Medicine].

Academic skills were addressed in multiple contexts, such as with reference to the discipline studied, science in general, scientific approaches, critical approaches when handling theories and so on.

One interviewee pointed out that:

... perhaps it matters more now than in the past, that people learn the scientific methods of working; that they have learnt the scientific approach; that they know how to work on assignments in specific ways, they know how to approach the
subject matter in a scientific, academic manner [Political Science – an interviewee also having an administrative role].

Having the skill of being a critical thinker when handling theories and studies in general terms was emphasised by another, with the following:

Well, I think it is important that students are critical; both towards theories and the studies ... I want them to have certain skills ... that they are capable of distinguishing, and that they do not accept every theory as some kind of universal truth [Social Work].

The issue of having certain skills and being able to use them in a given field was, by another interviewee, also emphasised in a more specific context, that is, that of the discipline being studied. The interviewee stressed that it was important that the student possessed the skill to use work-methods that were required for working within a given field:

I think that it is crucial, to acquire knowledge in the ways of thinking and practicing within the work field studied. Being familiar with equipment and tools and methods, I find this more significant than for example knowing long stretches of text which you can always look up in a book [Geology].

Another interviewee pointed out how important it was to provide students with “a firm foundation” in the field studied so that they were well equipped for postgraduate studies “if they are so inclined, or that they can use this knowledge within society in order to ... become active in discussions and participation in society” [Political Science].

Having certain awareness, confidence and vision was also brought up as one of various important qualities when graduating:

I think they should sense that they have been supplied with certain tools, in the years they have been here in the university, tools which they sense and know they can utilize and has afforded them with certain confidence; that they are aware of possessing these tools ... [and] that they leave here with a specific vision for the future, for themselves and for the field ... that they remain curious [Social Work].
It was also stressed, how important it was that students were enthusiastic and motivated when they graduated from university, one stated; that they “should have a burning interest in changing the world and working towards progress within their field and within society” [Geology].

The same interviewee also emphasised the importance of students being conscious of “the value contained in the freedom of having been able to do what they wanted” during their study at the university and having developed “the maturity of being active within society”, if students had obtained the skill of thinking independently when they graduated:

... then I think we have done our duty ... I think that professional and technological knowledge matters, but it matters less than the perspective and personal development that individuals experience [Geology].

There were also examples of words, such as “passion” and “enthusiasm” when describing important qualities for students to possess when graduating:

It seems appropriate to say something about knowledge and skill ... [but] it is relatively low on the list. What is pertaining to the list is some kind of passion, interest, enthusiasm towards being ambitious and gaining more knowledge; and being aware of how to obtain further knowledge ... if they learn the ways to think, if they adopt the mentality, if they appropriate the spirit of the field and if they develop the enthusiasm or this interest, then that is all that matters [Medicine].

The administrators working outside faculty were also asked to reflect on the same issue from their point of view. Both their accounts can be said to have reflected almost all the same issues as were emphasised in the accounts above:

I actually only have an old-fashioned reply to this. Of course, that they are professionally competent, but more ... that they have somehow become better people, of course one wants that. That they make the society better ... That is what I would say, that is my personal opinion. ... If these students possess ... academic way of thinking, critical thinking ... are more mature ... sharper, critical, smarter as individuals. I think this is
extremely important. ... Just a small example is journalism and news. ... We receive our entire world-view through the media ... In this context I would wish for more professionalism, better educated people, you know, with more ambition and higher standards, more independent and un-biased interests. This is just an example [Admin-one].

And the aspects brought up by admin-two reflected similar views on the matter:

Well, like I say, obviously that they are able to handle the subject matter they were educated for, but they also must have a firm grip on the unexpected subjects that are out there waiting for them, so that they have a chance of coping with their life. Similarly, developing and shaping the education they have amassed, because it isn’t finite, it simply continues. I don’t know, how does one define a fully mature individual? You can hold long lectures on that topic ... Well, the individual has to have an independent mind, be responsible for his actions, possess moral awareness, it is of course imperative that the individual is not amoral, and that there are, there are many sides to each story, and rarely one that is true. That’s the way it is, are we perhaps not just talking about the definition of a good person? I think so [Admin-two].

The accounts reported above have given only a few examples of the numerous issues brought up when discussing what the interviewees saw as the most important final outcome of studying for a university degree. Nearly all of them gave detailed and thorough answers to this particular question. To name additional examples of the various issues brought up in this context, the interviewees mentioned students needing to have acquired self-confidence, having certain standard knowledge and competence in the discipline, being more skilled and better when communicating with other people and being aware of their responsibility when handling the ethics-related issues in their field of study.

6.2.1.5 Additional aspects brought up as constituting good teaching

Several additional aspects were found in the interviewees’ accounts about good teaching. One of the aspects brought up was that of being able to link the subject taught to their own research or research field. This was in
particular mentioned when describing the “ideal course”. An example of such request was the following:

I would gladly conduct courses that were connected to my own research, so that I would cover the same things in class as I have mainly emphasised through research [Political Science – an interviewee also having an administrative role].

Some interviewees described referring to own research in teaching as an effective way to capture the students’ attention, and evoke their interest and that this was one of the important aspects of bringing ones own research into teaching:

[It’s an example of good teaching] ... when you manage to a kind of light the fire inside the students, you can feel that you have their attention, and this happens especially when you talk about your own work in research ... therefore, what you do in research is so important, you can when teaching, refer to what you have been studying and that always awakes their enthusiasm [Medicine].

A similar view was expressed by another interviewee, but in this case it was more linked to how the interviewee’s felt about how successful the lecture had been:

I’ve had the best feeling about myself as a teacher when I’ve given lectures which have referred to what I am very interested in and have perhaps been dealing with myself [in my research] and I can feel that the students are interested in it [Geology].

Some emphasised the importance of being active in research, not least because of the teaching part of their work: “You refer to your research in your teaching, that’s one of the reasons for emphasising research, one should spend a lot of time on research” [Social Work].

Flexibility regarding design of courses with regard to students’ time table was also brought up when discussing “the ideal course”, for example the kind described in the following way:
I would like to see the timetable organised in a way that makes it possible for students to concentrate on only one course at a time, for example 6 weeks, something which many other universities are doing ... In my view this [flexibility] is a key issue, when considering how best to provide proper education [Geology].

Now we have addressed all the main aspects reflected by the interviewees as defining features of teaching of good quality. As was reported earlier, the interviewees typically used the two commonly used pedagogic ploys, that is, they gave examples which defined the exclusive, or defining, features of good teaching, and counter-examples, which showed the features that were not relevant. In most cases the counter-examples described features or situations which had in some way or the other to do with the conditions or external influences that the interviewees felt as either working as facilitators or inhibitors to their efforts to put their ideas of good teaching into practice. In the next sections these will be the focus of attention, as well as several aspects addressed in the question framework, which aimed at highlighting in particular institutional and external influences in order to illuminate how they affected the implementation of good teaching, as perceived.

6.2.2 Institutional and external influences affecting the implementation of good teaching

In order to gain better understanding of what factors, internal or external, impacted upon the teachers’ capability to implement teaching in a way that they felt was in line with their definition of good teaching, various questions were posed about their work, working environments and working conditions. However, as noted in closing previous section, several of the aspects reported here were brought up in the teachers’ accounts of what they saw as good teaching, most commonly in the context of examples and counter-examples of defining features of teaching and features which described the opposite.

The topics addressed in the question framework have been listed in describing the methodological procedures in this phase of the study, but to recall only a few examples, the interviewees expressed their thoughts on the organisation of their academic duties and the way in which the promotion system was seen to work in practice. They also reflected on the rhetoric on teaching within their faculty as well as in wider sense, that is,
the rhetoric at the institutional level. The institutional policy was discussed focusing on what, if something in the policy the teachers saw as either supporting, or an obstacle when considering how teaching of good quality could best be implemented. Aspects linked to financial factors were also brought up, as well as issues related to the manifestation of the Bologna Process.

These internal and external issues will be the point of attention in next sections.

6.2.2.1 Class size in courses

Class size in courses was a commonly mentioned factor when discussing good teaching. Most commonly, teachers described how large student groups affected the methods used for teaching, and the opportunity to have students participating actively in discussions about the topics covered:

I am unfortunately in this terrible ... position of having too many lectures and that is first and foremost due to the size of the courses. For example, on the BA level, there I have maybe around 80 individuals and I am very discontent with that. And I have made an effort to gather information on how to activate students in such large groups; I think it is simply difficult, or in fact I think it is extremely difficult [Political Science].

Having small groups was seen as providing the opportunity to reach the whole group of students whereas large student groups were seen as preventing teachers in having the students getting involved in discussions about the topics covered in the course:

With a relatively small group I feel that I can reach everybody very well ... of course just a few of them answer most of the time, although that varies of course ... in such a small group, I think, or at least I'd like to believe that I can reach the whole group but I can imagine that if I was teaching 100 individuals, only 10 would participate while the others would not [Medicine].

A similar view was expressed by another interviewee, in comparing the teaching of large groups with that of teaching a small group, but here the focus was on the difficulty of creating any kind of debate about the subject covered:
I've ... had classes where there were around 10-12 individuals. There is a great opportunity for discussions and an exchange of ideas in that kind of teaching ... [everyone is] very active. ... The communication is good etc. And it's very fruitful ... When you, on the other hand, stand on stage in Háskólabíó (name of a cinema house), in a course with 168 enrolled participants ... then I think it is not very successful; creating some kind of debate is not easy ... you stand there on stage, holding a microphone, in order to be closer to them, but you cannot bring forth any debate [Social Work].

In most cases where this issue was brought up, it was typically done in the context of diminished quality of teaching, that is, the interviewees reported their concern about not being able to reach their students in large student groups, something which they saw as important for the quality of their teaching and as a consequence, quality of student learning.

Many of the issues brought up in the interviewees’ accounts of the “ideal course” were closely linked to the number of students enrolled in the course. They noted, that they would like to be able to limit the number of students enrolled in the course, or even have the option to choose which students would be accepted for the course: “then I can be certain that the students enrolled are very well motivated, which in turn offers me the chance to require much from my students, such as building more on their own input and participation ...” [Political Science].

Another interviewee mirrored a similar view when saying: “Yes, if I’m allowed dreaming, then I would first and foremost want good and interested students, because if I have good and interested students ... then everything else matters less” [Political Science – an interviewee also having an administrative role].

6.2.2.2 Teaching room allocation

Having large groups of students enrolled in courses was also pointed out as a determining factor, with regard to the arrangement of teaching rooms. As a consequence the teaching room allocation determined the teaching methods, which in return affected the opportunity to have students participating actively in discussion about the topics covered, and thus the quality of interaction in the teaching sessions.

The teachers commonly used examples which described experiences where teaching room allocation worked as an obstacle, preventing them from teaching in a way which they saw as good teaching.
In some cases, it was noted that the content taught in the course suffered for the reason that large number of students were enrolled in the course, these courses called for big lecture halls, often cinema halls in Háskólabíó (the Cinema house), which made it very difficult to use teaching methods suited to the content taught:

When ... I am covering a sensitive subject [in the course] ... then I do not feel that it works ... no debate emerges ... and it is partly governed by this physical frame ... this lecture hall ... They sit ... in these soft seats and sink themselves into it with their computers in front of them ... the chairs are stuck to the floor, everyone sitting in a row and looking at the back of the head of the person in front [Social Work].

One interviewee described bad administering of teaching rooms resulting in unsuitable classrooms, as “poisonous” for attaining quality of teaching:

If you are unfortunate with a classroom and especially if you have to constantly travel between classrooms because it has been awkwardly delegated; everything along these lines is just poison for the course, if things are not completely clear [Political Science].

Big lecture halls were commonly described as not offering the flexibility often needed for example in cases when the topic called for discussion in small groups:

When you stand in Háskólabíó and you can only see the eyes of the people on the first bench. The stage is vast, the screen is such a way that you feel like you are about to show a film and the seats are rooted to the spot. It is not like you can have them sit in small groups. Then of course it is quite a challenge to get them involved, and the audience to speak, because they are going to the movies ... and sit there in their coats and even with the hood on [their heads] [Social Work].

One interviewee reflected how different levels in the educational system seemed to treat students and teachers differently when it came to allocation of teaching rooms:
Yes, the main thing that has been ... are issues concerning classrooms, they have been a hindrance, I think it is very important, that students ... know over the winter which classrooms they belong to [and] that they are not constantly wandering from one to another. ... I don’t think you can find an elementary school today that has more students than there is actually room for, but you can find a university that has, and it is a question whether it is necessary. This is a problem that must be solved [Medicine – an interviewee also having an administrative role].

Another aspect addressed as an obstacle was unsuitable or badly equipped classrooms. One interviewee pointed out that although “the classrooms are fairly well equipped, serious technological problems have emerged to the extent that a teacher has had to spend half the time trying to get the equipment to work. That is not acceptable”. the same interviewee noted, that different groups within the institution were not treated equally when it came to providing teachers with suitable teaching rooms:

There are groups where this is not a problem, and they have decent classrooms, the same classroom, good equipment that everyone can access and is simple to use. And then there are groups that constantly have to move between classrooms, have bad technology and do not even know a week before where they will be, and this does not work, it has to be sorted out. In the university, the classrooms have been delegated in a centralized way, and this needs to be seriously improved [Medicine – an interviewee also having an administrative role].

Some reported problems with lab facilities due to outdated tools and equipment:

Then, there is this [problem] of inadequate conditions; many of the research labs are furnished with equipment which is frankly the child of its time and not in any sense modern [Geology].

One aspect of the issue of technological problems was the teachers’ problems, when dealing with technology in distance teaching. The main problem, as described, was that the technology that came with teaching at
distance teaching level, restricted teachers in teaching in a way that they considered appropriate:

I have taught distant learning classes quite a bit and as far as the technology goes, I am unhappy with how it functions. For example, I have twice been forced to repeat the lectures [recently] because the microphone malfunctioned. ... I generally find that the methods surrounding the distant learning are unsatisfactory. I would want to have a microphone out in the lecture hall so the question would be recorded; it should not be too complicated to achieve that [Political Science].

6.2.2.3 *Time distribution of academic duties and the impact of the promotion criteria*

The interviewees were asked to reflect on how their academic duties were organised, that is, as a certain percentage of their positions. This was seen as an important aspect, as it was considered to give insight into teachers’ views of the status of teaching, as part of their obligations, compared with for example research and administration.

The interviewees were also asked if they would like these duties to be changed, if flexibility in how the duties were arranged was an option, or if they were just happy with it as it is.

In discussing the matter, the interviewees’ accounts mirrored in various ways their stance on teaching as a part of their academic duties, as well as revealing their thoughts on how they saw the promotion system as manifested, impacting upon teaching. One interviewee voiced this impact, when describing how the promotion system worked:

The structure of the system ... does not really emphasise [teaching], you do not receive much for your teaching, you do not receive points for your teaching; you receive points for research and publications. And therefore the system is structured in a way where it is most beneficial for you to spend the least amount of time on teaching If that is your thinking, if you think mostly about salary and status and so on ... I think teaching is extremely important and what my students take with them from the studies, but the system is structured to encourage people in placing teaching in the background. That is the way it is [Social Work].
Having a fixed percentage for each of the academic duties was also criticised by same interviewee on the grounds that, in some respect it prevented preferred ways of organising courses:

If we had been a smaller group, how would I have done this differently? I rather would have preferred to have smaller discussion-classes, instead of such a large lecture; ... but there is actually little room for it, because other things that you have to do, such as administration, and research then suffer [Social Work].

Another aspect, commonly brought up, was the status of research compared to teaching. One interviewee pointed out that: “one would claim that this is a research university and the priority of research the highest. ... [But] we realize that we have certain duties to attend to in this society and we would not be here if we solely attended to research”, and then concluded:

The significance of the teaching is immense, it weighs heavily in our work and you are obliged, whether you like it or not ... to award it certain priority and I think most do so, I do without any hesitation. If I had to choose between arriving well prepared for lectures, and fine-tuning some paper that I am working on, I would take the paper home with me over the weekend and work on it there, I think this is a very general perspective [Geology].

Having the opportunity to spend more time on research seemed to be a popular view, and many seemed to favour that part of their academic duties the most, like one stated: “… For me personally, I am most interested in research, but teaching is on the other hand very rewarding, and it is the main reason why I am here” [Medicine].

One interviewee raised the issue of potential danger of over prioritising research at the cost of teaching, but at the same time drew attention to changes made in the policy in the direction of providing teaching with higher ranking:

As a matter of fact ... in ambitious universities there is always a danger that research, which is of course hugely important, becomes too one-sidedly prioritized whereas the teaching is
neglected. But it is very important that in our policy the teaching has been provided with a higher ranking, and therein are also ... executions of teaching methods ... and it is actually also connected to improved administration and support services, better methods of working. This is entailed in the idea that we are running this more ... as a society where people concern themselves with others and things are discussed, it is not the system where teachers are more like kings, each on their own hill ... and it is of no one’s concern ... what they are doing [Political Science – an interviewee also having an administrative role].

The same issue was also raised by another interviewee, who pointed out that teaching had been favoured in the University of Iceland at the cost of research:

I want to see a continuing emphasis on good teaching and not make any negotiations in relation to that. On the other hand, I have for long held the belief that in the University of Iceland the part of research has been sacrificed on behalf of teaching [Science – an interviewee also having an administrative role].

In the same account a different approach in the discourse was advocated, that is, instead of focusing on talking only about teaching the emphasis should be shifted towards a discourse on learning:

So, perhaps from that perspective I wouldn’t want to see the weight of teaching increased, but I wouldn’t want to see teaching mitigated much either and ... it is a question of whether one should speak only of teaching, whether we shouldn’t simply concentrate much more on the discussion of education. In other words, I want to see our students learning, appropriating knowledge and acquiring abilities in a wide variety of ways in undergraduate studies, and obviously the construction of research at the school is no less closely connected to the construction of research education and training, that is, the training of young scientists. It is extremely important, and I want to see an increase in the emphasis of [research] training [Science – an interviewee also having an administrative role].
The interviewees commonly expressed their wish to be offered some flexibility in how the three lines of academic duties, administration, teaching and research were organised:

I think it is very difficult to have a clear cut, fixed number for how you divide your time between administration, teaching and research. In my opinion it should vary, people should be given a chance to take periods, for example a period in which they spend most of their time on teaching, then another period when they are doing more research but do some administrative work as needed each time. So I do not feel right to have this fixed, because there are projects that you get which capture all your effort and in those cases it’s inconvenient to be like stuck in teaching [Geology].

One pointed out, that involving teachers more in decision-making when it came to the organising of academic duties was something which could serve to “ensure proper change and development within the university” [Political Science].

Administrative duties were also a frequently discussed topic, within which various aspects were brought up. Many of the interviewees expressed their concern about how time consuming these duties tended to be:

But what everyone here considers difficult, I believe, is how much time goes into administration, … most of the administrative responsibility falls on us, and we mostly work voluntarily. … This is what makes me sad when I think about my job, that is, how much time I have to spend on things that I could receive support with, if it actually was on offer, and if it was, I would be of much more use in research and in teaching and administration; what I am hired to do [Social Work].

Some interviewees stated that the time spent on administrative duties was much more in reality than the percentage presented in the official work description. In discussing the structure of the “ideal course”, one interviewee described this situation as one of the obstacles preventing one from choosing preferred teaching and assessment methods, like for example using assignments where students had to engage with realistic topics and having the students work more autonomously, have them write research reports and make reviews:
I obviously can put this into action ... but, there are these hurdles ... [that is,] I would probably not do much else. [As organised] 40% of my working hours go into research ... and then of course this administration which is considerably more than is reported in these divisions [Social Work].

Some reflected an additional aspect of administration, in pointing out that it would be a good thing to see certain flexibility put into practice:

For example when an academic is administering a large research project, he could devote himself to that and decrease teaching. At other time [he could] be working on developing teaching methods or writing course material, and could dedicate himself more extensively to teaching ... and then there are occasions when the option to use the time purposefully for administrational work would also be important [Science – an interviewee also having an administrative role].

The two administrators working outside faculty were also asked to reflect their thoughts on the subject, but the question was rephrased as to fit their position. They were only asked to reflect on the division itself, and asked if they were content with the way these duties were arranged or if they would like to see changes and if so what changes.

Their views on whether academic duties needed to be organised differently seemed in general to be in line with those of the teachers themselves.

Administrator one argued both for more flexibility in the allocation of duties and less emphasis put on administration duties than was the case when the interviews were conducted:

Personally, I endorse the view that this be made much more flexible ... I am of the opinion that it is a misunderstanding that every single teacher should be busying himself with administration ... I think there should be more professional administration in schools ... and teachers can then receive much more support with their profession. The management and support services has been weak in the University of Iceland, the intention is to change that so that teachers can concentrate on what they are specialists in, and hired to do,
teaching and research ... there are arguments for and against, and pros and cons, but generally I believe that this should be more flexible [Admin-one].

Administrator one also addressed the aspect of flexibility based on teachers’ interests, strength and weaknesses:

What I mean ... that a teacher which is very active in research ... has the opportunity to dedicate himself to research ... I don’t think it is normal that a teacher that is maybe not much of a researcher has the same proportion of research as the teacher ... who is steeped in international research, I think this does not work well. But it is difficult to handle, it often appears as if teaching is some kind of punishment for those who are not so good with research but ... I don’t think that is the right way to look at it [Admin-one].

Administrator two pointed out that having both research and teaching duties was a key factor in that the teachers used their research as part of their teaching. It would not be possible to have the university function in accordance with its duties if it consisted of teachers whose only duties were in teaching and no research duties; then we are talking about a different kind of university:

In fact, the university teacher’s job has to at least include these two aspects, teaching and research because ... teaching ... bases itself in most cases on research and this is woven ... together. Giving individuals the chance of only teaching or only researching is often discussed, but maybe there has been more effort in the direction of solely researching. ... It has to go together ... the obligations have to involve both teaching and research, and of course administration to some extent, although that aspect is always the smallest aspect in itself. ... What I mean is that you cannot run a university unless these two aspects are more or less the same [Admin-two].

Administrator two also brought up that although it was in some respect positive to have part-time teachers coming from outside the university, the operations of the university could not and should not build on such work force.
Although one must view the other side as well, [I mean] that it is also fruitful for the university as a whole, - I am ... here talking about the whole dynamic of the university -, to recruit teachers from the outside ... You cannot build a university on just the participation of part-time teachers. You must have this core, particularly when you are running a research university. ... There has to be a specific proportion, ... I would say at least around 80% ... which retain these two obligations, and then teachers arrive from the outside who also empower the relations to society, businesses and institutions external to the school, ..., I think this is also a very important aspect, viewed from that perspective [Admin-two].

The aspects revealed in the interviewees’ accounts thus seemed to reflect similar views, for example about the status of teaching compared to the status of research, that is research being rewarded more than teaching in the promotion criteria, time consuming administration and the wish to have more flexibility in how their time was distributed between the two, teaching and research.

6.2.2.4 Institutional policy on teaching and teaching-learning cultures at faculty level

All interviewees were asked to reflect on policy matters regarding teaching both at faculty level as well as the institutional policy. One of the topics brought up in the interviews was whether the teachers felt that there was a certain policy that existed in their faculty, a policy which gave lines or indicated what kind of teaching was best suited to provide high-quality education in the disciplines taught. In that very context the interviewees were in addition asked to describe the nature, and the degree, to which teaching, for example methods of teaching and assessment, were discussed between colleagues at the faculty level.

A common response to the first question was to stress what is, within the university community, referred to as “academic freedom”, that is, stressing that in teaching, just like in research, teachers were given freedom, within the limits set by the financial contribution, to organise and implement teaching in his or her preferred way: “... We have a certain amount of time to teach what we want to teach, and within this period we have considerable amount of freedom in regard to how we do this” [Medicine].
Likewise, in further discussions on the issue, something in line with the following was commonly claimed: “...we have not really sketched out a particular policy for ourselves or a single direction where everyone has to teach in a specific way” [Geology]. ... “I do not feel that there is a particular policy in the faculty ... the faculty does not seek to have any input in regards to how the courses are taught” [Medicine].

However, it was also marked that pedagogic issues had now gained more respect within all faculties than they had in earlier years, which in turn had resulted in more emphasis being put on pedagogical matters when working on faculty policy:

Pedagogy enjoys much more respect than before and people in every faculty have realized that teaching as a specific field, or as a particular art, matters greatly; it is not sufficient to only be well versed in your theory, but rather, the way in which you mediate and experiment, that this is also a factor which you have to cultivate. Both within the faculty and the individual disciplines, people have shaped a certain direction ... and there has been work in relation to the extent that we are cooperating with the centre for teaching and learning ... It revolves around placing things within a natural work procedure, so that: Yes, there has been a shaping of policy [Political Science – an interviewee also having an administrative role].

Yet, there were concerns that pedagogical issues had not been manifested to a satisfactory degree within faculties, and needed to be more visible:

Pedagogy, in disciplines like [my] own, is not visible enough. So, when we show interest in changing our teaching, changing the organization, learn how to better shape our lectures, etc. etc., then we have ready access to matters on pedagogy, but we are not conscious of it [Medicine].

In addressing previous experience of participation in policy making at faculty level, one interviewee noted, that one of the advantages of these procedures had been seen in the opportunity to develop a professional policy regarding teaching:
One of the things that we have kept in mind is the creation of some kind of avenue for the shaping of professional policy for teaching. We want to separate it slightly from what we call management of teaching, which has more to do with everyday assignments and attend to student issues ... It is very important that people have the chance to distance themselves and that they have another avenue in order to consider the progress of teaching and research within a wider context. History will then always be the guiding light [Science – an interviewee having administrative role].

When asked about the nature of the discourse on teaching in between colleagues, most of the interviewees agreed that teaching matters were not a widely discussed matter in their faculty, and that the discussion was more in general terms, like voiced by one interviewee in the following way:

I find that the discussion [about teaching] is quite general; it is not particularly focused toward specific factors of the teaching or the like. It is more about the teaching and the student group it is general [Medicine].

Another interviewee, hinted at a certain kind of individualistic culture in describing the nature of the discussion on teaching matters:

People discuss teaching and they readily take turns, and ... exchange opinions regarding what has gone well, and so on ... I would have assumed that teacher evaluations were sometimes discussed, and new courses, although teaching methods are rarely talked about. Generally speaking, there is not much discussion within this group, and in reality you can scarcely speak of this as being a single working-unit [Political Science – an interviewee also having an administrative role].

However, some described quite the opposite experience, when this issue was brought up:

We have gone through a rigorous reorganization which maybe has the effect of creating a fruitful and extensive discussion regarding the ways in which we can channel the knowledge that our students require ... I would say that this is a topic that
we are always discussing, we ... re-evaluate goals and policy and make an effort to focus on that which is important, and evaluate the passing year, and set new goals for the coming one [Social Work].

A certain kind of conflict between positive and negative views on pedagogical matters was also reflected, and seen as working as a barrier for those who really wanted to improve their teaching:

There are certain perspectives in the air regarding whether pedagogy is just babble, and has no applicability within our field ... and conversely, there are a few enthusiastic teachers ... who are eager to change the teaching methods, improve communication with the students, make effort to maintain them and prevent drop-out. This [conflict] has in a lot of ways undermined the will of those interested in improving the teaching, they are even mocked [Geology].

It was also noted by one interviewee, that there was a constant discussion between colleagues about teaching, where everybody “had an opinion” on the issue. These were for example about “how best to structure the teaching, what should be taught, and how it should be taught” and “people provide suggestions regarding how to change teaching methods” [Science – an interviewee also having an administrative role].

One administrator compared the current situation with past views on teaching, explaining that teaching in courses had been considered a private matter in the eyes of the teachers themselves, “there simply were good teachers and bad teachers and nothing could be done about that”, adding that the situation today was quite different:

There has been an increase ... in discussions regarding specific courses, regarding teaching, and on teaching evaluation with the teachers, and so on, there have also been certain effort to the extent that [if] ... teachers receive bad results it will be addressed ... in those cases there are specific means, such as contacting the centre for teaching and seeking assistance ... and in this way seek to help the teacher and improve the teaching. ... And we need to strengthen this ... further, but it seems to me to be heading in the right direction [Political Science – an interviewee also having an administrative role].

186
Another interviewee described the current situation as being of the kind that there was certainly discussion on teaching matters at faculty meetings but only the “big issues” were addressed there:

What I would want to see change ... is to discuss the ways in which teaching can be improved. ... In a way, there should be a little school director for each year, and then another school director which standardizes the whole, but there needs to be more organization within each year, and here I’m speaking of standardization, coordination, and the transfer of information between courses so that people are more conscious of what is being taught in other courses, in order to ensure appropriate overlaps ... neither too much nor too little. ... The flow within the faculty needs to be improved, and we are working toward it [Medicine – an interviewee also having an administrative role].

The aspect was also noted that policy on teaching was more of an indirect nature, the main lines being that teaching matters were put into the hands of each teacher:

The [policy on teaching] is partly indirect. Generally, we trust our teachers; we place this in their hands. On the other hand ... professional policy-making is conducted within these units that we have, these divisions that we have in the faculty [Science – an interviewee also having an administrative role].

Some called for teaching to be discussed within faculties in a systematic and natural way, like a project which people worked with collectively:

There are [things] about the inner organization ... that ... a further step is taken to the extent of making ... systematic work processes ... so that all aspects of teaching are discussed in a systematic and natural way, what is going well, and what is going badly, and what is of most importance is to create a working environment and working atmosphere where certain teachers don’t experience it as a threat or personal attack or rudeness or rebuke, if someone else discusses their teaching ... especially if something isn’t going as it should. That it is a normal thing ... that it is a ... project which people work with
collectively and it is normal that things are discussed in certain solidarity [Political Science – an interviewee also having an administrative role].

A quest for more cooperation between teachers was also brought up by another interviewee, who criticised too much individualism within universities:

I think what we need to improve in teaching ... in communication and cooperation between teachers. We have too many individualists who don’t like that others are able to pressure them in altering and adjusting their teaching to what is taking place elsewhere ... this is a misuse, I would claim, of academic freedom, I don’t want it to be removed ... since university teachers should be allowed to be independent and should have the opportunity of constructing their teaching, but there is no shame in cooperation and rich communication with others regarding [teaching] [Medicine – an interviewee also having an administrative role].

The utility of such teaching committee as a platform forum for policy making was brought up by another administrator, who described tasks which an appointed teaching committee had taken on within the faculty:

We [established] a teaching committee ... The teaching committee did a great job in providing suggestions regarding organization or new structures within the postgraduate studies and how we can ... offer holistic postgraduate studies here. Up to this point we have generally assumed that students spend a part of their studies abroad, participate in courses and work on projects. Of course we want this to continue but we ... are now placing more emphasis upon attracting an increased number of foreign students to our studies ... The teaching committee handles the project so efficiently ... to the extent that ... we have established a space for policy-making [Science – an interviewee also having an administrative role].

One interviewee pointed out that a great effort had been made within the faculty to fulfil the aims set in the institution policy of, “outstanding research, ... outstanding teaching ... and outstanding administration and support services”. In that context teaching was addressed in particular:
In all these matters an impressive job has been done ... [I think] that it is stated in completely clear terms in the university’s policy that particular emphasis should be placed on good teaching, I think it has delivered good results within the school though it can still be further improved [Political Science – an interviewee also having an administrative role].

The view was expressed that the institutional policy in effect, had worked as a facilitator to faculty policy, in that the aim of the institution to change itself into an international research institution was very much in line with where the faculty wanted to head:

There is no question that there was both a whole lot of support for this policy within the faculty and ... our activities were actually along those lines and ... now it is the university’s policy to do the things we wanted to do [Science – an interviewee also having an administrative role].

In reflecting on the faculty policy the same interviewee noted that the process of reform was a complex process and as expected it wasn’t a given fact that a consensus was reached:

Of course it is inevitable, such a process of change is complex and this restructuring is not simple, and even though I have a relatively clear view of where we need to go, not everyone shares this vision. One has sometimes felt that we are losing sight of things in this whole process, and that is a feeling many people share, although I don’t think people have completely forgotten where we were headed with this whole thing. But there has undeniably been quite a lot of, we have invested a vast amount of energy ... into this whole process [Science – an interviewee also having an administrative role].

As has been reported earlier, the question-framework had specific questions on policy and quality issues, targeted towards administrators, outside faculty. First, they were asked to reflect on what would be their suggestions, if given the opportunity to make suggestions for changes and development within faculties; what they would like to emphasise, for example with regard to organisation of courses, teaching methods, assessment etc.
One of the issues brought up as an important factor of enhancing learning and teaching, was that the faculties would adopt what was referred to as “quality culture”:

I think, on the one hand, that good quality control is important, which means that we have good teachers and that all teachers ... update their knowledge ... on ways of learning and studying and teaching techniques ... then there is another thing ... that is quality culture, I think that in the end, in my opinion, quality culture is the most important and quality culture obviously means ambition, animated interest, that teachers compare themselves to each other, talk with each other, and contemplate the teaching ... that teachers are conscious ... that there is certain ambition and a will to reform, this is entailed in quality culture, being ready to change, ready to accept improvements. If this kind of atmosphere is created, if this kind of atmosphere dominates ... then I would say that in all likelihood the teaching and the studies are of good quality [Admin-one].

Emphasising the importance of structuring study programmes in a holistic way was another aspect brought up:

The goals have to be quite clear and what kind of individuals we are shaping, or toward what is the student supposed to dedicate himself? What is he supposed to be like after the student has completed, that is perhaps what is of most importance. ... Regarding the structure of the study programmes, then it has to be a matter of ... considering the study program holistically. ... This is just like a building, where each part is a part of a whole. ... It has to involve a certain dynamic and then the student must obviously have some freedom within this frame. It is particularly important that this whole is carefully constructed and prepared by the teachers that are responsible for the whole. ... we have continuously emphasised, that it should be done in this way, and I think that it is in most cases, although in some instances it has not been done [Admin-two].
The importance of active involvement of students in decision-making, such as participation in committees and councils was stressed:

Studying for a university degree also involves preparing the individual for participation in a society, a democratic society. The university is a particularly democratic institution and students are very active members of the process, and they should be, and should preferably be members of every committee and council, and they are heard [Admin-two].

A question posed was whether the administrators sensed that the faculties had some specific ideas and policies on teaching issues, for example on the issue what constitutes good teaching, and if so, how they saw this policy manifest.

In their accounts they commonly described the current situation as they saw it when the interview was conducted or referred to the past, but also listed various issues which were in the pipelines which they saw as a path towards further enhancement of teaching.

In this context one of the administrators drew attention to decisions which had been made about quality procedures with regard to teaching issues:

We are sort of at crossroads ... and in a university meeting which was held here a few weeks ago ... a document was approved ... which basically set the tone for a more organized quality control concerning teaching in the faculties than had been done before. There, we anticipate, among other things, particular teaching committees for each field, which have clear and very extensive roles, and then of course it will depend on the execution [Admin-one].

Administrator two pointed out that generally speaking the staff was “vigilantly thinking and have been for years”. The same interviewee drew, in this context, attention to the process that the faculties had been participating in as part of the accreditation (a part of the Bologna process) as an example of policy making procedures which had taken place within faculties, all having to do with improving teaching and other operations:
We have been engaged in ... specific work regarding the shaping of policy, both for the faculties and the university as a whole. This includes the teaching and improved teaching is the aim ... and what methods can be used toward that goal. The university has recently undergone a process of recognition, as we call it ... in fact we, this school, rigorously called for clear rules concerning standards and quality in university studies. We have always taken this very seriously [everything] that relates to improved teaching and improved schooling, so we have in fact scrutinized these issues in every faculty. ... And it [the work] is grassroots work [Admin-two].

The administrators were asked to reflect on the institutional policy, if something in the policy in one way or another either supported or inhibited the emphasis they wanted to be put regarding teaching issues. In addition they were asked what, in their opinion, was the standing of quality issues within faculties regarding teaching quality, and what changes, in more general terms, they would like to see as policy makers.

Administrator one discussed the decision to have teaching committees within each faculty, as a supporting element in this respect, as they decentralized policy making on teaching:

I have considerable faith in this new teaching policy ... where teaching committees will be established relatively close to the field, ... it is ... not good enough if [everything is] centralized. ... The source has to be with the teachers themselves and where the teaching and the education takes place [Admin-one].

Administrator two drew attention to discourses within faculties about the study programmes in all faculties and their standing, which was seen as supportive to enhancement of quality as part of the overall policy of the institution:

[I] think that ... consistent and organized discussion has taken place ... in every faculty of the school and within divisions, where we have in fact scrutinized every single study programme; there are here more than 300 study programs in the undergraduate studies, postgraduate studies and doctoral studies. Then we also have inter-disciplinary studies also ... we have gone through this in every ... single faculty and each
faculty has done so for itself. They are intended to shape their own policies in order to facilitate the holistic policy and this has been carried out I think mostly in positive terms [Admin-two].

The same interviewee saw lack of time and too much workload as a common obstacle preventing the staff in having the opportunity to reflect on matters regarding policy making:

Of course there are always some obstacles ... it is just the usual that time is a limited resource so that people are very busy and the workload is vast, so we would have wanted to have more time, and allowed ourselves more time to just pause for a moment. ... Look over the travelled path, and toward the ones to come ... sometimes one has to ... work a bit hurriedly. So, what I miss the most, I think, is that sometimes we don’t have enough time to pause; I can’t phrase it any differently [Admin-two].

6.2.2.5 The impact of financial factors on the quality of teaching

Financial issues were the most commonly discussed matters when the interviewees described what they saw as an obstacle to implementing teaching in line with their own ideas of good teaching.

In their accounts almost all interviewees discussed issues, which in one way or another were related to the budget allocated for their faculty, and the way the current financial model worked within the institution.

They also frequently mentioned issues related to how the financial model, used by the Ministry of Education, worked with respect to the so-called effective units. These effective units determine the financial contribution to the institution.

Various aspects were brought up, such as that too low budget assigned for each course worked as an obstacle, not allowing certain preferred changes to be made.

An example of the consequences of too low budget, as described by the interviewees, was that too few academic positions were allowed for the faculties. In other words despite the fact that the numbers of students enrolled had risen dramatically over the last few years, the number of teachers stayed the same:
Lack of finances ... is a very restricting [factor] here ... if we take [my field] as an example, Geology, then there are five permanently hired teachers in The University of Iceland, the five have been here for twenty years. The number of students has tripled while we have not added a single teacher. There has been no increase ... and this means that there is growing pressure on the staff and here everyone is doing overtime [Geology].

Another aspect brought up in this context was, that in order to meet the need for more staff, the solution to the problem should not be to hire part-time teachers. These needed to be permanent positions. “That is the main hindrance. We need more staff, more teachers and not just part-time teachers; [it is an obstacle] if we are understaffed; I am talking about permanently hired staff” [Social Work].

It was also brought up that the financial model worked as a barrier to necessary development when it came to hands-on teaching:

The University of Iceland is a very ambitious school and there are many positive things taking place here, but we are still living in cramped conditions, and our finances are severely limited when it comes to practical [hands-on] teaching ... practical teaching is very expensive, it is much more costly than other teaching and the cake is ... limited and each completed credit can only return such and such amount of money and then we have to sketch our financial plans in proportion to that. In those cases it is generally practical teaching that is cut, this has simply been the experience and it is very negative [Geology].

Another point, brought up when discussing the financial model, was how the organising of courses into certain budget categories meant that if courses were put into low-budget categories those in charge of these courses had no option of appointing assistant teachers:

Finances, both the time and the finances [contributed to the study] field are also factors. One would of course want to have more assistant teachers and more time for oneself to dedicate to other elements of the work. But it is extremely limited, especially within this budget category [Political Science].
Faculties getting a low budget as a consequence of how the system works was, by many of the interviewees, viewed as an obstacle standing in the way of enhancement of teaching in general, mirrored in the following:

What is in effect standing in the way of reform in teaching in the fields that populate the lowest financial category at the ministry, is that the cost per student is so low that it is very difficult to establish proper teaching methods ... And in some ways, the lack of funding stands in the way of any substantial reform [Political Science – an interviewee also having an administrative role].

This was further voiced by the same interviewee when describing how the model worked as a modulating force when deciding teaching methods:

If funding per each student is limited then two things take place. Firstly, you have to reduce the total demand for teaching, for example, you cannot afford discussion classes ... and in that way a decision has been made [about] that the teaching should only be conducted by way of large lectures, lectures in big groups, written exams [used] and ... this is the way it was widely in the humanities and social science in the last century [Political Science – an interviewee also having an administrative role].

Closely related was the concern expressed about how the financial model seems to reward to courses with a large number of students:

You can ... divide the students into small groups, and have them work on some assignments, [but] the system as such does not allow for such divisions. You get the most out of it, financially speaking ... the school ... and the faculty, [if you] simply have enough students, [because then] you will receive those completed credits, [and] that actually matters [Social Work].

Some expressed their concern that a formula, rewarding a large number of students, might have consequences that would not be welcomed, for example not “for the work that is being done in order to propel this fine school onto the top 100 list of the best universities”: 195
What is happening, [is that] ... Now you receive something specific for teaching, ... If you have 30 people in an exam, you receive a higher pay than if there were only 20, but ... not only the teacher, but also the faculty, ... and this means that if [the faculty] receives a certain amount per head that completes an exam, then it has become a matter of great importance, it seems, for the faculty [having as many as possible] finish the exam. ... Yes ... the completed credits. ... And I think that there is encouragement involved in this, directly and indirectly, to maybe graduate more [students], or that a larger number [of students] complete exams rather than not, completing their studies, and it seems a bit dangerous to me. ...I think this path is slightly dangerous [Geology].

The issue was raised whether there were dangers involved in how the financial system works, in that there was this tendency entailed, to enrol new students with an inadequate background and even relaxing study demands in order to keep the larger number of students:

The universities have entered into a very dangerous environment, riddled with temptations, because the funding is dependent on the amount of students. And in Iceland there is a lot of competition between schools with respect to students, and of course there emerges a considerable temptation for the universities to relax their demands. To accept students which do not have a sufficiently prepared education, as is widely done, too widely. And I am not sure, but I suspect that in some places educational demands are also relaxed [Political Science].

An administrator described the financial system used by governmental authorities as the main inhibitor to professional quality, as it for example worked as a barrier to inter-disciplinary cooperation:

Perhaps the greatest enemy is ... the monetary system; the financial system ... the financing in Icelandic universities is determined by contracts, by a certain mathematical model. ... The universities receive funding for so-called completed credits and each credit receives funding depending on how industrious it is ... in a sense a system that doesn't encourage ... cooperation. ... It is simply better if three divisions within one
faculty have their own methodology course and attempt to attract as many students as they can, rather than teaching cooperatively, share, build bridges. It undermines interdisciplinarily work ... it is ridiculous if the monetary system works against professional quality [Admin-one].

The same interviewee also put the effect of the financial system into a wider context, that of politics into educational matters, in describing its impacts on policy making:

There are some financial categories [which determine the contribution] and there are endless debates on whether they are good or bad. ... It is also a determining factor ... with us who teach so many subjects [and] in some fields within the school ... low-attendance subjects, and this is of course an educational-political question. .... Should we be teaching Icelandic linguistics if there are only seven people in the class? ... Do we have any cultural obligations to do so? Or, basic subjects of natural sciences, physics, there aren’t many students in many of these subjects. But we think ... it is very important to do so, but it is impractical. ... One can perceive the immense impact regarding how other universities [decide] what subjects they teach. ... There is no private university that insists on teaching Theology or Latin ... and that is for financial reasons. That is not good, and it has a vast impact on the facilities, conditions, development of subjects, human resources etc. [Admin-one].

We have now reported the main aspects found in the interviewees’ accounts of internal as well as external influences affecting the teachers’ ability to teach in a way which they considered teaching of good quality. In the following section the findings that derived from our investigation into the impact of the Bologna Process will be reported.

6.2.3 The meaning of the Bologna process and its impact upon quality

One aspect of investigating quality aspects of teaching was to investigate the manifestation of the Bologna Process within the institution, both with regard to the quality discourse in general, but also the implementation of quality procedures at faculty level.
All the interviewees were asked to reflect on the Bologna process, that is, what they understood by this process and how they perceived its implementation materialise within the institution.

Four, fairly clear themes emerged when studying the teachers’ accounts: The 3+2+3 synchronization of the study programme system; the coordinated system of credits (ECTS credits); the quality assurance aspect of the Bologna process and the fourth, closely related to the quality assurance aspect, that is, international recognition as a result of accreditation according to Bologna standards.

6.2.3.1 The 3+2+3 setup of study programmes

The most common aspect brought up was the general framework, that is, the Bologna process primarily being concerned with the synchronisation of systems. Like the following two example show, the interviewees, when asked what was the first thing that came to mind when the Bologna process was mentioned, most commonly began their account by listing up the study programme setup: “Is it not 3+2+3?” [Science – an interviewee also having an administrative role]. “For me, Bologna only means one thing, 3+2; this is the only factor that I gather from it” [Political Science].

The rationale for starting the cooperation between countries through the Bologna process was recalled by Administrator two and in that context pointed out that the Bologna process was in no respect stipulated as some kind of law:

It began, and revolved around an attempt to coordinate the structure of the education. That is why it is referred to as 3-2-3, that is, three year undergraduate studies and two year postgraduate studies and three year doctoral studies. … The Bologna process is not an international treaty, the Bologna process is simply an aim with voluntary participation of individual countries. The ones that want to participate have to fulfil certain conditions, that is, being a member of the European Culture Convention of the Council of Europe, which presupposes a certain democratic structure [Admin-two].

There were examples of interviewees among the teachers who seemed to have broad knowledge of the topic, describing the framework and its purpose in detail:
In my mind it means that European nations have decided to set a standardized framework regarding studies at the university level, where particular demands are made concerning translatability between countries; that there is nothing separate for each country in reference to what constitutes each grade [Social Work].

It was pointed out that having this general framework, helped to understand what was included in the degree: “It is a kind of coordination, a minimal coordination where a credit means the same in every country and it is possible to understand the diploma” [Admin-one].

But there were examples of interviewees who voiced their doubts, regarding the justification for adjusting the studies in their faculty to this arrangement:

3+2+3 ... Yes, I have not familiarized myself with it well enough, it comes up quite a lot in discussions on the organization of studies in [my] faculty, which does not harmonize with this process, and there is a question of whether and to what extent it should [Medicine].

The opposite view was also mirrored: “I think that this is a much more sensible model than for example the candidate studies, which take 5 or 6 years” [Political Science – an interviewee also having an administrative role].

6.2.3.2 The coordinated system of credits (ECTS credits)

A second, but of course very related theme, was the understanding that the process was primarily aimed at the mobility of students between systems:

The Bologna process simply revolves around making the studies more transparent, making it easier for students to travel between countries. So that the external structure from one country to the other is comparable even though the substance of each may differ. And maybe the greatest development of the Bologna process has been that [Admin-two].
It was noted that because of the standard framework, and as a part of it, the coordination of study credits (ECTS), it would be easier for students to move between systems, or as one interviewee voiced:

I think this is good if it aids [undergraduate] students and newly graduated [students] in attaining recognition of their studies as widely as possible, and they can in consequence easily travel between both work and university, I think this is good [Social Work].

The benefits of coordinating both, the set up of study programmes and study units (ECTS) were not only linked to the student, but also the academic dimension:

I think it [the Bologna process] is utterly necessary. The main reason is standardization between countries; that is, that we standardize the education systems in Europe in a way where the flow of students and teachers between countries is made easier, the exams and everything. Now, it is not certain whether we find the best solutions, but at least we find collective solutions, I think that is of more importance. Then we can always work toward changing it [Medicine – an interviewee also having an administrative role].

The benefits of standardization between countries were also voiced in wider context than that of the local one:

The ability to travel between countries enriches and improves and strengthens education in Europe. That is something which was clear to the ones who brought it about and I think it was their intention [Admin-one]

However, some interviewees expressed doubts about their own awareness of the impact of the Bologna process, as mirrored in the following:

I am not sure whether I am properly aware of what the precise scale of change ... has to take place or is taking effect [in relation to the Bologna process] ... [we]need to realise that we are ... adjusting ... or coordinating ourselves with the university system out in the world. We achieve this through, among other things, the specific form of course descriptions and the credit system [Geology].
6.2.3.3 The quality assurance aspect of the Bologna Process

The third theme that emerged was related to the quality assurance aspect of the Bologna process.

The part of the manifestation of the Bologna process, which seemed to be most familiar to the interviewees, was the restructuring of study programmes, in accordance with the framework, and in particular working systematically on the setting of learning outcomes for each study programme, and each course.

The view that this work had the potential to enhance quality within the system was typically voiced:

[Identifying] learning outcomes, as a part of [Bologna], has proven to be mainly positive. We had to mould our study-programme into this shape and it encouraged us to begin thinking about quality and how we evaluate quality [Political Science].

Related to this were the benefits seen in being equipped with guidelines on methodology regarding quality assurance procedures:

“Standards and Guidelines for Quality Assurance” or “European Higher Education Area” ... was a ground-breaking document [signed by educational ministers of Bologna member states in Bergen 2005]. There you can sort of find the framework for what is considered quality management within universities. Therein the process is described; it is just a certain working procedure, a methodology which everyone has agreed upon [Admin-one].

The impact of these guidelines was also mirrored, that is, that the process of working systematically on changes of study programmes, as a part of attaining qualifications, had made those involved think more systematically about the organisation and content of courses:

Through this process, we searched the depths and considered how best to organize the studies, there are certain standards in [these] studies ... and we of course adjusted ourselves to it [Social Work].
However, there also seemed to be mixed views about the matter, especially with regard to workload, as one pointed out:

People consider this process of course first and foremost as some kind of burden ... [and] it is. However, I am of the opinion that if the cards are held right, then the work on learning outcomes ... can ... become a useful tool [Science – an interviewee also having an administrative role].

It seemed that the quality procedures involved in the Bologna process had in the interviewees’ opinion proved valuable in various ways. As was typically mirrored in the following:

Because then you are looking more closely at what others are doing, not solely measure in terms of oneself, but one is rather indirectly making comparison-assessments while reviewing. There needs to be more of that, and it is presupposed that if the quality standard is the same, then students can flow between, then we would recognize here the BA degrees from students of other countries, if we know what they mean, in terms of quality, and what lies behind their studies [Medicine – an interviewee also having administrative role].

And the presumed main reason, as well as justification, for such systematic qualification procedures was also addressed, in drawing attention to the reality that:

The government is spending an ever greater portion of the taxpayer’s money on education systems, and politicians have to maintain some kind of surveillance system, some kind of check-up. ... This constitutes our work-environment, and people have to adjust to it [Political Science – an interviewee also having an administrative role].

Another interviewee mentioned changed discourse on quality matters as a part of the Bologna process which could be said to be supportive to faculty policy:

One has begun having a better look at what others are doing, not solely referring to oneself, but instead one is making indirect comparisons when observing. ... And this entails the
fact that the standard of quality is the same, we know ... where [the student] students BS degrees are placed, in terms of quality [Medicine – an interviewee also having an administrative role].

Finally, the external quality control was addressed, that is by stressing the importance of transparent standards both with respect to the institution and the government:

The education ministry here of course has to ensure that no school begins to create low-grade and cheap Master’s degrees. Someone has to observe this as well so external quality control is also very important. There are certain guidelines concerning what is appropriate, you know, principles, there should be transparent standards, who are professional, and un-biased toward the government on the one hand and the university on the other. That is a certain framework around quality control and quality management [Admin-one].

6.2.3.4 International recognition as a result of accreditation according to Bologna standards

The fourth theme can be characterized as a corollary of the third, in that the interviewees typically suggested that, as quality criteria became more transparent, institutions might adopt the standards set by the most prominent ones, at the international level, and thus improve their own standards:

... And we have also been subjected to a foreign quality assessment. Foreign evaluators arrived and assessed our study program, and sketched a report, and we received recognition and quality assurance concerning our study program ... so there are certain international standards which international associations [of schools in this field] have set, and we ... adjusted ourselves to the standards that are attached to these studies on an European level. And the schools in Europe are passing through this process ... of course everyone was content about the assessment and it is an acknowledgement for the faculty as such [Social Work].
It was also voiced in this very context, that some study programmes were in essence, as it was phrased, “a bit international”:

So, our approach is international, that is, we want to participate in an international community of science ... [and therefore] ... we want to participate in an international community of science and additionally, we want to build our Icelandic culture, both through research and teaching, and we have ambition in that regard [Science – an interviewee also having an administrative role].

Finally, it should be noted that some of the interviewees claimed that they knew little of the process and therefore were reluctant to discuss the issue:

I do not know what to say, we have not discussed this much, and when it is discussed, it is mainly as if this was some kind of futuristic music that has not yet gained acceptance. But I have to admit that I know very little about it [Geology].

The findings reported above have identified the main issues and views on the topic under study expressed by three categories of staff within the institution under study, that is, teachers, teachers that also had an administrative role within faculty, and administrators outside faculty.

Having established these views, the study entered into a quantitative phase of data collection, that is, that of investigating further the issues raised through a survey questionnaire. In Chapter 7, the methods used in this phase will be explained, and following that the findings will be reported.
The micro level: “Good university teaching” and influences on its implementation – Findings from analysis of a survey questionnaire

Through interviewing staff, at the individual level, the characteristics of “good university teaching”, as perceived had been identified, as well as the internal and external conditions and influences that were seen to affect the implementation of good teaching. Based on the findings a questionnaire was developed with the aim to test the particular aspects identified in the interview data in a larger sample. In the following sections the methods adopted for this quantitative phase will be further explained, followed by a reporting of the findings.

7.1 Methods

Whilst the aim of the interviews with staff was to explore, in-depth, the individual aspects of the topic under study, the second, quantitative phase, had two main purposes. Collecting supplementary data, using quantitative methods, was considered an effective way to increase the validity of the overall findings, and also, the quantitative data were seen to serve as a way to illustrate, clarify and enhance the results from the qualitative data. These have been referred to in methodological terms as triangulation and complementarity (Greene et al., 1989, p. 259).

7.1.1 A Survey methodology

Conducting a questionnaire survey was identified as the best suited methodology for the purposes described above. When surveys are conducted, information is collected by asking participants about their attitudes, knowledge or experiences. Typically, these data are collected at a particular point in time with the aim to describe the nature of existing conditions. The purpose can also be to identify “standards against which existing conditions can be compared, or determining the relationships that exist between specific events” (Cohen et al., 2000, p. 169). The attractiveness of using a survey as a methodological approach lay, as stated by Cohen et al. (2000) in:
... its appeal to generalizability or universality within given parameters, its ability to make statements which are supported by large data banks and its ability to establish the degree of confidence which can be placed in a set of findings. (p. 171).

It should be recalled in this context, that the data from the interviews were collected in 2008 and the survey conducted in 2011. This was seen as an important factor for the triangulation of the overall findings. The institutional policy 2006-2011 was in its midst at the time when the interviews were carried out, and in its last year, when the survey was conducted. Conducting a survey, built on the interview data, three years after the interviews had been carried out was considered conducive to illuminating whether the issues raised in the interviews still had the same weight in the sample three years later or if these had changed.

In the following sections an account will be given of the development of the survey questionnaire used for the study, the administering of the survey and the analytical procedures used.

### 7.1.2 The survey instrument development

The issues identified through the analysis of the interview data were the components that formed the basis of the development of the survey questionnaire, both with respect to content and structure. But there was an additional dimension to the one covered in the interviews, which a survey in a large sample was seen to provide an opportunity to measure, namely the way teachers approach their teaching. How these corresponded to the items derived from the interviews, was considered of value for the overall findings of the study, as research has shown that academics’ approaches to teaching are strongly affected by their conception of teaching and in turn these approaches impact upon the extent to which their students reach higher levels of learning outcome. It has also been found that teachers have what can be described as a preferred approach to teaching, but when encountered with some factors in the teaching-learning environment affecting that approach they tend to adopt an alternative approach (Kember & Kwan, 2000; Trigwell et al., 1999). Teachers’ approaches to teaching could be measured using an already existing instrument, known as the ATI (Approaches to Teaching Inventory) (Trigwell & Prosser, 2004).

The ATI has been described in a brief account in the literature review. The theory behind the ATI says that it is not supposed to be used as an
indicator of anything absolute, as this will change with context (Keith Trigwell, 2011, verbal source). In other words, its value lies, among other things, in using it in relation to something else. Because of this relational element of the inventory, the main use of the ATI has been seen in “collecting data for the analysis of relations between approaches to teaching and other elements of the teaching-learning environment perceived by the same teacher in the same context” (Trigwell & Prosser, 2004, p. 421). On these grounds the ATI was added to the survey questionnaire (see the original ATI in Appendix E). By using the ATI in this way an opportunity was provided to correlate responses for any one person on the ATI with the other variables in the questionnaire related to good teaching and the conditions under which such teaching was perceived to take place.

The validity and reliability of the ATI has been tested through a number of studies (Trigwell & Prosser, 2004, p. 420). Based on an analysis of earlier studies, it has been found that “the ATI is a valid and reliable relational instrument for measuring key aspects of the variation in the ways teachers see and approach their teaching” (Trigwell & Prosser, 2004, p. 421).

The ATI was translated into Icelandic. Three separate translations were made by three individuals, the author of this thesis being one of them. All these were used to make a final translation. The final version was then reviewed with regard to phrasing, in order to ensure that the meaning in the original text was preserved. Finally, one of the authors of the ATI, Professor Keith Trigwell, was consulted with regard to all concerns in the translations. These mainly pertained to adapting the phrasing of items as well as possible to Icelandic, but also they concerned the phrasing of the scale. In the following section the structure of the survey questionnaire is further explained.

7.1.3 The survey questionnaire structure

The survey questionnaire consisted of 36 questions (see Appendix F and Appendix G for English translation), some of which contained several items.

As pointed out by Cohen et al. (2000) a questionnaire “will always be an intrusion into the life of the respondent, be it in terms of time taken to complete the questionnaire, the level of threat or sensitivity of the questions, or the possible invasion of privacy” (p. 245). The number of teachers, in some faculties of the University of Iceland, is relatively small. In order to prevent the respondents from feeling at risk of being traceable, the background questions were kept as few and as general as possible. This
decision thus had ethical purposes, but not to ask for information, such as age, gender, academic position and how long the respondent had worked in the university, was also considered to have positive effect for the response rate. The reason behind not asking respondents to give away this information was explained in the introduction text of the survey.

The background items in the questionnaire aimed at collecting information which would make it possible, when analysing the data, to classify the respondents into the same categories of disciplinary domains as had been used for sampling in the qualitative phase of the study. These were information such as the field of science that the respondents worked in. They were also asked to choose one particular course, which they currently taught or had taught, and focus on that very course, when answering the first 30 questions. The 30 items consisted of the ATI and the themes that had been identified from the interview data when asking what constitutes good university teaching. Having the respondents give their responses to all 30 items in the same context was seen as important for the interpretation of the findings, as the responses were expected to change if the context changed (Trigwell & Prosser, 2004). To maintain privacy, the respondents were not asked to name the course, they were only asked to give information about the faculty within which the course was taught and study-year and study-level of that particular course.

The questionnaire was divided into two sections, one which might be described as referring to quality at the micro level and a second part which referred to more general quality related issues, many of which are defined or managed at the meso or the macro level.

The background items were scored on nominal scales as the sole purpose was to be able to classify these items into categories (Cohen et al., 2000, p. 192). The rest of the items in part one were measured using Likert-type scales, as these offer a range of responses to a given question or a statement and are commonly used in surveys, when the researcher wants to measure attitudes, emotions, orientations etc. (Bernard, 2000, p. 294; Cohen et al., 2000, p. 253; Graziano & Raulin, 2010, p. 291).

In cases where the ATI is used along with, and in relation to other instrument items, it usually comes first (Keith Trigwell, 2011, verbal source). Responses to all items of the ATI are on a 5-point scale, ranging from “only rarely true” to “almost always true”, and all items are scored positively (Trigwell & Prosser, 2004).

Thus, section I of the questionnaire, which consisted of 30 items, started with the ATI items. The next group of items, in this section of the
questionnaire, were the 14 items, derived from the analysis of the interview data, that is, items related to conditions needed for good teaching to take place, as conceptualised and defined by the interviewees. These were phrased as statements, and will hereby, in this report, be referred to as “Conditions for Good Teaching” items. For these 14 items a 5-point scale was used, ranging from “strongly disagree” to “strongly agree”.

In section II, the items were of a nature which more referred to the institutional level, or the external level, such as items addressing academic duties; external and institutional factors affecting the structuring, organising and implementation of university teaching; the Bologna process; and issues on students’ knowledge and skills when graduating from university. Several of these issues had been brought up in the interviews, but these were also aspects found in institutional and governmental documentation. Most of the questions in section II offered open-ended remarks, or additional items to be listed as important issues for the context. As noted by Cohen et al. (2000) open-ended questions offer personal comments to be made and help to “catch the authenticity, richness, depth of response, honesty and candour which … are the hallmarks of qualitative data” (p. 255). The last item in the questionnaire was an open-ended question asking for the respondents’ feedback on the questionnaire, for example whether issues, which they felt important when addressing quality in higher education teaching, were missing in the questionnaire.

Validity issues regarding the second section of the questionnaire were addressed against the qualitative data in the interpretation process. As the study was cross-sectional, it was not considered appropriate to address reliability for this second part of the questionnaire.

7.1.4 Piloting process and questionnaire refinements

A pretesting was conducted of the survey in March 2011, as doing a pilot test was considered of crucial importance to ensure its quality (Bernard, 2000, p. 254; Cohen et al., 2000, p. 260). The pilot testing involved several issues, such as testing the clarity of the questionnaire items, gaining feedback on the type of questions, and the type of scales. The length of the questionnaire and the time needed to complete it also needed checking. All these had the principal aim to increase the reliability, validity and practicality of the questionnaire (Cohen et al., 2000, p. 260).

The pretesting followed two main procedures. First, four individuals, one researcher, whose research has focused on teaching in higher education, one expert in quality assurance issues, one administrator and one teacher,
all of whom worked within the institution under study, reviewed the questionnaire and provided feedback. Following refinements, the instrument was piloted by four teachers in another university institution, the rationale being that it was vital not to pre-test the questionnaire using the same respondents as would be answering the main survey (Bernard, 2000, p. 255). Each of these respondents came from different faculties. Following the piloting, all gave feedback, such as on the clarity of the questionnaire; structure; content; length; and appropriateness of questions. Only minor refinements needed to be made after this pilot testing, as the instrument was, on the whole, judged positively by all four respondents.

7.1.5 Sampling

In section 3.1 we reported triangulation and complementarity, as having been the two main purposes for choosing a mixed methods approach. These were also the dominating criteria when considering an appropriate sampling method and sample size for the survey.

As Creswell and Plano Clark (2011) note, sample size, when conducting a quantitative study, typically needs to be large enough to meet the requirements of statistical tests, that is, “the sample needs to be a good estimate for the parameters of the population (reducing sampling error and providing adequate power)” (p. 175). Sampling error “refers to the natural variability among samples due to chance”. As it is impossible to make sure that conclusions drawn from samples will apply to the entire population, the best that can be done is to calculate probabilities that the inferences are valid (Graziano & Raulin, 2010, pp. 103-104). As reported earlier, the purpose of conducting the survey was to validate the qualitative data, and enhance the overall findings, and thus provide as comprehensive and trustworthy representation of the case as possible. Asking the whole population of university teachers within the case, rather than choosing a smaller sample, was considered the most effective way to serve these purposes. Therefore, all tenured teachers within the institution under study having a teaching position and/or having an administrative role at the faculty level, were selected as participants in the survey. Administrators, outside faculty, were excluded when selecting the survey sample for the reason that a majority of the questions referred to teachers only.
7.1.6 The Survey implementation

Web-based computer software, Survey Monkey™ was used to administer the survey questionnaire online. The survey was launched by sending an e-mail to the participants in the sample, containing a link to an URL which was the starting point of the survey. This same e-mail was also used to explain and account for all the ethical considerations that were needed with regard to the survey. As has been explained earlier the Data Protection Authority was informed about the study. But various other issues of an ethical nature needed to be addressed. Thus, in the e-mail, containing the URL to the survey, the proposed respondents were informed about the aim of the study and also that the authorities of the university had been informed about it. In addition it was noted that in order to ensure that the responses would not be traceable emphasis had been placed on requesting very limited background information in the survey. Finally the proposed respondents were informed that the software used would disconnect all possible links between their username and responses and therefore the data would not be personally identifiable in any way (see Appendix H).

In a comprehensive analysis of the role of the internet in survey research, which was based on an extensive literature review on the subject, Evans and Mathur (2005) note that online surveys can have significant advantages over other formats, if properly conducted. In their account they provide a list of major strengths as well as potential weaknesses of online survey methods. Among strengths listed is the flexibility of being able to send online surveys to participants, either as embedded in the e-mail text, or as link to an URL. Another advantage seen is that online surveys can be administered in a time-efficient manner and thus, conducting a survey online minimizes the time it takes to deliver the survey to the participants, as well as collecting the data. Online surveys are also convenient in that respondents can answer the survey at a convenient time and some survey administering software make it possible for respondents to stop at any question, without having to submit, and then return later to proceed. It is also seen as a major strength that once the survey has been submitted, the researcher instantaneously has all the data stored in a data-base (Evans & Mathur, 2005, pp. 197-199).

All these strengths were considered beneficial to the study. The speed and timeliness of administering the survey online was a major strength. Not only did it provide quick and easy access to the participants, but also made all management of the data less time-consuming (Evans & Mathur, 2005, p. 208). For example, instantly, after closing the survey, the whole data-set
could be imported as one file into the software used for statistical analysis. Using Survey Monkey also enabled the respondents to pause, whenever they wanted, after starting the survey and return later to continue their answering (Evans & Mathur, 2005).

Here, it also needs to be noted that potential weaknesses also come with online surveys, one of them being the growing amount of junk-mail, received in e-mails. For that reason, respondents may experience difficulty in distinguishing between unsolicited junk-mail and e-mail asking them to participate in a legitimate survey (Evans & Mathur, 2005, p. 201). Whether respondents would perceive the e-mail as spam or not was not considered a major problem in this study. One reason was that all staff in the institution can use a certain option for their e-mail addresses which blocks all surveys from being sent to their e-mail addresses. However, in order to prevent the e-mail to be filtered out as spam, the title of the e-mail was phrased in a way that minimized this risk. In addition, an opt-out option was built into the e-mail itself, that is, the e-mail text contained a link to an URL for those unwilling to participate so that they could opt-out and thus not receive any further e-mails, such as reminders. This was done to avoid the annoyance of the respondents because of repeated e-mails asking them to participate.

Another potential weakness has been seen in the lack of human contact in online surveys, and as a consequence lower response rates of online surveys compared to other formats. This has made some researchers sceptical about the use of online surveys, that is, they question how the motivation to participate works on the internet. As, Evans and Mathur (2005) note, more study is needed on the matter, but study results have so far shown that online surveys can at best obtain a similar response rate as other modes, but sometimes do worse. One of the methods used in order to get as good a response rate as possible was to inform the participants about the purpose of the study. The importance of participation was emphasised in the e-mail, pointing out that the survey provided an opportunity to air the teachers’ concerns about issues pertaining to the quality of teaching. The introduction text also informed participants that the survey was a part of a PhD project, as well as suggesting estimated time to conclude the survey, based on the piloting. Finally, it was stressed that only a little, and the most general, background information was sought in order to preserve anonymity.
7.1.7 Data analysis

The software SPSS was used for statistical analysis. As has been explained earlier, Survey Monkey stores the survey database in one file, which is compatible with statistics software, such as Excel and SPSS. The data-base file created in Survey Monkey already has assigned each response numeric value, but before addressing the research questions, some preparatory work needed to be done. Data entry errors needed to be cleaned and the database examined for missing data (Creswell & Plano Clark, 2011, pp. 204-206). Those who only had opened the survey and submitted without answering, as well as those who only answered a few questions and then submitted, were eliminated from the data-set before starting the analysis.

In the next sections an account is given of the statistical analysis procedures conducted.

7.1.7.1 Descriptive statistics

In order to determine the general trends in the data, the data-set was first explored through descriptive analysis, such as frequency, mean, standard deviation and variance of responses (Creswell & Plano Clark, 2011, pp. 206-207). As all the items of the questionnaire, which were measured on scales, used either nominal or ordinal scale, the descriptive analysis of the data mostly involved calculations of the frequency distribution (Bernard, 2000, pp. 506-507). In order to reduce, and in some cases simplify, the data, some of the items in the questionnaire were recoded, and new variables computed (Bernard, 2000, p. 507; Howitt & Cramer, 2008). Generating descriptive statistics for all major variables in the data-set allowed for an initial overview of the quantitative findings and provided the information needed to determine the next steps in the analytical process.

The data from the open-ended questions, that is, the ones that didn’t use a scale, were not treated in SPSS. Instead, these data were coded in NVivo in order to choose examples that would serve as representative for the issues addressed in the remarks. However, although treated in this way the remarks are reported alongside the relevant items in the questionnaire in this chapter.

7.1.7.2 Factor analysis

As was reported in section 7.1.2, the first part of the questionnaire contained the Approaches to Teaching Inventory (ATI). The final version of the ATI is the result of a systematic process, using factor analysis, through which the initial items were systematically trialled and tested (Trigwell & Prosser, 2004, p. 412).
As constructed, the final version of the ATI forms two scales; each with eight items. Items 5, 8, 15, and 16 form a subscale of teaching intention, and items 3, 6, 9, 14 form a subscale of teaching strategy. Together they form a factor, labelled the Conceptual Change/Student-focused (CCSF) approach scale. Respectively, items 2, 4, 11, 13, and 1, 7, 10, 12 are derived from intention and strategy subscales, which together form a factor, labelled as the Information Transmission/Teacher-focused (ITTF) approach scale (Trigwell & Prosser, 2004, p. 416).

After conducting an initial exploration of the ATI items through descriptive statistics, the next logical step was to conduct factor analysis as to calculate the extent to which the related variables grouped together, that is, if they could be treated as groups of combined variables or factors, rather than separate variables (Cramer, 2003, p. 13; Langdridge & Hagger-Johnson, 2009, p. 489).

The 14 “Conditions for Good Teaching” items in the survey questionnaire, were treated in the same way as the ATI, that is, calculated for frequency and then tested for scales, using factor analysis.

Although being simply correlation coefficients, the term “factor loadings” is used to identify the correlations of factors with the original variables. Usually the nature of each factor is identified by examining the original variables that correlate highly with it and then use a meaningful name to identify each factor (Howitt & Cramer, 2008, p. 325). This was the analytical procedure used in treating the 14 “Conditions for Good Teaching” items, but was not needed in analysing the ATI items as the tests confirmed the same pattern of two scales as the initial tests of the ATI.

Principal components analysis, using screen test and varimax rotation was the method used to determine how many factors there were (Cramer, 2003, pp. 17-20). Following the factor rotation, the resulting factors were tested for reliability using Cronbach’s alpha, which tests how well items that form a scale, correlate with one another, and as such serves as an index of internal consistency (Bernard, 2000, p. 298). Further details on calculations and tests are reported in the results.

7.1.7.3 Cluster analysis

The results of the factor analysis that was carried out for the first 30 items indicated that not only the relationship between variables, but also similarities between the cases, were worth further exploration.

In statistics, cluster analysis is used to look for relatively homogeneous groups of objects. Studying clusters involves determining the characteristics
that the cases share, as well as those in which they differ (Norušis & SPSS Inc., 1990, p. 345). Similarly, Entwistle & Wilson (1977) have explained that “the aim of cluster analysis is to group together people whose profiles of scores show a high degree of similarity” (p. 123). Unlike factor analysis, which aims at condensing many variables into a few factors, based on interrelationships between the variables, cluster analysis groups together people who have certain attributes in common, that is, clusters describe “profiles of scores which have a high degree of similarity” (p. 123). Although both methods, factor analysis and cluster analysis, can be used to investigate the way that either cases or variables group together, cluster analysis has been advocated more as a method for determining similarities between cases (Cramer, 2003, p. 46).

Studying clusters involves determining the characteristics that the cases share, as well as those in which they differ (Norušis & SPSS Inc., 1990, p. 345). Thus, calculations in cluster analysis involve measuring how far apart, or close to each other, the responses of respondents are. Cases are grouped together based on their “nearness”, for cases that are similar measures are large and respectively for cases that differ from each other, measures are small (Norušis & SPSS Inc., 1990, p. 346).

Various methods can be used to combine cases into clusters. For the purpose of the study k-means cluster analysis was considered best suited, as previous studies have shown that this method has served well to produce conceptually meaningful clusters (Entwistle, Tait, & McCune, 2000b, p. 37). The cluster analysis procedures are further explained in the reporting of the survey results.

7.1.7.4 Inferential statistics

As reported above, all items of the survey questionnaire were first explored by using descriptive statistics. Where considered appropriate, inferential statistics were used to identify whether statistically significant differences existed between various sets of scores in the data. One-way between groups ANOVA, with post hoc test, using Tukey HSD test, was used for this purpose (Langdridge & Hagger-Johnson, 2009, pp. 230-255). The procedures and outcomes of the various tests are reported in the results.

Now, the methods used in the quantitative phase of the study have been described and explained. In the following sections, the results from the survey questionnaire will be reported.
7.2 Results from section I

The survey questionnaire was sent to all faculty members having permanent position at the institution under study. Following a brief description of the sample, the results will now be reported.

7.2.1 The questionnaire respondents

The response rate in the survey was 44 percent, or 235 respondents. The division between the five fields of science in the institution was as follows:

Table 5 Respondents: Division between fields of science

<table>
<thead>
<tr>
<th>Field of Science</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>School of Social Sciences</td>
<td>38</td>
<td>16%</td>
</tr>
<tr>
<td>School of Health Sciences</td>
<td>64</td>
<td>27%</td>
</tr>
<tr>
<td>School of Humanities</td>
<td>30</td>
<td>13%</td>
</tr>
<tr>
<td>School of Education</td>
<td>69</td>
<td>30%</td>
</tr>
<tr>
<td>School of Engineering and Natural Sciences</td>
<td>32</td>
<td>14%</td>
</tr>
</tbody>
</table>

Table 5 shows that a little more than half of the participants came from the School of Health Sciences and the School of Education, which was of no surprise as these are the two largest schools in the University of Iceland.

The information given by the respondents about the school of science, and the faculty they worked within, were analysed in order to classify them into categories, according to Becher and Trowler’s (2001) categorisation. This analysis resulted in nine being categorised as belonging to the soft-pure category; five being classified within the hard-pure, eight in the soft-applied and seven within the hard-applied category (see Appendix I). Table 6 shows the number of respondents in each category:
Table 6 Number of respondents in categories of discipline

<table>
<thead>
<tr>
<th>Discipline area</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>soft-pure</td>
<td>64</td>
<td>27%</td>
</tr>
<tr>
<td>hard-pure</td>
<td>20</td>
<td>9%</td>
</tr>
<tr>
<td>soft-applied</td>
<td>88</td>
<td>38%</td>
</tr>
<tr>
<td>hard-applied</td>
<td>61</td>
<td>26%</td>
</tr>
</tbody>
</table>

In the following section the statistical tests will be described and the results reported, starting with the items belonging the Approaches to Teaching Inventory (ATI).

7.2.2 The Approaches to Teaching Inventory (ATI)

Before answering items 1 through 30, the respondents were asked to choose a certain course, which they would relate to when answering, although not giving out any information except the study-level within which the course was taught, in order to preserve anonymity.

As Table 7 shows, around 70% of the respondents selected courses taught at undergraduate level, but almost all the others chose to relate to courses taught at masters (29%), only 1% applied the answers to doctoral study courses:

Table 7 Respondents’ context in answering the 30 first items of the questionnaire: Study level and year of studies

<table>
<thead>
<tr>
<th>Study level and year</th>
<th>Frequency</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>undergraduate study – first year</td>
<td>46</td>
<td>20%</td>
</tr>
<tr>
<td>undergraduate study – mid-term</td>
<td>67</td>
<td>29%</td>
</tr>
<tr>
<td>undergraduate study – final year</td>
<td>49</td>
<td>21%</td>
</tr>
<tr>
<td>masters level study</td>
<td>64</td>
<td>29%</td>
</tr>
<tr>
<td>doctoral study</td>
<td>3</td>
<td>1%</td>
</tr>
</tbody>
</table>

7.2.3 Descriptive statistics

Before testing the ATI data for scales the 16 items were explored individually, using descriptive statistics.
As shown in Table 8 some items scored high on the agree scale, that is, the respondents reported these items true to a large, or very large, extent, considering their way of working in the course selected. Trying “to develop a conversation with their students about the topics studied in the course”, and “feeling that assessment in the course should be an opportunity for students to reveal their changed conceptual understanding of the subject”, was reported true to a large or a very large extent by nearly 85% of the respondents. A little less or nearly two third of the respondents agreed, to a large or a very large extent that “it was important that the course was completely described in terms of specific objectives relating to the content students would have to know for formal assessment”.

On the other hand, there was general disagreement (86%) on the statement “that an important reason for running teaching sessions in the course was to give students a good set of notes” and nearly half, or 45 percent, responded that it was only true to a very small or small extent for their way of working in the course that “a lot of teaching time in the course should be used to question students’ ideas”.

The most evenly distributed score was on the statement: “I set aside some teaching time so that the students can discuss among themselves the difficulties that they encounter studying the subject”. About 42% reported it to be true to a very little/little extent for their way of working in the course; around 20% that it was true to some extent and 38% reported it to be true to a large/very large extent.

Table 8 Frequency distribution of individual items of the ATI

<table>
<thead>
<tr>
<th>Item no</th>
<th>Item</th>
<th>only to a very small extent</th>
<th>to a small extent</th>
<th>to some extent</th>
<th>to a large extent</th>
<th>to a very large extent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I design my teaching in this course with the assumption that most of the students have very little useful knowledge of the topics to be covered.</td>
<td>3%</td>
<td>17%</td>
<td>37%</td>
<td>29%</td>
<td>14%</td>
</tr>
<tr>
<td>2</td>
<td>I feel it is important that this course should be completely described in terms of specific objectives relating to what students have to know for formal assessment items.</td>
<td>1%</td>
<td>10%</td>
<td>20%</td>
<td>40%</td>
<td>29%</td>
</tr>
<tr>
<td>3</td>
<td>In my interactions with students in this course I try to develop a conversation with them about the topics we are studying.</td>
<td>0%</td>
<td>1%</td>
<td>15%</td>
<td>34%</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>I feel it is important to present a lot of facts to students so that they know what they have to learn for this subject.</td>
<td>3%</td>
<td>12%</td>
<td>32%</td>
<td>36%</td>
<td>17%</td>
</tr>
<tr>
<td>---</td>
<td>------------------------------------------------------------------------------------------------------------------</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>5</td>
<td>I feel that the assessment in this course should be an opportunity for students to reveal their changed conceptual understanding of the subject.</td>
<td>1%</td>
<td>3%</td>
<td>10%</td>
<td>42%</td>
<td>44%</td>
</tr>
<tr>
<td>6</td>
<td>I set aside some teaching time so that the students can discuss, among themselves, the difficulties that they encounter studying the subject.</td>
<td>14%</td>
<td>28%</td>
<td>20%</td>
<td>19%</td>
<td>19%</td>
</tr>
<tr>
<td>7</td>
<td>In this course I concentrate on covering the information that might be available from a good textbook.</td>
<td>10%</td>
<td>23%</td>
<td>38%</td>
<td>20%</td>
<td>9%</td>
</tr>
<tr>
<td>8</td>
<td>I encourage students to restructure their existing knowledge in terms of the new way of thinking about the subject that they will develop.</td>
<td>2%</td>
<td>10%</td>
<td>14%</td>
<td>35%</td>
<td>39%</td>
</tr>
<tr>
<td>9</td>
<td>In teaching sessions in this course, I use difficult or undefined examples to provoke debate.</td>
<td>4%</td>
<td>13%</td>
<td>23%</td>
<td>38%</td>
<td>22%</td>
</tr>
<tr>
<td>10</td>
<td>I structure this course to help students to pass the formal assessment items.</td>
<td>14%</td>
<td>23%</td>
<td>30%</td>
<td>25%</td>
<td>8%</td>
</tr>
<tr>
<td>11</td>
<td>I think an important reason for running teaching sessions in this course is to give students a good set of notes.</td>
<td>47%</td>
<td>39%</td>
<td>12%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>12</td>
<td>In this course, I only provide the students with the information they will need to pass the formal assessments.</td>
<td>24%</td>
<td>29%</td>
<td>29%</td>
<td>14%</td>
<td>4%</td>
</tr>
<tr>
<td>13</td>
<td>I feel that I should know the answers to any questions that students may put to me during this course.</td>
<td>20%</td>
<td>31%</td>
<td>23%</td>
<td>17%</td>
<td>9%</td>
</tr>
<tr>
<td>14</td>
<td>I make available opportunities for students in this course to discuss their changing understanding of the subject.</td>
<td>2%</td>
<td>4%</td>
<td>21%</td>
<td>38%</td>
<td>35%</td>
</tr>
<tr>
<td>15</td>
<td>I feel that it is better for students in this course to generate their own notes rather than always copy mine.</td>
<td>6%</td>
<td>14%</td>
<td>20%</td>
<td>31%</td>
<td>29%</td>
</tr>
<tr>
<td>16</td>
<td>I feel a lot of teaching time in this course should be used to question students’ ideas.</td>
<td>18%</td>
<td>27%</td>
<td>30%</td>
<td>20%</td>
<td>5%</td>
</tr>
</tbody>
</table>

### 7.2.4 Factor analysis

In order to check whether the items of the ATI worked as effectively in the sample as intended, a factor analysis using “Principal Components Analysis” was conducted.

A two-scale rotated factor matrix, using varimax rotation, confirmed structure with the same pattern as the ATI represents, that is, the items of the Conceptual Change/Student-focused approach (CCSF), containing items 14, 3, 16, 9, 6, 8, 15 and 5, and the items of the Information
Transmission/Teacher-focused approach (ITTF), with items 4, 10, 12, 7, 13, 11, 1 and 2.

A reliability test, using Cronbach’s alpha was conducted which showed Cronbach’s alpha 0.84 for the CCSF-scale and 0.79 for the ITTF, that is, quite adequate for both scales (see Appendix J).

However, the reliability test also showed that if omitting items item 5 and 15 on the CCSF-scale and item 1 and 2 on the ITTF-scale, the reliability of the scales could be increased.

As the purpose of the analysis was to seek as robust scales, in conceptual terms, as possible, the factor analysis was repeated, omitting the four items. As Table 9 shows, all items showed strong loadings:

Table 9 ATI-items: Principal Components Analysis

<table>
<thead>
<tr>
<th>Item no</th>
<th>Rotated Component Matrixa</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>I make available opportunities for students in this course to discuss their changing understanding of the subject</td>
<td>.82</td>
</tr>
<tr>
<td>3</td>
<td>In my interactions with students in this course I try to develop a conversation with them about the topics we are studying</td>
<td>.79</td>
</tr>
<tr>
<td>9</td>
<td>In teaching sessions in this course, I use difficult or undefined examples to provoke debate</td>
<td>.77</td>
</tr>
<tr>
<td>16</td>
<td>I feel a lot of teaching time in this course should be used to question students’ ideas</td>
<td>.76</td>
</tr>
<tr>
<td>6</td>
<td>I set aside some teaching time so that the students can discuss, among themselves, the difficulties that they encounter studying the subject</td>
<td>.73</td>
</tr>
<tr>
<td>8</td>
<td>I encourage students to restructure their existing knowledge in terms of the new way of thinking about the subject that they will develop</td>
<td>.68</td>
</tr>
<tr>
<td>4</td>
<td>I feel it is important to present a lot of facts to students so that they know what they have to learn for this subject</td>
<td>.77</td>
</tr>
<tr>
<td>10</td>
<td>I structure this course to help students to pass the formal assessment items</td>
<td>.75</td>
</tr>
<tr>
<td>12</td>
<td>In this course, I only provide the students with the information they will need to pass the formal assessments</td>
<td>-.36</td>
</tr>
<tr>
<td>7</td>
<td>In this course I concentrate on covering the information that might be available from a good textbook</td>
<td>.73</td>
</tr>
<tr>
<td>13</td>
<td>I feel that I should know the answers to any questions that students may put to me during this course</td>
<td>.69</td>
</tr>
<tr>
<td>11</td>
<td>I think an important reason for running teaching sessions in this course is to give students a good set of notes</td>
<td>.63</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 3 iterations.
The scales were again tested for reliability using Cronbach’s alpha coefficient. The Cronbach’s alpha for the CCSF scale was 0.85 and 0.82 for the ITTF scale, that is, entirely satisfactory for both scales (see Appendix J).

Thus, the ATI with the four items omitted gave a clear pattern of two factors with strong loadings, both of which had good internal consistency.

On these grounds, and for further statistical tests, two new variables, labelled Conceptual Change/Student-focused (CCSF) approach and Information Transmission/Teacher-focused (ITTF) approach were created, each containing six items.

### 7.2.5 Conditions for Good Teaching

The next 14 items of the questionnaire, referred to the most prominent issues that the interviewees had brought up when describing what they saw as an important quality issue in university teaching. As the examples given were closely linked to the conditions needed for implementing teaching of good quality, all 14 items were phrased beginning with: “An important condition for good teaching in my course is that”, where a statement followed. A 5-point scale was used, ranging from “strongly disagree” to “strongly agree”. It should be recalled in that context that the respondents had been asked to respond to these items relating to the same course as when responding to the ATI items.

### 7.2.6 Descriptive statistics

As shown in Table 10, 94% of the respondents rather or strongly agreed that “for good teaching it was important that students were active in class, asked questions about the content and participated in discussions about the topic discussed” (Q24). About the same percentage, 93% rather or strongly agreed that “an important part of ensuring good teaching was “to prepare well for each lesson; no matter how many times one had taught the subject before” (Q18).

Two items, (Q22 and Q23), addressed issues which were frequently brought up and strongly linked together by the interviewees when discussing quality in teaching. The former (Q22), which referred to “the importance of teaching allocation making it possible to organize student work on assignments in the teaching sessions (for example hands-on sessions, student group discussions, calculation sessions)” scored 64% on the rather or strongly agreed side. The latter (Q23), which 66% rather or strongly agreed upon, referred to how important it was “that the size of the student group in class made it possible to organize student work on
assignments in the teaching sessions, (for example hands-on sessions, student group discussions, calculation sessions)“.

Four items addressed issues referring to the link between ways of assessing students and quality of teaching (Q 27, 28, 29, and 30).

The item stating that using both summative and formative assessment was an important part of quality in teaching, got the highest *rather or strongly agree* score (67%) of the four.

A little less, that is, 62%, *rather or strongly agreed* that it was important to use assessment as a way to provide students guidance rather than for judging their skills.

**Table 10 Frequency distribution of “Conditions for Good Teaching” items**

<table>
<thead>
<tr>
<th>Item</th>
<th>An important condition for good teaching in my course is that:</th>
<th>Strongly disagree</th>
<th>Rather disagree</th>
<th>Neither disagree nor agree</th>
<th>Rather agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>... students are given an opportunity to make proposals and suggestions concerning the structure or planning of the course.</td>
<td>13%</td>
<td>31%</td>
<td>26%</td>
<td>21%</td>
<td>9%</td>
</tr>
<tr>
<td>18</td>
<td>... I prepare myself well for each lesson no matter how many times I’ve taught the subject before.</td>
<td>0%</td>
<td>1%</td>
<td>6%</td>
<td>33%</td>
<td>60%</td>
</tr>
<tr>
<td>19</td>
<td>... I can, when preparing my teaching, assume that students come prepared for lessons.</td>
<td>4%</td>
<td>11%</td>
<td>23%</td>
<td>44%</td>
<td>18%</td>
</tr>
<tr>
<td>20</td>
<td>... the teaching is targeted towards the learning outcomes for the programme as a whole, as well as the content of this course in particular.</td>
<td>1%</td>
<td>6%</td>
<td>22%</td>
<td>51%</td>
<td>20%</td>
</tr>
<tr>
<td>21</td>
<td>... the students are giving feedback on my teaching during the course, such as in e-mail, in student feedback meetings, or in a face-to-face interview.</td>
<td>4%</td>
<td>16%</td>
<td>30%</td>
<td>36%</td>
<td>14%</td>
</tr>
<tr>
<td>22</td>
<td>... the teaching room allocation make it possible to organize student work on assignments in the teaching sessions (e.g. hands-on sessions, student group discussions, calculation sessions).</td>
<td>11%</td>
<td>12%</td>
<td>13%</td>
<td>30%</td>
<td>34%</td>
</tr>
<tr>
<td>23</td>
<td>... the number of students in class makes it possible to organize student work on assignments in the teaching session (e.g. hands-on sessions, student group discussions, calculation sessions).</td>
<td>7%</td>
<td>12%</td>
<td>15%</td>
<td>27%</td>
<td>39%</td>
</tr>
<tr>
<td>24</td>
<td>... students are active in class, ask questions about the content and participate in discussions about it.</td>
<td>0%</td>
<td>1%</td>
<td>5%</td>
<td>33%</td>
<td>61%</td>
</tr>
</tbody>
</table>
25 ... the course content is related to my field of research study. | 6% | 8% | 21% | 38% | 27%
26 ... I am able to utilize my own research as a part of my teaching material. | 8% | 12% | 28% | 32% | 20%
27 ... assignments are spread evenly across the teaching semester to assess the knowledge and skills of students. | 3% | 13% | 17% | 39% | 28%
28 ... to use exams at the end of the semester to assess students’ knowledge and skills. | 20% | 17% | 20% | 32% | 11%
29 ... assignments are spread evenly across the semester, and that there are exams at the end of the semester to assess the knowledge and skills of students. | 8% | 10% | 15% | 32% | 35%
30 ... assessment is conducted in such a way as to provide students with guidance through the studying process rather than to judge their skills. | 3% | 10% | 25% | 37% | 25%

**7.2.7 Factor analysis**

Items 17 through 30 were not designed to form a scale; they were each individually chosen to test the conditions for good teaching items which were drawn from analysis of the interviews. Thus, there was no necessary expectation that the items would correlate in a way to allow for presenting them as one or more factors or scales.

However, being able to combine the variables into groups, based on inter-correlations between items was seen as an advantage for the overall interpretation of the findings.

Therefore exploratory factor analysis, using “principal components analysis” method and varimax rotation, was conducted. In the first round of the varimax rotation items 18 and 19 did not load into any of the factors that were extracted. For that reason, the process was repeated now omitting these two items. As shown in Table 11, four factors were extracted.
### Table 11 “Conditions for Good Teaching” items: Principal Components Analysis

<table>
<thead>
<tr>
<th>An important condition for good teaching in my course is that:</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>... the teaching room allocation make it possible to organize student work on assignments in the teaching sessions</td>
<td>1</td>
</tr>
<tr>
<td>... the number of students in class makes it possible to organize student work on assignments in the teaching sessions</td>
<td>2</td>
</tr>
<tr>
<td>... students are active in class, ask questions about the content and participate in discussions about it.</td>
<td>3</td>
</tr>
<tr>
<td>... the teaching is targeted towards the learning outcomes for the programme as a whole, as well as the content of this course in particular.</td>
<td>4</td>
</tr>
<tr>
<td>... assessment is conducted in such a way as to provide students with guidance through the studying process rather than to judge their skills.</td>
<td></td>
</tr>
<tr>
<td>... the students are giving feedback on my teaching during the course</td>
<td></td>
</tr>
<tr>
<td>... assignments are spread evenly across the teaching semester to assess the knowledge and skills of students.</td>
<td></td>
</tr>
<tr>
<td>... students are given an opportunity to make proposals and suggestions concerning the structure or planning of the course.</td>
<td></td>
</tr>
<tr>
<td>... the course content is related to my field of research study.</td>
<td></td>
</tr>
<tr>
<td>... I am able to utilize my own research as a part of my teaching material.</td>
<td></td>
</tr>
<tr>
<td>... exams are used at the end of the semester to assess students' knowledge and skills.</td>
<td></td>
</tr>
<tr>
<td>... assignments are spread evenly across the semester, and that there are exams at the end of the semester to assess the knowledge and skills of students.</td>
<td></td>
</tr>
</tbody>
</table>

Percentage of variance extracted by the four factors was 64.88%

When inspecting the four emerging factors, it seemed that each factor consisted of items that had grouped together, based on their conceptual relationship.

Factor one could be seen as referring to a weight put into teaching-learning conditions that encouraged active learning (items 22, 23 and 24).

Items 17, 20, 21, 27 and 30 formed factor two. Items 27 and 30 were related to the purpose and utility of formative assessment. Item 20
reflected the view that it was important to target teaching not only towards learning outcomes of separate courses but also towards the study programme as a whole. Items 17 and 21 represented what might be referred to as a democratic approach regarding students’ involvement in decisions made regarding the syllabus and improvement of courses. Thus, these items seemed to have in common being inclined to facilitative views of teaching and show concern for students’ perspectives.

Factor three had two items, 25 and 26, both of which referred to utilizing own research field or own research in one’s teaching.

The last factor, factor four, had two items, item 28 and 29, which grouped together, had their base in preferring to use summative assessment in the form of exams at the end of the semester, or at least include exams as one of the assessment methods.

As the scales were relatively short, low Cronbach’s Alpha values were expected. Therefore the mean inter-item correlation was also used to confirm the reliability of the scales (Pallant, 2001, p. 85).

Factor one and factor three both had highly satisfactory Cronbach’s Alpha values, factor one 0.80 and factor three 0.86. The Cronbach’s Alpha coefficient for factor two was also satisfactory for this type of scale (0.67). The corrected item-total correlation for the items ranged from 0.32 to 0.52, which is within the range recommended for a good scale (Ferketich, 1991). The last factor had the somewhat lower Cronbach’s Alpha value of 0.57, but the corrected item-total correlation between to two items was 0.40 which was considered quite adequate to make a reliable scale (See Appendix K).

Thus, based on their internal conceptual relationships, the 12 items reflecting teachers’ views on important conditions for good university teaching formed four scales all of which had quite satisfactory internal consistency. On these grounds four scale-variables were created to use for further statistical tests.

It was then important to establish the relationships of these scales with the two ATI scales and the results of the principal components analysis of the six scales is shown in Table 12. The factor structure was clear-cut. The first factor linked the conceptual change scale with three of the “For Good Teaching” scales, that is the “conditions encouraging active learning”, “concern for student perspective”, and “including own research in teaching”, while the second factor coupled together the information transmission scale and the “including exams in assessment” scale.
Table 12 ATI and “For Good Teaching” scales: Principal Components Analysis

Rotated Component Matrix a

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conceptual change/Student focused approach</td>
<td>.80</td>
<td>-.31</td>
</tr>
<tr>
<td>Conditions encouraging active learning</td>
<td>.79</td>
<td></td>
</tr>
<tr>
<td>Concern for the student perspective</td>
<td>.74</td>
<td></td>
</tr>
<tr>
<td>Including own research in teaching</td>
<td>.54</td>
<td></td>
</tr>
<tr>
<td>Information transmission/Teacher focused approach</td>
<td></td>
<td>.82</td>
</tr>
<tr>
<td>Including exams in assessment</td>
<td></td>
<td>.81</td>
</tr>
</tbody>
</table>

Percentage of variance extracted by the two factors was 60.43%

7.2.8 Differences between categories of disciplines

In section 7.2.1 we explained that the respondents had been classified into categories of discipline, based on the framework of categorisation offered by Becher and Trowler (2001) (see Table 6 and Appendix I). The six scales were next tested for differences between the four categories of disciplines.

A one-way between groups ANOVA with Tukey post-hoc tests showed various statistically significant differences between groups (see Table 13).
Table 13 Differences between categories of discipline: One-way between groups ANOVA

<table>
<thead>
<tr>
<th>Scale label:</th>
<th>soft-pure M(SD)</th>
<th>hard-pure M(SD)</th>
<th>soft-applied M(SD)</th>
<th>hard-applied M(SD)</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conceptual change/Student focused approach</td>
<td>3.59 (.76)</td>
<td>3.29 (.91)</td>
<td>3.97 (.66)</td>
<td>3.13 (.73)</td>
<td>3,219</td>
<td>16.21**</td>
</tr>
<tr>
<td>Information transmission/Teacher focused approach</td>
<td>2.76 (.80)</td>
<td>2.92 (.90)</td>
<td>2.58 (.75)</td>
<td>2.73 (.75)</td>
<td>3,217</td>
<td>1.35</td>
</tr>
<tr>
<td>Conditions encouraging active learning</td>
<td>3.71 (1.08)</td>
<td>4.12 (1.02)</td>
<td>4.17 (.88)</td>
<td>3.94 (.91)</td>
<td>3,225</td>
<td>2.99*</td>
</tr>
<tr>
<td>Concern for student perspective</td>
<td>3.42 (.76)</td>
<td>3.27 (.76)</td>
<td>3.71 (.64)</td>
<td>3.40 (.59)</td>
<td>3,221</td>
<td>4.06**</td>
</tr>
<tr>
<td>Including own research in teaching</td>
<td>3.68 (1.04)</td>
<td>3.76 (.07)</td>
<td>3.73 (1.02)</td>
<td>3.15 (1.14)</td>
<td>3,222</td>
<td>4.09**</td>
</tr>
<tr>
<td>Including exams in assessment</td>
<td>3.43 (1.09)</td>
<td>3.67 (.96)</td>
<td>2.96 (1.07)</td>
<td>3.81 (.84)</td>
<td>3,224</td>
<td>9.16**</td>
</tr>
</tbody>
</table>

*p<.05; **p<.01

Means between groups on the Conceptual change scale showed a statistically significant difference between the hard disciplines and the soft disciplines. The soft disciplines seemed to be more inclined to use the Conceptual change/Student focused approach than were the hard disciplines. No statistically significant differences were found between the four categories of disciplines when it came to the Information transmission/teacher focused approach but the mean was to a considerable degree lower on that scale than the Conceptual change scale in all discipline categories.

A statistically significant difference was found between groups when inspecting the means for the “conditions encouraging active learning” scale, but the difference was to small to be detected in the Tukey post hoc test.

The soft-applied disciplines were shown to be statistically significantly different from the rest of the discipline categories with regard to “concern for student perspective”. The soft-applied disciplines seemed to lean more towards the views reflected in this scale. On the other hand the hard-pure disciplines seemed to be least concerned about the aspects inherent in the scale.
The hard-applied disciplines seemed to differ from the hard–pure, in that the hard-applied disciplines seemed to be less concerned about “including own research in their teaching” than were the hard-pure.

When the scale on “including exams in student assessment” was inspected, there was statistically significant difference between the soft-applied disciplines and the hard disciplines in that the soft-applied disciplines placed less importance on exams. Difference of this nature was not detected when inspecting the means in the soft-pure category.

7.2.9 Cluster analysis

In order to look for similarities between the respondents in the way they scored on the scales, the two ATI-scales and the four “Conditions for Good Teaching” scales were tested using cluster analysis.

The purpose was twofold. First, to look for relationships between the teachers’ approaches to teaching and their scores on the four “Conditions for Good Teaching” scales, and second, to attempt to describe as holistically as possible the various aspects found in the sample of what constitutes teaching of good quality, and how these aspects were intertwined.

Although formal, statistical procedures exist to decide what would be an appropriate number of clusters, a more exploratory approach was used when conducting the cluster analysis. A stepwise process of statistical tests, using k-means clustering, was carried out. The initial analysis was for 15 clusters, which, through a stepwise process of statistical tests, was decreased down to two clusters; with three subsequently chosen as the final number of clusters, as these were considered illustrating the main distinctions between clusters in the clearest way. Table 14 shows the scores for the three clusters.
Table 14 The two ATI-scales and the four “Conditions for Good Teaching” scales: Cluster Analysis

<table>
<thead>
<tr>
<th>Scale labels (numbers in clusters are scores on a 5 point scale)</th>
<th>Cluster</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Conceptual change/Student focused approach</td>
<td>4.20</td>
</tr>
<tr>
<td>Information transmission/Teacher focused approach</td>
<td>2.05</td>
</tr>
<tr>
<td>Conditions encouraging active learning</td>
<td>4.22</td>
</tr>
<tr>
<td>Concern for student perspective</td>
<td>3.99</td>
</tr>
<tr>
<td>Including own research in teaching</td>
<td>4.14</td>
</tr>
<tr>
<td>Including exams in assessment</td>
<td>1.86</td>
</tr>
</tbody>
</table>

| Number of cases in each Cluster (N)                           | 52      | 111     | 70      |
| Valid                                                        | 233     |         |         |
| Missing                                                      | 2       |         |         |

| Cluster membership(% of the cases in each category of disciplines in the sample) |        |        |        |
| Soft-pure                                                    | 19%    | 45%    | 36%    |
| Hard-pure                                                    | 15%    | 55%    | 30%    |
| Soft-applied                                                 | 38%    | 47%    | 15%    |
| Hard-applied                                                 | 5%     | 51%    | 44%    |

As Table 14 shows, members of Cluster 1 were about one fifth of the valid number of cases (N=52). This group of respondents had the highest scores on “conceptual change/ student-focused approach”, “concern for the student perspective”, and “including own research in teaching”, which were supported by high scores on “conditions encouraging active learning”. They also had the lowest scores on “information transmission/ teacher-focused approach” and “including exams in assessment”. All disciplines, except the soft-applied disciplines, had smaller percentage of teachers in Cluster 1 than in Cluster 3, the lowest percentage of membership being in the hard-applied disciplines; only 5% of teachers coming from this discipline category were members of Cluster 1.

Cluster 2, which was the largest cluster (N=111), had particularly high scores on “encouraging active learning”, and also high scores on
“conceptual change”, “student perspective” and “including research”. They had much higher scores than Cluster 1 on both the “information transmission” dimension and “including exams”, and that difference helps to define this cluster. The percentage number for each of the four categories of disciplines showed that about half of the respondents in every category of the four categories of disciplines were members of this cluster.

Cluster 3, which was again a smaller cluster (N=70), was defined by having the lowest score on teaching for “conceptual change”, “concern for student perspective” and “including research”, combined with relatively high scores on “information transmission” and “including exams”. Cluster 3 included 44% of the hard-applied disciplines teachers, which was the largest percentage of membership in this cluster. About one third of hard-pure discipline teachers and those teaching soft-pure disciplines were members of cluster 3 but only 16% of the soft-applied discipline teachers.

7.3 Results from section II

The second part of the questionnaire referred to more general issues regarding quality, many of which are defined or managed at macro level, but all of which were brought up in the interviews.

7.3.1 The organisation of academic duties

In the interviews the teachers reflected on how their academic duties were organised, that is, the way administration, teaching and research was organised in a certain percentage of time.

At the time when the survey was conducted their duties as teachers were defined by the institution in the following way: Administration 12%, teaching 48% and research 40%.

Two items in the questionnaire addressed this issue. One asked about the respondents’ estimate of how their time was actually spent working on these duties, and the other asked what their preferences would be, if they had some flexibility regarding the time they spent in each of these duties.

The introduction text for item 31 was as follows:

Your duties as an academic are defined by the institution in the following way: Administration 12%, teaching 48% and research 40%. The following questions ask about your estimate, considering the above figures, on how your time is actually spent working on these duties:
Likewise, item 32 was introduced as follows:

What would be your preferences if you had some flexibility regarding the time you spend in each of the above mentioned academic duties?

The items scored on a 5-point scale ranging from “substantially lower rate of time” to “substantially higher rate of time”. The two scores on “lower rate” and the two on “higher rate” were collapsed when running the statistical tests, as a means to simplify the reporting of the scores.

The scale-point in the middle, for the respondents’ estimate was: “about the same amount of time as the rate says” and for the respondents’ preferences: “the same as it is”. This is noted to explain the structure of the graphs showing the comparison between the two, estimate and preferences.

As Figure 14 shows, approximately half of the respondents judged that more time was spent on administrative duties than was allotted for these duties.

The score showing their preferences revealed that more than half of the respondents (57%) wished that they were able to decrease the amount of time they spent on administrative duties:

![Figure 14 Estimate and preferences for rate of time spent on administration](image-url)
Figure 15 shows, that when asked about teaching duties, 60% of the respondents reported that more time was spent on teaching than the current time-rate stipulates. Asked about their preference, regarding the time they would want to spend on teaching, half of the respondents claimed that they wanted to spend lower rate of time on teaching than was the case in current situation:

![Graph showing estimates and preferences for ratio of time spent on teaching](image)

**Figure 15 Estimate and preferences for ratio of time spent on teaching**

As shown in Figure 16, nearly half of the respondents reported less time spent on research than expected according to their job description. Wanting to spend higher rate of time on research, if given more flexibility on how time was arranged, gave the highest score, 65% of the respondents preferred higher rate of time on research:

![Graph showing estimates and preferences for ratio of time spent on research](image)
The respondents’ estimate and preferences were tested for differences between the four different categories of disciplinary domain, using a one-way between groups ANOVA with post-hoc tests.

As shown in Table 15, the results showed a statistically significant difference between the four groups at the p<.05 level on various scores. A post hoc test, using the Tukey HSD test, indicated that teachers working within the hard-pure discipline area were more reluctant to add to their administration duties, if they were given flexibility, than were the teachers teaching hard-applied disciplines.
Table 15 Ratio of time spent on administration, teaching and research. Differences between categories of discipline: One-way between groups ANOVA

<table>
<thead>
<tr>
<th>Academic duties</th>
<th>soft-pure</th>
<th>hard-pure</th>
<th>soft-applied</th>
<th>hard-applied</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration: estimate</td>
<td>2.47(.72)</td>
<td>2.25(.72)</td>
<td>2.22(.77)</td>
<td>2.27(.80)</td>
<td>3,22</td>
<td>1.29</td>
</tr>
<tr>
<td>Administration: preferences</td>
<td>1.34(.57)</td>
<td>1.26(.45)</td>
<td>1.59(.67)</td>
<td>1.63(.67)</td>
<td>3,22</td>
<td>3.48*</td>
</tr>
<tr>
<td>Teaching: estimate</td>
<td>2.52(.65)</td>
<td>2.65(.67)</td>
<td>2.59(.57)</td>
<td>2.25(.84)</td>
<td>3,22</td>
<td>3.38*</td>
</tr>
<tr>
<td>Teaching: preferences</td>
<td>1.64(.66)</td>
<td>1.16(.37)</td>
<td>1.62(.64)</td>
<td>1.56(.59)</td>
<td>3,21</td>
<td>3.29*</td>
</tr>
<tr>
<td>Research: estimate</td>
<td>1.93(.91)</td>
<td>1.85(.87)</td>
<td>1.91(.86)</td>
<td>1.71(.81)</td>
<td>3,22</td>
<td>0.82</td>
</tr>
<tr>
<td>Research: preferences</td>
<td>2.63(.61)</td>
<td>2.89(.31)</td>
<td>2.41(.67)</td>
<td>2.62(.62)</td>
<td>3,21</td>
<td>3.90*</td>
</tr>
</tbody>
</table>

*p<.05; df=degrees of freedom

The Tukey HSD test also indicated that a larger percentage of teachers teaching hard-pure disciplines worked a higher rate of time on teaching than allocated by the institution, than did the teachers teaching hard-applied disciplines.

When it came to teaching preferences, the results from the post hoc Tukey test showed statistically significant difference in how reluctant the groups were to adding to their teaching duties, if they were given flexibility.

The teachers teaching hard-pure disciplines seemed to be more reluctant in this respect than the teachers teaching hard-applied, soft-pure and soft applied disciplines.

In addition, a statistically significant difference was found in the scores for research preferences. The post hoc test indicated that a larger percentage of teachers working within the hard-pure category wanted to spend more time on research, than allocated, if given flexibility, than did the group working within the category of soft-applied disciplines.

Following the two questions, addressing academic duties, an open option in the questionnaire offered the respondents to explain further their attitudes towards the issue. The additional remarks listed in Table 16 give an example of the respondents' reflective thoughts on the matter:
Table 16 Respondents’ reflections on the allocation of time in their working duties

- University teachers spend far too much time on administration and general office duties. They don’t have the time needed for research and writing, except using the evenings, weekends, Easter and summer holidays.

- I’d prefer that administration was measured in some way similar to other duties - faculty leadership and various other administrative duties are not appreciated to the degree that they should be.

- Time spent on grading projects, with instructions on what can be improved is not taken into account. If students are to be trained to write in accordance with the requirements of the academic community, they need to work on assignments and get feedback on what they did well and what can be improved.

- It is almost impossible to meet requirements regarding the number of peer-reviewed articles per year when teaching sessions, grading assignments and supervision of postgraduate students almost takes the whole day. This means that you have to use your holiday for writing.

- An increasing number of students, e-mail, the Ugla [The university’s intranet] etc. have inevitably increased the administrational as well as the teaching part at the expense of research.

- Time for research is primarily available on holydays, on weekends and in the evenings and therefore is beyond the working hours.

### 7.3.2 Facilitators and inhibitors to teaching of good quality

The next group of items contained the various external and internal factors, which had been brought up in the interviews, as affecting the structuring (organising, design) and implementation of university teaching. Ten listed factors were addressed and the respondents were asked whether these factors, supported or inhibited their ability to teach in accordance with their ideas about what constitutes university teaching of good quality. These were all factors which had been addressed in the interviews. The two scores on “Substantially/somewhat inhibiting” and the two on
“Somewhat/substantially facilitating” were collapsed when running the statistical tests, in order to simplify the reporting of the scores.

As shown in Table 17 more than two third of the respondents reported that the financial model, based on so-called effective units, which the Ministry of Education uses to determine the financial contribution allocated to the institution, was a factor that inhibited their ability to teach in accordance with their own ideas about what constitutes university teaching of good quality.

Almost half of the respondents reported that in their view the promotion system as it is constructed was an inhibitor to good teaching, as defined.

It seemed, according to the scores on attitudes towards teaching that attitudes within the respondents’ faculty were more of a facilitator to quality of teaching (38%) then were the attitudes at institutional level (26%).

Only a small percentage of the respondents saw the institution’s aim to be listed as one of hundred best universities in the world as being a facilitator to good teaching.

Lastly, well over half (55%) of the respondents saw a large number of students as an inhibiting factor when considering the ability to teach in harmony with their ideas of good teaching.

Table 17 Facilitators and inhibitors to teaching of good quality - Frequency distribution

<table>
<thead>
<tr>
<th>Item</th>
<th>Listed factors</th>
<th>Substantially/ somewhat inhibiting</th>
<th>Neither inhibiting nor facilitating</th>
<th>Somewhat/ substantially facilitating</th>
</tr>
</thead>
<tbody>
<tr>
<td>33a</td>
<td>The financial model used by the Ministry of Education</td>
<td>72%</td>
<td>25%</td>
<td>3%</td>
</tr>
<tr>
<td>33b</td>
<td>The promotion system</td>
<td>47%</td>
<td>38%</td>
<td>15%</td>
</tr>
<tr>
<td>33c</td>
<td>Attitudes towards teaching within department (subject)</td>
<td>23%</td>
<td>39%</td>
<td>38%</td>
</tr>
<tr>
<td>33d</td>
<td>Attitudes towards teaching within the institution</td>
<td>37%</td>
<td>37%</td>
<td>26%</td>
</tr>
<tr>
<td>33e</td>
<td>The institution’s aim to be listed as one of 100 best in the world</td>
<td>37%</td>
<td>51%</td>
<td>12%</td>
</tr>
<tr>
<td>33f</td>
<td>Teaching room allocation</td>
<td>37%</td>
<td>39%</td>
<td>24%</td>
</tr>
<tr>
<td>33g</td>
<td>The level of service offered for technical support for teaching</td>
<td>35%</td>
<td>37%</td>
<td>28%</td>
</tr>
<tr>
<td>33h</td>
<td>Large number of students enrolled in courses</td>
<td>55%</td>
<td>41%</td>
<td>4%</td>
</tr>
</tbody>
</table>
Following their responses to the listed factors, the respondents were invited, through an open option to list additional factors or make remarks, which they considered relevant in this context. The listed quotes in Table 18 represent the main trends in the teachers’ remarks:

Table 18 Respondents’ reflections on facilitators and inhibitors to teaching of good quality

<table>
<thead>
<tr>
<th>Reflection</th>
</tr>
</thead>
<tbody>
<tr>
<td>The financial model does not contribute the same amount to teaching in the schools and faculties. This means in other words that students are not treated equally with regard to courses that can be viewed as comparable. This is a serious discrimination if viewed from the students’ perspective.</td>
</tr>
<tr>
<td>The financial model which is based on effective units which make different contribution categories needs to be dropped (exited) Instead the decision whether a course is taught or not should rest in the hands of some quality management system.</td>
</tr>
<tr>
<td>The arrangement in the classrooms is kept traditional all the time – it is difficult to change, except you change it only for just one teaching session at a time.</td>
</tr>
<tr>
<td>Facilities and resources for practical teaching need to be improved.</td>
</tr>
<tr>
<td>Facilities for teaching medical students have become extremely difficult because of continual cuts in costs within the hospitals.</td>
</tr>
<tr>
<td>There is a lack of experimental facilities and staff needed to handle it on a daily basis</td>
</tr>
<tr>
<td>Excessive workload, the number of hours needed for the preparation of good/progressive teaching is underestimated.</td>
</tr>
<tr>
<td>Teaching is not valued as it should be, only research part of the work.</td>
</tr>
<tr>
<td>The greatest inhibitor to best possible teaching is mainly linked to conservatism on behalf of the teachers themselves and also the students. I have often asked students (in some subjects) what they think about the traditional way of teaching (lectures and assessment is based primarily on a test), and to my surprise, the students have always been happy with it. I have never got any suggestions from them of different teaching methods, probably for the reason that they don’t know anything else or have very limited experience of something else from previous studies.</td>
</tr>
<tr>
<td>Lack of consensus in the teacher group regarding the use of diverse teaching approaches.</td>
</tr>
</tbody>
</table>
- Too little dedication in the student group, because so many of them spend too much time at work or somewhere else, rather than studying.

- Students’ attitudes towards progressive teaching approaches (that is, resistance towards it).

- Poor preparation of students when entering universities – in particular they are poorly skilled in English. The study programmes should be more targeted towards preparing the students. The study would come of better use for them if the school would better meet the needs of students in the first year.

- The estimate of working hours in the School of Humanities is a disgrace compared to our peers in many other parts of the university. Unfortunately equality is not ensured within the institution.

- The promotion system is primarily based on strategies, plans and possibilities within science. The promotion system is strongly bound to old traditions within the academia. The promotion system does not allow for new thinking and new approaches.

- Monotonous evaluation system used in assessing research inhibits development of certain elements within some of the disciplines.

As before, it was considered beneficial, for the overall findings, to test these internal and external factors for differences between the disciplinary groups, with regard to the four categories. Therefore a one-way between-groups ANOVA was conducted. The results are shown in Table 19:

**Table 19 Facilitators and inhibitors to teaching of good quality. Differences between categories of discipline: One-way between groups ANOVA**

<table>
<thead>
<tr>
<th>Item</th>
<th>Listed factors</th>
<th>soft-pure M(SD)</th>
<th>hard-pure M(SD)</th>
<th>soft-applied M(SD)</th>
<th>hard-applied M(SD)</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>33a</td>
<td>The financial model used by the Ministry of Education</td>
<td>1.24 (.43)</td>
<td>1.15 (.49)</td>
<td>1.35 (.55)</td>
<td>1.41 (.60)</td>
<td>3,211</td>
<td>1.70</td>
</tr>
<tr>
<td>33b</td>
<td>The promotion system</td>
<td>1.85 (.70)</td>
<td>1.90 (.79)</td>
<td>1.51 (.68)</td>
<td>1.67 (.73)</td>
<td>3,213</td>
<td>3.27*</td>
</tr>
<tr>
<td>33c</td>
<td>Attitudes towards teaching within department (subject)</td>
<td>2.27 (.77)</td>
<td>2.15 (.59)</td>
<td>2.17 (.81)</td>
<td>2.02 (.76)</td>
<td>3,214</td>
<td>1.12</td>
</tr>
</tbody>
</table>
First, what seemed to be a decisive inhibiting factor for all the tested groups was the financial model used by the ministry to determine the financial contribution to the university.

The results showed that there was a significant difference between teachers in soft-applied disciplines and hard pure disciplines in their view on the university’s aim to be listed “one of hundred best”. Those working within the soft-applied domain were less in agreement with that aim than the teachers teaching within hard-pure disciplines.

With regard to level of technical service the teachers in soft disciplines did not seem to see that issue as much an inhibitor to quality of teaching as did the ones working within the hard-pure disciplines category.

On the other hand those teaching within soft-pure disciplines saw large student numbers in courses as a more inhibiting factor than did the teachers teaching hard-applied disciplines.

<table>
<thead>
<tr>
<th></th>
<th>Attitudes towards teaching within the institution</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.85 (.77)</td>
<td>1.95 (.62)</td>
<td>1.96 (.87)</td>
<td>1.84 (.76)</td>
<td>3,211</td>
<td>0.36</td>
</tr>
<tr>
<td>33e</td>
<td>The institution's aim to be listed as one of 100 best in the world</td>
<td>1.69 (.64)</td>
<td>2.05 (.51)</td>
<td>1.61 (.65)</td>
<td>1.91 (.66)</td>
<td>3,212</td>
</tr>
<tr>
<td>33f</td>
<td>Housing facilities for teaching</td>
<td>1.92 (.71)</td>
<td>1.60 (.68)</td>
<td>2.00 (.77)</td>
<td>1.71 (.82)</td>
<td>3,214</td>
</tr>
<tr>
<td>33g</td>
<td>The level of service offered for technical support for teaching</td>
<td>2.02 (.82)</td>
<td>1.45 (.51)</td>
<td>2.08 (.77)</td>
<td>1.75 (.78)</td>
<td>3,212</td>
</tr>
<tr>
<td>33h</td>
<td>Large number of students enrolled in courses</td>
<td>1.32 (.47)</td>
<td>1.55 (.60)</td>
<td>1.43 (.62)</td>
<td>1.69 (.54)</td>
<td>3,213</td>
</tr>
<tr>
<td>33i</td>
<td>Small number of students enrolled in courses</td>
<td>2.43 (.64)</td>
<td>2.20 (.89)</td>
<td>2.15 (.79)</td>
<td>2.22 (.62)</td>
<td>3,213</td>
</tr>
</tbody>
</table>

*p<.05; **p<.01
The meaning of the Bologna process for the quality of study programmes offered by the institution

The findings from the qualitative phase showed four main themes in the teachers’ accounts of the meaning of the Bologna process for their discipline and the university as an institution (see section 6.2.3).

The introductory text to the questions in the questionnaire on the Bologna process was as follows:

The University of Iceland has introduced various measures and changes that are part of the Bologna process. Work is underway on these targets based on the Bologna Declaration of 29 countries, including Iceland, signed in 1999. Examples of these activities are coordinated system of credits (ECTS credits), so-called 3+2+3 system, and standard diploma appendices. Another aspect of the Bologna process was that following an evaluation conducted by foreign experts, universities in Iceland were accredited. The following questions ask for your attitude towards the impact of some aspects of the Bologna process on the quality of the program in your organization (see Appendix G).

Five statements were posed, asking about the impact of the Bologna process, all of which built on the themes revealed through the interviews. A 5-point scale ranging from negative to positive impact was used to measure the responses. The two scores on “strongly/somewhat negative” and the two on “somewhat/strongly positive” were collapsed when running the statistical tests, as before to simplify the reporting of the scores. The option “don’t know” was also offered, but only responses from those taking a stance on the issue were calculated in the statistical tests conducted.

The results, seen in Figures 17 through 21, showed what seemed to be a general agreement on all five statements, that is, a vast majority of the respondents, seemed to hold the view that the procedures undertaken, as part of the Bologna process, were of a kind which had the potential to increase the quality of study programmes offered by the organization.
However, the two first statements, that is, that of the coordination of the system of credits, which has the aim to make transfer between universities easier for students, and the one on the coordinating of the structure of programmes between universities into a 3+2+3 system, seemed to get less agreement on positive impact than did the other three (see Figure 17 and Figure 18).

Figure 17 Respondents’ view on the impact of coordination of the system of credits (ECTS) on programme quality
Figure 18 Respondents’ view on the impact of the 3-2-3 structure of programmes on programme quality

Around one quarter of the respondents reported that they were neutral in their view of the impact of issues addressed in the three remaining statements which was considerably lower percentage than was the case in first two statements.
Identifying learning outcomes for courses was probably a process which the teachers found themselves most familiar with, when asked about the procedures involved in the implementation of the Bologna process.

The most likely reason is that these are duties that every academic, who is in charge of a course offered as part of a study programme, is obligated to take on as part of his or her work at faculty level.

As shown in Figure 19, well over two third of the respondents held the opinion that this part of the Bologna-process had positive impact on programme quality.
The evaluation process that the Icelandic universities have to undertake in the specific fields of study before receiving accreditation according to the Bologna criteria has........... impact on programme quality.

**Figure 20 Respondents' view on the impact of accreditation according to Bologna criteria on programme quality**

The last two items addressed the accreditation procedures involved in the Bologna-process. The former asked about the impact of the evaluation procedure itself, that is, whether undertaking such a procedure in order to receive a programme accreditation was for the good with respect to programme quality. The latter addressed the issue of international recognition for the programmes based on such an accreditation given to programmes.

As shown in Figure 20 and Figure 21 both statements scored high on the “somewhat/strongly positive impact” scale.
The views reflected in the findings from the Bologna related items were tested for differences between the categories of disciplines.

One-way between groups ANOVA showed no significant differences between the four categories of disciplines on any of the Bologna issues addressed.

7.3.4 Focusing on the student and important qualities embodied in the final outcome of learning

The last item of the questionnaire addressed issues focusing on the students and their final outcome of learning, that is, what kind of knowledge and skills, according to the teachers’ view, were of most value for students to possess when they graduated from university.

The respondents were asked to assess, given their current situation in teaching, how little/much emphasis they put on certain, listed, generic aims in their teaching. These were the aims that had most commonly been brought up in the interview accounts. The respondents were asked to respond with reference to the level of study, where they taught the most and identify it before answering. The items used a 5-point scale, ranging from “emphasise only to a very small extent” to “emphasise to a very large
“extent” but these were collapsed to a 3-point scale combining the two small extent options and the two large extent options for same reasons as reported in previous sections.

The response rate, when asked about the study-level showed that several individuals (27%) chose not to limit their responses to one study-level. The fact that many teachers teach equally at both levels might explain the missing values for this item. A greater number, or 46%, of the rest of the respondents chose the undergraduate level for their assessment, given their current situation in teaching, how little or much emphasis they put on the listed, generic aims, in their teaching.

As Table 20 shows, the results were quite profound. All twelve listed aims seemed to play a vital role when teaching, seen from the teachers’ perspective:

Table 20 Respondents’ emphasis in teaching

<table>
<thead>
<tr>
<th>Emphasise:</th>
<th>only to a very small/small extent</th>
<th>to some extent</th>
<th>to a large/very large extent</th>
</tr>
</thead>
<tbody>
<tr>
<td>35a ... that the student adopts a questioning and open mind</td>
<td>1%</td>
<td>8%</td>
<td>91%</td>
</tr>
<tr>
<td>35b ... that the student acquires a good theoretical knowledge in the subject:</td>
<td>0%</td>
<td>4%</td>
<td>96%</td>
</tr>
<tr>
<td>35c ... that the student acquires skills in applying theoretical knowledge in the subject to authentic situations</td>
<td>2%</td>
<td>8%</td>
<td>90%</td>
</tr>
<tr>
<td>35d ... that the student adopts and practices critical thinking</td>
<td>0%</td>
<td>6%</td>
<td>94%</td>
</tr>
<tr>
<td>35e ... that the student will be self-reliant in terms of acquiring additional knowledge</td>
<td>0.5%</td>
<td>5.5%</td>
<td>94%</td>
</tr>
<tr>
<td>35f ... that the student adopts creative thinking</td>
<td>4%</td>
<td>14%</td>
<td>82%</td>
</tr>
<tr>
<td>35g ... that the student acquires skills in scientific, academic practices:</td>
<td>2%</td>
<td>10%</td>
<td>88%</td>
</tr>
<tr>
<td>35h ... that the student will turn into a more mature and better person as a result of the university study</td>
<td>12%</td>
<td>19%</td>
<td>69%</td>
</tr>
<tr>
<td>35i ... that the student will adopt an interest in working towards further progress and developments in his/her field of study</td>
<td>5%</td>
<td>20%</td>
<td>75%</td>
</tr>
</tbody>
</table>
that the student adopts clear ethical standards in his/her professional field | 7% | 18% | 75% 

... that the student adopts independence in his/her studying and practice | 2% | 10% | 88% 

... that the student adopts a way of taking the initiative in his/her studies | 5% | 14% | 81%

A one-way between groups ANOVA, with post hoc test, using the Tukey HSD test, was conducted to test for differences between categories of disciplines. Results showed a statistically significant difference at the p<.01 level between groups, as shown in Table 21:

Table 21 Respondents’ emphasis in teaching. Differences between categories of discipline: One-way between groups ANOVA

<table>
<thead>
<tr>
<th>Emphasise:</th>
<th>soft-pure M(SD)</th>
<th>hard-pure M(SD)</th>
<th>soft-applied M(SD)</th>
<th>hard-applied M(SD)</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>35a ... that the student adopts a questioning and open mind</td>
<td>2.94 (.24)</td>
<td>2.90 (.31)</td>
<td>2.90 (.34)</td>
<td>2.87 (.39)</td>
<td>3,217</td>
<td>0.46</td>
</tr>
<tr>
<td>35b ... that the student acquires a good theoretical knowledge in the subject:</td>
<td>3.00 (.00)</td>
<td>3.00 (.00)</td>
<td>2.93 (.25)</td>
<td>2.95 (.22)</td>
<td>3,217</td>
<td>1.74</td>
</tr>
<tr>
<td>35c ... that the student acquires skills in applying theoretical knowledge in the subject to authentic situations</td>
<td>2.71 (.58)</td>
<td>2.80 (.41)</td>
<td>2.99 (.11)</td>
<td>2.93 (.31)</td>
<td>3,217</td>
<td>6.87**</td>
</tr>
<tr>
<td>35d ... that the student adopts and practices critical thinking</td>
<td>2.95 (.21)</td>
<td>3.00 (.00)</td>
<td>2.92 (.27)</td>
<td>2.92 (.27)</td>
<td>3,217</td>
<td>0.75</td>
</tr>
<tr>
<td>35e ... that the student will be self-reliant in terms of acquiring additional knowledge</td>
<td>2.98 (.13)</td>
<td>2.90 (.31)</td>
<td>2.93 (.25)</td>
<td>2.90 (.35)</td>
<td>3,216</td>
<td>1.19</td>
</tr>
<tr>
<td>35f ... that the student adopts creative thinking</td>
<td>2.74 (.57)</td>
<td>2.85 (.37)</td>
<td>2.82 (.48)</td>
<td>2.75 (.51)</td>
<td>3,216</td>
<td>0.48</td>
</tr>
<tr>
<td>35g ... that the student acquires skills in scientific, academic practices:</td>
<td>2.89 (.36)</td>
<td>2.80 (.52)</td>
<td>2.81 (.46)</td>
<td>2.90 (.35)</td>
<td>3,217</td>
<td>0.84</td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td>Mean 1</td>
<td>Mean 2</td>
<td>Mean 3</td>
<td>Mean 4</td>
<td>N1</td>
</tr>
<tr>
<td>---</td>
<td>-----------------------------------------------------------------------------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>35h</td>
<td>... that the student will turn into a more mature and better person as a result of the university study</td>
<td>2.58 (.67)</td>
<td>2.35 (.87)</td>
<td>2.72 (.64)</td>
<td>2.42 (.72)</td>
<td>3,216</td>
</tr>
<tr>
<td>35i</td>
<td>... that the student will adopt an interest in working towards further progress and developments in his/her field of study</td>
<td>2.65 (.60)</td>
<td>2.70 (.47)</td>
<td>2.81 (.46)</td>
<td>2.61 (.64)</td>
<td>3,217</td>
</tr>
<tr>
<td>35j</td>
<td>... that the student adopts clear ethical standards in his/her professional field</td>
<td>2.63 (.65)</td>
<td>2.35 (.81)</td>
<td>2.83 (.44)</td>
<td>2.63 (.58)</td>
<td>3,217</td>
</tr>
<tr>
<td>35k</td>
<td>... that the student adopts independence in his/her studying and practice</td>
<td>2.89 (.36)</td>
<td>2.80 (.52)</td>
<td>2.91 (.33)</td>
<td>2.80 (.44)</td>
<td>3,217</td>
</tr>
<tr>
<td>35l</td>
<td>... that the student adopts a way of taking the initiative in his/her studies</td>
<td>2.79 (.51)</td>
<td>2.55 (.69)</td>
<td>2.82 (.48)</td>
<td>2.71 (.55)</td>
<td>3,217</td>
</tr>
</tbody>
</table>

*p<.05; **p<.01

Post hoc test revealed that hard-pure disciplines and soft-applied disciplines differed in their emphasis on the aim towards clear ethical standards, indicating that teachers teaching hard-pure disciplines did not see this aim as relevant for their teaching as did those teaching soft-applied disciplines.

A statistically significant difference was found, at the p<.05 level, for the item asking about emphasis on the aim that the student would turn into a more mature and better person, as a result of his/her university study, but the post hoc test did not reveal where, exactly, the difference existed.

However, an additional statistically significant difference was found. ANOVA showed statistically significant difference at the p<.01 level, for the item asking about emphasis on the aim “that students acquired skills in applying theoretical knowledge in the subject studied, to authentic situations”.

The Tukey post hoc test, showed that soft-pure disciplines were statistically significantly different from hard-applied disciplines and soft-applied disciplines, indicating that these skills were not considered as relevant or important for soft-pure discipline students to acquire, as for the other two categories of disciplines. Despite the fact that, hard-pure disciplines scored higher in this item than did the soft-pure, the difference was not statistically significant.
Having responded to these twelve listed aims the respondents were offered an option to add to the list through an open option in the questionnaire. The following, listed in Table 22, are examples of added aims:

**Table 22 Respondents’ reflections on emphasis in teaching**

<table>
<thead>
<tr>
<th>Reflection</th>
</tr>
</thead>
<tbody>
<tr>
<td>• That the study programme prepares the student for future job, instead of completing a study with theoretical foundation, but then find it hard to use what she or he has learned when it comes to real situations.</td>
</tr>
<tr>
<td>• That the student learns social and professional empathy, responsibility, morality and social responsibility.</td>
</tr>
<tr>
<td>• That the student will have the competence to participate in discussions among colleagues and the competence to academic writing.</td>
</tr>
<tr>
<td>• That the student has the skills and competence to work in teams (respects different opinions, knows how to have the team actively involved and get the best solutions to a problem by initially obtaining a variety of views from the team).</td>
</tr>
</tbody>
</table>

We have now reported the findings that derived from the analyses of the qualitative as well as the quantitative data collected in order to illuminate the conceptions held by the staff of what constitutes “good university teaching” and the conditions and influences that were seen to work either as an obstacle or a facilitator to the implementation of perceived “good university teaching”. We have shown that the interviews revealed four main themes describing good teaching, one referring to the teacher-student interaction, one to the planning of teaching, third to assessment of student learning, and the last to important generic skills at graduation. The factor analysis of the Approaches to Teaching Inventory (ATI), which was included in the survey questionnaire supported the distinction inherent in the in approaches to teaching between student-focused approach, aiming towards students’ conceptual change and teacher-focused approach, focusing on information transmission. We also found conceptual relationships between the two ATI scales and the items that derived from our analysis of the interviews into “Conditions for Good Teaching”. Various external influences were found through the analysis of the interviews which were considered to affect good teaching practices. Almost all the aspects of these influences were confirmed in the survey questionnaire. In the following chapter we will elaborate on and discuss the results of the study.
8 Discussion

As described in the opening chapters of this thesis, the development of research into teaching and learning in higher education followed a clear path. It began with research into students’ own descriptions of their ways of studying, which allowed researchers to identify concepts that described important distinctions in how students learn. These proved to involve how students conceived the nature of academic learning (Perry, 1970) and the approaches to learning that were related to them (Marton & Säljö, 1984). And these distinctions and the qualitative methodology adopted in them, led directly to attempts to describe the nature of teaching in higher education. Again, an equivalent dichotomy was described by several researchers (e.g. Prosser & Trigwell, 1999), which suggested crucial differences between academics who concentrated more on their own view of the subject matter and saw their role as transmitting their knowledge and understanding to students, and those who tried to imagine what is was like not to understand the topics and what ways could be devised to enable students to develop their own understandings. This dichotomy showed that teachers, who sought to help students to develop their own understanding, encouraged a deep approach to learning, and so learning outcomes of higher quality.

As we discovered in our own investigation, this dichotomy of types of university teaching does not go far enough, and this discussion of the findings begins by looking at how academics conceived of “good university teaching” on the basis of their own experiences. We then move on to explore what aspects of the teaching-learning environment these academics perceived as affecting their ability to carry out such teaching, focusing in particular on institutional and governmental factors.

This chapter brings together and examines the results described in previous chapters, focusing on the key aspects discovered in light of the overall aim of the study, and discusses them in the light of earlier research and current practices. The original research questions will be revisited below, the first one in section 8.2 and the other two in section 8.4 and discussed in the light of the findings, with concluding reflections offered thereafter.
8.1 Conceptions of “good university teaching”

As reported in section 2.2 conceptions of teaching are built up from knowledge, experience and associated feelings. Understanding the conceptions of teaching has in previous research mainly derived from three sources; interviews with staff in higher education, investigations of schoolteachers’ ideas and beliefs, and a more general exploration into the nature of conceptions themselves (Entwistle et al., 2000a). The present study focused on the first of these areas with conceptions of “good university teaching” being explored through interviewing teachers and administrators, and a survey questionnaire used to test the commonality of the views identified.

The interviews were conducted in a way which would encourage the topic to be addressed from various different angles. Thus, the staff reflected on lived experience of successful teaching, and described what they saw as the ideal course in their subject, with regard to design and structure. In addition they addressed the student dimension in specific terms by describing what they saw as the most important final outcomes of their students’ study.

The review of literature showed that conceptions of teaching have proved to have a high degree of commonality, with a distinction made between teacher-centred/content-oriented conceptions of teaching, where the focus is on presenting the content of the syllabus to prepare students for the exam, and student-centred/learning-oriented conceptions where students are stimulated to reflect on the subject for themselves (Biggs, 2003; Gow & Kember, 1993; Prosser & Trigwell, 1999).

However, conceptions identified in such work, are presented from the researcher’s perspective and typically described using conceptual language which is rarely used by the teachers themselves, when describing their ideas and views of teaching (Entwistle & Walker, 2002). As reported in section 6.2.1, the staff commonly used examples which defined the features of good teaching and counter-examples describing the opposite. Thus, the teachers’ reflections of experienced successful teaching mirrored the spectrum of issues related to “good teaching”, but in more pragmatic terms, and so clarify the experiences embodied in the conceptual frameworks in more concrete terms.
Teaching which emphasises rich teacher-student interaction

When considering teaching of good quality, staff described students as being actively involved in classes, being keen on asking questions, and participating in discussions about the topics covered in class. The students showing enthusiasm, even asking for more information about the subject outside the classroom, which indicated that they found the subject relevant and interesting. When students joined in and asked questions, they brought in different perspectives and showed a better understanding of the topics addressed. Another dimension of student engagement involved having the students take part in decision making about the syllabus at the beginning of the semester and also in providing the students with the opportunity to give feedback during the running of courses. This meant that the syllabus became more like an agreement between the teacher and students on how they aimed to work during the course. Likewise, feedback given by students’ during the course offered the opportunity for teachers to reflect on their teaching and make improvements while running the course, instead of having to wait for the students’ formal assessment of the course afterwards. This implies that a more democratic approach with regard to the design and structure of courses is seen as contributing to the quality of teaching. This view when tested in the questionnaire was, however, not widely supported; less than half of the respondents agreed, and a quarter was neutral. The teachers’ accounts thus mirror in all main respects previous research which have found teaching of good quality associated with the quality of the teacher-student nexus (Karagiannopoulou & Entwistle, 2013; McMullen, 2008; Skelton, 2005; Tennant et al., 2010).

Preparation which fosters student understanding and good teaching experiences

Good preparation before every class was also seen as an important contributor to quality of teaching. Being well prepared was not only linked to the teacher preparing the topic covered in the class beforehand, but also imagining how best to present the material in ways likely to help the students to understand more easily. Good preparation also led to fruitful interaction between the teacher and the students and encouraged students to prepare for classes in advance to make them more familiar with the topic addressed in class. Lack of good preparation, such as failing to prepare the topic to be covered with regard to how best to ensure student interaction and evoke their interest, typically resulted in frustrating or bad experiences in teaching, giving the teachers an uncomfortable feeling about their
performance. This echoes earlier research which has reported feelings and emotions as one of the elements embodied in conceptions of teaching, with teaching strategies being influenced by content knowledge but also relying on personal experiences, coloured by emotional feelings, and reinforces the idea that teachers, in reflecting on their teaching experiences, rarely do so without strong reference to the students involved (Entwistle & Walker, 2002; McMullen, 2008; Tennant et al., 2010). More recent research has found that the nature of emotions that academics experience in their teaching of courses, be it positive emotions of motivation and pride, or negative, such as anxiety, embarrassment and frustration, affect the way they approach their teaching. Thus, motivation and pride have been found to be positively associated with student-focused approach emphasising conceptual change, whereas negative emotions such as anxiety and embarrassment are positively associated with a more teacher-focused approach giving emphasis to transmissive methods (Trigwell, 2012). As approaches to teaching have consistently been found to be related to approaches to learning adopted by students, and as a result the quality of learning achieved (Kember & Kwan, 2000; Trigwell et al., 1999), the importance of quality in preparation for teaching, and managing various different aspects of the teacher-learner relationship effectively, are seen to be of central importance.

Formative assessment designed to facilitate learning and foster understanding

The characteristics of the “ideal course”, as defined by the academics, further supports the focus set on rich interaction between the teacher and the students as a critical feature of good university teaching. But the descriptions of such a course also reveal that the way in which student learning is assessed plays an important part when considering what, in the design and structure of courses, is likely to add to the quality of learning. Thus, staff typically saw formative assessment as an effective way to increase the quality of courses, and these views seemed to be favoured at all levels, within as well as beyond the faculty context. This formative assessment consisted of varied assignments, followed by appropriate feedback which provided the students with support and guidance towards better understanding of the course subject. Assignments of a kind that linked the subject covered to a local context, be it situations or research, were aimed at facilitating learning. Study diaries with feedback from the teacher were believed to have the potential to enhance the quality of student learning and have students think of their study more as a
cooperative project between them and the teacher. And this underlines the emphasis laid on teacher-learning relationship, highlighted in earlier discussion. However, although often criticised, exams were not judged negatively by all, as exams were seen as the best way of judging students’ knowledge in some topic areas.

The questionnaire showed that many teachers endorsed strongly the value of assignments spread evenly through the course, along with exams at the end of the semester. However, others preferred to rely entirely on formative assessment. The item in the questionnaire which specifically highlighted the main aim of formative assessment, that is to provide students with guidance during the studying process rather than to judge their skills solely as an outcome, was favoured by well over half of the respondents (see section 7.2.6), with only about ten percent disagreeing.

Various aspects in earlier research overlap closely with the views reflected in describing assessment in the interviews. Thus, appropriate and varied assessment along with the provision of helpful and timely feedback has long been recognized as essential part of effective teaching-learning environment in higher education (Hounsell, McCune, Hounsell J., & Litjens, 2008).

Teaching which recognises both theoretical knowledge in the field, and additional generic qualities important for a graduate

The third main dimension explored was what the staff saw of most value as the final outcome of students’ studying for a university degree. The analysis of data revealed a general consensus among the staff that apart from acquiring good theoretical knowledge in the field, generic aims such as adopting and practising critical thinking, being self-reliant in terms of acquiring additional knowledge and adopting a questioning and open mind are all considered important qualities for a graduate. This suggests that providing students with teaching that supports and promotes these qualities and skills are necessary dimensions of good quality that fall well within the general ideas of the university presented in section 1.5 and 1.6.

8.2 Revisiting the first broad research question

We have now discussed the main findings that derived from staff, when focusing on what constitutes good university teaching. These findings can then be seen in the light of previous research to provide an overall picture of the main aspects identified.
Numerous research studies into quality aspects of learning and teaching in higher education were reported in the literature review, one of them being the ETL project, which investigated what was considered to be effective teaching and learning in contemporary higher education (see section 2.2). Based on the findings, conceptual frameworks have been developed to guide institutional and faculty or disciplinary development of teaching-learning environments, an example being a heuristic model reported in Figure 10 in section 2.2. The model focuses on the “inner teaching-learning environment” and describes the pattern of influences on learning, shown in terms of the main constructs used in the ETL project to try to understand the nature of the effects of teaching on learning (Entwistle, 2009; Entwistle et al., 2003; Hounsell & Entwistle, 2005).

The present study has followed these theoretical frameworks and attempted both to elaborate and enlarge on this previous work. We will now return systematically to the research questions and explore to what extent and in what ways they have been dealt with. The research questions, introduced in section 2.4, involved three broad issues, each referring to one of the three levels investigated, that is, the individual level (also called the micro level), the institution (also called the meso level), and issues that originate from outside the institution (also referred to as the macro level). We will be drawing on the discussion of the findings so far, and begin by revisiting the first question, namely how “good university teaching” is conceived of by the staff, that is at the micro level. The question was:

– What are the conceptions of “good university teaching” held by academic and administrative staff?

This called for the exploration of individual perceptions of the nature of “good teaching”. Our findings will be described in relation to a schematic model, shown as Figure 22 (see Appendix L for enlarged version). This model describes the generic features of good university teaching, as reported in this study. They are drawn systematically from the data detailed in Chapters 6 and 7 and presented in four distinct areas, representing the four main themes, with attached sub-topics. The different factors specified in the figure will be described and briefly discussed below. In the model we will also present important features that can be used to characterise each theme, as derived from the data.
We begin with the features which refer to educational aims and objectives described here as *Teaching which recognises both theoretical knowledge in the field, and additional generic qualities important for a graduate*. Examples that came clearly from the data, both the interviews and the survey questionnaire, were factors such as fostering students' adoption of a questioning and open mind, emphasising students' self-reliance in acquiring additional knowledge, and emphasising that the student should adopt and practise critical thinking. Thus, this theme addresses the question about the aims of education, in other words, what is of most value to learn. Then, we have features which relate to the planning of teaching in the ellipse entitled *Preparation which fosters student understanding and good teaching experiences*. The model shows the three most noticeable features found in the data which constitute such planning. Firstly, it is planning which presumes that both teachers and students prepare for the next teaching session in advance; secondly, the teacher's preparation is based on recognition of the student perspective, and lastly, preparation of this kind is one which fosters fruitful teacher-student interaction. Thirdly we have a box labelled *Teaching which emphasises rich teacher-student interaction*, and refers to the teacher-student nexus. Here we note three important features, which came out in the data as principal ingredients. One is to have the students actively involved in discussions on topics covered, another is to lay emphasis through the teaching on encouraging students in a way which makes them keen on asking questions.
about the study topics, and the third is to teach in a way which promotes students into showing enthusiasm and bring in additional perspectives of the topics discussed. The fourth and last aspect of good teaching refers to assessment of student learning, entitled in the box as *Formative assessment designed to facilitate learning and foster understanding*. Two important features are noted as part of such assessment. One describes how this is done by using varied assignments, followed by appropriate, supportive feedback and the other emphasises the importance of linking the assignments given to students to local research or situations.

Through these findings, shown in the model, we have thus provided our answer to the first research question. Also, as we have noted earlier, the descriptions in the model are congruent with previous research into conceptions of teaching held by academics, as described in the literature review. But our findings extend those descriptions by showing what the teachers themselves think are important when designing good teaching and the kind of teaching that they feel, in principle, is within their purview to implement, given that they are provided with the conditions needed to put those into practice. In fact, as we will discuss below, this is rather far from being materialised in the real world, as perceived by the participants in the present study.

As noted in section 2.2, Samuelowicz and Bain (1992), suggested in earlier research that conceptions of teaching were based on an “ideal” view of teaching, while approaches to teaching were grounded in everyday experiences. In this context, they further noted that:

> If this is the case, research might profitably be directed towards the factors (teacher, student, institution-related) which prevent academic teachers from acting according to their ideal conception of teaching and thus contribute to one of the mysteries of higher education – the disjunction between the stated aims (promotion of critical thinking) and educational practice (unimaginative coverage of content and testing of factual recall) so often referred to in the literature (p. 110).

Eley’s (2006) study into the relationship between teaching conceptions and teaching practices, has since reported this potential incongruence as an important aspect, arguing that although teachers could describe what they believed was involved in good teaching, they did not seem to use their conceptualisations explicitly when planning their teaching (p. 208). Another, but related study, which compared teachers’ thinking about a
course they were teaching and their thinking about specific classes within that same course, has shown that there are differences in teachers’ thinking between planning and carrying out their teaching (McAlpine et al., 2006).

Thus, teachers’ approaches to teaching, and how these interact with the conditions under which ‘good university teaching’ is seen to take place, must be seen as an important dimension to explore. In the present study, the Approaches to Teaching Inventory (ATI), representing two different approaches to teaching, labelled as a conceptual change/student-focused approach and information transmission/teacher-focused approach to teaching, was included in the questionnaire used (see section 2.2 and 7.1.2), and we will now discuss the results, the relationships found between the ATI scales, and the items in the questionnaire which described conditions for ‘good university teaching’.

### 8.3 Teachers’ approaches to teaching

Research has shown that academics’ approaches to teaching are strongly affected by their conception of teaching and, as such, not only impact upon the way academics approach their teaching, but also the extent to which their students reach higher levels of learning outcome (Kember & Kwan, 2000; Trigwell et al., 1994; Trigwell et al., 1999). Earlier research into student learning in universities has generally found a positive relationship between deeper approaches and higher quality learning outcomes, and also, deep approaches to learning have been found to be associated with perceptions of high quality teaching, some independence in choosing what is to be learned, and clear awareness of the goals and standards required in the subject (Trigwell et al., 1998). In addition, studies have shown that students’ learning approaches are affected by their awareness of the learning environment they are studying in (Prosser & Millar, 1989; Trigwell & Prosser, 1991a; van Rossum & Schenk, 1984).

The main advantage of using the ATI in the study was the opportunity it provided to explore, in the same sample, relations between approaches to teaching and other elements of the teaching-learning environment (Trigwell & Prosser, 2004) which had been identified in the interviews and further tested in the questionnaire.

The distinction between the two different approaches represented in the ATI came out clearly in our findings, but there was a remaining issue of the extent to which these approaches were found in different subject areas. Dividing the sample in terms of the hard/soft and pure/applied distinctions described earlier, showed some statistically significant differences between
disciplines. Teachers teaching soft disciplines seem to be more inclined to use the conceptual change approach than are those teaching within the hard discipline category (see section 7.2.8). Firstly, the results confirm the relational nature of different approaches to teaching (Prosser & Trigwell, 1999), indicating that, in using such inventories, one needs to be explicit about the specific context (Lindblom-Yläne, Trigwell, Nevgi, & Ashwin, 2006). Secondly, these differences between hard and soft disciplines are in line with previous studies which have found that teachers teaching hard disciplines are more likely to report a transmission approach, whereas teachers of soft disciplines tend to report a conceptual change approach (Lindblom-Yläne et al., 2006; Lueddeke, 2003; Trigwell, 2002). However, in our study, the transmission approach showed no statistically significant differences between different categories of discipline, but there was a considerably lower score on the transmission approach than the conceptual approach in all four categories.

In the following sections, we shall be discussing the conditions affecting teaching that relate to institutional, governmental and other external policies and practices, but here we will be using the findings to indicate conditions emerging from the interview and questionnaire analysis which the teachers saw as directly impacting their ability to carry out “good teaching”, as they saw it.

As noted in the review of literature, Kember and Kwan (2000) have suggested that teachers have what they refer to as a preferred or predominant approach to teaching, but adopt an alternative approach when encountering something in the teaching-learning environment which they feel demands a different approach. Or, as they comment:

If conditions are suitable, lecturers will normally adopt the approach which is consistent with their deep seated beliefs about teaching. If they move away from this preferred approach, to any extent, it will be because of other factors ... [such as] institutional influence, curriculum design or student presage factors (p. 487).

Thus we know that academics tend to move away from preferred approaches and adopt an alternative approach when faced with unfavourable conditions, and the present study makes it possible to further explore these potential incongruences on the more pragmatic levels of approaches to teaching, and more particularly on the conditions under which good university teaching had been found to take place, that is, this
disjunction between the stated aims (promotion of critical thinking) and educational practice (unimaginative coverage of content and testing of factual recall) (Samuelowicz & Bain, 1992).

As discussed in section 7.2.5, fourteen statements describing conditions necessary for good teaching, as perceived by the interviewees, were tested for commonality in the questionnaire. Although the distribution of scores varied between items, almost all were rated relatively high on agreement and low on disagreement, except for the opportunity for students to make proposals and suggestions concerning the structure or planning of the course. Otherwise, the findings suggest that there is a general consensus about the main features perceived to be critical conditions for good university teaching to take place.

The findings of the present study showed that teachers’ perceptions of important conditions for good teaching could be grouped into four categories and these were reported in section 7.2.7. This needs to be recalled before discussing their relationship with the ATI results and attempting to interpret the meaning of these relationships in a wider context, namely their contribution to understanding of internal and external influences on teaching approaches and as a consequence the quality of student learning.

A fairly clear-cut pattern emerged showing the “conceptual change/student-focused approach” linking with “conditions encouraging active learning”, “concern for student perspective”, and “including own research in teaching”, while the “information transmission/teacher-focused approach” linked with “including exams in assessment” (see table 12 in section 7.2.7). Thus, the 14 items included in the four scales essentially extend the dimensions contained in the ATI and all six scales together provide a framework for the main themes that emerged from the analysis of the interviews.

Identifying relations in the same sample, between approaches to teaching and other elements of the teaching-learning environment also provided the opportunity to explore whether these relationships applied differently to different categories of discipline.

The differences detected in the analysis of the data suggest that the conditions for good teaching, which were represented in the four scales discussed above, to some degree, apply differently to different disciplines. There seems to be a general consensus in all disciplines when it comes to conditions encouraging active learning, that is, factors like suitable teaching facilities, suitable class-sizes and student active involvement. Where
differences exist between groups, these are small. The soft-applied disciplines seem to be more inclined than the rest of the subject areas to use formative assessment, want to involve students in decision making about the syllabus, and have them give feedback as a way to enhance teaching. Those teaching within hard-applied disciplines seem to be the least concerned about having the course content related to their own research field, and wanting to include their own research in the teaching material. The hard disciplines also seem to be more inclined to use exams than are the soft disciplines (see Table 13 in section 7.2.8).

An alternative method of analysis, cluster analysis, made it possible to identify groups of staff who responded with similar patterns of scores on the six scales. The three cluster solution illustrated the main distinctions between clusters (see Table 14 in section 7.2.9). The members of Cluster 1 contained about one fifth of the valid number of cases, Cluster 2 was populated with about half of the cases, and Cluster 3, although small compared with cluster two, was larger than cluster one, with approximately one third of the valid number of cases.

The clearest difference between the clusters is between Clusters 1 and 2, and Cluster 3. The teachers in both the first two clusters endorse very strongly items that describe conditions which support active learning by the students. In marked contrast, those in Cluster 3 have much lower scores on this aspect, and do not see it as important as the other two groups to include their own research in their teaching. The difference between members of Cluster 1 and 2 lies mainly in how they seek to promote active learning. Those in Cluster 1 are more concerned with teaching in ways which encourage students to be equal partners with them in developing their learning, use their own research in their teaching, and believe in democratic approaches to course design and more student-focused teaching and assessment methods. Staff in Cluster 2 emphasise more traditional teacher-focused teaching and assessment and are less concerned with including students democratically in decisions about the courses they are teaching.

All disciplines, except the soft-applied disciplines, have smaller percentages of teachers in Cluster 1 than in Cluster 3, the lowest percentage of membership being in the hard-applied disciplines. The findings show that about half of the respondents in every discipline grouping are members of Cluster 2. Cluster 3 includes nearly half of the hard-applied disciplines teachers, which means that they are the largest group in this cluster. About one third of teachers teaching within hard-pure
disciplines, and a similar portion of teachers coming from soft-pure disciplines, are members of Cluster 3. Teachers teaching soft-applied disciplines are the smallest group in Cluster 3.

The patterns that emerged when using cluster analysis suggest that the majority of teachers in each category of disciplines choose to adopt an essentially pragmatic way of going about their teaching. Thus, although being more inclined to approaches and conditions which encourage and support conceptual change and students being active learners, they also rely to a considerable degree on transmissive, teacher-focused approaches to teaching. The other half of the respondents were divided into two groups, one being strongly engaged in student-centred teaching, and the other favouring more teacher-centred ways of going about their teaching than those focusing on the student.

Thus, the relationships found between the six scales support what has been found in earlier studies, that approaches to teaching have both a preferred and a relational aspect. In other words teachers do have what one can call a predominant or preferred approach to teaching, but adopt an alternative approach if something in the teaching or learning environment appears to demand it (Kember & Kwan, 2000). Thus, we must now ask what forces are impinging upon teaching, either facilitating or inhibiting good teaching as perceived, and these will be addressed and discussed in the following section where we revisit the remaining two research questions.

8.4 Revisiting the two remaining research questions – and an extended model

Now we will assemble all the different strands of results into as a coherent picture as possible. Here we return to the remaining two broad research questions where we consider to what extent and in what ways they have been dealt with. In doing so, we will make a special effort to present a holistic description in order to emphasise the interrelationship between the different institutional levels ranging from the students and teachers through the disciplinary, faculty, institutional to the external level, which mainly involves the governmental but also international levels.
These influences were the focus of attention when posing the broad research questions, one referring to the institutional, or the meso level and the other to the macro level (see section 2.4). We asked the following:

− *What aspects of institutional provision are seen by academic and administrative staff as affecting the implementation of perceived good teaching practices?*

− *What aspects of governmental frameworks, or other external influences, are seen by academic and administrative staff as affecting the implementation of perceived good teaching practices?*

In order to answer questions about influences coming from institutional and external levels, the characteristics of the framework set for higher education by governmental authorities in Iceland needed to be explored. We had to look at how these are translated into the policy set for the University’s operations, at institutional and faculty levels. The results from the analysis of documentation, coming from both levels, then had to be related to findings from the interviews and the questionnaire, that is, the aspects that affected good teaching practices, as perceived by staff.

The generic features of good university teaching have already been presented within the model shown as Figure 2. These are now placed in the centre of a new extended model, shown as Figure 23 (see Appendix M for enlarged version), which has been designed to illustrate the “institutional and external influences affecting the implementation of perceived good teaching practices”. The central part of the extended model is now labelled “potential teacher influences”. Surrounding this centre is a succession of potential influences, starting with the conditions which most directly influence one or more of the four aspects of good teaching. We label this sphere *specific institutional conditions affecting teaching*. Specific refers here to those influences that are tied to specific disciplines, or faculties but are not necessarily the same for the whole institution. There are then *broad institutional influences affecting teaching*, which are derived from the policies or operation of the institution as a whole, and then in the outermost area are the *external influences affecting teaching*, that is those external to the institution.
In the following section we will focus on the components of this extended model.

8.5 Perceived institutional and external effects on the implementation of “good university teaching”

Below we will gradually introduce each sphere presented in the extended model shown as Figure 23. We will discuss how these various institutional and external factors impinge on the quality issue in different ways, and thus demonstrate how we have elaborated the response to the two remaining research questions referred to above. Thereafter we conclude by suggesting the interaction of these influences, both within levels and between levels, using the same model, but now with marked arrows to further explain the direction of their interactions (Figure 24).
8.5.1 Specific institutional conditions affecting teaching

As we have pointed out earlier (see section 6.2.2), the interviewees’ accounts, and the examples and counter-examples they gave when discussing good teaching, provided insights into what aspects of institutional as well as governmental provisions were seen to work as to either facilitate or inhibit their preferred ways of teaching. Now we will turn to the specific institutional conditions that were identified as influences affecting good teaching practices.

Class size in courses

One aspect of the conditions which teachers saw as encouraging active learning referred directly to having the number of students enrolled in the courses limited to a class size in courses which would enable the teacher to use teaching methods that best suited the topic covered in each class. In the interviews, large classes (whether in lectures or tutorial groups) were commonly described as an inhibitor to teaching of good quality. The questionnaire results confirmed these aspects to be common, as well over half of the respondents felt that large student groups were an inhibiting factor when considering good teaching practices. Large groups meant large lecture rooms, which in turn affected preferred teaching methods and, in particular, diminished the quality of interaction in the teaching sessions. This was a frequently expressed concern in low-budget courses and repeatedly reported as seriously limiting the teachers’ flexibility to teach in ways which promoted high quality learning. Thus, student numbers were seen as an important determinant of the quality of teaching, as class sizes affected teaching methods and the possibility of students’ active involvement in classes. It is thus presented as one of the determinants of quality in the specific institutional sphere. This aspect is in line with earlier studies which have highlighted the vital role of small-group teaching and tutor-student closeness as contributors to high quality teaching-learning environments (Hounsell & Entwistle, 2005).

Levels of students’ entry qualifications

Another aspect which we detected as specific conditions affecting teaching was what we refer to as the levels of students’ entry qualifications. This aspect was partly linked to class sizes in that it was seen as being one of the reasons for a large number of students in classes. This was among other things seen to affect teachers’ ability to fulfil their aims of providing their students with the knowledge and qualities which they saw as very
important for them to have. The analysis of the data showed that some faculties find themselves in a double-bind through being encouraged to recruit more students (to maximise the throughput and income) within the same staffing levels as before. The increased numbers, without additional teaching support, then force them into more large-group teaching than they feel is really suitable or even acceptable for their subject area. In this context the view was expressed that this element might adversely affect the standards set for entering the university, and the level of demands set in courses, as universities try, for budgetary reasons, to get as large a proportion of students as possible completing their studies.

**Teaching room allocation**

Another, but, as noted above, also related aspect was teaching room allocation which was commonly mentioned as an inhibitor to good teaching in the interviews, but not as widely agreed though in the survey questionnaire (see section 6.2.2.2 and Table 17). Teachers being allocated unsuitable teaching rooms seemed to be mostly the consequence of having a large number of students enrolled in courses. This demanded large lecture halls, often cinema halls, which became an obstacle to good teaching, preventing the flexibility needed for students to work in groups on assignments in classes. And both student numbers and classroom design made it difficult for the teacher to have students actively involved in discussions. Badly equipped classrooms, outdated equipment in labs and technical problems, especially when using distance teaching technology, were also seen as an obstacle to teaching of good quality. Thus, we have identified teaching room allocation in courses as one of the specific conditions at the institutional level, which determine the extent to which teacher can teach in line with his or her conceptions of “good teaching”, and thus must be seen as one of the factors influencing quality. This aspect overlaps with studies which have found that, when faced with teaching rooms which are not conducive to the type of teaching preferred by them, teachers are likely to adopt an alternative approach from the one they would prefer to use (Kember & Kwan, 2000).

**Disciplinary teaching-learning cultures**

By describing disciplinary teaching-learning cultures as specific institutional conditions affecting teaching, we are referring to an earlier discussion which showed that differences exist between different categories of disciplines with regard to the two approaches represented in the ATI. These
cultures are partly a function of subject-area differences, but also the conceptions of “good teaching” held by colleagues in the faculty or course team. Here, however, we can only consider subject area differences by referring to the four scales detected, representing aspects of conditions for good teaching, and the relationships between the six scales. The teachers within soft disciplines seem to be more inclined to use the conceptual change approach than those teaching within the hard discipline area. We found that these differences between hard and soft disciplines are in line with what has been found in earlier research, namely that teachers teaching “hard” disciplines are more likely to report a transmission approach, whereas soft-discipline teachers have been more likely to report a conceptual change approach (Lindblom-Ylänne et al., 2006; Lueddeke, 2003; Trigwell, 2002). We also found disciplinary differences when testing the four scales, representing aspects of conditions for good teaching. The soft-applied disciplines seem to be more inclined than the rest of the subject areas to formative assessment; to involving students in decision making about the syllabus, and in having them give feedback as a way to enhance teaching. We also found that teachers within hard-applied disciplines seem to be least concerned of the subject areas about having the course content related to their own research field, and wanting to include their own research in the teaching material. Both categories of the hard disciplines, the pure and the applied, also seem to be more inclined to use exams than the soft disciplines. However, there seems to be a general consensus in all disciplines when it comes to conditions encouraging active learning. The differences detected in the data suggest that teachers’ perceptions of the extent to which these conditions are considered important in the quest for quality vary between different subject areas, and thus support that disciplinary teaching-learning cultures need to be taken into account in any discussion of the conditions under which good teaching is likely to take place.

Teachers’ allocation of their time

Yet another aspect detected as specific conditions at the institutional level affecting teachers’ ability to teach in preferred ways was teachers’ allocation of their time, and this links to how teachers divide their time with regard to their three academic duties, that is, teaching, research and administration.

As reported in section 2.3.1, previous research into the relationship between teaching and research has reported constraints perceived by
academics who complain that research interferes with teaching capability and activity or, conversely, that teaching load works as a major constraint on improving research productivity. One of the aspects influencing relations between teaching and research has been seen in the way reward systems tend to work, rewards such as public recognition, teaching awards, promotion or salary (Marsh, 1987; Mooney, 1991; Neumann, 1992). Additionally, earlier studies have reported that academics working in research universities believed that the pressure on conducting research resulted in reduced quality of university teaching (Boyer, 1990; Ramsden, 1998).

The teachers’ accounts about their academic duties mirrored conflicts with regard to the division of working hours between teaching and research. The interview data also reflected the view that administrative duties tended to be too time consuming, given the time stipulated for these duties. The results of the estimate of time spent on administration confirmed this to be the case. It was also highlighted as a problem in remarks in the open option in the questionnaire (see Table 16).

Many of the teachers note that, despite the fact that research is more clearly rewarded in the system, they themselves prioritise teaching when it comes to dividing working hours between the two. Remarks made in an open option in the questionnaire again supported this finding (see Table 16). Teaching-related work, such as preparing for class, grading assignments and interaction with students, was commonly given priority in the teachers’ daily work; spare-time, such as weekends and holidays often tended to be used to do research.

The estimates given in the survey questionnaire support this conclusion and, moreover, the results show that the majority of the respondents estimate that the number of hours spent on teaching is higher than the current time rate stipulates, with well over half of the respondents claiming this to be the case. Likewise, almost half report that they spend less time on research than they should do, according to the percentage allocated. The analyses from both sources support the conclusion that their preferences are the other way around; the majority of them would prefer to spend more time on research and less on teaching than is currently the case. This preference may also be influenced by the fact that research productivity counts directly in the yearly pay-packet for the academics, for their chances of getting a sabbatical, for the chances of obtaining grants, for receiving doctoral students, for promotion up the academic ladder, and in the financial contribution their faculties receive.
This situation could be one reason for the tension felt about the balance between teaching and research, but it also highlights the issue of whether this has something to do with how the promotion system works, that is, the question whether preferences are based on the nature of the reward system or personal interests. We will, in discussing the influences detected at the broader level, address the issue of promotion criteria in more detail.

Although it cannot be argued that the data have provided an answer to the question about what is the driving force behind the teachers’ preferences, some indications were found in looking at what is seen as a potential solution to the conflict involved in trying to balance the two. According to the data, it seems that there is a general consensus among the staff, and that goes for both teachers and administrators, that teachers should be given more flexibility in the time allocated, and also be more involved in the decision-making regarding the organisation of academic duties. And this quest harmonises with institutional policy, as is reported in section 5.2.2.1, where it is shown that the institution wants to increase individual flexibility with regard to the proportional division of duties between research, teaching and administration, which are to be reviewed regularly in order to “make the best use of the University’s human resources”, as phrased.

Some differences were detected between the four discipline categories with regard to teaching and research preferences. Teachers working within the hard-pure discipline area tended to be more reluctant to add to their administration duties than are teachers in the hard-applied disciplines. Teachers in the hard-pure disciplines report spending more time on teaching than allocated than do those in the hard-applied disciplines. The difference between groups is statistically significant when it comes to teaching preferences and it seems to harmonise with teaching estimates, in that teachers teaching hard-pure disciplines seem to be more reluctant to add to their teaching if given flexibility, than do the teachers teaching hard-applied, soft-pure and soft applied disciplines. A statistically significant difference was also detected in research preferences. Teachers working within the hard-pure category seem to be more eager to spend more time on research than do the teachers working within the category of soft-applied disciplines.

*Finance and level of staffing provided for each course*

Last, we have two aspects, one being the consequence of the other which, combined, were identified as affecting the quality of teaching, that is, on
the one hand the finance provided for each course and on the other the level of staffing provided for each course. Both these have their origins in the financial resources made available, through the financial model used at governmental level, first to universities, and through institutional policy, to faculties. As we noted in discussing class sizes, faculties find themselves in the situation of being encouraged to recruit more students but, for financial reasons, within the same staffing levels as before. And teachers see this as affecting their flexibility with regard to teaching preferences, as the increased numbers, without additional teaching support, constrains their ability to use small group teaching, more varied assignments, and providing their student with rich and supportive feedback.

Before entering into the next section, where we discuss the broad institutional aspects of influences on teaching, it should be noted that the interviews with staff within faculty with an administrative role, along with the administrators outside faculty, approached the topics under discussion in a more holistic manner, referring more to examples that had to do with faculties and institutional policy in general. Nevertheless, their perception of what “good university teaching” entails, and the conditions under which they saw teaching of good quality be most likely to take place, were in all main respects the same as reported by the teachers doing the teaching.

We have now discussed the various specific conditions perceived as constraining teachers’ ability to teach in a way which they saw as constituting teaching of good quality and were shown in the model in Figure 22. These aspects came out clearly from the analysis of the data. But, from the findings, another important aspect needs to be added, namely the broader organisational context and the ways in which this may support or impede the delivery of what the staff sees as “good teaching”. In the schematic model in Figure 23, we term these effects “Broad institutional influences affecting teaching” and now these will be discussed, with reference to the figure.

8.5.2 Broad institutional influences affecting teaching

Both the interviews and the survey questionnaire revealed that teaching practices are not only affected by specific institutional conditions like the ones we have just discussed, but also by a more broad institutional influences rooted in various policy-related provisions.
Institutional policies on entry qualifications and student numbers

In the previous section, we discussed how levels of students’ entry qualifications were in some respect seen as creating conditions that staff felt affected the quality of both teaching and learning outcomes. In this context, they considered that this element might adversely affect the standards set for entering the university, and the level of demands set in courses, as universities try, for budgetary reasons, to have more students, not only entering but also completing their studies. Thus, we see these conditions as being a part of broader institutional policies on entry qualifications and student numbers which need to be highlighted when considering influences originating at the meso level which affect the implementation of good teaching.

Institutional decisions on distribution of teaching resources across faculties

Also discussed in the previous section were the constraining conditions that teachers find themselves in as a consequence of large student numbers in classes. In that context, we pointed out that these were considered to stem from the level of staffing in courses, which in turn was the consequence of the level of funding provided for each course. These influences thus have their origin at the meso level, that is in institutional decisions on the distribution of teaching resources across faculties and therefore are placed in our extended model as broad institutional influences affecting teaching.

Institutional policy about time distribution between teaching and research

Teachers’ allocation of their time was another aspect discussed within the specific institutional conditions affecting good teaching. How these duties are organised is decided in institutional policy about time distribution between teaching and research, which lay down, at the time of the present study, a distribution of administration 12%; teaching 48%; and research 40%.

The relationship between teaching and research has been a subject of attention for a long period of time, and various examples have been described of how this tension unfolds in the discourse within the academia, such as teachers expressing their concern about resources being targeted towards research at the cost of teaching which instead should be regarded as the core function of the university. As a response to this, it has been argued that the university cannot afford to prioritise teaching at the
expense of research, and this view is justified, for example, by pointing out that in order to ensure quality and standards, it is necessary to emphasise research activity so as to protect its reputation. An additional aspect of this discourse reported in the literature as commonly held by university management has been that those who are not active in research should take on more teaching duties.

As has been noted earlier, the analysis of institutional policy indicated a move towards more individual flexibility with regard to the division of the teaching and research duties, and we pointed out that this was in line with wishes commonly being expressed in both the interviews with academic and administrative staff (see section 5.2.2.1 and 6.2.2.3). However, it is clear from the analysis of the policy that strong emphasis is still placed on productivity in research.

**The promotion criteria**

As we noted earlier, both the data from the interviews and the results from the questionnaire supported the conclusion that the tension found in the teachers’ reflections about how they managed to fulfil their academic duties was closely linked to the promotion system. The promotion criteria were found to be a part of institutional policy which was suggested as a strong influencing factor and seem to push in the direction of separating teaching and research to an increasing degree. Because research related work, such as the writing of research papers, is typically rewarded with higher status or more financial gain, it is likely that research becomes the part of academics’ duties which takes control in career development. An additional problem seems to be that no consensus has yet been reached about the mechanisms by which the quality of teaching should be judged. We do not yet have any mechanism for evaluating teaching equivalent to the one used to assess the quality of research, and instruments attempting to delimit and frame what it means to be a “good teacher” have been seen as highly contestable (Jónasson, 2008; Tennant et al., 2010).

The aspects found in the data reflect a discourse of a similar nature. A commonly expressed view was that, in the system, research is given higher status and reward than teaching, and in discussions about the balance between teaching and research, it was noted that sometimes teaching seemed to be looked upon like some kind of punishment for those who are not successful enough in research. The aspects that were detected in the data thus seem to reflect an on-going discourse, and the assumption that the debate about the relationship of teaching and research is unlikely to
come to an end, regardless of any empirical evidence that may shed light on the relationship, is probably a realistic one (Tennant et al., 2010). But given how large it looms in the minds of the academic staff, it appears to be intractable, which seems unfortunate.

The aim to be ranked among the 100 hundred best universities

Another factor of influence identified was the ranking discourse about the institution’s aim to be ranked among the 100 hundred best universities in the world. The comments on the subject seemed to imply indifference towards this aim but, in cases where it was linked to teaching practices, the remarks made were mostly sceptical. There were elements in the general aims of the University which the interviewees felt were contradicting this overarching aim, such as attempting to attract as many students as possible, possibly leading to a lower quality of teaching and lowering of standards. These concerns were tested in the questionnaire. Only a small percentage of the respondents saw the institution’s aim to be ranked as one of hundred best universities in the world as being supportive to efforts towards providing good teaching, given that the demands quality teaching makes were not given sufficient weight. Half were neutral and well over third saw it rather as an inhibiting factor. This implies that these two parties, faculty members on one hand and those moulding the general aims of the institution on the other hand, might be dancing to a different tune when it comes to merging the overall and the detailed aims for the institution. And this also poses the question whether faculty members view themselves as active participants in policy-making for the institution.

The analysis of the institutional policy showed that quantitative measures, such as scholarly output, as measured by refereed papers and increased number of PhD graduates, were highlighted as important quality criteria in aiming to become one of the 100 best universities in the world. From the review of the literature (see section 2.3.1), one aspect of the ranking debate has been the criticism that such criteria give little attention to the academic quality of the results. Instead, the focus is on the “points” that these measures produce for the faculty. These simple quantitative measures tend to become mechanistic and bureaucratic. They run the danger of being removed from the individuals involved - the teacher, student, researcher and administrator - and from their immediate environment, and therefore could leave out many important aspects of the institution’s operations (Skúlason, 2008). This might explain the indifference found towards the aim of being “one of hundred best” in the
interviewees’ accounts, that is, that the teachers do not feel personally attached to such a goal or even that they need not have any active role in determining what should be inherent in this ultimate goal.

League tables and ranking systems have been shown to be perceived as important providers of information and guidelines for various different audiences, such as, internationally mobile students and faculty, parents, government, academic partners and academic organisations, to name but a few, and a cue for government and policy makers on the subject of international standards and contribution to national innovations strategies (Hazelkorn, 2007). Studies support the view that league tables and ranking systems do not give any complete overview of an institution, but rather favour the strengths of well-established university institutions and strengths in research and postgraduate studies. However, these studies also confirm (Hazelkorn, 2007) that despite criticisms, higher education institutions take the outcomes of league tables and ranking systems seriously and use them to inform institutional decision making. This seems to be done not least because those involved in policy making strongly believe that rankings affect reputation and status, and influence the views of stakeholders and policy makers.

University rankings are unlikely to disappear, despite their controversial nature and methodological shortcomings and, therefore, in light of our findings and those presented elsewhere (Salmi & Saroyan, 2007; Tennant et al., 2010), a main conclusion would be that academics can no longer live in isolation from how the world defines and constrains the meaning of quality. Rather they should themselves engage in the discourse and debates which are increasingly being moulded by the metrics used in a world especially influenced by national rankings.

**Quality standards set in institutional policy**

The discussion above shows clearly that increased research activity, including the strengthening of doctoral studies and the number of papers published in peer-reviewed international journals, is seen as an important means to gain the status of being placed among the hundred best universities in international league tables (see section 5.2.2.1). The emphasis laid on research is also reflected in various ways in the incentive systems devised at the institutional level, as well as in rules used to divide resources within the institution. Therefore, this emphasis must be seen as a strong factor influencing academic activities, teaching being one of them.
The latter quality-related aspect emerged from the consideration of the Bologna process and the ranking debate. It was suggested in the interviewees’ views that quality criteria had become more transparent, being now perceived as part of the Bologna Process. Institutions might adopt the standards set by the most prominent universities and thus improve their own standards, again abdicating to a certain extent independent determination of quality standards, in this case, not to the system of criteria itself, but to the institutions perceived to celebrate high quality. Thus we have placed quality standards set in institutional policy in the model shown in Figure 23 as one of the institutional influences affecting teaching.

*Institutional reactions to global research competition*

The emphasis laid on research in the quality standards set in institutional policy seems to be, at least partly, moulded by an international trend. Thus it has been argued that research has become the dominant activity in universities around the world (Barnett, 2003). Drawn from the findings which we have been discussing above, that is of the emphasis laid on research productivity in institutional policy, this argument to some extent applies to the institution under study, just like universities elsewhere in the world. Thus, the quality standards set in institutional policy seem to be institutional reactions to a global trend, that is, the global research competition.

*Institutional teaching policies*

Institutional teaching policies are one aspect of influence which we see among the broader influential factors at the meso level. This aspect affects disciplinary learning cultures, which are partly derived from faculty policy or culture, and also partly from the policy of the institution with regard to the curriculum and teaching practices. It is also influenced by the Bologna Process, which we will address later in the context of external influences at the macro level.

The analysis of the institutional policy showed emphasis laid on teaching methods which would promote the quality of study and take account of both students’ needs and the special status of individual disciplines. The policy at faculty level harmonised with these emphases. Thus, in social sciences, the emphasis was laid on developing teaching methods and takes account of students and the needs and the requirements of individual disciplines. The policy in Medicine emphasised diverse teaching methods
and varied assessments, as well as using skill tests in medical training, and lastly, in Science the emphasis in teaching, was laid on increasing research-based studies and strengthening undergraduate programmes in the sciences, as well as the importance of practical training and innovative teaching techniques.

As we have reported, the impact of the Bologna Process was one of the focal points in the present study. There was evidence in the data of various impacts on the quality aspect of teaching which originated from procedures entailed in the Bologna Process. As reported in section 6.2.3, four themes related to the Bologna process emerged when analysing the interview data, two of which referred to the coordination aspect of the Process, that is, the 3+2+3 system and the ECTS units, and two which were explicitly related to quality. The first of the quality aspects was closely linked to the quality assurance feature of the Bologna process. Thus, the interviewees commonly expressed the view that, in particular, the learning outcomes as part of the process would enhance quality within the system. This suggests that the staff are, in general terms, content with abdicating, at least a part the quality assurance, to that process.

However, the introduction of intended learning outcomes, as one of many quality related procedures inherent in the Bologna process, deserves special attention in the context of influences due to institutional teaching policies. The review of literature (see section 2.3.1) showed that identifying intended learning outcomes for study programmes and courses has been viewed as an important means to both strengthen pedagogical discourse and promote a more learner-centred teaching. Thus, it has been argued that adopting a learning outcomes based approach in curricular practices will enable students to become the engaged subjects of their own learning process (Croiser et al., 2007).

Yet, there are mixed views about this issue, with the adaptation of learning outcomes for the purposes of control viewed by some commentators as useless and, at worst, damaging. The main objections have been that their clarity and objectivity is spurious, that they can lead to an uncalled-for homogeneity across disciplines, and can restrict learning because they may encourage students to aim only for threshold passes of restricted but transparent criteria and thus undervalue less predictable but no less important educational outcomes (Hussey & Smith, 2002). In addition, it has been pointed out that the term “learning outcomes” is highly problematic and needs to be handled with caution because of its deceptive simplicity in a complex educational environment (James, 2005).
Recent findings have also indicated that despite the fact that learning outcomes have been formally incorporated in the system they are not used within the academic community as an opportunity to stimulate and strengthen the discourse into quality of learning and teaching (Guðrún Geirsdóttir & Gyða Jóhannsdóttir, 2011).

As reported in section 7.3.3, there were five items listed in the questionnaire which reflected the four themes that had been identified in the interviews as impacts of the implementation of the Bologna process. These items asked if these impacts were positive or negative for programme quality, and the items addressing the coordination aspect of the Bologna process (system of credits and the 3+2+3 system) had less support than did the three addressing the quality procedures involved in the process. The remaining scores showed that there seems to be a general consensus among the staff that the Bologna process has positive impacts on the quality of the education provided by the institution, as almost three quarters of the respondents judged it as having a positive impact on quality.

Thus, it can be concluded that the analysis of the interviews as well as the questionnaire showed that the staff seems to feel content about the emphasis put on learning outcomes as part of the Bologna process, suggesting that the above criticisms are not reflected in the academics’ views. This may mean either that the staff does not share these concerns or that this is yet another sign of them accepting that the judgement of what defines quality has been handed over to external quality management systems.

Drawing on the overall discussion above we can conclude that the set of interactions within the organisational environment of the university, drawn from the data, need to be recognized as a part of any quality assurance framework aiming towards high quality university education.

We have now discussed what we refer to as broad institutional influences affecting teaching, and these will be further elaborated in section 8.6, where their interactions in the schematic model (Figure 24) will be discussed.

The third and last sphere of influences, drawn from the findings, includes those that were seen to originate from outside the institution, described here as the external influences affecting teaching. This aspect is in many ways of comparable importance to those we have discussed above, and both the interviews and the results from the survey questionnaire imply that, at least some of these influences, and their interaction with the organisational environment, are quite powerful. These will be discussed in the next section.
8.5.3 External influences affecting teaching

Several aspects covered in previous sections need to be revisited as they relate to, or follow as consequences of, the forces that will be the subject of this discussion on “external influences”. This will be the last stage in responding to the remaining research questions, before finally exploring the line of influences that derive from the overall findings when introducing the extended model in Figure 24.

**Governmental policies on entry qualifications and student numbers**

In the section describing the specific institutional conditions that the staff perceived as affecting teaching, we reported that class sizes, as well as the levels of students’ entry qualifications in courses, were seen as conditions inhibiting good teaching. We made the assumption, based on the analysis of the data, that institutional policy on student entry qualification might be affected by the competitive element between universities, as well as by the incentives inherent in the funding model to universities and the faculties to maximise throughput and income by recruiting as many students as possible. We reported that the financial contribution did not seem to provide the budget felt to be necessary to meet the increased diversity in the student population and as a consequence potentially less qualified students. The reasonableness of this claim is difficult to ascertain and it is not clear what evidence would decide the matter. The analysis of governmental documents showed that in the regulations relating to public universities, it is stipulated that students must have completed the matriculation examination from upper secondary school or equivalent to be allowed to enter study programmes which lead to a first cycle university degree. But these examinations are not standardised and thus it is difficult to make claims about the decline of standards. The regulations referred to stipulate that University Council may set further rules modulating access criteria, but at the time of study this had not been done, except for setting entrance tests in a few health science programmes. It also stipulates that the University Councils have the authority to set rules which limit the number of students admitted into individual study programmes, whenever conditions prevent the admission of all applicants (see section 4.2.2.3). On the other hand, the government sets quotas for how many students can be accepted in the different categories, that is, how many students they are prepared to pay for but, unless the university decides itself, this does not necessarily directly affect individual faculties.
Teaching practices within the disciplinary community

One of the dimensions explored in the review of literature and in the data was the way different disciplinary cultures shape ideas of teaching and the notion of quality, thus referring to the values, attitudes and ways of behaving, that are articulated through, and reinforced by, recurrent practices within these cultures (Becher & Trowler, 2001). In this context, we drew attention to Becher’s (1994) example that what could be discovered about the physics community as an international phenomenon at the macro level might have direct relevance to research at the micro level research in a single physics unit. Similarly, studies into patterns of teaching and learning, such as in languages, Political Science and Social Work, could have a direct bearing on the development of performance indicators or of study skills programmes at the meso level of the institution. As we have discussed, there were many signs in the data of these cultures being at work and we have, in previous sections, discussed their influences at the meso level, both with regard to specific conditions and the more broad influences visible in institutional teaching policies. Thus, these impacts apply to both the meso and the macro level, allowing us to conclude that the disciplinary differences detected through the analysis of the data in the present study not only are part of cultures at the faculty and institutional level, but also stem from teaching practices within the disciplinary community in a global context, that is at the external, or macro level.

The Bologna process, including quality assurance

In discussing the impacts of the Bologna Process, as these appeared both in the interviews and the questionnaire, we reported that the staff seemed to be content with the emphasis put on learning outcomes, as part of the process. They believed that the specification of learning outcomes for the study programmes and courses would enhance quality within the system. This seemed also to be the case with other quality mechanisms, such as the accreditation exercises. This led us to conclude that there were signs that the staff, in general terms, was content with handing over quality assurance to external quality management systems. This very same view was also to be found in institutional policy. For example, in describing systematic efforts to “nurture a quality culture at the University”, the development of a quality-assurance system which takes account of international standards and policies inherent in the Bologna process is mentioned (see section 5.2.2.1). The introduction of the Bologna Process in Iceland in the parliamentary bill on universities (see section 2.3.1) shows that adapting to
the Bologna process is viewed as a means to strengthen the position of Icelandic universities in the European educational area and internationally. Thus, it seems that there is general consensus at all levels, that the Bologna process, including quality assurance, serves as an effective means to enhance the quality of higher education.

**Governmental views about priorities in higher education**

In the review of literature we saw that the Bologna Process has been seen as a response to concerns about quality assurance issues in higher education, no less than it being seen as a way of coordinating systems in order to allow for recognition of students’ degrees between institutions and countries (see section 1). We know from the literature that great emphasis is being placed on quality control in the countries participating in the Bologna Process, in order to make sure that university degrees meet international standards, both with regard to further study and employment. The review of literature also showed that the common “standards” introduced in The European Standards and Guidelines (ESGs) used by the participating countries were developed to “support diversity across and within 46 countries, while adhering to unifying principles and values” (see section 2.3.1). We find commonality between these aspects and the policy declarations published by the two governments in power at the time of the present study. For example, the declarations focus on quality, flexibility and diversity in supply of courses, in order to enable all students to find a suitable field of study. They also emphasise increased professional and operational independence of schools, and an encouragement to the universities to attend to critical and creative thinking as important competences. In fact, these are also the generic aims that were commonly mentioned as important skills for a graduate in the interviews and confirmed in the questionnaire (see section 6.2.1.4 and 7.3.4). Thus, drawn from our findings, we see governmental views about priorities in higher education as an aspect of external influences that need to be taken into account in order to draw a holistic picture of the set of forces impacting upon quality aspects of teaching.

**Global research competition**

Global research competition is yet another factor that needs to be taken to account as a part of external influences impacting upon teaching. To go back to our discussion of influences at the meso level, we reported that many of the teachers had noted that research was more clearly rewarded in
the system, and that the tension that was found in the teachers’ reflections about how they managed to fulfil their academic duties had close links to the way that promotion system is built. A commonly expressed view was that research is given higher status and reward than teaching in the system. The institutional policy showed that scholarly output, as measured by refereed papers, was highlighted as an important quality criterion on the path towards becoming one of the 100 best universities in the world. Thereby, we concluded that the emphasis laid on research in quality standards set in institutional policy seemed to be a reaction to international trends. It has been pointed out that governments generally are increasingly treating scientific research as an important provider of progress and competitive advantages of societies (Jónasson, 2008). The findings revealed that this same development is clearly visible in Iceland. The analysis of policy declarations from the governmental authorities (see section 4.2.2.1) showed that investment in research and the educational system (named in this order) were seen as an important means and a driving force of economic growth. Thus, the framework set by government indicates that universities are seen as having a very important role in economic growth through enhancing research, while the university also sees its importance in terms of global status. Thus, we conclude that the emphasis on research that we have discussed in the previous section is affected by this global research competition, and needs to be recognised among the external forces impinging upon teaching.

The financial model used by governmental authorities

In the review of literature, attention was drawn to increasing demands for accountability, quality control and quality assurance, especially from the government level, linked to a growing concern that government should get value for money from the institutions it funds (see section 2.3.1). The analysis of the interviews revealed that the financial model, used by the Ministry of Education to determine the financial contribution to universities (see section 4.2.2.3), was in various ways, both directly and indirectly, seen as having a marked impact on individual academics, as well as affecting policy at faculty level.

The analysis of the data showed that the model, as it works, is seen to act in various ways as an inhibitor to good teaching practices and the questionnaire results confirmed very clearly the obstacle seen in the way the financial model works. More than two-thirds of the respondents saw the financial model as an inhibiting factor standing in the way of providing
conditions needed for good teaching. We have, in the earlier discussion, provided various examples, such as universities being encouraged to recruit more students, as this maximises the throughput of students and as a consequence the funding contribution. It was also drawn from the findings that this element might affect the standards set for entering the university, and the level of demands set in courses, as universities try, for budgetary reasons, to get as large a proportion of students as possible completing their studies. This resulted in large classes of students with diverse qualifications, but without the necessary funding for additional staffing. Larger number of students also meant large lecture rooms, which in turn affected preferred teaching methods and, in particular, diminished the quality of interaction in the teaching sessions. Another issue, brought up as part of a negative impact of the financial model, applied to faculty policy. Basing the financial contribution on completed credits was seen as encouraging competition between faculties rather than promoting cooperation, thus acting as an inhibitor to inter-disciplinary work. Based on the findings, there are therefore indications that a mechanism, such as the one used by the ministry, that uses the number of students recruited in universities as a basis to determine the financial contribution, may have unwelcome, and possibly serious, consequences. As the system works, failing students or having them leave the institution, is not just a question of academic criteria, but also has financial consequences for the institution, and this may affect the way in which evaluation of student learning is handled and likewise the way in which students evaluate teaching (Jónasson, 2008).

It should be noted that all the broad institutional and external factors discussed here were also addressed in the accounts of those who had an administrative role, both those within and outside faculty. Just as with the aspects related to conceptions and conditions for good teaching, no distinguishing differences could be detected when analysing the data. However, they discussed these factors in a manner which mirrored in many respects more general background knowledge of the areas being discussed (Bologna process or the financial model), rather than referring to actual specific cases as the academics did.

We have now described all the different influences in the schematic model, shown as Figure 23, and labelled as “Institutional and external influences affecting the implementation of perceived good teaching practices”.

283
At the institutional or meso level, these influences were related, on the one hand, to specific conditions which were seen as affecting teaching and, on the other, these were a more broad influences stemming from institutional policy and provisions. Through the schematic model in Figure 23, we have summarised these influences and thus, in essence, answered the research question focusing on the meso level which asked what aspects of institutional provision were seen by academic and administrative staff as affecting the implementation of perceived good teaching practices.

At the external or macro level, we found that the influences detected had their origin in governmental policy or edicts and seemed, at least to some extent, to correspond well with international developments and trends. We have, through the schematic model in Figure 23, summarised these aspects and thus essentially answered the third and last research question which referred to the macro level and asked what aspects of frameworks set by governmental authorities are seen by academic and administrative staff as affecting the implementation of perceived good teaching practices.

Having thus discussed the overall findings and indicated what they add to previous work, it is time to indicate how we see the whole set of influences interacting.

### 8.6 Drawing together the lines of institutional and external influences affecting teaching

In Figure 24, we present the same schematic model as we described in the previous section but, based on the overall findings of the study, we have added lines of influence (marked with arrows) to suggest their direction (see Appendix N for enlarged version). As the arrows indicate, these lines of influence work both within levels and between levels, in the model. But it is important to bear in mind that these are only what we consider the most prominent of a complex set of inter-relationships, discerned within our findings and from previous research, and are necessarily inferences that go beyond the findings themselves.
First, we have a line of influence which stems from governmental policies on entry qualifications and student numbers and institutional policies on entry qualifications and student numbers. These are influences which refer to the competitive element that exists between university institutions. The government sets quotas for how many students can be accepted in different categories of discipline, but this does not necessarily directly affect individual faculties, unless these are decided by the university itself. How this is dealt with affects the recruitment of students, which in turn affects class sizes in courses, but may also affect the level of students' entry qualifications, and as a consequence, flexibility in teaching methods and the competence at graduation and/or drop-out rates.

The second line of influence which we detected is one that can be seen as part of a global research competition, that is, the weight given to research and scholarly outputs on a global scale. This is emphasised in quality standards set in institutional policy, not least for the reason that research productivity is seen as an important criterion when ranking universities, and therefore is important in the quest to be among the “100
best”. This then impacts on the promotion criteria, which in turn affects teachers allocation of their time, for example how to divide working hours between planning teaching and writing papers, as teachers see the institution not rewarding teaching sufficiently, but explicitly emphasising research.

The third line of influence that came very clearly from the data originates from the way in which the government determines the financial contribution to universities and how these translate in institutional decisions with regard to distribution of teaching resources across faculties. These affect decisions about finance provided for each course and as a consequence limit the teachers’ ability to provide the support and feedback they see as a part of good teaching.

The fourth and last line of influence identified stems, on the one hand, from the Bologna process and, on the other, from the disciplinary community. The Bologna Process and the coordination system and quality assurance aspects of the process can be viewed as governmental priorities for higher education in that the process is viewed as a means to strengthen the position of Icelandic universities in the European educational area and internationally. This very same view translates in various ways into institutional policy, for example, in describing systematic efforts to enhance the quality culture within the institution, but also and more strongly this affects the curriculum through the introduction of learning outcomes which are seen to enhance quality within the system. The external influences that stem from disciplinary cultures, in both curricular terms and teaching practices within the disciplinary community affect institutional teaching policies and disciplinary teaching-learning cultures and, as such, affect the emphasis laid on skills and competences but also, as came from the data, affect what conditions are perceived to be needed in order to promote quality of teaching.

In summary, we conclude that the framework set at the governmental level, and the way in which it translates into policies and rules at the institutional level, has an impact on teaching practices in various, and probably unintended, ways. Some aspects of these appear to create barriers to “good teaching” as perceived by staff, although apparently interwoven in a complex manner. The question rises how strong these forces are and what their role is as modulators of educational quality. In the eyes of academic staff, they seem to be quite clear, carry high stakes, and thus are given considerable weight. That leads us to the question whether the perceived ideas of what constitutes quality, that is the views at the
individual level, have enough weight to lead the discourse and thus help to
determine the criteria actually set for good university teaching. The findings
seem to indicate that the external determinants lead the way, making it
difficult for the ideas about good teaching held by the staff to be put into
practice. Thus, unless the intended or unintended consequences of these
forces gain more attention and understanding, the notion and
determination of quality is likely to be influenced by the directions in which
these various forces pull, without much internal resistance or control.
9 Conclusions

The main purpose of this study has been to gain a better understanding of the various perspectives that come into play when handling quality in higher education. What do different stakeholders or agents in the process understand by quality, and how is it determined to what extent the practice is in harmony with these thoughts or ideals? For that purpose, the thesis has attempted to bridge two very different arenas of educational research in higher education.

One research arena has sought to describe important differences in how university students learn, based on students’ own reported experiences of their ways of learning, using empirical evidence to identify influential concepts, and, based on that, considered the implications, through research into university teaching, for improving the quality and effectiveness of university education. The other arena has described and evaluated the higher educational system as a whole and also the way in which universities as institutions function, relying mainly on analyses of documents and ideas derived from sociological and philosophical perspectives on institutions. Rarely do these two arenas overlap in the research literature but, by bridging between them in the present study, the question of how quality is defined, and how it is moulded, is approached from two different directions in an attempt to understand how they interact. So, this thesis is offering a perspective and an analysis that potentially strengthens our understanding, by seeing teaching in higher education within a broad framework of influences.

The thesis also explores why the empirical description of teaching does not fit very well with the ideas teachers have about good teaching. By looking in detail at university teachers’ conceptions of the nature of “good teaching”, and also at those features of institutional policy and provision that they perceive as affecting their ability to teach in that way, the thesis seeks to clarify the reasons for what has been called a “disjunction” between the provision of advice on teaching and the practice of it. In this way, this thesis has a practical value, as it explains to all the people involved, not least to university administrators and managers, how their policies and strategies could become more effective in creating environments within which academics can teach with greater freedom and effectiveness. It also informs government about how some aspects of their
policies appear to have unintended consequences on the quality of teaching and learning in universities.

The conclusions of the study thus stem from the analysis of three overlapping and interacting levels and actors. All of these contribute to the definition of what is quality of higher education, both in rhetorical or theoretical terms, and also in operational terms, that is, by defining how it shall be framed or carried out.

9.1 The micro level

First, we have ideas about what constitutes quality in university teaching that derive from individuals, that is, the academic staff, but also administrators outside faculty. These ideas we have categorised as the micro level. They emerged as four main themes, one referring to certain characteristics of knowledge, which involve recognising not only theoretical knowledge in the field, but also additional generic qualities as important for a graduate; the second to preparation of a nature which fosters student understanding and good teaching experiences; the third to emphasis on rich teacher-student interaction; and the fourth to using formative assessment as a means to facilitate learning and foster understanding. These thus emerged as the factors defining quality. These are all described in detail in section 8.1, and by Figure 22 in the schematic model, which was used to summarise these results. Based on the findings, it can be concluded that, even though we find some variance in the views of staff and some differences in emphasis between subject fields, the core values seem to be quite similar and harmonize in all main respects with earlier research, which have found that quality of university teaching is associated with the elements represented in the four themes (see section 2.2 and 8.1).

The findings also suggest that a majority of teachers in all subject fields choose to adopt what would probably be best described as a “pragmatic” way of going about their teaching. Thus, although these teachers are inclined towards approaches and conditions which encourage and support conceptual change and understanding, and aim at ensuring that the students become active learners, they also rely, to a considerable degree, on transmitting information through the teacher-focused approaches to teaching associated with a traditional stance. But there are two other groups among the respondents, leaning in two opposite directions, one being strongly engaged in fostering student-centred teaching, and the other favouring more teacher-centred ways of going about their teaching. Thus it can be suggested that the findings, in all major respects, support what has
been found in earlier studies that academic teachers have what might be called a predominant or preferred approach to teaching, but adopt an alternative approach if something in the teaching or learning environment appears to demand it (see section 2.2 and 8.3).

9.2 The meso level

This brings us to the second, or the meso level of institutional influences affecting the quality of teaching, as perceived by the individual actors. The majority of the academic staff complaint that they are to some extent prevented from providing teaching of the highest quality due to various constraints. These are wide ranging, some of them having their origin in the physical environment, some in traditions and disciplinary teaching-learning cultures, but other factors can be seen as coming from institutional policy. These influences, and lines of influence, have been explained in sections 8.5.1 and 8.5.2 in considerable detail, and also summarised in the model of influences (Figures 23 and 24). Here, we have constraints as perceived by those involved, including the level of funding for courses, which limits the level of staffing and often doesn’t seem to give enough weight to the need for small-group teaching. Also there are constraints when it comes to the possibility of using formative assessment, which is seen as important, particularly in social science and humanities. Large class sizes in courses and, as a consequence, teaching rooms not suited for the teaching needed in diverse student groups, thus limit the academics flexibility in adapting teaching methods to specific circumstances.

There is clearly also a competition factor, causing pressure to recruit more students to increase the financial contribution from the state. This, in turn, is seen to involve the potential danger of accepting new students with an inadequate background, and thus not sufficiently prepared for the study. This may even lead to relaxing academic standards in order to ensure a larger number of students complete their degree. The role played by the government is unclear in this particular context, as the formal entrance requirement is the university entrance examination, as determined by law, but it also stipulates that institutions, and within them individual faculties, are able to set more stringent criteria. On the other hand, the government sets quotas for how many students can be accepted in the different categories, that is, how many the government is prepared to pay for, but this does not necessarily affect individual faculties unless the university decides this for itself. So, the role played by government here is somewhat ambiguous. Furthermore, within the university, funds are distributed to
smaller units on the basis of a Full Time Equivalent account (FTE), so faculty and course leaders seek to maximise their share of the budget. Thus, the pressure is to retain many students by each unit.

We also have another line of institutional influence which is linked to constraints, due to the academics’ allocation of time within their working duties, which is to some degree perceived as constraining teaching of good quality. This factor is partly linked to the promotion criteria, which are commonly perceived as not rewarding teaching sufficiently, but explicitly emphasising research. The weight given to research is partly linked to the quest for being ranked among the hundred best universities in the world, as scholarly outputs, such as publication of research findings in international ISI journals, are considered important ranking criteria.

However, it is also clear that the incentives for individuals to be active researchers are powerful, even though, in the data, ranking was perhaps more visible in the interviews. All in all, it was clear that various different factors outside the immediate control of the teacher, but related to the institution, were in general felt to be powerful in determining how teaching was carried out. Most teachers felt they were pushed or constrained to teach in ways they did not think were optimal, although some teachers were quite content with the teaching norm.

9.3 The macro level

The third level of influence stems from factors originating in government policy and in other edicts coming from government, and other external factors. Implementation of the Bologna Process is viewed as a means to strengthen the position of Icelandic universities in the European educational area and internationally and, as such, is seen as one of the priorities in governmental policy. This then translates in various ways into institutional policy, for example in describing systematic efforts to enhance a quality culture at the University. The learning outcomes, as part of the Bologna process, are commonly seen as enhancing quality within the system, and it seems that the quality-assurance system, and the international standards and policies entailed in the process, is welcomed by staff. That perception does not generally resonate with the concerns expressed about various negative impacts of their use for the purpose of quality control (see section 2.3.1). It seems that those concerned, perhaps at all levels in the system, assume that positive effects will accrue, with the learning outcomes being seen to permeate through the system and find their way into the classroom.
Another, strong influence is found in the financial model used by the government, which is perceived by a sizable majority of the academic staff to be a powerful, negative, modulating force, limiting the flexibility to structure courses in preferred ways, such as with regard to teaching and assessment methods, and also to inter-disciplinary cooperation. Thus there are negative effects stemming from government policy.

As already mentioned, university rankings are almost certain to remain a fact of life for academics in the foreseeable future, but the backwash effects on everyday teaching do need to be kept firmly in mind in deciding the best ways to construct the metrics and to decide how they influence, even if indirectly, the way people teach. Thus this study indicates that we have moved into an era where quality is to a considerable extent defined from outside the immediate environment of teaching and learning and we are unlikely to see this trend reversed (see section 2.3.1).

9.4 Strengths and weaknesses of the study

The findings of the research are based on evidence from only one institution and its staff and therefore may not be generalizable to other institutions. It might also be considered problematic that the interviews with staff were conducted in 2008, and even though the documentary analysis derives from the same time, policies and practices have been developing, at both institutional and governmental levels, so these results may not apply equally to the situation now, or subsequently. When the interview data were collected, the policies in question had been in effect for only two of the five years they were intended to last before being reconsidered.

These weaknesses are a potential threat to the internal coherence and the external validity of the study. There is, however no clear evidence that points in these directions, rather there is evidence that indicates that the problems are probably not serious. First, the data from the academic staff fit well with results obtained from institutions in other cultures. Furthermore, there was excellent agreement between the findings from the interviews and the data from the survey questionnaire which was not distributed until in 2011, the last year of the current policy. The external validity of the findings is strengthened by the fact that the survey covered the whole sample of academics having a permanent position at the institution, instead of being limited to a sample from the specific subject areas selected for the interviews. Thus, we are cautiously confident that the
results of the study will, to a substantial extent, generalise to the field in general and over time.

As has been noted above we consider the strength of the study to lie in the variety of data obtained, that is, interviews and not only with academics but also administrators, the use of a questionnaire that had a solid research background, and having respondents from a wide spectrum of the academic community. But perhaps its greatest strength is in the scope of the study, as it extends from the classroom through a variety of levels through the national to the international arena, a range that is rarely found in a single study.

9.5 Further research

In section 2.1, an overview was provided of research that has focused on quality aspects of learning and studying in universities, that is, conceptions of, and differences in approaches to learning and how these have been found to affect the outcome of learning. It was also reported how this knowledge had fed into research focusing on conceptions of, and approaches to, teaching in universities in order to study the implications of these for improving the quality and effectiveness of teaching and thus the quality of the outcomes of learning.

The present study has focused on the quality aspect of teaching and sought to illuminate how “good university teaching” is perceived by the staff, and what are the internal and external forces seen to affect teaching practices of good quality. The students might, of course, have a different story. What do students themselves think about the quality of the education they are receiving? What are their ideas of “good university teaching” and what are the obstacles in the teaching-learning environment which they see as affecting the quality of their own learning and studying? This aspect of the quality discourse would have the potential to expand and fill in the picture already provided through the present study, but it was decided, in planning it, that such extension would be impracticable.

This study presents firm evidence that external forces mould both the quality discourse, through the introduction of learning outcomes as part of the Bologna process and the funding models, perhaps to an even larger extent than the academic teachers themselves think or want. Nevertheless, teachers seem to be content with the influence of the learning outcomes, but not with the funding procedures. It is important to understand where we are heading; we need to ask whether the control of quality is gradually being taken out of the hands of the academics, partly with their consent,
and put into the hands of international controlling frameworks based on quality assurance or inspection systems, and financial stringency mechanisms. This leads to the question of the implications of such a transfer of control for the learning and teaching in universities. These questions, raised by the present results, suggest a fairly clear research agenda.

We are hoping that the results of the study can provide those who work with development of teaching quality with constructive ideas about what to develop and what hindrances or impediments to take into account. Based on what we have found, all parties involved need to be more aware of the implications of actual or perceived constraints on the implementation of good teaching. It probably applies to all higher education systems that not only must “good university teaching” be seen in relation to a specific discipline, but also in relation to a specific institutional context with the specific constraints and opportunities it entails. It is not claimed that the thesis answers questions about the extent to which that is currently done, but the findings do seem to indicate that this is not done widely, and the research points to the need to do this more directly.

The thesis draws attention to how academics understand the quality of teaching in higher education and how it may be achieved, and pinpoints some of the factors which affect the quality of the outcome of education. It also brings up issues that call for further study, suggests theoretical clarification and elaboration related to these influences, and suggests steps that an institution can take to enhance quality in practical terms.

Finally, a better understanding of the way in which decisions at the three different levels are taken, and how the levels interact, could benefit the implementation of policy in ways which facilitate high quality teaching and learning. This understanding would also lead to more effective advice for academic and administrative staff on how to cope in any unfavourable circumstances that might inhibit good teaching in their discipline.

9.6 Personal reflections - afterthoughts

In introducing the thesis, I explained what had motivated me to conduct the present study. Working on this research has been a long journey. Although I have sometimes felt that I had to ask more and more questions before I could get a clear and thorough picture of the topic, the study has, for me as a university teacher, answered many questions and in various ways served as a guide for my own professional development, not least in the sense that it made me reflect on the notion of “conceptions of teaching” in a more
focused way than before. “We view the world through the lenses of our conceptions, interpreting and acting in accordance with our understanding of the world”, Pratt (1992) said, in explaining the meaning of “conception”. I have reviewed various literature into conceptions of teaching, and taken note of the different conceptions of teaching. However, as I noted in section 8.1, the literature typically uses conceptual language to describe different conceptions of teaching. In the present study, examples were commonly used by the interviewees who would define the features of good teaching and counter-examples were given to describe the opposite. The teachers’ reflections of experienced successful teaching thus echoed the spectrum of issues related to “good teaching”, but in more pragmatic terms, and in that way managed to clarify the experiences embodied in the conceptual frameworks in more concrete terms. Thus, I think I can say that in that sense the scope of the lens, used to look at the question “what is good teaching?” can be described as having been broadened, but perhaps also as being sharpened as it has enabled me to see better the relationship between the conceptual and practical sides of the issues.

During the process of the study I have often reflected on my own teaching, and made various changes in my courses, very much in the light of the four themes that emerged in my findings, but also based on discussions with colleagues in the academic community in general. I have invariably found that ideas I have tested during the study process have improved my teaching. Thus, I have found that changes, which have their base in what I found when reviewing the literature and my own findings, seem to have, according to changes I see in my students’ self-assessment reports, affected how my students think about their learning and studying. And these effects seem to have led to developments which are in the direction of a deeper approach to learning. This, of course, brings up the idea of more peer interaction and constructive peer reviewing of teaching. The work on the study has convinced me of the importance of cooperation between academics and academic units, that is, the need to establish a community of practice about education at the institutional level.

Having in the summer 2013 just overcome one of a number of writer’s blocks through the writing process of the thesis, I received an encouraging e-mail from a member of my doctoral committee. It contained a quote from a novel, which described rewards from “good teaching”. I have since kept this quote and read it regularly. It has served as to remind me of why I chose teaching as my profession in the first place, as well as helping me always to remember what I really want my students to experience through their studying in my courses.
I was ... energized by the young minds, compelled by their interest, excited to show them not what I knew but how I felt about wanting to find out something... Seeing a young mind grab hold of a difficult idea, wrestle with it, then eventually brighten with understanding; that was [my reward]. ... All I want to do is to cultivate their curiosity. ... For many people the unknown is something to fear. Instead, I want to give my students the humility and courage to believe that anything they do not understand therefore contains an elegant magic (Kiernan, 2013, pp. 41-42, 467).

This comment perhaps serves as a fitting conclusion to the thesis, as it returns us to its very beginning, namely to the fundamental aim of a university “to encourage the pursuit of learning”, which “good university teaching” should always seek to do.
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Appendix A Confirmation from The Data Protection Authority

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Reykjavík 13. apríl 2011
Tilhefur: SS221/2011

Hér með staðfestist að Persónuvernd hefur mótrekið tilkynningu í ýðar nafni um vinslulu persónuupplýsinga
Tilkynningin er nr. SS221/2011 og fylgir afrit hennar hjálpa.

Allar tilkynningar sem berast Persónuvernd báttast sjálfstæð á heimamálum stuðningsmynd.
Tekið skal fram að með mótrólu og hirringa tilkynninga hefur engin afstaða verið tekin af hálfa
Persónuverndar til efnis þessra.

Vinslufylkat...

Bærður Sveinsson

Hjálf: · Tilkynning nr. SS221/2011 um vinslulu persónuupplýsinga.
Appendix B List of government documents analysed


Appendix C List of institutional documents analysed


Appendix D An informed consent

Upplýst samþykki um þátttöku í rannsókn

Hér með langar undirritaða að óska eftir að þú verðir þátttakandi í ofangreindri rannsókn. Þú hefur verið valin/n til þátttöku vegna kennslu/stjórnunarstarfa sem þú gegnir við stofnunina. Þú eft beðin/n að lesa vel neðangreindar upplýsingar áður en þú undirritar skjalið og hikaðu ekki við að spyrja spurninga ef einhverjar eru.

Rannsóknin beinist að því að sveða sjónarhorn og hugmyndir innan háskólasamfélagssins um ýmsa þætti er lúta að háskólalanámi og háskólakennslu.

Framkvæmd þess hluta rannsóknar sem að þér snýr er með þeim hætti að ég tek viðtal við þig, sem hljóðritað verður á tölvutækt form.

Við birtingu á niðurstöðum viðtala verður þess gætt að ekki sé með neinum hætti hægt að tengja þær upplýsingar sem þú laður í té við nað þitt.

Þátttaka þín i þessari rannsókn er dýrmæt fyrir mig sem rannsakanda og ég vænti þess að hún geti einnig komið stofnuninni sem þú starfar við og þér sem starfsmanni að gagni. Ég tel að ekki sé um nein skaðleg áhrif að ræða fyrir þig sem þátttakanda í þessari rannsókn.

Ákvörðun þín um að taka þátt í rannsókninni hefur engin áhrif á samband þitt við mig sem rannsakanda. Ef þú ákveður að taka þátt í rannsókninni er þér einnig frjálst að hætta við þátttöku hvenær sem er í rannsóknarferlinu.

Óskir þú frekari upplýsinga getur þú haft samband við mig í síma 861-3957 eða þú getur sent mér tölvupóst á netfangið anno@unak.is

Þú færð aðferð af þessu skjali til að hafa í eigin vörslu.

__________________________________________________________________________
Samþykki
Ég hef leiði upplýsingarnar hér fyrir ofan, spurt spurninga ef eithvað hefur verið ójóst og þá fægði viðhlítandi svör. Ég samþykki að taka þátt í rannsókninni.

__________________________________________________________________________

Undirskrift þátttakanda
Anna Ólafsdóttir

Dagsetning

Undirskrift rannsóknaraðila

Dagsetning
## Appendix E The Approaches to Teaching Inventory

### APPROACHES TO TEACHING INVENTORY

This inventory is designed to explore the way that academics go about teaching in a specific context or subject or course. This may mean that your responses to these items in one context may be different to the responses you might make on your teaching in other contexts or subjects. For this reason we ask you to describe your context.

**Please describe the subject/field of your response here:**

For each item please circle one of the numbers (1-5). The numbers stand for the following responses:

1. **this item was only rarely true for me in this subject.**
2. **this item was sometimes true for me in this subject.**
3. **this item was true for me about half the time in this subject.**
4. **this item was frequently true for me in this subject.**
5. **this item was almost always true for me in this subject.**

**Please answer each item. Do not spend a long time on each: your first reaction is probably the best one.**

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Only rarely</th>
<th>Almost always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I design my teaching in this subject with the assumption that most of the students have very little useful knowledge of the topics to be covered.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>2. I feel it is important that this subject should be completely described in terms of specific objectives relating to what students have to know for formal assessment items.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>3. In my interactions with students in this subject I try to develop a conversation with them about the topics we are studying.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>4. I feel it is important to present a lot of facts to students so that they know what they have to learn for this subject.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>5. I feel that the assessment in this subject should be an opportunity for students to reveal their changed conceptual understanding of the subject.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>6. I set aside some teaching time so that the students can discuss, among themselves, the difficulties that they encounter studying this subject.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>7. In this subject I concentrate on covering the information that might be available from a good textbook.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>8. I encourage students to restructure their existing knowledge in terms of the new way of thinking about the subject that they will develop.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>9. In teaching sessions for this subject, I use difficult or undefined examples to provoke debate.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>10. I structure this subject to help students to pass the formal assessment items.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>11. I think an important reason for running teaching sessions in this subject is to give students a good set of notes.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>12. In this subject, I only provide the students with the information they will need to pass the formal assessments.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>13. I feel that I should know the answers to any questions that students may put to me during this subject.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>14. I make available opportunities for students in this subject to discuss their changing understanding of the subject.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>15. I feel that it is better for students in this subject to generate their own notes rather than always copy mine.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>16. I feel a lot of teaching time in this subject should be used to question students' ideas.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

Thank you


# Appendix F The survey questionnaire used in the study

**Grunnupplysingar**

Kvennini er hvakip. Í hluta I er tilgangurinn að afla upplýsingum um hvort hækkiökkanævar haga kenmu sinni i tilhefnu samhengi, þ.e. þegar þer korva tilhefið námaskéd og afla upplýsingum um viðhorf þennra til mikilvægils tilhefnum þatna sem luta að kenntum í því námaskéd. Hlið II tekur til ahrunning þatna sem varða starfer í heiti.

Svör þin við spurningum í hluta I getu orðið eða eftir samhengi, þ.e. eftir því hvaða námaskéd þu helur í huga. Þess vegna er öskæð eftir að þú sendi svör þin við skæfið námaskéd sem þu kvennir, heiti þad sem þu tekur tengjast best þínri fágasi. Þu þarf því ekki að tilgreina hvaða námaskéd þu mæði svörri við heldur elmunys í hvaða deliní námaskéd er kennt og á hvaða námsári-námstígi. Eftir þvíð er öskæð eftir að þú tilgreini við hvaða fræðavíð þi starfar.

<table>
<thead>
<tr>
<th>Fræðasvið</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Delid</td>
<td></td>
</tr>
</tbody>
</table>

Á hvaða námsári-námstígi er námaskédlið kennt?  

|  |  |
Hluti 1

Vinsamlegast athugaðu: Eins og ádur hefur verið tilgreint er óskáða eftir að þú miðir svör þin við ákveðið námskeið sem þú kennir, heist það sem þú telur tengjast best þinu fagsviði.

Vinsamlegast svaraðu öllum atríðunum. Gerðu almennt ráð fyrir að svarið sem fyrrt kemur upp í hugann eigi best við.

| Íreisa skólavéiting │ að því mjög lítil leiti við um vinnumlag milli þessu námskeiði │ Á að líttu leiti við │ Á að allan konu leiti við │ Á að miklu leiti við │ Íreisa skólavéiting │ að því mjög miklu leiti við um vinnumlag milli þessu námskeiði |
|----------------------|---------------------------------------------------------------|-------------------|--------------------------|-----------------|----------------------|---------------------------------------------------------------|
| 1                   |                   |                   |                           |                 |                     |                                                               |
| 2                   |                   |                   |                           |                 |                     |                                                               |
| 3                   |                   |                   |                           |                 |                     |                                                               |
| 4                   |                   |                   |                           |                 |                     |                                                               |
| 5                   |                   |                   |                           |                 |                     |                                                               |
| 6                   |                   |                   |                           |                 |                     |                                                               |
| 7                   |                   |                   |                           |                 |                     |                                                               |
| 8                   |                   |                   |                           |                 |                     |                                                               |
| 9                   |                   |                   |                           |                 |                     |                                                               |
| 10                  |                   |                   |                           |                 |                     |                                                               |
| 11                  |                   |                   |                           |                 |                     |                                                               |
| 12                  |                   |                   |                           |                 |                     |                                                               |

328
<table>
<thead>
<tr>
<th>Samskyldu skapa eig nemendamenn tölfræði til unnar af viðfangsehinni og skilning þeirra á þeim.</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>15 Í þessu námstefln hitu einnig göður um efnisdrenf</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 Í þessu námstefln hitu einnig göður um efnisdrenf</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17 Mikilvæg fornanda göður kennaslóð hjá mér í þessu</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 Mikilvæg fornanda göður kennaslóð hjá mér í þessu</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19 Mikilvæg fornanda göður kennaslóð hjá mér í þessu</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>20 Mikilvæg fornanda göður kennaslóð hjá mér í þessu</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21 Mikilvæg fornanda göður kennaslóð hjá mér í þessu</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22 Mikilvæg fornanda göður kennaslóð hjá mér í þessu</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23 Mikilvæg fornanda göður kennaslóð hjá mér í þessu</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24 Mikilvæg fornanda göður kennaslóð hjá mér í þessu</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25 Mikilvæg fornanda göður kennaslóð hjá mér í þessu</td>
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<td></td>
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<tr>
<td>26 Mikilvæg fornanda göður kennaslóð hjá mér í þessu</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27 Mikilvæg fornanda göður kennaslóð hjá mér í þessu</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28 Mikilvæg fornanda göður kennaslóð hjá mér í þessu</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Vinsamlega svaraðu öllum atriðiðum. Gerðu almennt ráð fyrir að svarlæti sem fyrst kemur upp í hugvan eigi best við**

<table>
<thead>
<tr>
<th>Á móður ósamsmála Frekar ósamsmála</th>
<th>Hvols í osamsmála na kemsmála</th>
<th>Frekar samsmála</th>
<th>Í móður samsmála</th>
</tr>
</thead>
<tbody>
<tr>
<td>17 Mikilvæg fornanda göður kennaslóð hjá mér í þessu námsteflni er að nemendur fái í upphafi þess fari að kemma með tilfölgum og ásamtengjum við þessu námsteflni atnaða eftir skipulagur námstefnið.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>18 Mikilvæg fornanda göður kennaslóð hjá mér í þessu námsteflni er að efní undirbláði mig vel fyrir hverja kennisvælendur þessi hafa því að því enn því eftir efní undirbláði mig vel fyrir hverja kennisvælendur þessi hafa því að því enn því.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19 Mikilvæg fornanda göður kennaslóð hjá mér í þessu námsteflni er að efní undirbláði mig vel fyrir hverja kennisvælendur þessi hafa því að því enn því eftir efní undirbláði mig vel fyrir hverja kennisvælendur þessi hafa því að því enn því.</td>
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</tr>
<tr>
<td>20 Mikilvæg fornanda göður kennaslóð hjá mér í þessu námsteflni er að nemendur fái í upphafi þess fari að kemma með tilfölgum og ásamtengjum við þessu námsteflni atnaða eftir skipulagur námstefnið.</td>
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<tr>
<td>21 Mikilvæg fornanda göður kennaslóð hjá mér í þessu námsteflni er að nemendur fái í upphafi þess fari að kemma með tilfölgum og ásamtengjum við þessu námsteflni atnaða eftir skipulagur námstefnið.</td>
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<tr>
<td>22 Mikilvæg fornanda göður kennaslóð hjá mér í þessu námsteflni er að nemendur fái í upphafi þess fari að kemma með tilfölgum og ásamtengjum við þessu námsteflni atnaða eftir skipulagur námstefnið.</td>
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<tr>
<td>23 Mikilvæg fornanda göður kennaslóð hjá mér í þessu námsteflni er að nemendur fái í upphafi þess fari að kemma með tilfölgum og ásamtengjum við þessu námsteflni atnaða eftir skipulagur námstefnið.</td>
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<tr>
<td>24 Mikilvæg fornanda göður kennaslóð hjá mér í þessu námsteflni er að nemendur fái í upphafi þess fari að kemma með tilfölgum og ásamtengjum við þessu námsteflni atnaða eftir skipulagur námstefnið.</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>25 Mikilvæg fornanda göður kennaslóð hjá mér í þessu námsteflni er að nemendur fái í upphafi þess fari að kemma með tilfölgum og ásamtengjum við þessu námsteflni atnaða eftir skipulagur námstefnið.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26 Mikilvæg fornanda göður kennaslóð hjá mér í þessu námsteflni er að nemendur fái í upphafi þess fari að kemma með tilfölgum og ásamtengjum við þessu námsteflni atnaða eftir skipulagur námstefnið.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27 Mikilvæg fornanda göður kennaslóð hjá mér í þessu námsteflni er að nemendur fái í upphafi þess fari að kemma með tilfölgum og ásamtengjum við þessu námsteflni atnaða eftir skipulagur námstefnið.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28 Mikilvæg fornanda göður kennaslóð hjá mér í þessu námsteflni er að nemendur fái í upphafi þess fari að kemma með tilfölgum og ásamtengjum við þessu námsteflni atnaða eftir skipulagur námstefnið.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
26 Mikilvæg forsenda göður kennslu hjá mér í þessu námskeiði er að haga námsmat þannig að þekking og hæfni nemenda sé metin með hvaru hveggja, verkefnum sem drefast þra missef og próf í lok námskeiðs.

28 Mikilvæg forsenda göður kennslu hjá mér í þessu námskeiði er að haga námsmat þannig að matið verið nemendum leðsön í námisum fremur en að dæme kennslu þátræ.
### Hluti II

Hér a eftir fara spurningar eða varða almennt störf þin við Hásíðuna Íslands

### 31

**Starf háskólaíkennara** er skilgreint þannig að hlutfall stjórnnunar er 12%, kennslu 48% og rammsókna 40%. Hér er spurt um mat þitt, miðað við ofangreind hlutföll, á tímanum sem varði í raun í þessa þætt starfsins:

<table>
<thead>
<tr>
<th>Mun lægra hlutfall</th>
<th>Heldur lægra hlutfall</th>
<th>U.b.b. það sem hlutföll segir til um</th>
<th>Heldur hæra hlutfall</th>
<th>Mun hæra hlutfall</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 32

Hér er spurt hvaða öskir þú hefðir um hlutfall þessara þátta ef ráðningarfyrirkomulagið byði upp á svegljanleika:

<table>
<thead>
<tr>
<th>Mun lægra hlutfall</th>
<th>Heldur lægra hlutfall</th>
<th>Obreyti hlutfall</th>
<th>Heldur hæra hlutfall</th>
<th>Mun hæra hlutfall</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 33

Ýmsir ytri og innri þættir hafa áhrif á skipulagi og framkvæmd háskólaíkennslu. Rétt eins og háskólaíkennurum finnst einverjar tiltekningir þættir styðja við möguleika þeirra til að kennna í samræmi við eigin hugmyndir um góða háskólaíkennslu finnst þeim að þeirr þættir hindra möguleika þeirra á að halda úti sílki kennslu. Hér er spurt hvort eftirlitdir þættir styðja við eða hindra möguleika þína til að kennna í samræmi við hugmyndir þinar um það í hverju góð háskólaíkennslas felst.

<table>
<thead>
<tr>
<th>Hindra mjög</th>
<th>Hindra nokkuð</th>
<th>Hverri styðja ne hindra</th>
<th>Styðja nokkuð</th>
<th>Styðja mjög</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Útskýring

1. **Stjórnun**:  
   - Mun lægra hlutfall:  
     - Heldur lægra hlutfall:  
       - U.b.b. það sem hlutföll segir til um:  
         - Heldur hæra hlutfall:  
           - Mun hæra hlutfall:
   - Heldur lægra hlutfall:  
   - U.b.b. það sem hlutföll segir til um:  
   - Heldur hæra hlutfall:  
   - Mun hæra hlutfall:

2. **Kennslu**:  
   - Mun lægra hlutfall:  
   - Heldur lægra hlutfall:  
   - Obreyti hlutfall:  
   - Heldur hæra hlutfall:  
   - Mun hæra hlutfall:

3. **Rannsóknir**:  
   - Mun lægra hlutfall:  
   - Heldur lægra hlutfall:  
   - Obreyti hlutfall:  
   - Heldur hæra hlutfall:  
   - Mun hæra hlutfall:

Hér getur díu, í stuðtu máli, útskýrt nánar svör þin við spurningu 31 og 32:

---

331
Hér getur þú, ef þú kyst, bætt við þáttum:

- Annað 1
- Annað 2
- Annað 3

Vinsamlegast þegar það er annað 1, annað 2 og annað 3

34
Hér er spurt um viðhorf þitt til áhrifa nokkurra þáttta Bolognafærilsins á göeði námssins í þinni stofnun:

- a) Samsumning námsætingakerfis (EGTS) til að ausvela nemanda að fylgja milli háskóla hefur ...... aftir á göði námssins.
- b) Samsumning skipulags námam milli háskóla (3 ár bæðilar - 2 ár meðlagam - 3 ár doktoram) hefur ...... aftir á göði námssins.
- c) Sá þáttur í Bolognafærilinu að skilgreina hæfðvöldið (learning outcomes) fyrir til námsskið og atri námsskið hefur ...... aftir á göði námssins.
- d) Matsfræði sem írænski háskólar þurfa að fara í gegnum til að þin einstiktu fræðavíð fæ viðurkenningu skv. vörðum Bolognafærilin hefur ...... aftir á göði námssins.
- e) Viðurkenning fræðavíða skv. vörðum Bolognafærilin hefur ...... aftir á vörðum námssins að skilgreina.

35
Flestir kennrar velta fyrrir sér hvað sé eftiróknarvert að nemendur hafí í fartsísínu þegar þeir brautskrást úr háskólanámí. Hér er öskða eftir að þú metir, miðað við nýverandi aðstæður í kennislutarfi, hversu lítla/míldla áherslu þú leggu á eftirlitin atrið í kennislutarfi þínu. Miðaðu við það námstig sem þú sinnir mest í kennisl og tilgreindu það hér:
### Vinsamlegast svaraði öllum atriðumunum

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<th>Legg mjólg ahyndu á</th>
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### Hér geturðu, ef þú kýst, bætt við atriðum

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<th>Legg tíllta áhensku á</th>
<th>Legg afmokkrá áhensku á</th>
<th>Legg mjólg ahyndu á</th>
<th>Legg mjólg mjólg miðla áhensku á</th>
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<td>n)</td>
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Vinsamlegast tignið hæ og annæði 1 og annæði 2 —

### 36

Deðar rætt er um gæðl kennslu í háskóla kemur margt til álta. Vinsamlegast nefndu í örstuttu máli atriði sem þú telur að spyjja hefni mátt um en var ekki leitað eftir að þínu mati.
Appendix G English translation of the survey questionnaire

Part I

Please answer each item. Do not spend long time on each; your first reaction is probably the best one.

This statement is true only to a very small extent for my way of working in this course

is true to a small extent

is true to some extent

is true to a large extent

This statement is true to a very large extent for my way of working in this course

1. I design my teaching in this course with the assumption that most of the students have very little useful knowledge of the topics to be covered.

2. I feel it is important that this course should be completely described in terms of specific objectives relating to what students have to know for formal assessment items.

3. In my interactions with students in this course I try to develop a conversation with them about the topics we are studying.

4. I feel it is important to present a lot of facts to students so that they know what they have to learn for this course.

5. I feel that the assessment in this course should be an opportunity for students to reveal their changed conceptual understanding of the subject.
I set aside some teaching time so that the students can discuss, among themselves, the difficulties that they encounter studying the subject.

In this course I concentrate on covering the information that might be available from a good textbook.

I encourage students to restructure their existing knowledge in terms of the new way of thinking about the subject that they will develop.

In teaching session in this course, I use difficult or undefined examples to provoke debate.

I structure this course to help students to pass the formal assessment items.

I think an important reason for running teaching sessions in this course is to give students a good set of notes.

In this course, I only provide the students with the information they will need to pass the formal assessments.

I feel that I should know the answers to any questions that students may put to me during this course.
I make available opportunities for students in this course to discuss their changing understanding of the subject.

I feel that it is better for students in this course to generate their own notes rather than always copy mine.

I feel a lot of teaching time in this course should be used to question students’ ideas.
17 For good teaching in this course it is important that students are given an opportunity in the beginning to make proposals and suggestions concerning the structure or planning of the course.

18 For good teaching in this course it is important that I prepare myself well for each lesson no matter how many times I've taught the subject before.

19 For good teaching in this course it is important that I can when preparing my teaching assume that students come prepared for lessons.

20 For good teaching in this course it is important that the teaching is targeted towards the learning outcomes for the programme as a whole, as well as the content of this course in particular.

21 For good teaching in this course it is important to have the students giving feedback on my teaching during the course, such as in e-mail, in student feedback meetings, or in a face-to-face interview.

22 For good teaching in this course it is important that the premises used for teaching makes it possible to organize student work on assignments in the teaching sessions (e.g.
hands-on sessions, student group discussions, calculation sessions).

23 For good teaching in this course it is important that the number of students in class makes it possible to organize student work on assignments in the teaching sessions (e.g. hands-on sessions, student group discussions, calculation sessions).

24 For good teaching in this course it is important that students are active in class, ask questions about the content and participate in discussions about it.

25 For good teaching in this course it is important that the course content is related to my field of research study.

26 For good teaching in this course it is important to be able to utilize my own research as a part of my teaching material.

27 For good teaching in this course it is important to use assignments spread evenly across the teaching semester to assess the knowledge and skills of students.

28 For good teaching in this course it is important to use exams at the end of the semester to assess students' knowledge and skills.
For good teaching in this course it is important to use both, assignments spread evenly across the teaching semester, and exams at the end of the semester, to assess the knowledge and skills of students.

For good teaching in this course it is important to conduct assessment in such a way as to provide students with guidance through the studying process rather than to judge their skills.
Part II

31 Your duties as an academic are defined by the institution in the following way: Administration 12%, teaching 48% and research 40%. The following questions ask about your estimate, considering the above figures, on how your time is actually spent working on these duties:

<table>
<thead>
<tr>
<th></th>
<th>Substantially lower rate of time</th>
<th>Somewhat lower rate of time</th>
<th>About the same amount of time as the rate says</th>
<th>Somewhat higher rate of time</th>
<th>Substantially higher rate of time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Administration:</td>
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<td>2) Teaching:</td>
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<tr>
<td>3) Research:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

32 What would be your preferences if you had some flexibility regarding the time you spend in each of the above mentioned academic duties?

<table>
<thead>
<tr>
<th></th>
<th>Substantially lower rate of time</th>
<th>Somewhat lower rate of time</th>
<th>The same as it is</th>
<th>Somewhat higher rate of time</th>
<th>Substantially higher rate of time</th>
</tr>
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<tbody>
<tr>
<td>1) Administration:</td>
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<tr>
<td>2) Teaching:</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Research:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In the box below you can, if you wish, explain in brief your answers to questions no. 31 and 32:
Various external and internal factors affect the structuring (organising, design) and implementation of university teaching. Just as university teachers feel there are certain factors supporting their possibility to teach in accordance with their own ideas of good university teaching there are other factors which they see as inhibiting their ability to maintain such teaching. The following questions ask whether the following factors support or inhibit your ability to teach in accordance with your ideas about what constitutes university teaching of good quality.

<table>
<thead>
<tr>
<th>Substantially deterring</th>
<th>Somewhat deterring</th>
<th>Neither deterring nor supporting</th>
<th>Somewhat supporting</th>
<th>Substantially supporting</th>
</tr>
</thead>
</table>

a) The financial model used by the Ministry of Education, based on the so-called effective units on which determine the financial contribution by the ministry.

b) The promotion system as it is constructed

c) Attitudes towards teaching within your faculty (subject)

d) Attitudes towards teaching within the institution

e) The institution’s aim to be listed as one of hundred best universities in the world.

f) Teaching room allocation

g) The level of service offered for technical support for teaching

h) Large number of students
enrolled in courses

i) Small number of students enrolled in courses

j) In the boxes below you can, if you wish, list additional factors you consider relevant

34

The University of Iceland has introduced various measures and changes that are part of the Bologna process. Work is underway on these targets based on the Bologna Declaration of 29 countries, including Iceland, signed in 1999. Examples of these activities are coordinated system of credits (ECTS credits), so-called 3+2+3 system, and standard diploma appendices. Another aspect of the Bologna process was that following an evaluation conducted by foreign experts, universities in Iceland were accredited. The following questions ask for your attitude towards the impact of some aspects of the Bologna process on the quality of the programmes in your organization.

<table>
<thead>
<tr>
<th>Strongly negative</th>
<th>Somewhat negative</th>
<th>Neither negative nor positive</th>
<th>Somewhat positive</th>
<th>Strongly positive</th>
<th>Don’t know</th>
</tr>
</thead>
</table>

a) Coordination of the system of credits (ECTS) to facilitate students to move between universities has .......... impact on program quality.

b) Coordinating the structure of programmes between universities (3 years bachelor-2 years Master - 3 years doctoral studies) has .......... impact on the quality og the programme.

c) One element of the Bologna process is to identify intended
learning outcomes for all courses and programmes. This part of the process has ........ impact on programme quality.

d) The evaluation process that the Icelandic universities have to undertake in the specific fields of study before receiving accreditation according to the Bologna criteria has ........ impact on programme quality.

e) The accreditation according to Bologna criteria given to the various fields of study has ........ impact on international recognition of the programme

35

Most teachers reflect upon what kind of knowledge and skills are of most value for students to possess when they graduate from university. Here you are asked to assess, given your current situation in teaching, how little / much emphasis you put on the following generic aims in your teaching. When answering have in mind the level of study where you teach most and identify it below:

(In the box below teachers choose between undergraduate, masters level and doctoral level)

<table>
<thead>
<tr>
<th>Emphasise only to a very small extent</th>
<th>Emphasise only to a small extent</th>
<th>Emphasise to some extent</th>
<th>Emphasise to a large extent</th>
<th>Emphasise to a very large extent</th>
</tr>
</thead>
</table>

a) That the student adopts a questioning and open mind.
b) That the student acquires a good theoretical knowledge in the subject.

c) That the student acquires skills in applying theoretical knowledge in the subject to authentic situations.

d) That the student adopts and practices critical thinking.

e) That the student will be self-reliant in terms of acquiring additional knowledge.

f) That the student adopts creative thinking.

g) That the student acquires skills in scientific, academic practices.

h) That the student will turn into a more mature and better person as a result of the university study.

i) That the student will adopt an interest in working towards further progress and developments in their field of study.

j) That the student adopts clear ethical standards in her professional field.
k) That the student adopts independence in his/her studying and practice.

l) That the student adopts a way of taking the initiative in his/her studies.

In the boxes below you can, if you wish, list additional factors you consider relevant in this context.

Emphasise only to a very small extent  Emphasise only to a small extent  Emphasise to some extent  Emphasise to a large extent  Emphasise to a very large extent

36

When discussing quality matters regarding teaching in universities various aspects may come to mind which deserve to be deliberated. In the box below you are asked to report briefly on issues that the questionnaire did not tackle but you think that should have been brought up.
Ágæti háskólakennari

Ég fer þess á leit við þig að þú takir þátt í könnun sem ætluð er akademískum starfsmönnum við Háskóla Íslands. Könnunin er hluti af doktorskrafnþókn minni við Menntavísindasvið HÍ.

Markmið rannsóknarinnar er að varpa ljósi á hugmyndir og sjónarhorn meðal háskólakennara er lúta að gæðum háskólanáms og háskólakennslu. Við undirbúning að fyrirlögn könnunarinnar hef ég haft samráð við gæðastýrjóra Háskóla Íslands því að það er von min að rannsóknin geti nýst stofnuninni. Það skiptir miklu í könnun af þessu tagi að fá sem besta svörun. Góð þátttaka er líka mikilvæg leið fyrir háskólasamfélagið til að koma sjónarmiðum sínum á framfæri um fjölmargt sem lýtur að göðri kennis.

Rétt er að taka fram að niðurstöður úr svörum við tilteknum spurningum leyfa samanburð við hlðstæðar erlendar rannsóknir og sá samanburður ræður talsverðu um orðalag þeirra. Ein opin spurning er í lok spurningalistans en einnig er í nokkrum spurningum opin möguleiki að þeta við atríðum þegar svarað er. Það gæti tekið þig 15-20 mínútur að svara könnuninni.

Mikil áhersla er lögð á að þátttakendur geti treyst því að svör þeirra séu ekki með nokkru móti rekjanleg. Til að tryggi það er mjög takmarkaðra bakgrunnsþéliginga óskar í könnuninni. Allar tengingar notendanafrö við svör verða aftengdar og þar með ekki persónugreinanlegar við úrvinnslu.

Það skiptir mig miklu að sem flestir svari og leyfi ég mér að hvetja þig til að svara könnunnini sem allra fyrst.

Með von um göða þátttöku og samstarf

Anna Ólafsdóttir, doktornsæmn við Háskóla Íslands

ano1@hi.is

Appendix H The survey questionnaire – an introduction
e-mail to the participants

Ágæti háskólakennari

Ég fer þess á leit við þig að þú takir þátt í könnun sem ætluð er akademískum starfsmónnum við Háskóla Íslands. Könnunin er hluti af doktorskrafnþókn minni við Menntavísindasvið HÍ.

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Mikil áhersla er lögð á að þátttakendur geti treyst því að svör þeirra séu ekki með nokkru móti rekjanleg. Til að tryggi það er mjög takmarkaðra bakgrunnsþéliginga óskar í könnuninni. Allar tengingar notendanafrö við svör verða aftengdar og þar með ekki persónugreinanlegar við úrvinnslu.

Það skiptir mig miklu að sem flestir svari og leyfi ég mér að hvetja þig til að svara könnunnini sem allra fyrst.

Með von um göða þátttöku og samstarf

Anna Ólafsdóttir, doktornsæmn við Háskóla Íslands

ano1@hi.is
Appendix I Classification of disciplines

Classification of the disciplines of the University of Iceland into soft-pure, hard-pure, soft-applied and hard-applied categories, based on Becher and Trowler (2001):

**Soft-pure disciplines**
- Foreign Languages, Literature and Linguistics
- Social and Human Sciences
- Economics
- Icelandic and Comparative Cultural Studies
- Public Health Sciences
- History
- Philosophy
- Psychology
- Political Science
- Education Studies

**Hard-pure disciplines**
- Earth Sciences
- Life and Environmental Sciences
- Physical Sciences
- Environment and Natural Resources
- Health Informatics

**Soft-applied disciplines**
- Social Work
- Theology and Religious Studies
- Nursing
- Sport, Leisure Studies and Social Education
- Teacher Education
- Law
- Food Science and Nutrition
- Business Administration

**Hard-applied disciplines**
- Industrial Engineering, Mechanical Engineering and Computer Science
Pharmaceutical Sciences
Medicine
Nordic Master’s Programme in Gerontology
Electrical and Computer Engineering
Odontology
Civil and Environmental Engineering
Appendix J Reliability tests for the ATI

Rotated Component Matrix

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Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 3 iterations.

Reliability Statistics

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## Item-Total Statistics

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### Reliability Statistics

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<td>1. I design my teaching in this course with the assumption that most of the students have very little useful knowledge of the topics to be covered.</td>
<td>20.0769</td>
</tr>
<tr>
<td>2. I feel it is important that this course should be completely described in terms of specific objectives relating to what students have to know for formal assessment items.</td>
<td>19.5430</td>
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<tr>
<td>4. I feel it is important to present a lot of facts to students so that they know what they have to learn for this subject.</td>
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<tr>
<td>7. In this course I concentrate on covering the information that might be available from a good textbook.</td>
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</tr>
<tr>
<td>10. I structure this course to help students to pass the formal assessment items.</td>
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</tr>
<tr>
<td>11. I think an important reason for running teaching sessions in this course is to give students a good set of notes.</td>
<td>21.7149</td>
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<tr>
<td>12. In this course, I only provide the students with the information they will need to pass the formal assessments.</td>
<td>20.9910</td>
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<tr>
<td>13. I feel that I should know the answers to any questions that students may put to me during this course.</td>
<td>20.7511</td>
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Rotated Component Matrix

<table>
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<tbody>
<tr>
<td></td>
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<td>.795</td>
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<tr>
<td>14. I make available opportunities for students in this course to discuss their changing understanding of the subject.</td>
<td>.767</td>
<td>.762</td>
</tr>
<tr>
<td>3. In my interactions with students in this course I try to develop a conversation with them about the topics we are studying.</td>
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<td></td>
</tr>
<tr>
<td>9. In teaching session in this course, I use difficult or undefined examples to provoke debate.</td>
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<td></td>
</tr>
<tr>
<td>16. I feel a lot of teaching time in this course should be used to question students’ ideas.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. I set aside some teaching time so that the students can discuss, among themselves, the difficulties that they encounter studying the subject.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. I encourage students to restructure their existing knowledge in terms of the new way of thinking about the subject that they will develop.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I feel it is important to present a lot of facts to students so that they know what they have to learn for this subject.</td>
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</tr>
<tr>
<td>10. I structure this course to help students to pass the formal assessment items.</td>
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<td>12. In this course, I only provide the students with the information they will need to pass the formal assessments.</td>
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<tr>
<td>7. In this course I concentrate on covering the information that might be available from a good textbook.</td>
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<td>13. I feel that I should know the answers to any questions that students may put to me during this course.</td>
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<td>11. I think an important reason for running teaching sessions in this course is to give students a good set of notes.</td>
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Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 3 iterations.

Total Variance Explained

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<th>Cumulative %</th>
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</thead>
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<td>30.505</td>
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<td>2</td>
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<td>26.639</td>
<td>57.144</td>
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Extraction Method: Principal Component Analysis.

Reliability Statistics

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<tr>
<td>.849</td>
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### Item-Total Statistics

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<th>Corrected Item-Total Correlation</th>
<th>Cronbach's Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. In my interactions with students in this course I try to develop</td>
<td>17.2580</td>
<td>18.233</td>
<td>.586</td>
<td>.823</td>
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<td>a conversation with them about the topics we are studying.</td>
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<td></td>
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<tr>
<td>6. I set aside some teaching time so that the students can discuss</td>
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<td>14.911</td>
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<td>.830</td>
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<tr>
<td>among themselves, the difficulties that they encounter studying</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>the subject.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. I encourage students to restructure their existing knowledge in</td>
<td>17.5848</td>
<td>17.473</td>
<td>.554</td>
<td>.839</td>
</tr>
<tr>
<td>terms of the new way of thinking about the subject that they will</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>develop.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. In teaching session in this course, I use difficult or undefined</td>
<td>17.9777</td>
<td>16.713</td>
<td>.610</td>
<td>.829</td>
</tr>
<tr>
<td>examples to provoke debate.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. I make available opportunities for students in this course to</td>
<td>17.5491</td>
<td>17.235</td>
<td>.706</td>
<td>.814</td>
</tr>
<tr>
<td>discuss their changing understanding of the subject.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. I feel a lot of teaching time in this course should be used to</td>
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<td>15.813</td>
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<td>.812</td>
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<tr>
<td>question students’ ideas.</td>
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### Reliability Statistics

<table>
<thead>
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<td>Item</td>
<td>Description</td>
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<tr>
<td>------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>4</td>
<td>I feel it is important to present a lot of facts to students so that they know what they have to learn for this subject.</td>
</tr>
<tr>
<td>7</td>
<td>In this course I concentrate on covering the information that might be available from a good textbook.</td>
</tr>
<tr>
<td>10</td>
<td>I structure this course to help students to pass the formal assessment items.</td>
</tr>
<tr>
<td>11</td>
<td>I think an important reason for running teaching sessions in this course is to give students a good set of notes.</td>
</tr>
<tr>
<td>12</td>
<td>In this course, I only provide the students with the information they will need to pass the formal assessments.</td>
</tr>
<tr>
<td>13</td>
<td>I feel that I should know the answers to any questions that students may put to me during this course.</td>
</tr>
</tbody>
</table>
# Appendix K Reliability test for the “Conditions for good teaching” items

<table>
<thead>
<tr>
<th>Rotated Component Matrices*</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>22. For good teaching in this course it is important that the premises used for teaching makes it possible to organize student work on assignments in the teaching sessions (e.g. hands-on sessions, student group discussions, calculator)</td>
<td>.88</td>
</tr>
<tr>
<td>23. For good teaching in this course it is important that the number of students in class makes it possible to organize student work on assignments in the teaching sessions (e.g. hands-on sessions, student group discussions, calculator)</td>
<td>.87</td>
</tr>
<tr>
<td>24. For good teaching in this course it is important that students are active in class, ask questions about the content and participate in discussions about it.</td>
<td>.71</td>
</tr>
<tr>
<td>20. For good teaching in this course it is important that the teaching is targeted towards the learning outcomes for the programme as a whole, as well as the content of this course in particular.</td>
<td>.68</td>
</tr>
<tr>
<td>30. For good teaching in this course it is important to conduct assessment in such a way as to provide students with guidance through the studying process rather than to judge their skills.</td>
<td>.67</td>
</tr>
<tr>
<td>21. For good teaching in this course it is important to have the students giving feedback on my teaching during the course, such as in e-mail, in student feedback meetings, or in a face-to-face interview.</td>
<td>.61</td>
</tr>
<tr>
<td>27. For good teaching in this course it is important to use assignments spread evenly across the teaching semester to assess the knowledge and skills of students.</td>
<td>.54</td>
</tr>
<tr>
<td>17. For good teaching in this course it is important that students are given an opportunity in the beginning to make proposals and suggestions concerning the structure or planning of the course.</td>
<td>.40</td>
</tr>
<tr>
<td>25. For good teaching in this course it is important that the course content is related to my field of research study.</td>
<td>.41</td>
</tr>
<tr>
<td>26. For good teaching in this course it is important to be able to utilize my own research as a part of my teaching material.</td>
<td>.83</td>
</tr>
<tr>
<td>28. For good teaching in this course it is important to use exams at the end of the semester to assess students’ knowledge and skills.</td>
<td>.82</td>
</tr>
<tr>
<td>29. For good teaching in this course it is important to use both, assignments spread evenly across the teaching semester, and exams at the end of the semester, to assess the knowledge and skills of students.</td>
<td>.79</td>
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</table>

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 5 iterations.

### Total Variance Explained

<table>
<thead>
<tr>
<th>Component</th>
<th>Rotation Sums of Squared Loadings</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>% of Variance</td>
<td>Cumulative %</td>
<td></td>
</tr>
<tr>
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<td>20.340</td>
</tr>
<tr>
<td>2</td>
<td>1.996</td>
<td>16.634</td>
<td>36.974</td>
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<tr>
<td>3</td>
<td>1.812</td>
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</tr>
<tr>
<td>4</td>
<td>1.537</td>
<td>12.804</td>
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Extraction Method: Principal Component Analysis.

### Reliability Statistics

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### Summary Item Statistics

<table>
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<th>Mean</th>
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<th>Maximum</th>
<th>Range</th>
<th>Maximum / Minimum</th>
<th>Variance</th>
<th>N of Items</th>
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<tbody>
<tr>
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<td>3.639</td>
<td>4.530</td>
<td>0.891</td>
<td>1.245</td>
<td>0.135</td>
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<td>Item Variances</td>
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<td>1.812</td>
<td>1.361</td>
<td>4.018</td>
<td>0.569</td>
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<tr>
<td>Inter-Item Covariances</td>
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<td>0.427</td>
<td>1.366</td>
<td>0.939</td>
<td>3.201</td>
<td>0.229</td>
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<tr>
<td>Inter-Item Correlations</td>
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<td>0.488</td>
<td>0.779</td>
<td>0.291</td>
<td>1.597</td>
<td>0.023</td>
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### Item-Total Statistics

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<th></th>
<th>Scale Mean if Item Deleted</th>
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<th>Corrected Item-Total Correlation</th>
<th>Squared Multiple Correlation</th>
<th>Cronbach’s Alpha if Item Deleted</th>
</tr>
</thead>
</table>
22. For good teaching in this course it is important that the premises used for teaching makes it possible to organize student work on assignments in the teaching sessions (e.g. hands-on sessions, student group discussions, calcula
8,2870  3,000  .781  .627  .569
23. For good teaching in this course it is important that the number of students in class makes it possible to organize student work on assignments in the teaching sessions (e.g. hands-on sessions, student group discussions, calcul
8,1696  3,172  .773  .649  .573
24. For good teaching in this course it is important that students are active in class, ask questions about the content and participate in discussions about it.
7,3957  6,240  .525  .276  .876

<table>
<thead>
<tr>
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<th>Cronbach's Alpha</th>
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<th>N of Items</th>
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<th>Maximum</th>
<th>Range</th>
<th>Maximum / Minimum</th>
<th>Variance</th>
<th>N of Items</th>
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<tr>
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<td>3,836</td>
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<td>.573</td>
<td>.553</td>
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<th>Corrected Item-Total Correlation</th>
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</table>
17. For good teaching in this course it is important that students are given an opportunity to make proposals and suggestions concerning the structure or planning of the course.

20. For good teaching in this course it is important that the teaching is targeted towards the learning outcomes for the programme as a whole, as well as the content of this course in particular.

21. For good teaching in this course it is important to have the students giving feedback on my teaching during the course, such as in e-mail, in student feedback meetings, or in a face-to-face interview.

27. For good teaching in this course it is important to use assignments spread evenly across the teaching semester to assess the knowledge and skills of students.

30. For good teaching in this course it is important to conduct assessment in such a way as to provide students with guidance through the studying process rather than to judge their skills.

<table>
<thead>
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<th>Range</th>
<th>Maximum / Minimum</th>
<th>Variance</th>
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<td>1.010</td>
<td>1.010</td>
<td>.000</td>
<td>1.000</td>
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<td>Inter-Item Correlations</td>
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<td>.750</td>
<td>.000</td>
<td>1.000</td>
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### Item-Total Statistics

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<th>Item</th>
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<th>Squared Multiple Correlation</th>
<th>Cronbach's Alpha if Item Deleted</th>
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<tr>
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<td>1.438</td>
<td>.750</td>
<td>.563</td>
<td>-</td>
</tr>
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<td>.750</td>
<td>.563</td>
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### Reliability Statistics

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### Summary Item Statistics

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<th>Range</th>
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<td>3.777</td>
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<tr>
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<td>1.715</td>
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<td>0.649</td>
<td>0.649</td>
<td>0.000</td>
<td>1.000</td>
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<tr>
<td>Inter-Item Correlations</td>
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### Item-Total Statistics

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<th>Scale Mean if Item Deleted</th>
<th>Scale Variance if Item Deleted</th>
<th>Corrected Item Total Correlation</th>
<th>Squared Multiple Correlation</th>
<th>Cronbach's Alpha if Item Deleted</th>
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</table>
28. For good teaching in this course it is important to use exams at the end of the semester to assess students’ knowledge and skills.

<p>| | | | |</p>
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<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3,777</td>
<td>1,551</td>
<td>.399</td>
<td>.159</td>
</tr>
</tbody>
</table>

29. For good teaching in this course it is important to use both, assignments spread evenly across the teaching semester, and exams at the end of the semester, to assess the knowledge and skills of students.

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2,960</td>
<td>1,705</td>
<td>.399</td>
<td>.159</td>
</tr>
</tbody>
</table>
Appendix L Figure 22 enlarged version

Teaching which emphasises rich teacher-student interaction
- Students are keen on asking questions about the topics covered in the courses
- Students show enthusiasm and bring in additional perspectives
- Fostering students' adoption of a questioning and open mind
- Emphasising students' self-reliance in acquiring additional knowledge
- Emphasising that the student should adopt and practise critical thinking

Generic features of 'good university teaching'
- Teaching which recognises both theoretical knowledge in the field, and additional generic qualities important for a graduate
- Preparation which fosters student understanding and good teaching experiences
- Formative assessment designed to facilitate learning and foster understanding
- Preparation is based on a recognition of the student perspective
- Using varied assignments, followed by appropriate, supportive feedback
- Using assignments linked to local situations or research
- Both teachers and students prepare for the next teaching session in advance