MS Thesis

Human Resource Management

Tour Guide Competencies and Training Needs

Focus on the tour guides of Arctic Adventures

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HÁSKÓLI ÍSLANDS

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Faculty of Business
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Thesis for the Degree of Master of Science in Human Resource Management

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Preface

This is a 30 credit thesis to obtain a Master of Science degree in the program of human resource management from the Faculty of Business, in the School of Social Sciences of the University of Iceland. Supervisors for this thesis were Árný Elíasdóttir and Gylfi Dalmann Aðalsteinsson.

The ambitious goal is to bring better insight into training and development actions in an outdoor activity company and to enhance the service quality. In addition this research will contribute to the field of human resource development and offer practical solutions in conducting training needs analysis. Finally the goal is to have an input into the future development of the Icelandic tourism industry by motivating the whole industry to pay more attention to importance of training and development actions.

I would like to thank my supervisors Árný Elíasdóttir and Gylfi Dalmann Aðalsteinsson for the guidance during this long journey. Thanks to the management of Arctic Adventures, Torfi Yngvason, Jón Heiðar Andrésson and Reynar Davið Ottósson, for their cooperation and for finding time to help regardless of stress and time constraints. In addition I would like to express my gratitude to the team of guides at Arctic Adventures who made this research possible and for their honest and sincere help through out the research. In addition I would like to thank María Guðmundsdóttir from the Icelandic Travel Industry Association for her insight into the tourism industry. Finally big thanks go to my family and friends for the support and help during this process, especially to Johanna Läärä, Siru Laine, Heli Rantanen and Petri Heiskanen.

Abstract

Companies face many changes and demands from inner and outer business environments. Some of the changes create training and development needs. Training and development actions are aimed to enhance individual competencies, which can be defined as skills, knowledge, behaviour, attitudes and values. The actions must be aligned with the company strategy to ensure transfer of training. This can be done by following a four step human resource development cycle. First, a training needs analysis is conducted to determine the actual and expected levels of competencies. The second phase will concentrate on designing the correct training actions, since wrongly designed and delivered actions are costly. The third step will deliver the right training actions. Finally the last phase will evaluate the actions, to see whether the set objectives were reached.

The purpose of this research was to determine whether any training needs exist among the tour guides of Arctic Adventures and, in addition, whether future legislation poses threats. This was done by conducting a training needs analysis. The training needs analysis determined the necessary competencies and their current levels. The actual levels were compared to the expected levels, to determine any possible training and non-training needs. The team of guides was chosen due to the multiple competency demands set by the nature of work. In everyday work, guides must work with quality and safety related factors. In addition, the current and future legislation and industry standardization caused this topic to be of great interest.

The findings revealed a vast amount of required competencies in the occupation of an outdoor activity guide. Many of them were industry specific, and could be transferred between companies and countries. The training needs analysis also revealed few training needs. The current and expected competency levels were high and discrepancies were small. In addition the research discovered a demand for more formal education in Icelandic tourism, better cooperation inside the industry and better communication between the government and tourism companies. The set government standards were not seen as appropriate or they were lacking depth.

Útdráttur

Fyrirtæki standa frammi fyrir miklum breytingum og kröfum frá innra og ytra viðskiptaumhverfi. Sumar af þeim breytingum ýta undir þróun og aukna þörf fyrir þjálfun innan fyrirtækis. Þjálfunar- og þróunaraðgerðir miða að því að auka hæfni einstaklinga, sem skilgreind er sem færni, þekking, hegðun, viðhorf og gildismat. Þessar aðgerðir verða að vera í samræmi við stefnu fyrirtækisins til að tryggja árangur þjálfunar. Þetta má gera með því að fylgja fjögurra skrefa ferli mannauðsþróunar. Fyrst er þarfagreining gerð til að ákvarða æskilega og núverandi hæfni. Annar áfangi leggur áherslu á að hanna raunhæfar þjálfunaraðgerðir, þar sem rangar og illa framkvæmdar aðferðir eru dýrar. Þriðja skrefið er að innleiða aðgerðirnar. Að lokum er síðasti áfanginn að meta ferlið til að sjá hvort settum markmiðum var náð.

Tilgangur þessarar rannsóknar var að meta hvort þörf er fyrir aukna þjálfun meðal leiðsögumanna fyrirtækisins Arctic Adventures, og að auki hvort aukin löggjöf mun í framtíðinni skapa þjálfunarþarfir hjá fyrirtækinu. Þetta var gert með því að framkvæma þarfagreiningu.. Með því að bera saman nauðsynlega og núverandi hæfni var hægt að ákvarða mögulega þörf fyrir þjálfun og aðrar aðgerðir.. Settur var saman hópur leiðsögumanna úr ýmsum áttum vegna fjölbreytileika starfs þeirra en á hverjum degi verða leiðsögumenn að vinna sína vinnu með gæði og öryggi í fyrirrúmi. Þar að auki er efnið áhugavert vegna núverandi og tilvonandi löggjafar og staðla í ferðaþjónustu.

Niðurstöðurnar sýndu mikla hæfni meðal leiðsögumanna sem ferðast um í náttúru landsins. Sumir hæfniþættirnir tengdust ferðaþjónustu almennt og gætu því nýst í öðrum löndum og fyrirtækjum. Þarfagreiningin leiddi einnig í ljós þörf fyrir aukna þekkingu á ýmsum sviðum. Yfir heildina var hæfni leiðsögumanna góð og lítill munur manna á milli. En einnig kom í ljós að þörf er fyrir sérmenntun innan íslenska ferðamannaiðnaðarins, betri samvinnu innan greinarinnar og betri samskipti milli stjórnvalda og ferðaþjónustufyrirtækja. Núverandi viðmið stjórnvalda þóttu ekki hæfa og skorta dýpt.

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1 Introduction

Companies are facing a never-ending stream of changes and trends, posing new demands for employee knowledge and skills. These demands can be connected to new technology, processes and legislation. To be able to meet these new demands companies must execute employee training and development actions. These actions have to be aligned with company strategies and well-designed to ensure the transfer of training to actual work, since training actions are time-consuming and expensive.

This research looks into the required competencies and training needs of an Icelandic tourism company. The field of study was chosen due to personal interest and obvious lack of competency requirements in the whole industry. The group of tour guides was chosen due to the demand of different competency requirements in service quality and safety. Therefore three research questions were formed to guide the study:

1. What are the expected and current competency levels among the tour guides of Arctic Adventures?
2. What kind of training gaps are there and on what scale do they exist at the moment?
3. What training needs do future legislation and industry standardization pose for the guides at Arctic Adventures?

This study hypothesizes that some training needs do exist among the team of guides. Another hypothesis is that future legislation and standardizations will pose some training needs for the company. The answer to these research questions is found by composing a training needs analysis.

This research starts by introducing the field of human resource development, which includes such important actions as training, learning and development. Furthermore the importance of human resource development for organizations is discussed. In the third chapter the journey towards the actual research is built by introducing the human resource development cycle. The main topic of this research, the training needs analysis in the first step of the cycle, is discussed in detail. In addition the steps followed are discussed to give the reader insight into how the training actions are interlinked and all

steps of the cycle are important. The fourth chapter focuses on defining the concept of competencies. All training and development actions are aimed towards enhancing individual and organizational competencies. Therefore it is important to understand the concept and the definition of terms used.

The fifth chapter will move on to the research by describing the methods used and providing support for the decisions from the literature. The sixth chapter will present the findings of the research and how they relate to the theory presented in the previous chapters. The findings are examined in detail and statistical information is provided to help the reader understand the analysis. In the next chapter the findings are discussed and linked together and more in depth connections to the literature are made. In addition limitations and future research topics are discussed. Finally the last chapter, conclusions, will briefly summarize the research process.

The aim of this research is to provide insight into the current competency levels and training actions for the company management. Another goal is to link training and development to key theories and help elaborate the importance of a human resource development strategy. Finally the ambitious goal for this research is to provide insight for the whole Icelandic tourism industry to make better informed decisions for future challenges and demands.

2 Human Resource Development

The term human resource development (HRD) is defined by Noe (2005) as "the integrated use of training and development, and career development to improve individual, group, and organizational effectiveness" (p. 29). A definition by Mankin (2009) provides more insight into the organizational point of view: "Human resource development (HRD) encompasses a range of organizational practises that focus on learning: training, learning, and development; workplace learning; career development and lifelong learning; organization development; organizational knowledge and learning" (p.6).

The current business environment sets high performance demands to all organizations and especially to employees. As Swanson (2001) points out, organizations are formed by humans and therefore need human pragmatics to perform, excel and adapt. Therefore the need for human resource development (HRD) exists in organizations to enable the release of human expertise (Swanson, 2001). Designed performance improvement measures and actions must take into consideration human behaviour and the need for motivation. More precisely employees must feel motivated themselves to improve performance and see the connection and benefit between themselves and the actions (Kearns, 2010).

The term human resource development (HRD) is often used interchangeably to describe concepts such as training, learning and development. However Swanson (2001) provides the following definition, "HRD is a process of developing and/or unleashing human expertise through organization development (OD) and personnel training and development (T&D) for the purpose of improving performance" (p. 304). This view is supported by Armstrong (2006) as he describes HRD as the acquisition of learning, development and training opportunities in order to enhance the performance on individual, team and organizational levels (Armstrong, 2006). Job performance consists of organization and work process on group, individual and process levels. Organization development is a systematic process implemented to lead to a change inside the organization to enhance the performance. On the other hand, the training and

development refers to the actions taken to enhance individuals´ expertise leading to improved performance (Swanson, 1995; Swanson, 2001).

This view is supported by Mankin´s (2009) definition, which described HRD as a concept of organizational practise, composed both of individual and organizational elements. Individual elements have a focus on training, learning and development with the addition of workplace learning, career development and lifelong learning. The organizational aspect in turn centres on organization development, organizational knowledge and learning. Furthermore the organizational performance is emphasized as the goal of HRD.

Blanchard and Thacker (1999) connect HRD actions to competencies needed in both current and future job performance. The developed competencies must meet the needs of the company and the needs of the individual, in order to ensure the effectiveness and productivity of the training actions. If the developed competencies are not valuable for the job performance, the training actions will not be transferred to individuals' work processes (Blanchard & Thacker, 1999).

2.1 Defining strategic human resource development

As stated in the previous paragraph, organizations are formed by individuals and therefore the organizational performance is directly dependent on employees' outputs. The role of Strategic Human Resource Development (SHRD) is to ensure the right availability of highly qualified work force to deliver competitive advantage. SHRD must ensure employee availability in present and future situations. This determines the SHRD objectives as: to develop intellectual capital and enhance organizational, team and individual learning. This is done by creating a supportive environment for learning and ensuring systematic information management (Armstrong, 2006). Human resource development is needed to ensure the implementation of the competitive strategy which is done by supporting the strategies, goals and objectives of the organization. Installing and enhancing a competitive strategy is done through, for example, staffing, human resource planning, performance appraisal, compensation and training (Blanchard & Thacker, 1999; Mankin, 2009). Furthermore HRD ensures the employees possess the required competencies to meet the performance goals and strategy (Blanchard & Thacker, 1999). Therefore SHRD will make sure the competitive advantage is

maintained. In addition the role of SHRD is to ensure the linkage between existing and the new acquired competencies, which will help organizations through changes (Garavan, 2007).

Every company can be seen as possessing two types of assets which are needed to bring value and perform business; these are tangible and intangible assets where the latter is intellectual capital. The concept of intellectual capital has four components: market assets, intellectual property assets, human-centred assets and infrastructure assets. The human-centred assets refer to employee expertise, creativity, problem solving skills and managerial skills inside the organization. Unlike the other assets of intellectual capital, the human-centred assets cannot be owned by companies. Individuals are free to leave and take their knowledge with them, therefore this part of intellectual capital should be appreciated and nourished within organizations (Brooking, 1998). Another definition of intellectual capital provides two approaches; a positive and a negative one. According to the positive definition, intellectual capital consists of all the collective knowledge of an organization and the utilization of this knowledge such as brands, trademarks and processes. The negative approach refers to the factors which create value for the organization, but cannot be given an exact monetary value; therefore it is the difference between total value of a company and financial value (Roos, Roos, Dragonetti, & Edvinsson, 1997).

2.2 Learning, training and development and education

2.2.1 Learning

Learning can be described as an experience or event which has an outcome that will shape the individual's knowledge, skills, values or behaviour (Harrison, 2000). Individual learning refers to attainment of new knowledge and to the induced impacts, namely to individual apprehension, task operation and behaviour. Learning theories are traditionally divided into two disciplines: psychological and sociological. The psychological perspective takes place in the individual's mind, whereas the sociological theories refer to social contexts (Mankin, 2009).

The field of learning theories can be researched in greater detail, however here only a scratch on the surface will be provided. Learning theories can also be divided into three schools based on the learning approach. First of all learning can be seen as a

cognitive action where learning is about acquiring knowledge. The learning action takes place in an individual's mind. According to the second approach, learning is considered to be a change in individual behaviour and is therefore called behaviourist theory. Workplace learning actions such as reinforcement and feedback, where positive outcomes are praised and negative ones punished, are part of behaviourist learning (Foot & Hook, 1999). The third approach sees learning as a combination of both cognition and behaviour, and therefore is called experiential learning. The learning cycle in experiential learning has four steps which take place in an individual learning situation. In the first step an experience is encountered, which is then reviewed in the second step. In the third step conclusions are made based on the reflection. Finally in the fourth step the following actions are planned based on the conclusions (Foot & Hook, 1999; Mankin, 2009).

Traditionally learning theories are rooted in pedagogy which deals with children and young people, whereas in work life the learners are not children and therefore have different needs and expectations. Furthermore the population of learners is more heterogeneous at workplaces, due to the fact that work force consists of men, women, people with disabilities, elderly employees and individuals with different cultural backgrounds. All of these factors play a role when deciding training and learning methods and procedures (Beardwell, Holden, & Claydon, 2004).

There has been a shift in focus from training more into organizational learning after the late 1990´s. The formal classroom training is effective but has limitations in applicability and therefore more hands-on approaches have become more popular (Fitz-enz & Davison, 2002). These can also be called as on-site training methods, which are for example; apprenticeship training, job aids, coaching, mentoring and job-rotation (Wexley & Latham, 2002). This approach has been named as organizational learning and it can include all forms of knowledge and skill acquisition (Fitz-enz & Davison, 2002). Organizational learning can be defined as an activity taking place inside an organization as opposite to learning organization, which refers to a particular type of organization (Tsang, 1997). Organizational learning takes place when learning is institutionalized in a form of; new ways of executing tasks, system changes and use of techniques and methods to improve performance (Mankin, 2009). The challenges posed by

technological changes and growth in team sizes have presented new learning possibilities in addition to classroom learning, namely distance learning, experiential approaches and learning through work processes (Fitz-enz & Davison, 2002). The traditional approach to training and learning actions has been the formal classroom and a trainer model. However in time the focus has shifted towards a more constructivist approach where the individual is more self-driven to seek information. Due to the vast amounts of information and knowledge, the idea of learning everything by heart is becoming outdated. Therefore the next shift will be towards connectivism, in which individuals know where to look for the information and knowledge needed (Tracey, 2009).

A few other changes in the business environment during the past years have had an impact on the training and learning scene in organizations. Namely lack of trust in leadership has raised the question of whether it is possible to teach ethics and integrity. In addition fast growth of social media has forced organizations to train themselves in using the new channels of business and follow competitors. In addition to social media application, technology has moved into easy-access service, where data access is not tied to any physical location. Due to this easy access, business has become 24/7 in nature, where tasks can be executed whenever and wherever. This has also been supported by the demand for high employee performance, which was fuelled by the recession in the 21st century. Also the team structure has changed, becoming more diverse where team members are not required to be physically in the same location, country or even time zone. Teams have turned into multicultural and multi-language worker groups, where team members must possess wider knowledge of cultural diversity and master multiple languages (Ketter, 2010).

According to Argyris (1991) organizations miss their learning needs when they fail to notice them, fail to define what learning actually is, or the concept of learning is too narrow, as only action to problem solving. In addition many people do not know how to learn effectively. Argyris (1991) argues that highly educated professionals are used to single-loop learning which is based on applying strictly learned disciplines to real life problems. Furthermore when the discipline causes a mistake the individual becomes defensive and is not able to learn from the situation. Learning from mistakes on the

other hand is part of double-loop learning, which builds on individual cognition, reasoning and learning (Argyris, 1991).

2.2.2 Training and development

Training is aimed at enhancing individuals´ skills and leads to changed behaviour in the workplace, which will eventually lead into improved performance (Mankin, 2009). Blanchard and Thacker (1999) define training as learning actions with the objective of improving job performance in current or future work.

Both explicit knowledge "know what" and tacit knowledge "know how" can be acquired through training (Mankin, 2009). According to Nonaka and Takeuchi (1995) human knowledge can be seen as a dichotomy; explicit knowledge and tacit knowledge. The first refers to knowledge that can be transferred via formal language, for example manuals and mathematic formulas. According to Nonaka and Takeuchi (1995) transferring and sharing explicit knowledge between individuals is easy, accurate and low cost. Tacit knowledge on the other hand consists of knowledge acquired by experience and includes aspects of individual views, values and beliefs. Tacit knowledge is more difficult to transfer between individuals, since it cannot be described in the form of formal language (Nonaka & Takeuchi, 1995). Tacit knowledge can also be described as personal knowledge since it is developed and owned by individuals. Tacit knowledge encompasses subjective insights and intuition, and some part of it can never be transferred into explicit form. The parts of tacit knowledge which can be transferred into explicit knowledge, in the form of manuals, books or recipes, will become organizational knowledge after the transformation. This knowledge will be embedded into the organizational structures even though the individual leaves the organization. However personal knowledge is only held by the individual and is not organizational property, therefore empowerment is an important channel to transfer and share personal knowledge (Wilson, 2000).

According to Wexley and Latham (2002) training actions have three objectives. The first is to enhance the self-awareness of an individual. This refers to employees learning more about themselves in relation to roles, responsibilities, view by other employees and the effects of own actions on others. The second is to improve employees' skill levels in one or multiple fields of expertise, which is seen as the traditional role of

training. These are the skills which are needed on a day-to-day basis to perform efficiently. Finally, even though employees possess the required skills, there might be a need to improve individuals' motivation to reach higher performance (Wexley & Latham, 2002).

Noe (2005) defines training as a planned effort to enhance the employees' job-related competencies, which then will be transferred and applied in day-to-day job tasks. In order for the training actions to be beneficial for the company and deliver competitive advantage training should increase intellectual capital instead of focusing on basic skills. In this point the intellectual capital is considered to include basic skills, advanced skills and comprehension of the customer or manufacturing process and self-motivated creativity. Basic skills are needed for the individual to master the day-to-day job, whereas advanced skills ensure the understanding of technology and enable to sharing knowledge inside the organization. In the past the majority of training actions have been targeted to basic and advanced skills (Noe, 20005). Cascio (2003) supports Noe's views by describing training as composed actions to enhance individual, group and organizational level performance. The increased performance on the other hand must derive from changes in knowledge, skills, attitudes and behaviour (Cascio, 2003; Mathis & Jackson, 1999).

The ever-changing global market presents new and different requirements for training actions in companies. Since training is considered to deliver competitive advantage, the training actions must be pro-active and strategically aligned (Kearns, 2004). Employee training will increase individual performance and will lead to enhanced business results (Noe, 2005; Kearns, 2002). Companies must create an environment which supports lifelong learning and strive for exceptional performance. This mindset will enable companies to forecast new opportunities, enter new markets, enhance customer relationships and steer the organization to the future (Meister, 1998).

Lifelong learning places emphasis on individual responsibility in training and development: the employee will provide the desired competencies for the organization, which can be considered company assets (Brooking, 1998). Lifelong learning is important for organizations to be able to meet skill demands in the future and increase employee motivation. In lifelong learning the organization makes a formal decision to

provide training and development programs for employees. Lifelong learning actions can include such topics as: math, problem solving, leadership skills or technical skills (Phillips & Gully, 2012).

In learning organizations the company positions itself as a nurturing mechanism to serve employee development (Brooking, 1998). However Keeley (2007) points out that young people are more likely to receive additional training. This can be due to more available free time, since most often young adults have not started families. In addition younger generations have a higher formal education background. Finally the young employees are seen as the future, where older employees are expected to retire (Keeley, 2007).

The learning organization facilitates lifelong learning and development for all employees and by doing this is prepared for changes in the business environment (Moorhead & Griffin, 2004; Torrington, Hall, & Taylor, 2008). In addition both positive and negative employee motivation and perception towards the company are tightly linked to training actions. Furthermore the training actions have an impact on employee retention and turnover rate (Blanchard & Thacker, 1999; Noe, 2005; Torrington et al., 2008). However, training enhances employee skills and therefore makes them more suitable for the labour market and to find a new work place. Training actions, such as MBA degrees sponsored by the employer, deliver a clear message that the employee is appreciated in the work community. Furthermore the sponsored education will provide a direct incentive to continue the service (Torrington et al., 2008).

Development has a longer and wider perspective on enhancing employee performance than training actions. Development actions not only concern individuals´ skills and behaviour, but also knowledge, abilities and competencies (Mankin, 1999). This view is supported by Harrison (2000) who describes development as any kind of learning on the individual or group level with an effect on knowledge, skills, values or behaviour. The effects of development are longer lasting and visible later in time (Mathis & Jackson, 1999). The definition provided by Blanchard and Thacker (1999) on the other hand defines development as an outcome and not as an action. Furthermore development is seen as a result of the training process on individual competencies.

2.2.3 Education

Education is one important aspect of development, varying from organizational level to national level. Increasingly the field of education is shifting towards a concept of lifelong learning, which supports the idea of attaining knowledge and skills throughout one's whole career (Mankin, 2009). Blanchard and Thacker (1999) point out how training is often seen as workplace-related learning and education as a learning process on general competencies, however often the provided workplace training is more educational in nature. Brooking (1998) on the other hand describes education as formal education received in an educational establishment between the ages of four to sixteen or eighteen. In addition education does not provide skill to any job particular.

Training, development and education are closely linked to each other with minor variations in focus, since training is more work related and education focuses on the whole person, whereas development actions are often a mixture of both these two (Mankin, 2009). Garavan (1997) on the other hand presents a view of seeing training, development, education and learning as complementary components of the same process, or as enhancement of human potential or talent. All of these four elements have a different focus on the individual (Garavan, 1997).

2.3 Reasons for HRD

Globalization has changed the business environment permanently by providing new methods of communication, free movement of labour and international markets. The vast movement of labour across borders has created demand for cross-cultural training, which permits the individual to understand the new host culture and customs (Noe, 2005; Noe, Hollenback, Gerhart, & Wright, 2008). In addition training can ensure the ability for team work between individuals (Noe et al., 2008).

Currently business is heavily focused on knowledge and companies emphasize increasing intellectual capital. One solution is to acquire knowledge workers, who bring into the company their expertise or specialized knowledge. The value of knowledge workers is measured by the possessed knowledge and they do not contribute manual labour (Noe, 2005). Knowledge workers are for example company presidents, engineers, accountants and teachers. Knowledge workers acquire more education than the bare minimum of surviving in the manual labour market. The labour market is

shifting towards knowledge workers as the loss of manual jobs will create positions for knowledge workers with the same or even better salary (Drucker, 1989). Furthermore knowledge workers can be defined as individuals with a high degree of formal education, which allows them to apply more knowledge to their work, as opposed to manual skills (Drucker, 1998).

In order for companies to harvest the benefits of employee knowledge, they must provide an opportunity for individuals to apply their knowledge. One solution is to implement empowerment in which the management assign some of the decision power and responsibilities to the employees. The employee knowledge needs to be supplemented by readiness for changes, which occur constantly in modern business. Employees must be quick to adopt new knowledge, processes and behaviour. The demand for change in turn causes a demand for learning organizations, where the learning is deeply rooted and implemented in all process and levels of the organization (Noe, 2005; Noe et al. 2008). It is important that the company culture will foster an atmosphere of innovation, creativity and learning, which in fact can be ensured by conducting the right employee training (Noe et al., 2008; Bohlander & Snell, 2013).

In the future demographics will change remarkably when older generations retire from managerial positions, which will create a need for qualified employees and new leadership. Companies must provide more advanced training for the new recruits due to the diverse educational background and skill sets (Noe, 2005; Baron & Kreps, 1999). In addition the future will pose a social challenge when currently undereducated groups of racial and ethnic minorities, women and older employees will increase their share in the labour market (Cascio, 2003). Furthermore training will play a bigger role in attracting and retaining talented and skilled individuals (Noe, 2005). Companies feel unmotivated to proceed in training actions when there is a strong risk of employees going to the competitor's side. This leads to a forced situation where companies need qualified employees with the most up-to-date knowledge, and have no other option than to provide training (Cascio, 2003).

Companies conducting training programs and investing in the employees human capital send a clear message for prospective employees about the values and objectives inside the organization (Baron & Kreps, 1999). Customers have become more quality

orientated and are more aware of customer service and product quality (Noe, 2005; Noe et al., 2008). In addition suppliers are more interested in doing business with an organization with well-educated and trained staff (Baron & Kreps, 1999).

Companies face a few structural issues when it comes to training. Most often companies lack the support of training programs and therefore do not spend any money or time on employee training. Even though training is most often seen as an investment, inside the companies it is considered a monetary expense. This again causes a situation where companies in all industries are not investing enough money in training actions (Cascio, 2003). Training becomes a necessity when employee skills become obsolete due to changes in the business environment or work procedures (Noe et al. 2008).

Not only do unqualified employees need training, but often the existing background education is not equivalent or enough for work life, which in turn creates training demand for the companies. Therefore companies and educational institutions should form closer ties to ensure work life usability of formal education. This effort should be enforced by labour unions, which have the resources to provide more training to their members (Cascio, 2003).

3 The human resource development (HRD) cycle

According to Mankin (2009) a human resource development (HRD) cycle includes four steps: identification, design, delivery and evaluation. The HRD professional does not carry the sole responsibility for the process, rather three stakeholders can be identified: learners, HRD professional and line manager. The line manager has a role in all of the steps, however input is bigger in the analysis and evaluation phase, since the line manager has greater insight into individual competence levels and training and development needs. The HRD cycle is presented in the figure 1 below.

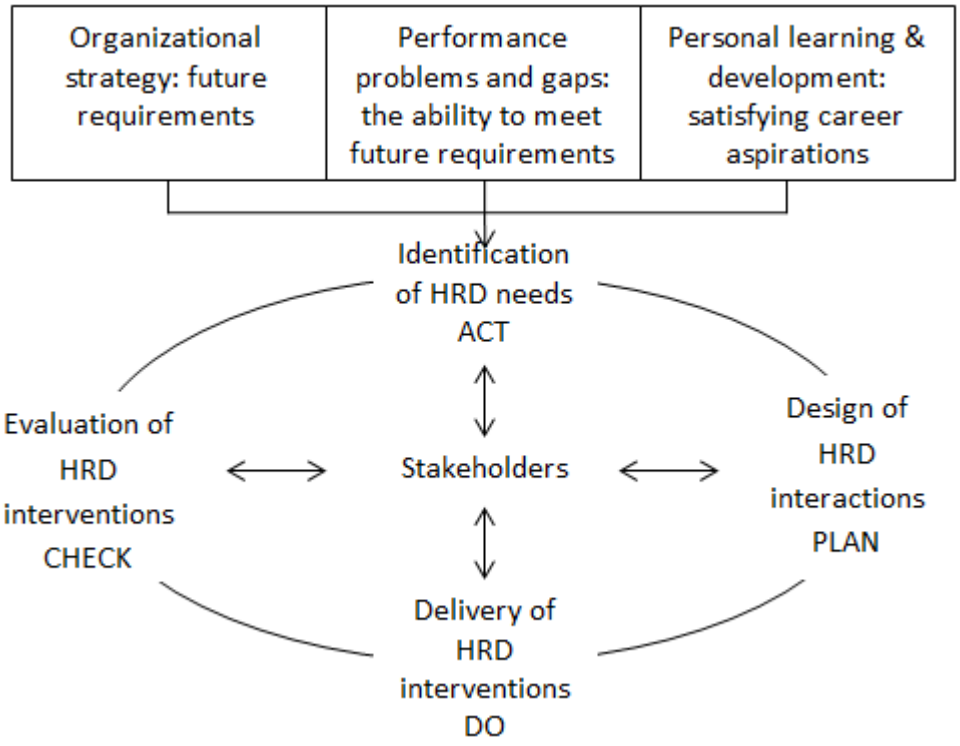

Figure 1 The HRD cycle (Mankin, 2009)

3.1 Training needs analysis (TNA)

Training needs analysis (TNA) is defined by Mankin (1999) as, "a formal and systematic process for analysing the learning and development needs of employees and is usually compiled at three levels: the individual, the department, and the

organization" (p.172). Blanchard and Thacker (1999) support the view of three levels of analysis.

TNA can be described as a systematic process to research the actions needed to bring the work out puts to the expected level. The outcome might display a lack of required competencies which is corrected by providing training. The outcome can also prove the individuals possess the right competencies and that other factors in work processes prevent high performance (Blanchard & Thacker, 1999; Brennan, 2003; Cekada, 2010; Gupta, 1999; Rossett, 1999). These factors can be for example: simple and repetitive nature of the work, low wages, inefficient work processes, insufficient working conditions, low motivation, managerial issues, poor performance management and lack of organization. These factors might falsely reflect on the surface as problems that require training (Mankin, 2009). In many cases the performance discrepancies are not caused by lack of skills but other factors, excluding the case of new employee or introducing new tasks and procedures (Mager & Pipe, 1997).

Not conducting TNA or doing it poorly can cause the organization to attempt to fix the performance deficiency with a training action when not needed, which is extremely expensive for the organization (Cekada, 2010). Furthermore not all training programs improve the employee performance, regardless of the size and intensity of the training program (Bohlander & Snell, 2013; Rossett, 1999; Schuler & Huber, 1993). When TNA is not conducted it is often due to the following reasons: lack of knowledge of how to conduct a TNA, management's scepticism, poor planning and lack of time or training is conducted based on fads (Schneier, Guthrie, & Olian, 1988). Conducting a TNA has two clear benefits. Firstly it ensures the training actions are based on actual needs: secondly the needs analysis is fairly easy to implement (Gupta, 1999).

After revealing the discrepancy, a decision can be made if the magnitude is great enough to execute training actions. The cost benefit balance can suggest ignoring the discrepancy (Watkins, Leigh, Platt, & Kaufmann, 2000).

Often companies execute training actions based on fads in the industry to follow competitors (Wexley & Latham, 2002). Misdirected, poorly designed training programs that lack evaluation will result in more cost than benefit. The training goals must be directly linked to the desired job behaviours throughout the whole training design

process (Cascio, 1998; Mathis & Jackson, 1999; Blanchard & Thacker, 1999; Mankin, 1999). The most common factors for training actions to fail are: lack of managerial support, not rewarding the new behaviour and lack of employee motivation (Milkovich & Boudreau, 1997). However, conducting training actions can increase employee morale due to the feeling of appreciation (Lubke, 2001).

Furthermore the TNA must be based on actual training needs, not to training wants collected among the employees. This approach is common among companies, due to the fast, easy and inexpensive approach to collecting data. Even though this approach gives more power to the employees and has a positive impact on employee morale, the actual impact on competency discrepancies is low (Cekada, 2010; Holton III, Bates, & Naquin, 2000).

Learners have changed needs and companies expect faster, more efficient and customized solutions for their training needs, not only traditional classroom training actions. Training has to be provided for those employees who genuinely need it and do not consider training a reward for good performance. On the other hand, time should not be wasted on individuals who do not need the particular training. In addition the training actions must be designed in a way that the results are implemented in work life and behaviour, support and follow-up for the training is easily accessible, for example in electronic form (Brennan, 2003).

Rossett (1999) suggests executing a performance analysis prior to TNA, since the goal is to improve employee performance. The aim for this process is to provide visible and measurable links between the actions and performance results, and to determine if TNA is required in the organization (Rossett, 1999). Also it must be pointed out that the TNA process is time-consuming and demands resources, as in devotion from a team of HR professionals. This process must be repeated when products, processes or technology change inside the organization (Wexley & Latham, 2002). In addition different levels of analysis take place simultaneously, since they are highly interlinked (Wexley & Latham, 2002; Cekada, 2010). To ensure an effective approach to TNA it is important to include managers, trainers and employees in the process (Noe, 2005). According to a study by Reed and Vakola (2006) the needs analysis process should be viewed as a change

management process. In addition to ensure the success of the TNA process it must be connected to the existing organizational processes (Reed & Vakola, 2006).

A process model for conducting a TNA is presented in figure 2. The first phase can be divided into three levels: organizational analysis, operational analysis and person analysis (Blanchard & Thacker, 1999; Milkovich & Boudreau, 1997; Mankin, 2009).

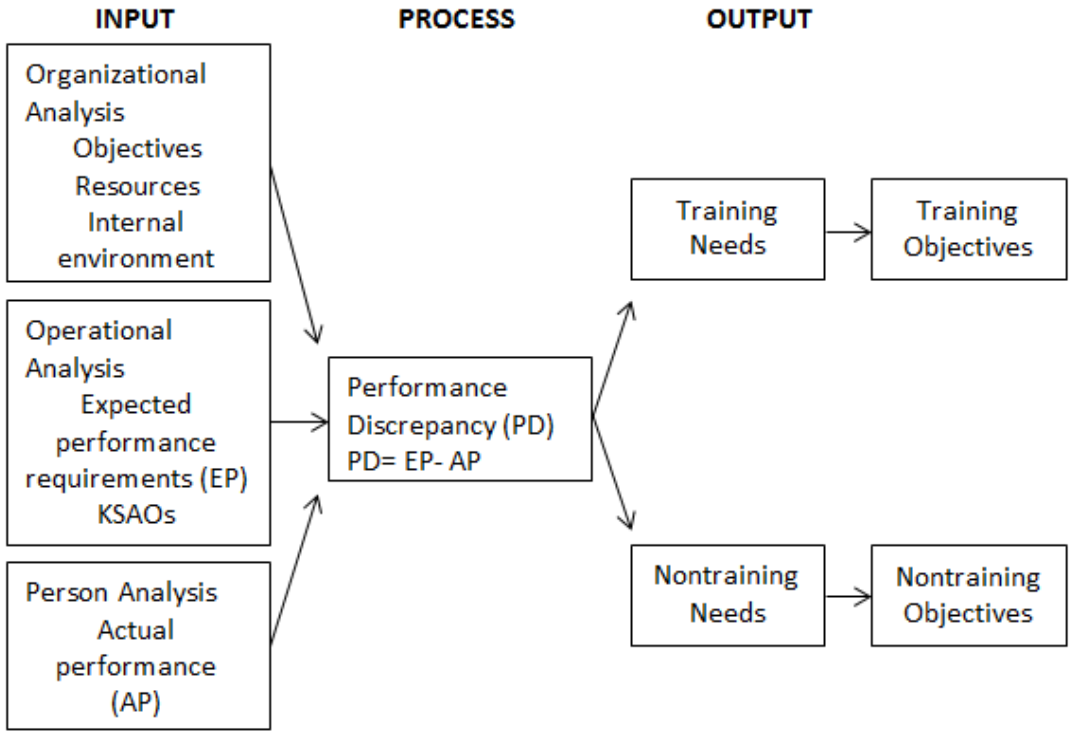

Figure 2 Needs assessment model (Blanchard & Thacker, 1999)

In the organizational level analysis the whole company is examined, as the connection to the external operational environment. In addition the internal culture, objectives and human resources are examined. The main focus of the organizational level analysis is to determine where in the organization training actions are needed. In most cases different organizational units have different training requirements (Wexley & Latham, 2002). The internal environment is studied and compared to the desired goals and objectives, and the relation to job performance is researched. Organizational analysis can also reveal other constraints for performance inside the organization (Blanchard & Thacker, 1999). Organizational analysis determines the possibility of training actions based on the organizational strategy, resources available for training and support from management and other employees (Noe, 2005).

The operational level analysis is concerned with the competencies which are needed to deliver high performance in a specific job and therefore determines the expected performance (EP). Finally the person analysis is focused on the individuals performing the job, and whether they possess the required competencies to perform well. The person level analysis presents the actual performance (AP) level. If there exists a gap between the expected performance (EP) level and the actual levels of performance (AP), a performance discrepancy (PD) is detected (Blanchard & Thacker, 1999). Lubke (2001) defined the discovered gap as the need in the context of performance results and business outcomes.

Depending on the nature and scale of the performance discrepancy the outputs of TNA can be either training needs or non-training needs. These needs will be then solved with measures accordingly (Blanchard & Thacker, 1999). The person level analysis also determines the individuals who need training and in addition whether they are ready and willing to participate in training actions (Noe, 2005).

A clear signal for organizations to conduct a TNA is when employees systematically fail to meet productivity demands, or the number of customer complaints is unusually high (Bohlander & Snell, 2013). Also TNA should be conducted when performance indicators point towards it, such as: productivity, accidents, absenteeism, waste or down-time (Mankin, 2009). Unfortunately companies do not always conduct a TNA (Bohlander & Snell, 2013). Other reasons to conduct a TNA might be: changed legislation, new technology and products, higher performance standards and new job positions (Noe, 2005).

The methods used to conduct a TNA vary between situations and the most commonly used ones are: employee observation, questionnaires, conducting interviews, researching on documentation as manuals and records, as well as focus groups (Noe, 2005; Blanchard & Thacker, 1999; Rossett, 1999). In most cases multiple methods and approaches are used depending on the nature and depth of the information. In addition the time available, cost and amount of participants have an impact on selected methods (Noe, 2005). For example a research by Anitha and Thenmozhi (2011) utilised a competency gap assessment to determine both the

required and existing employee competencies. The main research method was to conduct structured interviews with the company executives.

According to Sleezer, Kelsey and Wood (2008) TNA is valuable for such entities as countries, organizations, groups and individuals due to the exploratory and executive nature. Such entities especially utilize TNA when interest is focused towards products, services and situations (Anitha & Thenmozhi, 2011).

The training needs assessment can provide valuable affiliated information concerning the circumstances where the issue, problem or opportunity of interest exists. The need assessment also describes the social environment via language and fundamental reasons behind the issue, problem or opportunity in concern (Sleezer et al., 2008). Distinction between training needs and employee wishes can be drawn and finally the needs assessment states a commitment to compose effective solutions to the discovered issues (Sleezer et al., 2008; Cekada, 2010).

Wright and Geroy (1992) present a needs assessment model which combines the most pivotal theories for needs assessment actions in an organization. As shown in figure 3 the assessment model should be based on organizations´ philosophy, culture and strategy, noting that organizations line up plans and actions together. According to the second level of the model the actions should be more proactive in nature than reactive. In most organizations the current training actions are focused on existing needs, whereas the primary importance should be given to needs of the future, since these have a major impact on productivity. The reactive approach is naturally needed since organizations face new unforeseen situations (Wright & Geroy, 1992).

Training is not always the solution to all the needs organizations face, therefore in the third level of the model a pre-assessment mechanism is introduced to conduct selection. This will assist in compiling the right approach to the existing need. Furthermore a cost analysis tool must be added to the model to ensure the training actions will benefit the organization financially in the future (Wright & Geroy, 1992).

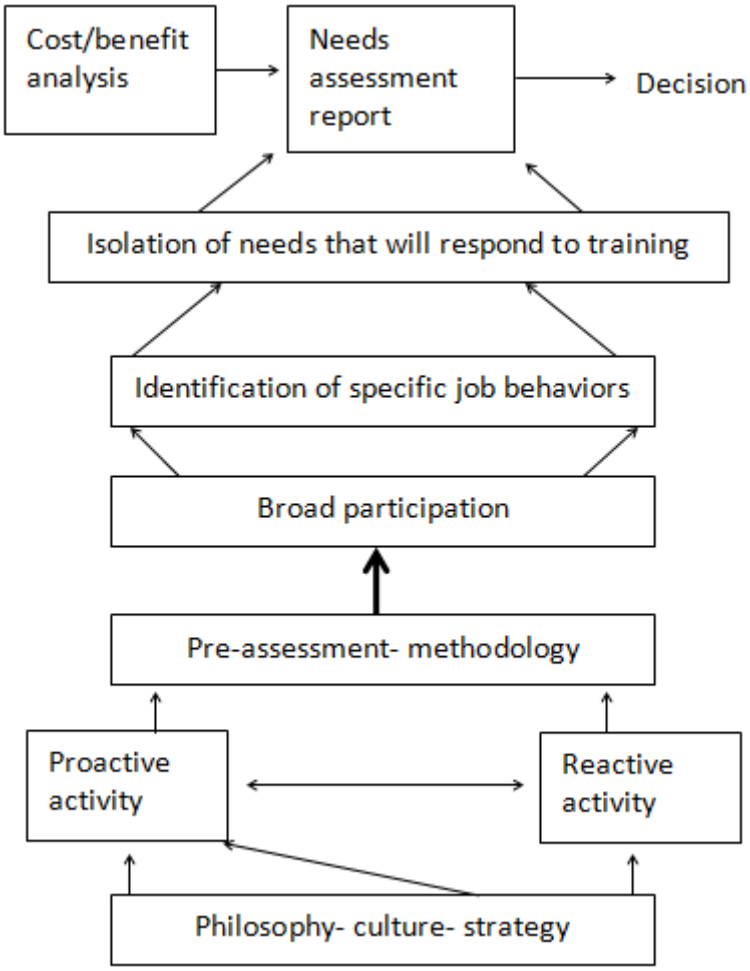

Figure 3 A Needs Assessment Model (Wright & Geroy, 1992)

The assessment process must include broad participation of stakeholders to ensure the participation and interest of trainees to the program: this will ensure the productive benefits of the actions. Finally the model indicates that the assessment process must focus on behaviours and not on perceptions, since these will always include some level of opinions. Behaviours are the actions that employees´ present at the work environment when engaging to productive actions (Wright & Geroy, 1992).

3.1.1 Organization level analysis

As discussed earlier the organizational analysis is the first level of TNA, since the challenges and changes faced by the organization can cause individual training and development needs. The goal of organizational level analysis is to look into the business environment in which the company is operating, the company strategy and resources possessed by the organization. For example, mergers and acquisitions, new technology,

globalization and quality demands will cause changes to organizations (Bohlander & Snell, 2013). The organizational level TNA also provides an insight into whether training actions are in line with the company strategy, whether the training actions are supported by managers and employees, and finally which training resources area available (Noe, 2005).

However according to Mankin (2009) the organizational level analysis should be an ongoing action, not something that is executed once a year. The market status of the organization has a direct impact on the profitability and resources to execute training and development actions. Also the availability of such resources as labour, raw materials, capital and technology has an impact on the possibility to provide training and development actions (Wexley & Latham, 2002). Organizational analysis examines both short term and long term organizational objectives, and in addition researches possible future trends (Schuler & Huber, 1993; Jackson & Schuler, 2003). Furthermore, downsizing, restructuring and new employee initiatives will cause more training demands. In addition, future changes in demographics will shift the balance of available qualified work force (Bohlander & Snell, 2013).

In addition to the skills needed in the future, the changes in the labour pool will also put pressure on organizations for training and development. The structural changes inside the labour pool are caused by minorities, immigration and demographics, therefore companies must be able to meet all employee needs. Future legislation and changing standards also cause new training and development needs for organizations, which must be mapped if possible in the organizational level analysis (Brown, 2002; Cekada, 2010; Mankin, 2009).

The company strategy states the desired position of the organization, whereas the organizational analysis provides insight into the current actual performance. By comparing the desired performance with the analysis, a performance discrepancy can be located. After locating the discrepancy it must be decided if the size of the discrepancy is reasonable to be fixed. If yes, then this will be the focus area of operational and personal analysis (Blanchard & Thacker, 1999).

It is important to include key factors in the organizational analysis, to ensure the possible discrepancy is recognized correctly. The following factors should be included:

- Organizational mission and strategy
- Organizational resources and the corresponding allocation
- Organizational internal environment analysis to locate possible problems in structure, policies, procedures and job design
- When training is required, the connected environmental factors and transfer to job (Blanchard & Thacker, 1999).

The organizational mission and strategy need to be included in the TNA in order for training actions to be set into the right context. The organizational training priorities have to be aligned with the mission and strategy. Capital resources must be taken into account when determining training priorities. In the case where an organization makes a big monetary investment, for example in new technology, the training actions must be priorities to meet the new demands (Blanchard & Thacker, 1999). In addition the company strategy includes information regarding, new markets, products and services, and furthermore possible changes in legislation (Mankin, 2009).

In most cases training actions in an organization do have a training budget. (Blanchard & Thacker, 1999). Often the training budget reflects the company's strategic positioning. Companies who believe competitive advantage is created through learning will have a higher training budget (Noe, 2005; 2011 State of the Industry Report, 2011).

The internal environment is worth analyzing since it will tell how the organizational structure and design are aligned with the performance demands. Conflicting demands between performance goals and organizational structure could prevent training outcomes and transfer of training to work (Blanchard & Thacker, 1999). It is not enough only to connect training actions to organizational goals because support of management for the training program must also be ensured. This will ensure the new knowledge and behaviour are nurtured inside the organization (Milkovich & Boudreau, 1997; Blanchard & Thacker, 1999; Noe, 2005). In addition the support and attitudes of peers will have an impact on transferring learning (Noe, 2005).

Organizational analysis also allows determining and researching on organizational resources as in technological, financial and human. In this level of analysis, the data collected is typically the cost of labour, employee turnover, absenteeism, quality of delivered products and services and number of accidents (Bohlander & Snell, 2013).

3.1.2 Operational level analysis

The operational analysis will be conducted in the areas with performance discrepancies, which were detected in the organizational level analysis (Blanchard & Thacker, 1999). The employees´ actual skills and knowledge levels are compared to the expected levels in a specific job in order to determine gaps which cause training needs (Cekada, 2010).

The operational analysis has two approaches, namely the worker-orientated and task-orientated approach. The former is interested and focused on the individual competencies needed to perform well in the given job, whereas the latter is concerned with the tasks and activities required for a good performance (Blanchard & Thacker, 1999; Noe, 2005).

Both employees and supervisors should be included in the participants. Employee participation will create a feeling of ownership and ensure higher participation, whereas the supervisors will provide a different point of view on the job and the required tasks. The number of participants should reflect the size of the organization and aspects of the job. Factors such as time and cost will also have an effect on the pool of participants. The participants should be selected based on good performance. After forming the population of participants, they need to be divided into categories based on skills required in their position. After forming categories the participants will be selected in the most heterogeneous way to represent the variety of employees in the job (Blanchard & Thacker, 1999).

The performed job analysis will provide insight into required employee knowledge, because one result of the analysis is a list of tasks which require specialized knowledge in the particular position. Furthermore the analysis will present a list of skills which are required in the work to be able to perform well. And at last the required attitudes towards the job are mapped by the job analysis (Blanchard & Thacker, 1999).

3.1.2.1 Task analysis

In this analysis the focus is on job descriptions and work tasks performed and executed in particular positions, and furthermore to determine the competencies needed (Bohlander & Snell, 2013; Wexley & Latham, 2002). The goal of task analysis is to determine: tasks to be performed, the conditions under which the tasks are

performed, how often and when the tasks are performed, quantity and quality of the expected performance, skills and knowledge required to perform the tasks and channels through which these skills are acquired (Brown, 2002).

Noe (2005) defines job as a specific position which requires employees to execute certain tasks. Furthermore a task can be defined as an employees work activity in a specific job. For an employee to be able to perform certain tasks, a set of competencies are needed (Noe, 2005).

This level of analysis is also called the job needs analysis, which reflects the focus on the tasks included in the job, found from job descriptions, necessary skills from job qualifications and minimum standards from performance appraisals (Schuler & Huber, 1993). In addition the data can be collected from job inventory questionnaires, performance standards, analyses of operating problems, through observation, questioning, and performing a job (Wexley & Latham, 2002).

The operational analysis will begin by determining the corresponding job and how to analyse it: the job analysis approach can be utilized (Blanchard & Thacker, 1999; Mankin, 1999). In the second step the tasks and procedures performed by the employee will be listed (Bohlander & Snell, 2013; Noe, 2005). In addition to the job and task inventory techniques, the following approaches can be used: critical incident technique and problem solving model. The tasks can be determined for example by using versatility charts, which rates the skill levels of each employee in the given task. Other useful techniques are the diff-rating scales which organize tasks based on importance, frequency and difficulty. In addition task lists and decision trees can be used (Mankin, 2009). According to Wexley and Latham (2002) the following six approaches can be used to identify tasks operated by employees and to break them down into smaller components:

1. Stimulus-response-feedback is a useful source of information for training when an equipment simulator needs to be created.
2. Time sampling provides information through observation of employees in the job and how frequently the tasks are operated.
3. Linear sequencing utilizes detailed task descriptions, which allows a complete outsider to deliver the task correctly by following the description.

4. The critical incident technique is based on observing effective and ineffective job behaviours. According to Mankin (2009) the critical incident technique refers to determining the tasks most important to high work performance.
5. Job inventories include a questionnaire with a listing of all the tasks which are required to perform adequately in a particular job.
6. Future-orientated job analyses have the goal of connecting future strategic goals into training actions.

In the third phase of task analysis the mapped tasks will be rated based on importance by subject matter experts. This will then determine the tasks that should have more focus and be the target of training actions (Noe, 2005). The last phase of the task analysis will determine the required existing knowledge, skills and abilities (KSA) level to be able to perform the tasks (Noe, 2005; Wexley & Latham, 2002; Mankin, 2009). However organizations are referring increasingly to competencies and competency frameworks instead of determining KSA needed in the job (Mankin, 2009).

3.1.2.2 Competency model

Another approach in the operational analysis is to compose a competency model, which will focuses on determining the competencies needed to excel in the given position (Bohlander & Snell, 2013; Mankin, 2009). A competency model differs from job analysis in the focus of study, because a job analysis is task-orientated and is interested what is achieved. On the other hand, the competency model is more worker-orientated and studies how the results are achieved. The competency model is more likely to connect the competencies and business goals. In addition the competency model produces information on competencies common for a whole occupation, level of job or even the whole organization. A job analysis focuses on the differences between jobs, occupational groups and organizational levels. Also the job analysis will provide information on competencies in a specific position. Job analysis will provide valuable information for employee selection, whereas the competency model results can be utilized more widely in employee selection, training, employee development and performance management (Noe, 2005).

The competency model is also closely linked to performance management, since it defines the capabilities required for an employee to successfully perform a task, and

helps to focus training actions precisely (Noe, 2005). Due to rapid changes in the business environment it is not enough only to examine the competencies needed in the current situation, but also to take into account future competencies (Milkovich & Boudreau, 1997). The competency model determines what competencies are needed in different career points. It also provides valuable information on possible future candidates for managerial positions (Noe, 2005).

Noe (2005) distinguishes the following five steps in the competency assessment model:

1. To identify the job or position to be analysed.
2. To determine any possible changes in the business strategy.
3. To identify effective and ineffective performers.
4. To identify the competencies causing effective and ineffective performance. This can be done by observing high-performing employees, people familiar with the position or using benchmark data from other high-performing companies.
5. To validate the model. To ensure that the included competencies are actually needed for high performance in the position.

The competency model also determines elements of how to utilize the competencies effectively in the position. These are, for example, motivation level, personality and interpersonal skills (Bohlander & Snell, 2013). The task analysis determines the required competency levels of each job and compares these to the current employee levels (Cekada, 2010).

3.1.3 Person level analysis

After the competencies needed for good job performance are identified the next phase is to conduct a person analysis to determine which individuals are not meeting these requirements (Blanchard & Thacker, 1999; Brown, 2002). More accurately, it is determined what training actions must be executed for the employees to be able to meet the performance requirements (Wexley & Latham, 2002; Brown, 2002).

As discussed earlier the performance discrepancy refers to a difference between the expected performance and the actual performance. This is in the most cases seen as the

reactive approach, where as in the proactive approach the expected performance level is the future level and the actual performance level refers to the current employee performance. In addition to performance discrepancies, development discrepancies can also be recognised within organizations. These refer not to a specific job but to a certain skill set that the employee in question is lacking (Blanchard & Thacker, 1999; Schuler & Huber, 1993; Noe, 2005).

The goal of person analysis is to identify the individuals who need training and vice versa. Person analysis will also deliver information on the necessary training type, focus and depth. This will also give insight into the possible future competencies individuals might possess after finalizing the training actions. Performance appraisals can be used as one of the sources of person analysis, with the notion that appraisal does not explain the reasons behind possible performance deficiencies in training (Bohlander & Snell, 2013). The reasons might be lack of sufficient competencies, but also lack of employee motivation which cannot necessarily be solved through training (Bohlander & Snell, 2013; Mankin, 2009).

Other methods to determine individual performance could be measurements of produced units, quality of production, amount of scrap, projects meeting deadlines and objectives. Another approach is not only to rely on performance factors but also to implement proficiency tests and test individuals under controlled conditions. The two types of tests used are cognitive and behavioural testing (Blanchard & Thacker, 1999).

Another method is to use self-assessment where employees are assumed to know best which skills are weak and need improvement. The downside of this method is the risk of dishonest answers, due to fear of revealing weaknesses. Attitude surveys filled by subordinates can reveal training needs among management. In a competency-based assessment, first broad competency categories are developed which include critical employee skills. Then these skills are defined and articulated more in detail and measured on the personal level (Schuler & Huber, 1993; Jackson & Schuler, 2003).

3.1.4 Conducting a TNA

As a TNA outcome, the organization will receive information on factors which have an effect on the performance levels. These can be divided into non-training and training needs (Blanchard & Thacker, 1999; Rossett, 1999). Conducting the TNA in all of the

three levels is expensive and time-consuming, therefore not every organization can afford to do it. However following this schema as much as possible is better than just purchasing a ready composed “one size fits all” training solution from a vendor (Wexley & Latham, 2002). TNA will always deliver data on the three levels, organizational, operational and individual, since they are closely linked (Blanchard & Thacker, 1999). In addition the scope of TNA should be adjusted to the situation, if the problem in hand appears to be a small case, then the time and effort to collect data can be remarkably lower. Also the TNA process should always start by mapping and utilizing existing data (Noe, 2005). To ensure validity of collected data more than one collecting method should be used. For example interviews can have a bias from the interviewee and questionnaires do not deliver reliable data if there are only a few responses. Also the target group should include individuals from cross sections inside the organization to ensure the training actions are valid for the whole target population (Brown, 2002). Accurate and relevant data can also be gathered through surveys in a cost-effective and reliable way (McClelland, 1994).

There are a few different approaches in conducting a TNA, however the organization should take into account a few factors when choosing the correct approach. Firstly the TNA approach must consider the audience or user of the model, with a focus on clients or parties who benefit from the results. In addition it should be taken into consideration that the organizational actions, including the results of TNA, will have an impact on society and the external environment in the short and long term. Secondly the scope of usability of the chosen model should be studied with a focus on acquisition and application of skills, reaction to interventions and the availability of resources. Finally the TNA will help to determine the future direction of the organization for the managers, and indicate when the desired position has been reached. This can be done by setting measurable performance goals during the TNA process (Watkins et al., 2000; Kearns, 2010).

Mankin (2009) provides a systematic approach to planning and executing a TNA. This is illustrated in figure 4.

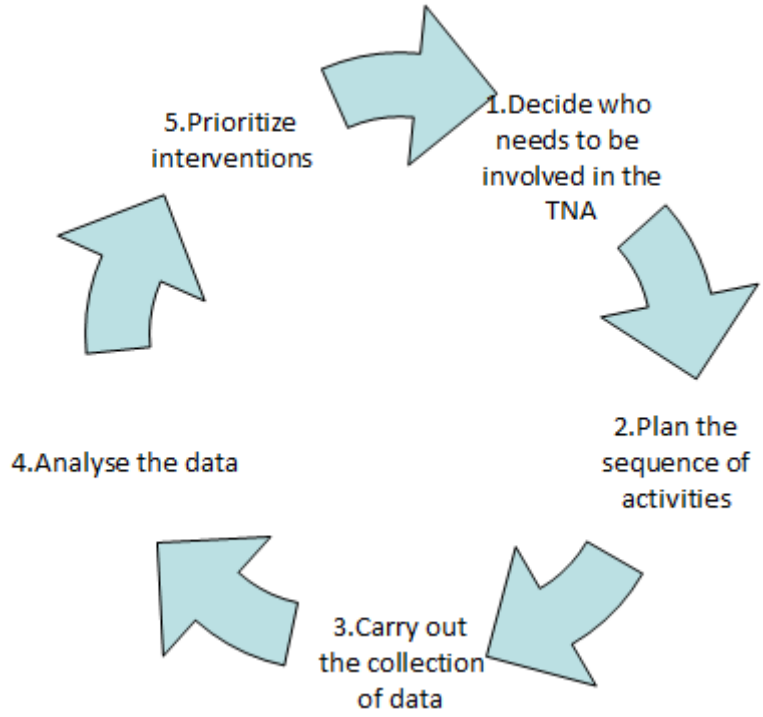

Figure 4 A systematic approach to TNA (Mankin, 2009)

In the first phase the HRD professional will need to determine who, in addition to learners and managers, will be involved to the process. Including stakeholders in the process in the early phase will increase the implementation success in the later phase. In the second phase the timing of the three levels of analyses is determined. The third step will include collection of data, which in reality will be a longer, ongoing process (Mankin, 2009). After collecting the data, it is analysed in the fourth step. This will then reveal the possible performance gaps and the field where they are located (Mankin, 2009; Cekada, 2010). The performance discrepancies can be training and development needs or non-training needs. Finally the determined HRD actions must be prioritized, since time and money are most often critical constraints, and organizations cannot execute all actions simultaneously (Mankin, 2009).

Non-training needs refer, for example, to a situation where punishment and rewards are not distributed evenly among employees. Some individuals do not receive rewards for performing on a higher level than others in the same job. This will lead to lower performance levels, and training will not respond to this kind of employee motivation situation. Giving feedback on performance level is a non-training need and can have an important effect on employee performance. A third non-training outcome can be

obstacles in the system, where, for example, raw materials are delivered late or machinery is slow (Blanchard & Thacker, 1999; Noe, 2005; Rossett; 1999). In addition poor morale, lack of motivation and inability to learn are non-training needs (Brown, 2002).

Some of the TNA outcomes are connected to individuals' competency levels; however training is not always required to solve these performance discrepancies. One useful method is something called a job aid, which consists of instructional material at the workplace, such as diagrams and instructions. Another method is practise, which can enhance skills when they are not needed in the actual performance frequently. In certain cases making changes to the job itself can help to increase individual performance. Finally if none of the above in addition to training does solve the performance discrepancy, termination of employment could be considered (Blanchard & Thacker, 1999).

The TNA process can help determine other hindrances than training needs, for example lack of management commitment in implementing processes, lack of follow-up of training processes, such as training sessions not being scheduled and participants not being informed. In addition a lack of resources can cause the training actions not to be delivered (Lubke, 2001).

3.2 Designing training and learning actions

After conducting a TNA the next step in the systematic HRD cycle is to design the training and learning actions in order to have an impact on the recognized performance discrepancies. Therefore the process will start by defining learning outcomes, which are the expected achievements of the actions. The chosen training method depends on the outcomes needed, for example one-to-one coaching sessions are used to deliver a different type of training and learning than work shops (Mankin, 2009; Blanchard & Thacker, 1999). The method is also dependent on the participants and the choice of trainer (Schuler & Huber, 1993). Further constraints must be taken into account, such as time, money and facilities (Blanchard & Thacker, 1999).

According to Mankin (2009) the training design process has six steps which are presented in figure 5.

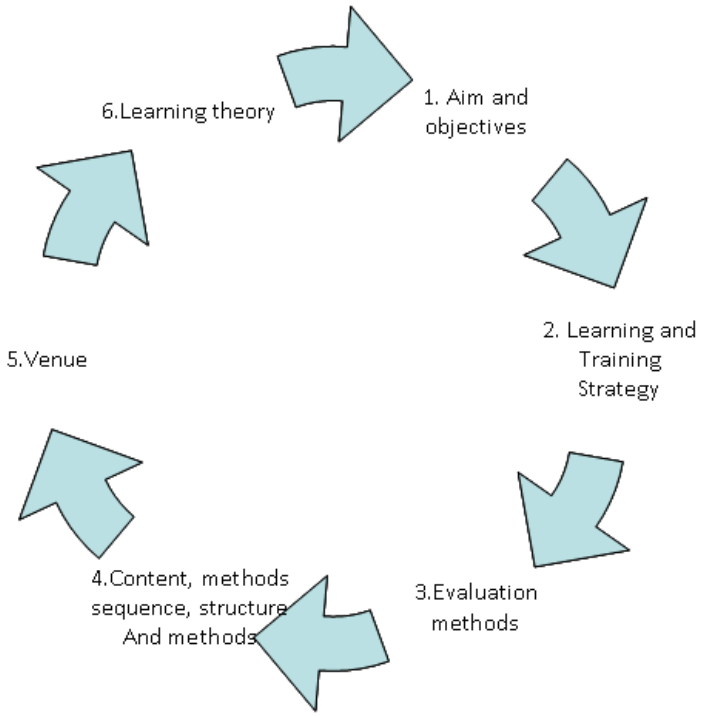

Figure 5 The six stages in the design process (Mankin, 2009)

In the first step the aim, objectives and learning outcomes are set and communicated to the training stakeholders. The learning outcomes are best communicated by expressing what the learner is able to do after finishing the training and describing the circumstances for it and the expected performance goals (Mankin, 2009). Clear objectives help the trainee to understand what is expected in the end of the training so the trainer can work more efficiently. Training evaluation is easier when working with clear objectives (Blanchard & Thacker, 1999). It is important to ensure that the individual expectations set for training will be met after the training actions (Wexley & Latham, 2002).

In the second phase the learning and training strategy is determined. Most often the training takes place through face-to-face communication in an individual or group interaction. However there are many approaches to delivering training, for example e-learning, on-the job learning and self-development. The chosen strategy is then described in the learning and training strategy. The choice of approach has cost restrictions, as well as the nature of the work of the learner poses restrictions (Mankin, 2009).

The third step will determine the evaluation methods used. Also this phase includes assessment during the training and learning actions (Mankin, 2009). The process data refers to evaluating how the training was designed, developed and executed. The outcome data determines how well the training actions met the objectives (Blanchard & Thacker, 1999). Assessment can use such methods as written exams, oral exams or observation. Skills are usually assessed on a product or a process approach (Mankin, 2009).

In the next phase the content, method, sequence, structure and media for the training actions will be determined. The content of the training action will be stated by the learning outcomes; furthermore the training material content will have to be aligned with the objectives (Mankin, 2009).

Usually the training program is concerned with three types of learning objectives: cognitive knowledge, skills-based outcomes and affective outcomes. Cognitive knowledge consists of the knowledge possessed by the employees, the way they keep knowledge organized and how they are using the information. Skill-based outcomes refer to the desired behaviours in work, which can be enhanced through practising for example technical and motor skills. The affective outcomes are behaviours such as socialization, changes in motivation, attitudes and values (Jackson & Schuler, 2003).

Sequencing the training actions will ensure the learner will be able to combine both theory and practise, to ensure optimal learning outcomes. Furthermore the training method must fit into the learning or training strategy. The transfer of knowledge to the learner's job is easier if the training method is closely linked to the practical level of the job (Mankin, 2009).

In the fifth step of the training design process the correct venue is selected. There are many factors that have an impact on the decision, such as: training objectives, assessment measures, training methods, media, learners, trainers, company culture and budget (Mankin, 2009). Such venues can be used as: lectures, computer-based learning, games and simulations and on-the-job-training (Blanchard & Thacker, 1999; Wexley & Latham, 2002).

Finally the sixth step ensures that the learning theory is integrated into the design. Since in work-related training actions the learners are adults, they have already existing

both formal knowledge and informal knowledge. This will need to be taken into consideration when designing the training intervention. In addition the existing levels of knowledge and skills have to be taken into account when planning the actions. Finally the preferred way of learning must be mapped among the participants. In conclusion the chosen training actions must motivate employees, must have flexibility, allow practise of skills and provide feedback (Mankin, 2009). A few organizational factors must be taken into consideration to ensure the transfer of training, namely pay and promotion, environmental constraints such as tools and equipment, materials and supplies. In addition social variables, supervisory support and organizational culture have an impact on the transfer of training (Wexley & Latham, 2002).

3.3 Delivering training actions

Traditionally the delivery of training and development actions have consisted mainly of classroom actions, however nowadays many other methods have come to be useful methods for delivery of training and development actions. Some examples are: coaching, mentoring, career counselling, action learning and e-learning (Mankin, 2009). Harrison (2000) points out that it is important for the delivery phase to choose carefully in the previous phases of the cycle: the learning strategy, learners, trainers, to design the training event and ensure the managerial processes are supportive. Choosing the right training method might be challenging due to the vast amount of options, however the process should start by determining what type of learning outcome is desired. As discussed earlier these are: verbal information, intellectual skills, cognitive strategies, attitudes and motor skills (Noe, 2005). Usually the training actions have training outcomes in multiple fields and therefore a combined methods approach must be used since one method alone cannot achieve everything (Blanchard & Thacker, 1999).

According to Jackson and Schuler (2000) there are three different options for the location of training and development actions: on the job, on site but not on the job and off-site learning. The type of training action, time and cost have an effect on which location will be chosen (Jackson & Schuler, 2000).

The on-the-job method is to learn at work under direct supervision. Learning takes place by observing experienced employees, working with materials, other employees and machinery. This method has a high level of transfer of training, since learning takes

place in the actual working environment and the trainer will be able to provide immediate feedback. The defect of this method is the limitation in number of participants, since it suits only for individual training actions (Jackson & Schuler, 2000; Schuler & Huber, 1993). In addition the training is not necessarily well prepared; content of the training is formed during the action; there is a lack of objectives and goals; and trainers lack training skills and formal training education (Blanchard & Thacker, 1999).

On site but not on the job training takes place in the workplace but not during regular working hours. This method suits types of work where it would be too risky and harmful to implement learning actions during regular working hours. This method also allows employees to participate in the actions after their full-time work. A few commonly used venues are programmed instructions, video and online training and teleconferencing (Jackson & Schuler, 2000; Schuler & Huber, 1993).

Off the job training takes place outside the workplace and is used when multiple competencies must be mastered by the employee. An example of this method is airplane pilot training in simulators (Jackson & Schuler, 2000; Schuler & Huber, 1993). The benefit of this method is the usability of experts from the field with training qualifications (Wexley & Latham, 2002). The downside of this method is the high cost and uncertainty of transfer of training to actual work. Some well known methods are traditional formal training courses, simulations, role playing and sensitivity training (Jackson & Schuler, 2000; Schuler & Huber, 1993).

3.4 Evaluation of training and learning actions

The role of evaluation measures is to determine and prove whether the training actions are responsible for changes (Goldstein & Ford, 2002). According to Phillips (1997) evaluation is concerned with determining the value, worth or meaning of an activity or a process. Taylor and O´Driscoll (1998) argue that the training evaluation phase should be already included in the first phase of HRD cycle along with the TNA to assist decision making (Kirkpatrick & Kirkpatrick, 2007). This can be done by researching previous studies and analyses from similar organizations, and gather evidence on linkages between training actions and desired outcomes (Taylor & O´Driscoll, 1998).

Evaluating training actions can be divided into formative evaluation and summative evaluation, where the first one refers to improving the training process itself. The main focus is on how well the training action is organized and the learning and satisfaction of the participants. The formative evaluation helps to improve the training actions by collecting and providing qualitative information (Noe, 2005; Kraiger, Ford, & Salas, 1993). Summative evaluation on the other hand measures the level of newly acquired competencies after participating in the training actions. Also, often monetary benefits are determined via summative evaluation, which is usually referred to as the return on investment. Summative evaluation is more interested in and focused on collecting quantitative information and measuring performance (Noe, 2005).

Even though evaluation is an important phase of the training and learning cycle, it is often neglected. Training is used to gain competitive advantage by creating knowledge, which on the other hand differentiates from other employees and companies. The training and development outcomes are expected to be measurable to justify the invested time and money (Noe, 2005). According to Blanchard and Thacker (1999), companies´ rationale to not evaluate training is because there is nothing to evaluate; no one cares about the training evaluation or evaluation is seen as a threat to the job.

3.4.1 Models of evaluation

The best known training evaluation model is the four level framework created by Kirkpatrick (1998), presented in table 1.

Table 1 The four level evaluation framework (Kirkpatrick, 1998)

1. Reaction	How did the participants react to the program?
2. Learning	How did participants' attitudes, skills and knowledge change?
3. Behavior	To what extent did change in behavior occur?
4. Results	What are the final results due to the program?

The process of evaluation becomes more demanding and time-consuming when moving up to the next higher level. However, more information will be gathered. The

evaluation process should work through all levels without bypassing any stages prior to the desired information (Kirkpatrick, 1998).

The first level, reaction, measures how the trainee liked the training program. Because this is easy to implement, it is the most often used method. Reaction does not give any information on possible learning. Measuring the reaction gives insight on how the training action was received, which has an effect on how well the discussed principles, facts and techniques were received and learned (Kirkpatrick, 1996; Kirkpatrick, 1998; Blanchard & Thacker, 1999). In addition a positive reaction to the training program will ensure company support for the actions in the future. However a favourable reaction does not guarantee that the trainee's behaviour has changed (Wexley & Latham, 2002).

The second level of the framework is concerned with the learning that took place. Even though the training program received good reactions it is no guarantee that learning took place. Measuring learning is interested in the learned principles, facts and techniques of each participant. The learning should be measured before the training and after, and should be done objectively (Kirkpatrick, 1996; Kirkpatrick, 1998). It is important to connect the learning measurement to the training objectives, which were determined through the needs analysis (Wexley & Latham, 2002; Blanchard & Thacker, 1999; Kirkpatrick & Kirkpatrick, 2007).

In the third level the changed job behaviour is observed and evaluated. This level of evaluation is more difficult than evaluating reaction and learning. Therefore the on-the-job behaviour should be measured both before and after training (Kirkpatrick, 1996; Kirkpatrick, 1998). The trainee might display learned knowledge after the training action, but lack the correct behaviour on the job because of lack of transfer of learning (Wexley & Latham, 2002). The methods used in TNA to determine performance levels, should be used to evaluate the changed behaviour after the training. There should be a strong connection between the needs analysis and the evaluation (Blanchard & Thacker, 1999; Kirkpatrick & Kirkpatrick, 2007).

The fourth level is concerned with the training program results, which are usually the focus of most training programs. The results are usually: reduced costs, improved quality, increased production, decreased employee turnover and absenteeism. Many of

these factors are difficult to measure and connect to the training actions directly (Kirkpatrick, 1996; Kirkpatrick, 1998; Blanchard & Thacker, 1999). Therefore it is important to determine the expectations and outcomes, Return on Expectation (ROE) for TNA (Kirkpatrick & Kirkpatrick, 2007).

The training and development actions are seen as investments in the organizations and therefore organizations are interested in the monetary value provided by these actions. According to Phillips (1997), two basic methods to measure this are the cost/benefit ratio and the return on investment (ROI) formula. The basic formula for cost/benefit ratio is:

CBR= Program Benefits/Program Costs

This ratio compares the annual training benefits to the annual training program costs. Ratio one to one means the benefits and cost are equal. A ratio of 2:1 indicates that for each used monetary unit two units were returned as benefit (Phillips, 1997). The return on investment (ROI) is also seen as the fifth level of Kirkpatrick´s model (Mankin, 2009).

Return on investment (ROI) measures the monetary investment in training actions in the form of rate of return in percentages. The assumption is that all training outcomes and benefits are possible to measure by monetary indicators (Mankin, 2009). ROI analysis is not applicable to all training actions, since it requires clearly identified outcomes, which are not one time events, are visible inside the company, are strategically aligned and have definable effects (Noe, 2005).

The basic ROI formula is:

ROI (%)= (Net Program Benefits/Program Costs) x 100%

In this formula the net program benefits are the program benefits minus the program costs. For example the ROI on training investment of 50% states that the training costs were fully covered and in addition 50% more was delivered in training benefits. The down side of this approach is the complexity of the method. The data needed can be collected and interpreted in various ways, therefore the method suits most training actions but on the other hand causes challenges in determining the correct approach (Phillips, 1997).

4 Defining competencies

The term competency can be defined in several ways. Blanchard and Thacker (1999) define competencies as knowledge, skills and attitudes which are required for an individual to deliver high work performance. This definition is supported by Picket (1998) as competencies are formed through individual experiences and consist of skills, attitudes, knowledge and values. Competencies are used in the workplace to execute behaviours and tasks, which again will lead to end products and services delivered to customers (Picket, 1998). The term competency can be defined in the broadest form as knowledge, skills, attitudes, behaviour and personal traits (Á. Elíasdóttir, personal communication, February 14, 2012).

Competencies can be divided into two categories based on their relationship to the job performance they predict. First of all some competencies are called threshold competencies, specifically the basic skills that everyone needs to be able to perform work. One good example of a threshold competency is the ability to read, which everyone needs to be able to perform in any job. Another category is differentiating competencies, which separate the superior performers from effective performers. For example, a superior performer will set higher goals in achievement orientation than an average performer (Spencer & Spencer, 1993).

McClelland (1973) pointed out in his groundbreaking article that traditional testing systems along with academic grades did not actually predict job performance or success in life. Another finding was that these tests were often biased towards women, minorities and individuals with lower socioeconomic background. In his research McClelland aimed to compose and implement a procedure which would be more accurate in predicting job performance and not be biased towards race, sex and socioeconomic factors.

4.1 Characteristics of competencies

According to Spencer & Spencer (1993) individual competencies have three distinctive characteristics. First, competencies can be described as underlying

characteristics, meaning competencies are deeply rooted and a permanent part of an individual's disposition, therefore have an impact on anticipated behaviour in assignments and work matters. The second characteristic is the causal nature of competencies in causing or anticipating disposition or performance of an individual. In conclusion, competencies can be described as criterion-referenced, since the future performance or behaviour can be predicted by using the right competencies and correct measurement criterions. These criterions can for example be monetary values in the case of sales personnel (Spencer & Spencer, 1993). These three characteristics will be discussed and clarified in more detail in the following chapter.

4.1.1 Underlying characteristic

As described in the previous section, competencies are underlying characteristics. Due to their deep and permanent nature, they have an impact on expected behaviour and performance.

4.1.1.1 Five categories of competency characteristics

Furthermore due to the nature of competencies, the following five different categories can be distinguished. These are motives, traits, self-concept, knowledge and skills. Motives steer individuals´ actions, since they are objects of desire, concentration and thoughts. Traits are both physical attributes and coherent reactions to circumstances and information. Furthermore, based on traits individuals can be evaluated on how they react to stress and are able to solve problems. These traits are especially important for managers and who need to have good emotional self-control and ability to take initiative (Spencer& Spencer, 1993). As presented earlier Árný Elíasdóttir (personal communication, February 14, 2012) defines competencies as; knowledge, skills, attitudes, behaviour and personal traits. According to her behaviour must be aligned with knowledge so performance will be improved and therefore often the workplace behaviour must be changed.

Self-concept refers to an individual's attitudes, values and self-image, for example a person's self-confidence to be able to manage in a new or challenging situation. Knowledge refers to understanding of the concepts which the individual has acquired. Measuring knowledge is problematic due to the fact that most tests do not indicate how well the knowledge is put into use in work and leads to good performance. Many

of the knowledge measuring methods rely actually on memory and not on knowledge, since remembering separate facts is not as valuable as being able to know where the right information is located in various problem situations. Furthermore, memory tests show the ability to choose the right behaviour, however this does not indicate if the individual is able to execute the right actions. These facts lead to an insight into how knowledge can indicate how the individual is able to react, but not what the reaction will be. Skills refer to the ability to perform physical and mental tasks; these can be work operated with hands or analytical work tasks (Spencer & Spencer, 1993).

4.1.1.2 Types of competencies

The five competency characteristics described in the previous chapter can be divided into two categories based on their nature: visible and hidden competencies. This division has practical applications when dealing with human resources in an organization. Figure 6 presents the division of competencies into visible and hidden and surface and core personalities.

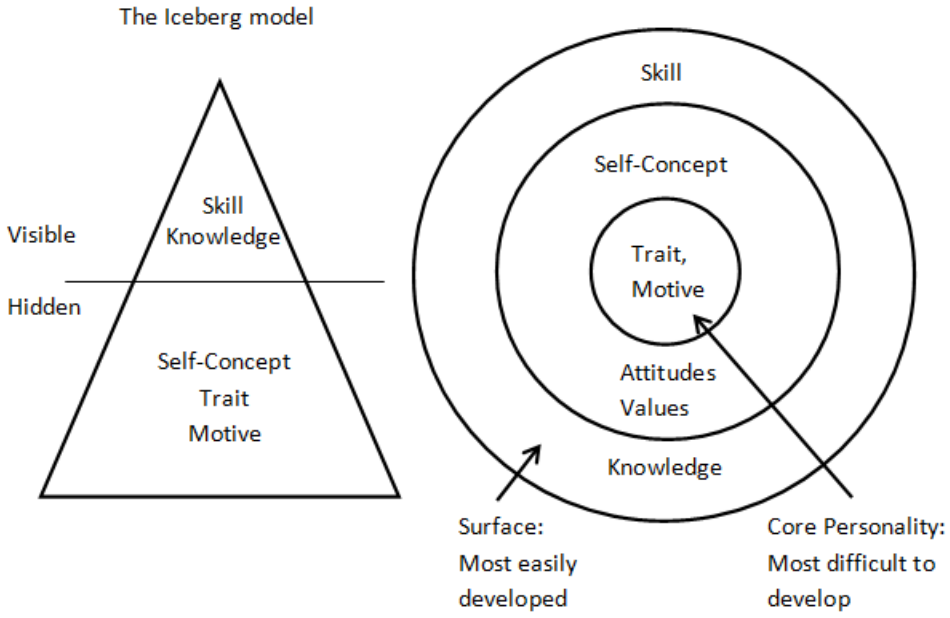

Figure 6 Central and surface competencies (Spencer & Spencer, 1993)

This model illustrates how skills and knowledge are more visible competencies and are located on the surface of individuals' personality, as one's characteristics. Therefore these competencies can be developed and enhanced with minimal effort through training. However, motives and traits are in the bottom of the iceberg model, since

these are core personalities and the most difficult to reach and enhance. Therefore from the human resources perspective, the most reasonable and economical option for companies is to select employees with desired traits and motives. The self-concept with attitudes and values are located between hidden and visible competencies, making it possible to change them through time with training, psychotherapy and positive experiences, although this might take more time and effort. Often hiring decisions are made based on the surface competencies such as knowledge and skills, and presume the motives and traits are possible to teach or be activated through organizational management. However companies should select individuals with specific traits and motives, and achieve the correct knowledge and skills through training and teaching. The importance of competencies is emphasized more in demanding positions, where competencies are more accurate in predicting higher performance, due to a presumption of restricted range effect. According to this theory, individuals in higher technical, managerial, and professional positions with a similar level of education differ in performance because of motivation, interpersonal skills and political skills (Spencer & Spencer, 1993).

4.1.2 Causal characteristics

In the beginning of this chapter it was discovered that competencies have a causal relationship to expected behaviour or performance. According to Spencer & Spencer (1993), motive, trait and self-concept anticipate individual behaviour, which is action and skill. Furthermore behaviour, action and skill predict the outcome in job performance. Every action towards the job outcome or performance has intent in the background. This intent is the motive or trait igniting the action. The motive, trait or self-concept competencies are inevitably behind the knowledge and skill competencies, and therefore provide the drive towards action. The competence flow chart is demonstrated in figure 7.

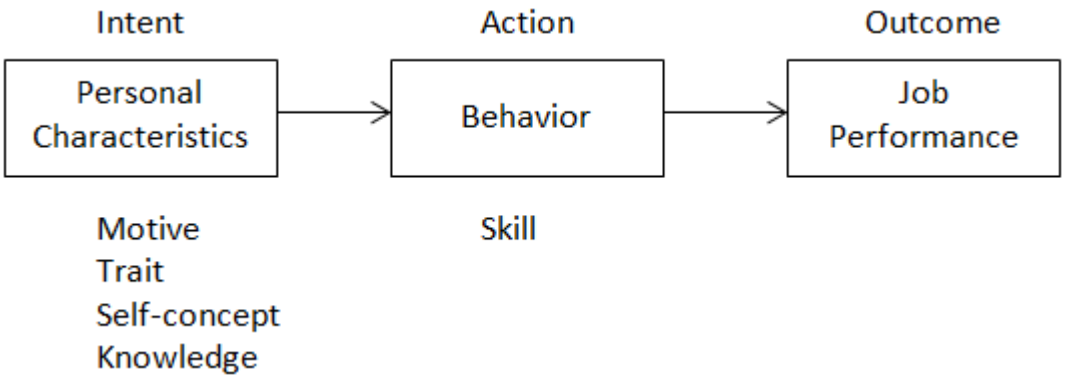

Figure 7 Competency causal flow model (Spencer & Spencer, 1993)

According to the competency causal flow theory behaviour must always include intent in order to be classified as a competency. In addition thoughts and thinking can precede and anticipate action behaviours, which are for example motives, planning or problems solving thinking (Spencer & Spencer, 1993).

4.1.3 Criterion reference

Finally the criterion reference is an important and an absolute requirement for a characteristic to be considered to be a competency. All characteristics considered as competencies must have an input to predict job performance and outcomes. Furthermore the concept of performance is often elaborated with a division between superior performance and effective performance. Superior performance in a workplace is achieved and delivered roughly by 1 top employee out of 10. Effective performance is used to describe an outcome reaching the minimum level below which would not be an acceptable work output (Spencer & Spencer, 1993).

4.2 Core competencies

Nordhaug (1998) points out that it is more important to emphasize the competencies needed and not the workforce nor amount of employees. Tasks and processes are operated and produced by employees, however the employee value is located in the competencies possessed by the individuals. It is these competencies that enable employees to succeed in their tasks. This view is supported by Bratton and Gold (2003), with a remark that competencies allow companies to achieve their strategic goals by providing the correct behaviours. Furthermore Ulrich (1997) demonstrates how successful companies transform individual level competencies to organizational

competencies. Therefore individual competencies are not as important when compared to team level capabilities.

Furthermore companies are able to achieve numerous other benefits through competency thinking, for example to improve performance and enhance competitiveness. Competencies help with introducing and implementing organizational changes and enhance training and development programs. Another important aspect is to simplify the recruitment process and also to increase employee retention. Through competencies the management roles and business goals can be presented clearly (Picket, 1998).

Smith (2008) makes a distinction between the concepts of capability and competency by defining organizational capability as an aptitude to perform tasks repetitively, competently and predictably. Competencies on the other hand refer to continuous performance improvement, which takes place inside of an organization, including increased revenues, product development or marketing efficiency. Often older companies have more capabilities than competencies, as opposed to new companies which rely more on competencies than capabilities (Smith, 2008).

4.2.1 Defining core competencies

According to Prahalad and Hamel (1990) an organization's core competencies can be described as the knowledge and learning located within the company, and furthermore as the ability to combine different skill aspects into one productive force. Furthermore the core competencies reflect the company values and articulate the work procedures. The concept of core competencies can therefore be applied to technological industries and service industries.

In addition to organizational core competencies Lahti (1999) adds the individual level of core competencies, which are the fundamental strengths presented and possessed by all individuals in the organization.

Core competencies, unlike physical resources, do not decrease with time; most often competencies will develop with time and through experience. However competencies must be maintained and fostered, since knowledge can disappear in time (Prahalad & Hamel, 1990).

Core competencies can be recognized based on three factors. Competencies enable the company to enter various new markets. The second requirement which a core competency must meet is to enhance the customer benefit regarding the end products. And at last, a core competency cannot be copied or is difficult for competitors to imitate. Therefore competencies should be a complex mixture of skills and technological expertise in the company (Prahalad & Hamel, 1990). Even companies in a global leadership position can recognize only five to six core competencies which enabled the company to achieve their market position. A longer list of competencies is more likely to present the company capabilities instead of the core competencies (Gilgeous & Parveen, 2001).

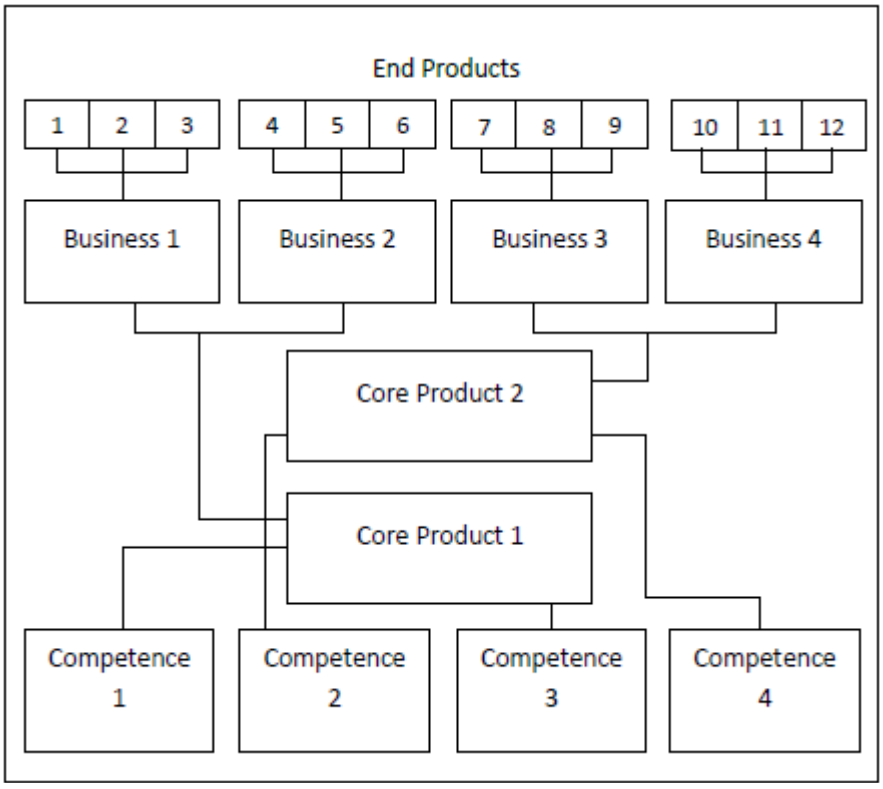

Figure 8 Competencies and roots of competitiveness (Prahalad & Hamel, 1990)

The core competencies alone inside of a company do not provide competitive advantage, but these must be successfully turned into core products. The relationship between core competencies, core products and end products is presented in figure 8. The core competencies take a physical form when turned into core products. A company can gain manufacturing share in markets through core products, whereas the

end products are needed to achieve brand share in markets. The taxonomy presented above is important especially in global markets, since every level represents competition on a different level. For companies competing for global markets the level of core competencies sets a goal for worldwide leadership in the field of product design and development. In order to maintain worldwide leadership in the chosen core competency area, the company must maximize their share on the global manufacturing market for the core products. By applying core products to a variety of fields the company is then able to bring out new end products to the market with less cost, time and risk (Prahalad & Hamel, 1990).

According to a study by Paloniemi (2006) employees´ work experience is a valuable source for creating competencies via workplace learning. The study showed how previous work experience assists in workplace learning and therefore enables enhancing competencies. Both work experiences and personal life experiences help employees to gain and build competencies, and furthermore individual competencies develop in time through praxis (Paloniemi, 2006).

4.3 Competency typology

According to Nordhaug (1998) organizational competencies can be classified into three categories: task-specific competencies, firm-specific competencies and industry-specific competencies. Furthermore competencies can be classified within each category into two levels, as either low degree or high degree according to the level of specificity. The task-specific competencies refer to skills which employees need to perform concise assignments. The task-specific competencies classified as low degree refer to competencies which are not essential to one particular task but are essential simultaneously for a large group of tasks. Examples of low level task-specific competencies could be analytical skills, problem solving skills and communication skills. And again when competencies are high in task specificity, they are highly relevant to an individual task or to a very limited group of tasks, which in turn causes these competencies to be irrelevant for larger group of work tasks (Nordhaug, 1998).

Firm-specific competencies deliver value only to the company in question and are irrelevant for other companies. Furthermore non-firm-specific competencies are general or nonspecific in nature and therefore can be copied and passed on in the

market. The last category of competencies consists of industry-specific competencies, which can have a low or high level of industry specificity, causing these competencies to have a great value in one industry and be non-valid for others (Nordhaug, 1998).

4.4 Competency idiosyncrasy

Based on the classification presented above, a competency idiosyncrasy can be compiled which elucidates the relationship between task-specific, firm-specific and industry-specific competencies. The framework is presented in table 2.

Table 2 Competency typology (Nordhaug, 1998)

	FIRM SPECIFICITY		
	LOW		HIGH
TASK SPECIFICITY	INDUSTRY SPECIFICITY		
	LOW	HIGH	-
LOW	I Meta-competencies	II General Industry Competencies	III Intra-organizational Competencies
HIGH	IV Standard Technical Competencies	V Technical Trade Competencies	VI Idiosyncratic, Technical Competencies

The first type of competencies (I) are called meta-competencies and these are non-firm-specific and non-industry-specific. These can be used in a variety of tasks, since they comprise a wide variety of knowledge, skills and attitudes. Competencies in the first group are characterized by a sense of generality. The following skills can be considered to be part of the first group: literacy, analytical capacity, learning capacity and creativity. Even though meta-competencies are universal by nature, they are valuable and important for companies. Many of the meta-competencies cross task limits and are connected to future performance and development abilities such as learning new things and tolerance to change. Non-firm-specific competencies are commonly considered as resulting from the educational system, however the skills acquired in the early years of education correspond to a much lower level of meta-competencies. The meta-competencies needed in work life on the other hand are

typically gained through work experience and work-related education, such as management communication courses (Nordhaug, 1998).

The second group of competencies (II) are categorized as general industry competencies and therefore can be described as low in task-specificity, low in firm-specificity, and high in industry-specificity. Competencies in this category include knowledge and perceptions concerning the industry structure and information regarding the current industry development. The difference between meta-competencies and general industry competencies can be clarified with the following example: meta-competencies include acquiring basic information about the company strategy, whereas general industry competencies include the ability to analyze the industry competition situation and market positioning. Industry knowledge is gained through work experience inside the particular industry and in addition by participating in conferences and other formative occasions. Therefore industry knowledge can be transferred through outsider specialists and consultants. In a company the lower level employees should also gain some industry information to comprehend the market and competition conditions (Nordhaug, 1998).

The intra-organizational competencies (III) are the third type of competencies, which can be described as low in tasks-specificity and high in firm-specificity. The competencies in this group are valuable inside the organization regardless of the tasks. Examples are organizational culture including company norms, history and morals, furthermore internal communication channels and informal relations are a valuable part of intra-organizational competencies. Intra-organizational competencies can be transferred and absorbed through time and experience in the work place, but also through formal and intended actions taken by the employer. Such formal actions are job rotation, training, mentoring and campaigns targeted to inform employees about values, strategy and goals. Another concrete example is the orientation given to a new employee. With this the organizational culture and customs are presented and taught to the new member of the organization (Nordhaug, 1998).

Standard technical competencies (IV) comprise the fourth group in the competency typography and are described as high-task-specific, low-firm-specific and low-industry-specific. Such skills are for example word processing skills, knowledge of computer

software and programming. These skills are often acquired through basic and vocational education and also adult training (Nordhaug, 1998).

According to Nordhaug (1998) the fifth competency group is technical trade competences (V), which are task- and industry-specific and non-firm-specific. These skills can be transferred between companies inside the same industry; however they can only be applied to selected work tasks. These skills can be found for example in car and aircraft industries´ assembly lines and bartending. Technical trade competencies are most often developed through vocational education and work experience in the industry (Nordhaug, 1998).

The sixth type of competencies is the idiosyncratic technical competencies (VI), which can be described as high in firm-specificity and task-specificity. Therefore such skills can be applied only inside a certain company and into selected tasks, since they often include unique knowledge regarding technology and processes. These competencies are therefore needed to operate specific tools developed inside a company or knowledge to service highly specialized equipment. Due to the high level of specialization employees possessing great levels of idiosyncratic technical competencies are tightly fastened to the company and special work tasks. These competencies cannot be learned through formal education, but through training, informal learning and work experience in the particular organization (Nordhaug, 1998).

4.5 Findings from competency typology

Based on the competency typology presented above, Nordhaug (1998) makes a few remarks concerning the usability of competencies. When business involves a great deal of standardization and automatization takes place, many highly specialised tasks become less unique or even disappear completely. Especially standard technical competencies, technical trade competencies and idiosyncratic competencies are under threat of becoming outdated when the technology in question evolves, whereas for example meta-competencies apply to a much greater range and will remain applicable.

Secondly the competency typology can be applied to human resource development decisions, namely to decide if it is profitable to train employees in-house or use outsourcing when certain competencies are in question (Nordhaug, 1998).

Business environments and markets are developing and therefore causing new challenges for companies. The only solution for companies to survive in this situation is to adapt and develop business to meet the new requirements. Therefore employees need skills to adapt to change and ability to learn new things, in other words to activate their meta-competencies. However companies do not train employees´ meta-competencies, for example how to manage changes, but focus on developing standard technical competencies, technical trade competencies and idiosyncratic competencies. This hypothesis seems to be an oxymoron, which however has not been proved yet (Nordhaug, 1998).

The fourth conclusion based on the competency typology is that employees need and activate different competencies depending on the phase and type of their career. For example in the early stages of a career employees will need more standard technical, technical trade competencies and parts of meta-competencies. When proceeding in their, career employees will need to develop and utilize more intra-organizational competencies and general industry competencies, along with meta-competencies (Nordhaug, 1998).

Often employers aim only to enhance employees´ technical competencies and disregard other crucial skills, such as communication skills, adaptability to change and teamwork skills. This poses a threat since all these skills are required simultaneously in order to succeed in work tasks. Also works tasks do not exist in a vacuum but are closely linked and connected all around the organization. Thirdly, developing only technical skills can harm the organization by making it less flexible and slow to adapt to changes. And at last competency development is most often reactive in its nature, focusing on existing tasks and disregarding future challenges and possibilities (Nordhaug, 1998).

4.6 Competency frameworks

According to Bratton and Gold (2003), competency frameworks include information on relevant behaviours which are needed to perform well in work tasks. Traditionally competency frameworks are tailored to every organization, since these include information concerning the standards and definitions of behaviour in the organization. Mansfield (1996) argues that the competency framework has been traditionally done in

two ways within organizations, namely creating a single job competency model or utilizing a more general approach, which can de described as one-size-fits all.

4.6.1 Single job model

The single job competency model delivers and indicates the expected performance conditions of the position in a straightforward form. Another clear benefit of this model is the process followed to compose the framework, namely the high stage of employee participation through questionnaires and interviews. This leads to a strong feeling of employee ownership and influence on one's position. However at the same this model has effective flaws due to the process methods used, namely the required time and effort of the employee and human resources specialist to perform interviews and data analysis. Furthermore organizations are in a constant process of change due to the modern business environment, therefore single job competency frameworks are likely to be outdated in a short period of time. Secondly lining individual competency models vertically inside the organisation is challenging, since individual job and department competency requirements must be congruent. This factor leads to another problem with comparing job positions to others, since often single job competency models are not connected to the other frameworks composed inside the organization (Mansfield, 1996).

4.6.2 One-size-fits-all model

The other method used to create a competency framework is to compose a one-size-fits-all model, which can be applied to multiple positions inside of an organization. The process of creating a one-size-fits-all model is more general and simplified when compared to the job-specific model. Usually it is created for the same level positions within an organization, such as for managerial positions. The data is not collected in individual interviews, but through a literary overview in leadership, human resource development and business publications. This literature overview is completed with the information from existing job competency frameworks and with the help of outside consulting professionals. The senior management will evaluate and accept the competency framework and ensure alignment with the organization values, goals and other competency frameworks (Mansfield, 1996).

The obvious benefit of this model is the generalizability to multiple positions and large number of employees. Furthermore the competency framework is better in line with the company values, goals and strategy. The employees are evaluated based on the same requirements, which again allows comparison of employee performance to each other in similar positions. Finally the cost in this model is lower than in the more detailed one, since the usability is wider, and the more general competency model will remain valid longer in the turbulent business environment. However the general competency framework has clear defects, since employees in the positions in question might see the competencies more as values required in the position and not as critical skills. This is due to the fact that the general framework does not describe clearly and in detail what is required from each position. In some cases the general framework can merely provide guidelines for the employees and not the actual critical skills, due the heterogenic nature of positions in the organization. The nature of this competency framework disregards the employee technical knowledge and technical skills, which are often the main factors when an individual is matched to a position (Mansfield, 1996).

4.6.3 Multiple job approach

Mansfield (1996) presents a solution to combine the benefits from both of the competency models presented above and he calls this model the multiple job approach. In this framework method the model is created from building block competencies, which enables matching the employee and job more efficiently. Furthermore the individual can simultaneously be compared to multiple positions which include the same building blocks. On the other hand the organization is able to evaluate and compare different job positions to each other. The building block competencies also enhance employee training when the training actions are created to meet the need of a certain competency block instead of a certain job position. Therefore the individual employees can participate in the same training and development actions regardless of the exact job position (Mansfield, 1996).

Composing the framework must allow customization to a certain point since the positions in question might use the same competency but express and deliver it in a different way. One way to ensure this customization is to clarify with whom the competency in question is expressed or utilized. Another approach is to replace or

complement the general competencies with job-specific behaviours. Another factor which must be taken into consideration while composing a multiple job competency framework are the levels of competency utilization. The same set of competencies might be needed and used in multiple positions, however with different depth. The competency building blocks are also used to evaluate individual performance in job positions, and therefore the competency levels should be defined separately from specific jobs or positions (Mansfield, 1996).

4.6.4 Wheel of competence

Larsen and Bramming (2000) propose a more social and holistic approach in mapping individual and organizational competencies. They point out that humans are social beings, who work together and therefore individual decisions are dependent on other employees in a workplace. The process of determining the required competencies to operate tasks efficiently should include three steps. In the first step, employees determine collectively competencies in the following three categories: personal, functional and social/contextual. Larsen and Bramming (2000) call this method of categorization the wheel of competence, which is displayed in figure 9.

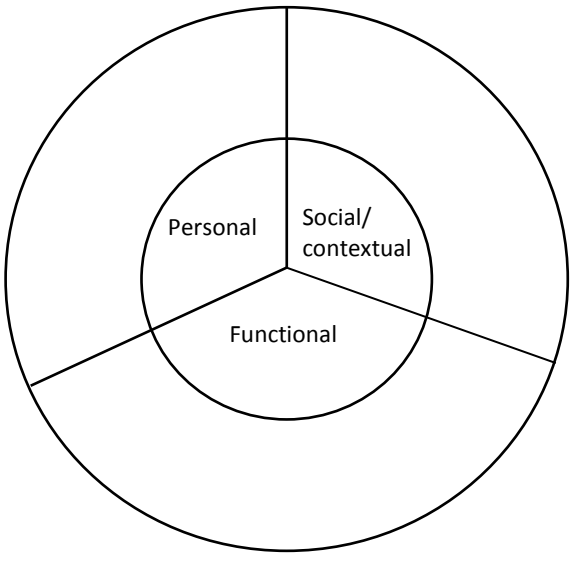

Figure 9 The wheel of competence (Larsen & Bramming, 2000)

In the first phase of the process, employees of the same occupation together decide and map the most important competencies needed to perform in that field of work. The decided competencies will then be filled into the wheel format according to the nature

of the competency. In the next phase, all the employees of the same occupation consider the mapped competencies on a personal level, that is, what are the current levels, is more training needed, how important the competency in question is for the individual in question. In this process colour coding can be used to assist and clarify the categorization, as in: green when the employee feels competent, yellow when an average level of competency is possessed or more training is required, finally red for when the employee is lacking the competency completely. In the final third stage individuals discuss together the collected and rated competencies to elaborate on what competencies are needed and important, furthermore, it is decided what is considered to be competent and what not. This discussion will also present the training needs for competency level in the position. In addition this will provide better insight into current procedures, as whether tasks are performed in the way they are supposed to be.

Naturally the competency levels and colour codes will vary among individuals, however the main goal is to ensure the wheel is labelled “green” on the whole organizational level, therefore there is no need for each individual to possess exactly the same competency levels (Larsen & Bramming, 2000).

5 Methods

5.1 The goal of the research

The goal of this research was to determine the current competency levels of the tour guides in an Icelandic tour operator, to map the potential training needs and take into account future changes in Icelandic tourism industry. The training needs analysis was chosen as the research method. To guide the research implementation three research questions were formed:

1. What are the expected and current competency levels among the tour guides of Arctic Adventures?
2. What kind of training gaps are there and on what scale do they exist at the moment?
3. What training needs do future legislation and industry standardization pose for the guides at Arctic Adventures?

The idea for the research was born after the researcher started to work in the company. Through personal experiences and communication with colleagues, management and cooperating companies in tourism, it became clear that research in this field had not been done in the past and it was needed. The researcher encountered vast variation of competency levels depending on the companies in the Icelandic tourism industry. In addition the lack of legislation and standardization was obvious and therefore an interesting research topic. The team of tour guides was chosen due to the various required competencies in customer service, tour quality and safety.

The topic was introduced to one of the supervisors, and after his approval the research proposal was formed. The aim of the research is to provide well formed and reliable information for the company management to give better insight into current competency levels. In addition the research can help to develop the whole Icelandic tourism industry.

5.2 The research method

The research methods literature presents a dichotomy based on quantitative and qualitative approaches. Quantitative methods collect numerical data, which are analyzed through statistics. The methods used are for example surveys (O´Leary, 2004). Quantitative methods usually present results in numerical form and answer questions: how much or how many (Merriam, 2009). Qualitative methods on the other hand collect data in words and pictures, through interviews and observations (O´Leary, 2004). Qualitative research is more focused and interested in describing the meaning and interpretation of life events (Merriam, 2009).

The method of this research is a combined qualitative and quantitative approach. This method is also called the mixed methods approach which refers both to data collection and data analysis (Tashakkori & Teddlie, 1998). According to Creswell (1994) the researcher gains an advantage by combining methods and will therefore understand the studied concept better. Combined methods include three approaches, as in:

- Two-phase design
- Dominant-less dominant design
- Mixed-methodology design

The first approach includes separate quantitative and qualitative phases. In the second approach the research follows mainly either one of the methods, however adding the alternative methodology in some part of the study. This can be done for example testing a theory with a quantitative survey with an additional limited qualitative interview component. The third approach mixes the two methods throughout the research, starting with the introduction, literature review and research design (Creswell, 1994). This research utilized the two-phase design, by first conducting a focus group discussion and interviews, followed by an online survey.

The survey questions were composed based on a focus group discussion with five tour guides, and interviews with top company management and a representative from the Icelandic travel industry association. Focus group discussions are not a good option to replace in-depth interviews or surveys, but can be used to complement other methods in multi-methods research. Focus group discussions can be used in the first

phases of research to provide a basis for surveys and in addition interpretative help for analyzing the results (Bloor, Frankland, Thomas, & Robson, 2001).

Interviews are used when the behavior cannot be observed, such as past events. Interviews can be categorized for example based on structure: highly structured, semi-structured and informal or unstructured interviews (Merriam, 2009). The interview method in this research was semi-structured; the questions used were open ended. They were used flexibly but certain information was required to be obtained from the interviews (Merriam, 2009). Kvale (1996) provides two metaphors to describe the interview process, namely the miner and traveler approach. The first approach perceives information as something hiding under the surface and the interview as the process to discover the precious knowledge. The second method on the other hand conceives of the interview as a process, a journey during which the desired knowledge is obtained (Kvale, 1996).

Surveys can be used to describe the characteristics of a phenomenon or determine a relationship between events or phenomenon (Merriam, 2009). O´Leary (2004) defines a survey as the following, "Information gathered by asking a range of individuals the same questions related to their characteristics, attributes, how they live or their opinions" (p. 152). The aim of surveys is to provide an accurate estimation of the frequency distribution in a population. The survey will produce a statistical representativeness which can be generalized to the whole population. Therefore attention should be paid to the sampling, in order for it to be possible to generalize to the whole population (Gomm, 2008). According to O´Leary (2004) the clear benefits of conducting a survey are:

- It can reach a large number of respondents
- It can represent a large population
- Produces standardized, quantifiable, empirical data
- Is confidential and anonymous
- Open ended questions produce qualitative data

5.3 Collecting the data

The aim of the research was to conduct a training needs analysis among the tour guides at Arctic Adventures. In order to reveal any possible training and non-training needs, the current competency levels were measured and compared to the expected levels. The process started by conducting a focus group discussion with five purposively selected tour guides. The researcher selected the participants in the focus group in a way to make it as heterogeneous as possible, to represent the whole population. The participants were of both genders, had different competency levels and from different fields, all of them had different duration of employment in the company and different educational backgrounds. The researcher asked open ended questions regarding different competencies required to be a good tour guide. The questions are found in appendix 1. The conversation proceeded freely with multiple questions answered in one discussion. The focus group discussion lasted approximately two hours and the material was transcribed. The researcher used a coding method to distinguish competency groups from the transcripts; a total of 16 competency groups were found.

In addition to the focus group discussion the company owners, Torfi Yngvason and Jón Heiðar Andrésson, were interviewed, using the same questions as in the focus group discussion with an additional question about company strategies. The interview questions are in appendix 2. Both of the company owners were interviewed separately and each interview lasted between 30 and 60 minutes. The interviews were then transcribed and analyzed using the same key as in the focus group discussion.

Finally María Guðmundsdóttir, manager of information, education and PR at the Icelandic Travel Industry Association, was interviewed. The focus of the interview was to collect information generally about the tourism industry in Iceland. The interview questions are found in appendix 3. The interview lasted approximately 60 minutes and the material was then transcribed to be used in the research.

Based on the mapped and analyzed competency groups an online survey was formed using Google forms. The discovered competencies were from the following fields: technical competencies, behavioural competencies, leadership and command skills, intellectual skills, future orientation, communication skills, customer service orientation, result orientation, commitment to work, social skills, team work skills and ecological

awareness. This categorization was adapted and modified from a research by Anitha and Thenmozhi (2011) who conducted a competency gap analysis in automobile manufacturing industry in Chennai. The research was conducted among 300 company executives. The goal of the research was to determine the current and expected competency levels and to find out possible gaps. The data was collected through structured interviews among the company executives. Then t-test values were calculated for both existing and expected competency averages and through comparison a possible gap was discovered (Anitha & Thenmozhi, 2011). The competency categorization by Anitha and Thenmozhi (2011) was adapted to this research due to the comprehensive nature of it.

The online survey was chosen for ease and low cost. In addition some of the survey participants were located outside of Iceland and their available contact information consisted only of email addresses. The target population was all tour guides who worked in full employment for Arctic Adventures and Arctic Rafting Drumboddsstaðir during the summer season 2012. In addition the tour guides who continued or started to work for Arctic Adventures during the winter season 2012-2013 were included. Due to the seasonal nature of the industry a lot of freelance work force is available and used by the company, however these employees were excluded from the survey. The main interest and focus was on the employees who were trained mainly by the company and contributed the most to customer service and company performance. The survey participants´ contact information was acquired from the company human resources database. The survey was sent in total to 41 participants via email with a cover letter to encourage recipients to participate. The cover letter is displayed in appendix 4 and the survey in appendix 5.

The survey constituted 10 background questions determining age, gender, education and work experience. After the background questions, the survey included 72 questions of current competency levels. Questions were grouped into 10 competency categories, which were not named in the survey. The competency questions were close ended and answers were given on a rating scale 1 to 5, where 1 is none, 2, poor, 3 fairly good, 4 good and 5 excellent. The last question of the survey was open to give the option to add competencies which were not listed in the survey.

The expected competency levels for the tour guides were determined via a survey from the company owners, Jón Heiðar Andrésson and Torfi Yngvason, and the chief of operations, Reynar Davíð Ottósson. This survey included the same 72 questions of competencies, excluding the 10 background questions. The survey had the same 5-level scale. The aim of this survey was to map the expected competency levels for the tour guides from the management's point of view. The survey is presented in appendix 6.

5.4 Company information: Arctic Adventures

Arctic Adventures is an Icelandic outdoor activity and adventure company, with a focus on eco-friendly tourism. The company history can be traced back to 1983 when the first river rafting company was founded in Iceland. Arctic Adventures has a river rafting basecamp in the south of Iceland, and two sister companies, one of them operating river rafting in the north of Iceland and the other glacier hiking tours in the east of Iceland (Arctic Adventures, 2013).

The company operates during the summer season, from the 15th of May to the 15th of September, for example river rafting, glacier hiking, snorkelling, caving, sea kayaking, hiking and trekking tours. During the summer season Arctic Adventures employs both full time and freelance employees. In the winter season, from the 16th of September to the 14th of May, tours operated are day tours from the Reykjavik base, such as caving, snorkelling and glacier walks. The number of employees is lower during the winter season, due to smaller need for guides.

5.5 Trustworthiness and credibility

5.5.1 The research validity

The validity of the research is concerned with the trueness of the results and with determining whether the relationship between two variables is causal in nature (Saunders, Lewis, & Thornhill, 2003). This is often referred to more accurately as the internal validity. External validity is used to determine if the causal relationship can be generalized to the whole population, over time and settings (Blumberg, Cooper, & Schindler, 2011).

The internal validity has six threats which should be taken into account in the research design. First, history has an effect on validity, as past events might have had an

impact on the relationship between the variables. Second, maturation must be taken into account; the duration of the research effects on participant motivation. Third, the testing situation can change the attitudes and approach to the topic. Fourth, instrumentation will decrease the internal validity if the questions and observer behaviour are not consistent (Saunders et al., 2003; Blumberg et al., 2011). Fifth, the participation mortality refers to participants leaving the study. Sixth, the ambiguity of causal directions, because the cause and reason relationship is not always clear (Saunders et al., 2003).

The external validity is concerned with to what extent the research findings can be generalized over the target population or across borders to another organization. Often there is a trade-off between internal and external validity; if the aim is for a high internal validity, the external validity will be low (Sekaran, 2003).

To be able to ensure research validity, the method was chosen to match the research questions. The existing literature and research were studied to gain overall insight into the field and commonly accepted methods. The research process was then discussed with the supervisors and a research methods teacher. The research started by conducting a focus group discussion, an appropriate method to map the existing competencies. These results were then completed with interviews. Both methods were appropriate to collect qualitative data for survey preparation. The survey was the most efficient method to collect data from such a vast participant pool and surveys are a commonly used method when conducting a training needs analysis.

The online survey was sent in the beginning of April 2013, which is still considered to be the winter season in Icelandic tourism. Therefore the workload for guides was not as great as during the busiest summer season. This had a positive effect on the answer rate. However the company was conducting a yearly employee satisfaction survey in the end of March and beginning of April. This survey was closely timed to the research in question. Having to complete two surveys in such a short period of time might have had a negative impact on the answer rate. To avoid the threat of maturation, the survey was done as efficiently and as quickly as possible, by keeping the questions clear and the number as low as possible. The testing situation had no effect on the validity since the survey was delivered online and everyone could respond to it regardless of time and

location. The instrumentation did not decrease validity since all interview questions and survey questions were kept the same; in addition the interviews were recorded and transcribed. The loss of participants was not a threat since the survey was delivered via email, and it was made sure all email addresses were correct and active. Finally the causal relationship was kept clear constantly by the researcher by giving an introduction to the research before each interview, focus group discussion and the survey. This was done depending on the instrument, as a cover letter via email or verbally in a face to face discussion. All the key concepts were defined for the participants to avoid confusion with the terms.

5.5.2 The research reliability

The research reliability measures to what extent the research is without bias, or in other words is error free. This ensures consistent measurement across time and various measurement instruments. Reliability measures the "goodness" of the research and indicates the stability and consistency of the results (Sekaran, 2003).

Measurement accuracy can be divided into stability and consistency. Furthermore stability can be divided into test-retest reliability which measures how much the answer to the same questions would change in time. Stability can be determined with the parallel-form reliability measures, which use slightly different questions to measure the same phenomenon. By receiving similar results to both questions, the result reliability is high. Consistency on the other hand can be divided into interitem consistency reliability which measures how all the respondents´ answers were consistent to all items. The split-half reliability indicates the correlation between two halves of an instrument (Sekaran, 2003; Blumberg et al., 2011).

The research reliability was kept in mind during the whole process. Answer stability will change over time since questions were interested in competencies which can be enhanced over time through training, learning and development. Consistency of the results is dependent on the participants´ abilities to know their own competencies and understanding of the research questions.

5.5.3 The instrument validity

The validity of the chosen instrument can be divided into: content validity, criterion validity and construct validity. The content validity is concerned with what extent the measuring instrument provides coverage of the research question. In addition it ensures the measure includes an adequate amount of participants from the concept and target group (Sekaran, 2003; Blumberg et al., 2011). As discussed earlier the instruments used in the research were based on the existing literature and studies from the field on training needs analysis.

The criterion related validity is ensured when the instrument differentiates individuals based on predetermined characteristics. The concurrent validity discriminates individuals who have different current qualities. The predictive validity on the other hand will separate individuals based on future characteristics (Sekaran, 2003; Blumberg et al., 2011). The interviews and focus group discussion differentiated based on the respondent by asking for more detailed information when it was assumed to be available. The background questions in the survey differentiated among the participants based on age, gender, work experience, education and possessed competency categories.

The construct validity measures to what extent the obtained results fit into existing theories, which were used to design the instrument. Convergent validity is high when two different and separate instruments reach the same scores. Discriminant validity is reached when two variables are hypothesized to be uncorrelated, and after the measurement a correlation has been discovered (Sekaran, 2003; Blumberg et al. 2011). The construct validity is assumed to be high in this research because the method and process were based on existing literature and studies.

6 Findings

6.1 Online survey participants

The competency survey was sent to 41 participants and the total number of responses was 22, leading to an answer rate of 54%. The participants were 18 males and 4 females as shown in table 3 below. This is caused by the male dominant nature of guiding work.

Table 3 Participant statistics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	18	81,8	81,8	81,8
	Female	4	18,2	18,2	100,0
	Total	22	100,0	100,0	

The respondents' age is displayed in table 4. In the survey form the age was asked by asking the year of birth. In total 21 of the 22 participants filled in details of birth year, leading to one missing answer. The youngest participant was 20 years old and the oldest 46, the average age of the participants was approximately 30 years old, which reflects the young age of the company employees.

Table 4 Participants age

	N	Minimum	Maximum	Mean	Std. Deviation
Age	21	20	46	29,71	7,205
Valid N (listwise)	21				

Determining the background education turned out to be difficult, since the survey had a heterogenic international target group. The education possibilities are diverse in the field of guiding, and attained degrees are difficult to compare with each other, due to the lack of standardization. The International Standard Classification of Education (ISCED) created by UNESCO with the aim of facilitating the comparison of educational statistics and indicators was explored (UNESCO, 2013). However the researcher found

this classification did not fit the purpose and a simpler crude categorization was chosen. However this question did not deliver as accurate information as expected and therefore only part of the results are discussed. From the 22 respondents 14 (64%) had not completed education in tourism, and respectively 8 (36%) respondents had finished formal education in tourism. The responses varied from hotel receptionist, guiding diploma from Iceland, university diploma in tourism, diploma in outdoor leadership and environmental education. Having background education in guiding was seen as a great benefit for the company and new employee training by one owner:

> "I like getting guides from Leiðsöguskólinn because they come in to the company and I have shaved off at least one year of training you know personal, soft skill type of thing, how you present yourself kind of, how you explain to people and the pride you can find in your heart while you are explaining Þingvellir for example." (J. H. Andrésson, personal communication, December 12, 2012).

The next question mapped how long the respondents had worked for Arctic Adventures and Arctic Rafting. The results are shown in table 5. Nearly 41% of the respondents had started in the company 2012, one year earlier. This can be explained partly with the growth of the company, since in the past years more new employees had been hired. Therefore the answer ratio will be higher among new staff. In addition the survey topic could have more personal interest to new employees than to ones with a longer career. New employees might be experiencing more knowledge and training deficiencies than the ones who have worked longer for the company.

Table 5 Starting year at Arctic Adventures, Arctic Rafting

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2005	3	13,6	13,6	13,6
	2007	1	4,5	4,5	18,2
	2008	1	4,5	4,5	22,7
	2009	1	4,5	4,5	27,3
	2010	2	9,1	9,1	36,4
	2011	3	13,6	13,6	50,0
	2012	9	40,9	40,9	90,9
	2013	2	9,1	9,1	100,0
	Total	22	100,0	100,0	

In addition the survey was interested in which month the respondents had started to work for the company. The results are shown in table 6.

Table 6 Starting month at Arctic Adventures, Arctic Rafting

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	January	1	4,5	5,0	5,0
	February	1	4,5	5,0	10,0
	March	1	4,5	5,0	15,0
	April	2	9,1	10,0	25,0
	May	11	50,0	55,0	80,0
	June	2	9,1	10,0	90,0
	July	1	4,5	5,0	95,0
	September	1	4,5	5,0	100,0
	Total	20	90,9	100,0	
Missing	System	2	9,1		
Total		22	100,0		

The results show clearly that the most common starting month was May with 11 (50%) answers. This is due to the seasonal nature of tourism in Iceland. The busy summer season starts in May and ends in September. Interestingly none of the respondents had started in the company in October, November or December, therefore

these months are missing from the results. These months are considered to be the slowest months in Icelandic tourism.

The online survey also gathered information on the seasonal work history of the respondents. The answers have been collected in table 7. To the first question 20 replies were received, leaving 2 missing. The minimum amount of summer seasons worked for Arctic Adventures and Arctic Rafting was 0 and respectively the maximum 7, leading to an average of 2 summer seasons. This is because 14 out of 22 respondents had started in the company 2011 or after, which only gives the possibility to work 2 summer seasons the most. This has an effect on the next question, related to the winter seasons worked for the company. Here no answers were missing, and the statistics are similar to the summer season. The least amount of worked winter seasons was 0 and the most amount 7, and the average of 1,64.

Since work history has a huge effect on building individual competencies, work experience outside of the company was also measured. Both summer and winter seasons worked outside the company had the minimum of 0 and the maximum of 10. In average summer seasons worked outside the company were 1,32 and winter 1 seasons. The results are explained by the young age of the respondents. They have not had the chance yet to gather work experience in the field of tourism. In addition due to the seasonal nature of the work and difference of the labour demand, some participants have an occupation or full time employment outside of tourism during the off season. However this assumption is not backed up by the results, since the worked summer seasons outside of Arctic Adventures and Arctic Rafting is not higher than the winter seasons. On the other hand this can be explained by a commitment to the company, where the employee returns to the same employer every summer season.

Table 7 Respondents work history

	N	Minimum	Maximum	Mean	Std. Deviation
How many **summer** seasons have you worked for Arctic Adventures/ Arctic Rafting?	20	0	7	2,00	1,892
How many **winter** seasons, including the current one, have you worked for Arctic Adventures/ Arctic Rafting	22	0	7	1,64	2,013
How many **summer** seasons have you worked as a guide **outside** of Arctic Adventures/ Arctic Rafting	22	0	10	1,32	2,418
How many **winter seasons** have you worked as a guide **outside** of Arctic Adventures/ Arctic Rafting	22	0	10	1,00	2,330
Valid N (listwise)	20				

The last background question mapped the tour types on which the respondent was able to guide. The tour types were selected based on the different competency groups needed. Each of the tour types requires specific training for the activity. As the company CEO said: “Each type of activity has its own guidelines and own regulations and own technical skills. So they vary immensely from being, from being cave guide to being a diving guide because very few things in common technically.” (T. Yngvason, personal communication, November 30, 2012).

From the listed tour types, caving requires the least formal training and mountaineering is the most advanced and demanding tour type. The required competencies build on each other and most often the starting position for a guide at Arctic Adventures is a caving guide position. In addition the Hvítá rafting guide is the first position at Arctic Rafting.

The results are collected in table 8. Caving received the most answers with 16 respondents, followed by rafting on Hvítá by 15 respondents. 14 respondents were able to guide on driver-guided super jeep tours and self-drive super jeep tours. 13

participants were able to guide snorkelling tours, 12 participants on day hikes and glacier and mountaineering tours by 12 respondents. Finally 5 participants were able to guide multiday hikes and sea kayaking. The most specific and rare competency group was on mountain biking tours, with 2 responses. Half of the respondents had the skills to guide on glacier and mountaineering tours, which require extensive training and work experience. This is interesting compared to the fact that most of the respondents were relatively new to the company. This indicates how the new employees have been trained fast to possess more demanding skill sets or the company has hired employees with existing skills.

Table 8 Ability to guide on different tour types

	N	
	Valid	Missing
Caving tours	16	6
Snorkeling tours	13	9
Rafting tours on Hvítá	15	7
Driver guided super jeep tours	14	8
Self drive super jeep tours	14	8
Glacier tours	11	11
Mountaineering tours	11	11
Day hikes	12	10
Multi day hikes	5	17
Sea kayaking tours	5	17
Mountain biking tours	2	20

6.2 Competency discrepancies

The gathered data was edited and analyzed using the statistical analysis programs Microsoft Excel and SPSS. For each competency the result mean was calculated using SPSS. This was done both for results from the guides´ survey and answers from the company management.

The actual competency level mean among tour guides is presented in column $\bar{x}_1$ and the standard deviation in σ_1. The expected competency level mean is displayed in column $\bar{x}_2$ and standard deviation values in σ_2. The fifth column ΔD displays the difference between expected and current competency levels, (EX-AC), $\bar{x}_2$-$\bar{x}_1$. The last

column presents the performance discrepancy class, which was determined based on the following rating scale created by the researcher:

1. $\Delta D \leq 0$, no gap
2. $0 < \Delta D \leq 1$, small gap
3. $1 < \Delta D \leq 2$, moderate gap
4. $2 < \Delta D \leq 3$, big gap
5. $3 < \Delta D \leq 4$, severe gap

The competency discrepancy is negative when the actual levels are higher than expected; therefore the first class was determined to be equal to or less than zero. The second class, small gap, is higher than zero and smaller or equal to delta value one. The discovered gaps can include survey error; therefore the second class does not require immediate actions. The third class are delta values higher than one and less than or equal to two, these are classified as moderate gaps and should be looked into for further details. The fourth class, big gaps, are values higher than two and less or equal to three, for example the difference between excellent and poor competency levels are class four and deserve management priority in future training actions. Finally the fifth class, severe gaps, have a delta value higher than three and smaller or equal to 4, which is the maximum level of discrepancy in a rating scale of 1 to 5. In this case the employees would not possess any skills in the required field. These discrepancies require immediate training, learning and development actions.

In the second phase the independent samples t-test was used to determine the statistical significance of differences in averages. The t-test determines if the null hypothesis, “no difference in average is found”, is kept valid or rejected. This is done based on the determined p-value, furthermore if the p-value is lower than or equal to 0,05, the null hypothesis is rejected on confidence level of 95% and there can be said to be a statistically significant difference between averages.

The training actions are an important part of the company actions and are tightly connected to the company strategy, as one owner stated: “Our strategy is just to provide you know world class service as it is, has, as it happens around the world you know, we, we should compare ourselves to best companies out there.” (J. H. Andrésson, personal communication, December 12, 2012).

The average means for each competency category were calculated, both for actual and expected competency levels, shown in figure 7.

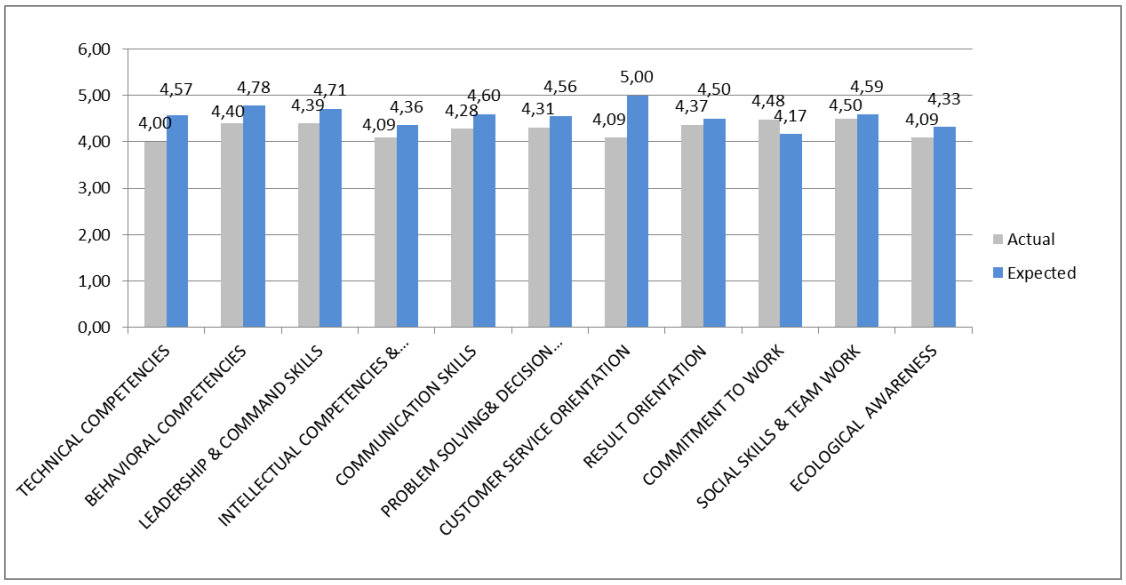

Figure 7 Comparison of actual and expected competency levels

The existing discrepancies for each competency categories were then calculated. The discrepancy values are shown in figure 8.

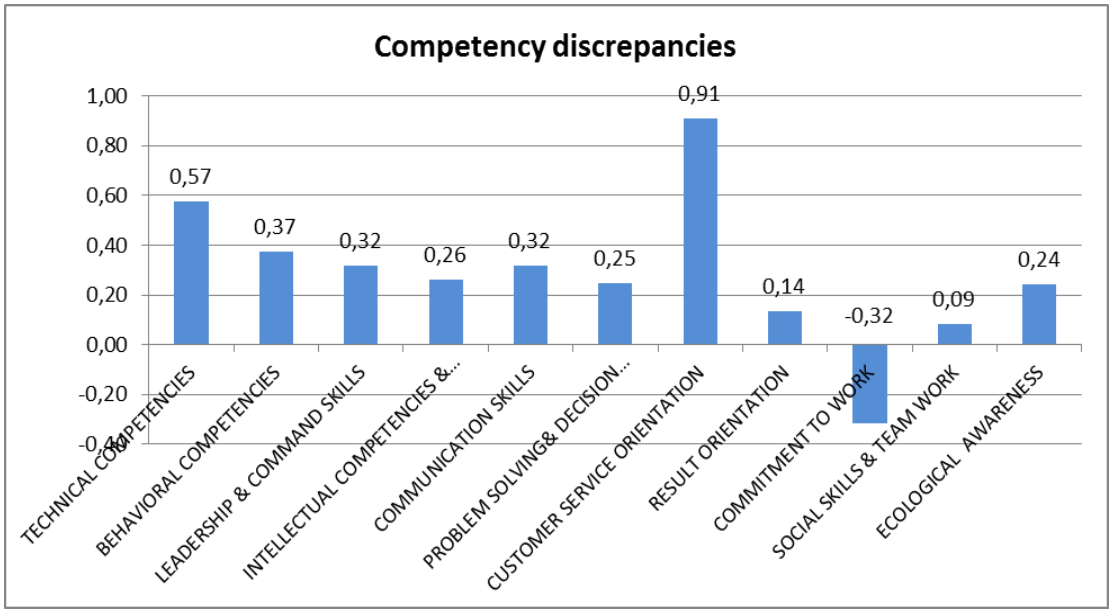

Figure 8 Discrepancy levels in competency categories

6.2.1 Technical competencies

Technical competencies have an average discrepancy of 0,57 and the levels of each question are shown in table 9.

Table 9 Competency discrepancies in technical competencies

TECHNICAL COMPETENCIES	Actual (AC) N=22 $\bar{x}_1$	σ_1	Expected (EX) N=3 $\bar{x}_2$	σ_2	$\Delta D = \bar{x}_2 - \bar{x}_1$	C.
1. Knowledge of tour descriptions and tour information for customers	4,00	*0,756*	4,67	*0,577*	**0,67**	**2**
2. Knowledge how to operate tours (locations, routes, timings etc)	4,27	*0,935*	5,00	*0,000*	**0,73**	**2**
3. Knowledge of Arctic Adventures operations as a company	3,5	*0,913*	4,00	*0,000*	**0,50**	**2**
4. Knowledge of Arctic Rafting operations as a company	3,68	*1,287*	4,00	*0,000*	**0,32**	**2**
5. Knowledge of how to use equipment on the tour (excluding vehicles)	4,45	*0,739*	5,00	*0,000*	**0,55**	**2**
6. Technical knowledge of equipment (excluding vehicles)	4,14	*0,889*	5,00	*0,000*	**0,86**	**2**
7. To be able to operate equipment care during the tour (excluding vehicles)	4,18	*0,795*	4,67	*0,577*	**0,49**	**2**
8. To be able to operate equipment care after the tour (excluding vehicles)	4,27	*0,767*	4,67	*0,577*	**0,40**	**2**
9. To be able to choose a good route on the tour	4,23	*0,752*	5,00	*0,000*	**0,77**	**2**
10.a. To be able to navigate on tours	4,18	*0,795*	5,00	*0,000*	**0,82**	**2**
10.b. To be able to assess safety	4,32	*0,646*	5,00	*0,000*	**0,68**	**2**
11. To be able to provide First Aid	3,95	*0,844*	5,00	*0,000*	**1,05**	**3**
12. To be able to operate vehicles efficiently	4,15	*0,875*	4,67	*0,577*	**0,52**	**2**
13.To be able to operate vehicle repair (N=20)	2,65	*1,089*	2,33	*0,577*	**-0,32**	**1**

The biggest competency discrepancy was found from question 11, “To be able to provide First Aid”, with a gap of 1,05, which is class 3, a moderate gap. However, taking into account the field of business, First Aid skills are extremely important in outdoor activities. The low current competency level might be due to the survey participants’ young age and lack of experience and their higher ratio in the survey. In addition the standard deviation has a high value, indicating of vast scale of answers. However this does not indicate that this gap could be ignored, but should be further studied to be

determined the group of guides and background who require it the most. The t-test results from the table 10 shows statistical significance for the discrepancy, p=0,046 ≤0,05.

The second biggest gap was on question 6. “Technical knowledge of equipment (excluding vehicles)”, value of 0,86 translating into a class 2 small gap. This competency discrepancy had a strong statistical significance p=0,000 ≤0,05. The third biggest gap was found from question 10.a, “To be able to navigate on tours”, with a value of 0,82 and therefore it is a class 2, small gap. However p=0,093 > 0,05 and the difference between averages cannot be said to be statistically significant. The fourth largest gap in technical competencies was on question 9, “To be able to choose a good route on the tour”, with 0,77 gap and also a class 2, furthermore for this competency p=0,094 > 0,05 and the difference between averages is not statistically significant. In addition the question 10.b., “To be able to assess safety”, p=0,000 ≤0,05, question 5. “Knowledge of how to use equipment on the tour (excluding vehicles)”,p=0,002 ≤0,05, and question 2,” Knowledge how to operate tours (locations, routes, timings etc)”,p=0,002 ≤0,05, have a competency discrepancy with a strong statistical significance.

All the previous three competencies are important in the work of an outdoor guide, since they are connected to the safety and quality of the tour, therefore these gaps should not be ignored. Interestingly in the technical competencies, question 13, “To be able to operate vehicle repair”, which was optional and received 20 answers, has a negative gap of -0,32, meaning the current competency levels are higher than expected. The technical competencies consist of skills and knowledge, which according to Spencer and Spencer´s (1993) iceberg model are visible and located on the surface. Therefore these can be enhanced with a minimal effort and through formal and informal training actions.

Table 10 T-test values on technical competencies

TECHNICAL COMPETENCIES	t	df	Sig (2 tailed)
1. Knowledge of tour descriptions and tour information for customers	-1,460	*23*	0,158
2. Knowledge how to operate tours (locations, routes, timings etc)	-3,648	*21*	0,002
3. Knowledge of Arctic Adventures operations as a company	-2,569	*21*	0,018
4. Knowledge of Arctic Rafting operations as a company	-1,160	*21*	0,259

5. Knowledge of how to use equipment on the tour (excluding vehicles)	-3,464	*21*	0,002
6. Technical knowledge of equipment (excluding vehicles)	-4,557	*21*	0,000
7. To be able to operate equipment care during the tour (excluding vehicles)	-1,012	*23*	0,322
8. To be able to operate equipment care after the tour (excluding vehicles)	-0,850	*23*	0,404
9. To be able to choose a good route on the tour	-1,748	*23*	0,094
10.a. To be able to navigate on tours	-1,750	*23*	0,093
10.b. To be able to assess safety	-4,948	*21*	0,000
11. To be able to provide First Aid	-2,107	*23*	0,046
12. To be able to operate vehicles efficiently	-0,980	*21*	0,338
13.To be able to operate vehicle repair (N=20)	0,486	*21*	0,632

6.2.2 Behavioural competencies

The behavioural competencies received a competency discrepancy average of 0,37.

Table 11 Competency discrepancies in behavioural competencies

BEHAVIORAL COMPETENCIES	**Actual (AC) N=22** $\bar{x}_1$	σ_1		**Expected (EX) N=3** $\bar{x}_2$	σ_2	$\Delta D = \bar{x}_2 - \bar{x}_1$	C.
14. Service attitude in my work	4,41	*0,503*		5,00	*0,000*	**0,59**	**2**
15. To be able to solve problem situations at work	4,41	*0,503*		4,33	*0,577*	**-0,08**	**1**
16.Knowledge how to operate safe tours	4,23	*0,612*		5,00	*0,000*	**0,77**	**2**
17. To be able to enjoy meeting new people	4,64	*0,492*		5,00	*0,000*	**0,36**	**2**
18. To be able to be convincing and assertive for customers	4,36	*0,658*		4,67	*0,577*	**0,31**	**2**
19. To be able to know and understand customer expectations	4,23	*0,685*		4,67	*0,577*	**0,44**	**2**
20. To be able to be professional at work	4,41	*0,503*		4,67	*0,577*	**0,26**	**2**
21. To have commitment to my work	4,59	*0,503*		4,67	*0,577*	**0,08**	**2**
22. To be able to provide good first impression for clients	4,36	*0,658*		5,00	*0,000*	**0,64**	**2**

The biggest gap was found from question 16, “Knowledge how to operate safe tours”, with a value of 0,77, class 2, small gap, with a p= 0,000 ≤ 0,05, the difference between averages has a strong statistical significance. Since this competency is connected to employee and customer safety, it should be investigated more thoroughly and provide training accordingly. The second biggest gap in this group was 0,64, class 2,

found from the competency “To be able to provide good first impression for clients”, in question 22. The gap has a strong statistical significance since p= 0,000 ≤ 0,05. As it was brought up in the focus group discussion by one of the guides:

“..they also think that about you like the clients, so its important for you to come, you arrive as a professional, like they also have these thoughts about you.” (Focus group discussion, personal communication, November 14, 2012).

This gap is important to pay more attention to and provide more formal training or learning material for the guides. However behavioural competencies fall into the inner circle on Spencer and Spencer´s (1993) model, meaning it is possible to change them, although this might be more time-consuming and expensive.

Question 14, “Service attitude in my work”, had a gap value of 0,59 with standard deviation of 0,503 among the current levels. Furthermore the discrepancy is statistically significant p= 0,000 ≤ 0,05. The gap is small, but the competency is a cornerstone of the job and therefore should be paid more attention to, since standard deviation indicates also lower levels than the average. As the company CEO stated in an interview regarding the guides´ behavioural competencies: “..have to have the same, similar behaviour skills, which is, very rich service attitude..” (T. Yngvason, personal communication, November 30, 2012).

Finally question 15 received a negative discrepancy, “To be able to solve problem situations at work”, with value of -0,08, making it class 1, no gap. However the difference between averages is not statistically significant since p=0,811 > 0,05.

Table 12 T-test values in behavioral competencies

BEHAVIORAL COMPETENCIES	t	df	Sig (2 tailed)
14. Service attitude in my work	-5,508	*21*	0,000
15. To be able to solve problem situations at work	0,241	*23*	0,811
16. Knowledge how to operate safe tours	-5,923	*21*	0,000
17. To be able to enjoy meeting new people	-3,464	*21*	0,002
18. To be able to be convincing and assertive for customers	-0,756	*23*	0,457
19. To be able to know and understand customer expectations	-1,055	*23*	0,302
20. To be able to be professional at work	-0,820	*23*	0,420
21. To have commitment to my work	-0,241	*23*	0,811
22. To be able to provide good first impression for clients	-4,537	*21*	0,000

6.2.3 Leadership and command skills

The leadership and command skills received an average of 0,32 competency discrepancy. All of the 8 competencies included in this category had high actual levels.

Table 13 Competency discrepancies in leadership & command skills

LEADERSHIP & COMMAND SKILLS	Actual (AC) N=22 $\bar{x}_1$	σ_1	Expected (EX) N=3 $\bar{x}_2$	σ_2	ΔD= $\bar{x}_2$- $\bar{x}_1$	C.
23. To be able to be in charge of the situation at work	4,41	*0,503*	4,67	*0,577*	**0,26**	**2**
24. To be able to maintain the status of leader in the eyes of customers	4,50	*0,512*	4,67	*0,577*	**0,17**	**2**
25. To be able to seem trust worthy for clients	4,55	*0,510*	5,00	*0,000*	**0,45**	**2**
26. To be able to give assertive and clear commands	4,41	*0,666*	4,67	*0,577*	**0,26**	**2**
27. To be able to solve problems between individuals	4,09	*0,684*	4,33	*0,577*	**0,24**	**2**
28. To be able to operate group management	4,36	*0,492*	4,67	*0,577*	**0,31**	**2**
29. To be able to provide client care	4,27	*0,550*	4,67	*0,577*	**0,40**	**2**
30. To be able to work independently	4,55	*0,510*	5,00	*0,000*	**0,45**	**2**

Therefore the biggest gaps were only 0,45, level 2, small gap on both question 25, “To be able to seem trust worthy for clients” and question 30, “To be able to work independently”; both gaps are statistically significant p=0,000 ≤0,05. The second biggest gap was 0,40 in question 29, “To be able to provide client care”. However p=0,259 and therefore higher than 0,05 and the gap is not statistically significant. All of these three competencies have a direct impact on the job performance as a guide, since the work is independent and involves responsibility for clients. This is taken into consideration during the hiring process: “We are not looking for guides that work super well in groups, with other guides, because, cause our company is much more about sending people on mission with their own group.” (T. Yngvason, personal communication, November 30, 2012). The results in this category show no immediate required actions at the moment.

Table 14 T-test values in leadership & command skills

LEADERSHIP & COMMAND SKILLS	t	df	Sig (2 tailed)
23. To be able to be in charge of the situation at work	-0,820	*23*	0,420
24. To be able to maintain the status of leader in the eyes of customers	-0,523	*23*	0,606
25. To be able to seem trust worthy for clients	-4,183	*21*	0,000
26. To be able to give assertive and clear commands	-0,635	*23*	0,532
27. To be able to solve problems between individuals	-0,583	*23*	0,565
28. To be able to operate group management	-0,984	*23*	0,335
29. To be able to provide client care	-1,158	*23*	0,259
30. To be able to work independently	-4,183	*21*	0,000

6.2.4 Intellectual competencies and future orientation

In this category the average detected discrepancy was 0,26.

Table 15 Competency discrepancies in intellectual competencies & future orientation

INTELLECTUAL COMPETENCIES & FUTURE ORIENTATION	**Actual (AC) N=22** $\bar{x}_1$	σ_1		**Expected (EX) N=3** $\bar{x}_2$	σ_2	$\Delta D = \bar{x}_2 - \bar{x}_1$	C.
31. Have knowledge of Arctic Adventures tours	3,68	*0,780*		4,33	*0,577*	**0,65**	**2**
32. Have knowledge of Arctic Rafting tours	3,73	*1,352*		4,33	*0,577*	**0,60**	**2**
33. To be able to foresee possible problems and scenarios on tours	4,09	*0,750*		4,33	*0,577*	**0,24**	**2**
34. To be able to read customers	3,91	*0,610*		4,67	*0,577*	**0,76**	**2**
35. Knowledge in how first impression is formed	4,05	*0,486*		4,00	*0,000*	**-0,05**	**1**
36. To be able to operate safe tours from customer point of view	4,32	*0,646*		5,00	*0,000*	**0,68**	**2**
37. To be able to operate fun tours from customer point of view	4,09	*0,610*		5,00	*0,000*	**0,91**	**2**
38. Knowledge of expected information about Iceland and tourism	3,95	*0,785*		4,67	*0,577*	**0,72**	**2**
39. Understanding of your own part in the Icelandic tourism industry	3,95	*0,653*		4,00	*1,000*	**0,05**	**2**
40. To have personal interest to develop yourself	4,73	*0,456*		4,67	*0,577*	**-0,06**	**1**
41. To be able to adapt into new situation	4,50	*0,598*		4,33	*0,577*	**-0,17**	**1**
42. To be able to be innovative: ideas for new tours	4,00	*0,926*		3,00	*0,000*	**-1,00**	**1**
43. To be able to be innovative: new ways to operate existing tours	3,91	*0,868*		4,00	*1,000*	**0,09**	**2**
44. To be able to meet the future training demands	4,41	*0,503*		4,67	*0,577*	**0,26**	**2**

The biggest training need was located in the competency of question 37, “To be able to operate fun tours from customer point of view”, with value of 0,91, which is a class 2 small gap, however almost class 3, moderate gap. The p=0,019 and therefore is lower than 0,05 making the difference statistically significant. According to the company CEO, the goal of the company is: “To sell and operate profitable adventure tours that are fun and safe” (T. Yngvason, personal communication, November 30, 2012).

The results do not indicate on which tour activity groups this discrepancy is mainly located. Therefore it is critically important to further investigate this discrepancy, to provide more training and learning in customer expectations for the right individuals.

The second biggest gap was under question 34, “To be able to read customers”, with a value of 0,76, and therefore classified as a small gap. The statistical significance was not achieved since p= 0,054> 0,05. This competency is closely linked to being able to provide fun tours, since the guide has to also be able to detect from the customers how to interact.

The third biggest gap was detected in question 38, “Knowledge of expected information about Iceland and tourism”, with a small gap of 0,72. This gap also had a p-value higher than 0,05 (0,146) and statistical significance was not reached. The company also employs staff from abroad, especially during summer season, therefore individuals outside of Iceland do not possess as much knowledge of Iceland. These three competencies are related to knowledge and therefore are visible and possible to change with training. One solution is to execute a customer survey to map the expectations, success and improvement factors on the tours. Based on this information the guide competencies can be enhanced. In addition formal training material can be provided to bring insight into individual behaviour, to assist on reading customers. A lot of information is available on tourism in Iceland and answers to most typical questions. Individuals should be encouraged to seek more information, or to provide a formal training material during orientation.

Furthermore three competencies had a negative discrepancy, question 42, “To be able to be innovative: new ways to operate existing tours” with the average of -1,00, with p-value of 0,000 ≤ 0,05, being strongly statistically significant. Question 41, “To be

able to adapt into new situations" with value of -0,17, with a p-value 0,654 > 0,05, and therefore no statistical significance found. Question 40,"To have personal interest to develop yourself", with a -0,06 gap, p= 0,835> 0,05, no statistical significance. To be adaptable to new situations is closely linked to problem solving skills, since in a new changed situation a guide must be able to perform. Having interest to develop yourself is also strongly connected to commitment towards the company.

It is important to be ready and willing to develop one's own guiding skills through training since the goal of the company is to maintain the industry leader position in Iceland. This can be maintained through training, as Jón Heiðar Andrésson mentioned:

> "..because we are usually the leaders in the field but we have huge competition in the mountain field and that's, that's, the biggest competition stage and I think that's where we really need to show the highest professionalism to maintain the respect and professional status within the industry as a company…"(J. H. Andrésson, personal communication, December 12, 2012).

Table 16 T-test values in intellectual competencies & future orientation

INTELLECTUAL COMPETENCIES & FUTURE ORIENTATION	t	df	Sig (2 tailed)
31. Have knowledge of Arctic Adventures tours	-1,385	*23*	0,179
32. Have knowledge of Arctic Rafting tours	-0,756	*23*	0,457
33. To be able to foresee possible problems and scenarios on tours	-0,535	*23*	0,598
34. To be able to read customers	-2,027	*23*	0,054
35. Knowledge in how first impression is formed	0,159	*23*	0,875
36. To be able to operate safe tours from customer point of view	-4,948	*21*	0,000
37. To be able to operate fun tours from customer point of view	-2,533	*23*	0,019
38. Knowledge of expected information about Iceland and tourism	-1,504	*23*	0,146
39. Understanding of your own part in the Icelandic tourism industry	-0,107	*23*	0,916
40. To have personal interest to develop yourself	0,211	*23*	0,835
41. To be able to adapt into new situation	0,454	*23*	0,654
42. To be able to be innovative: ideas for new tours	5,066	*21*	0,000
43. To be able to be innovative: new ways to operate existing tours	-0,168	*23*	0,868
44. To be able to meet the future training demands	-0,820	*23*	0,420

6.2.5 Communication skills

This category had in total five questions and the average discrepancy was 0,32.

Table 17 Competency discrepancies in communication skills

COMMUNICATION SKILLS	Actual (AC) N=22 $\bar{x}_1$	σ_1	Expected (EX) N=3 $\bar{x}_2$	σ_2	ΔD= $\bar{x}_2$- $\bar{x}_1$	C.
45. To be able to communicate clearly the rules of the tour to clients	4,36	*0,581*	5,00	*0,000*	**0,64**	**2**
46. To be able to communicate tour information to the customers	4,32	*0,568*	4,67	*0,577*	**0,35**	**2**
47. To be able to communicate with the company operational staff	4,36	*0,492*	4,33	*1,155*	**-0,03**	**1**
48. To be able to communicate with the company office staff	4,05	*0,844*	4,00	*1,000*	**-0,05**	**1**
49. Language skills in English	4,32	*0,780*	5,00	*0,000*	**0,68**	**2**

The highest gap was 0,68 on question 49, “Language skills in English”, although standard deviation was 0,780. Therefore the answers were spread out on a vast scale. The discrepancy is strongly statistically significant since p=0,001 ≤ 0,05. The second biggest gap was a class small (0,64) in question 45, “To be able to communicate clearly the rules of the tour to clients” also strongly statistically significant p=0,000 ≤ 0,05. Which represent an interesting conflict between the leadership skills, which presented high current skills in being in charge of the situation and maintaining the status of tour leader. However this can be connected to the expected tour information of customers. By improving the knowledge of expectations, it will be easier to provide correct rules on the tour.

This category had also competencies with negative discrepancies. Question 48 (-0,05), “To be able to communicate with the company office staff”, p=0,932 > 0,05 and question 47 (-0,03), “To be able to communicate with the company operational staff” p=0,968> 0,05; no statistical significance can be found from either questions. Both of these are very important for good work performance for the guides and the whole organization. These answers reflect the results of social skills and team work.

Table 18 T-test values in communication skills

COMMUNICATION SKILLS	t	df	Sig (2 tailed)
45. To be able to communicate clearly the rules of the tour to clients	-5,137	*21*	0,000
46. To be able to communicate tour information to the customers	-0,996	*23*	0,330
47. To be able to communicate with the company operational staff	0,045	*2,1*	0,968
48. To be able to communicate with the company office staff	0,086	*23*	0,932
49. Language skills in English	-4,101	*21*	0,001

6.2.6 Problem solving and decision making

The average gap was 0,25 in problem solving and decision making competencies.

Table 19 Competency discrepancies in problem solving & decision making skills

PROBLEM SOLVING & DECISION MAKING SKILLS	**Actual (AC) N=22** $\bar{x}_1$	σ_1		**Expected (EX) N=3** $\bar{x}_2$	σ_2	$\Delta D = \bar{x}_2 - \bar{x}_1$	C.
50. To be able to understand the possible risks of the tour	4,41	*0,503*		4,67	*0,577*	**0,26**	**2**
51. To be able to understand the possible problems on the tour	4,36	*0,492*		4,67	*0,577*	**0,31**	**2**
52. Have knowledge of how to be prepared for problems	4,32	*0,568*		4,67	*0,577*	**0,35**	**2**
53. To be able to find more information that supports my guiding	3,91	*0,868*		4,00	*1,000*	**0,09**	**2**
54. To be able to solve problems independently on tours	4,41	*0,590*		4,67	*0,577*	**0,26**	**2**
55. To be able to be spontaneous in case of a problem	4,45	*0,596*		4,67	*0,577*	**0,22**	**2**

The highest discrepancy was only 0,35 in question 52, “Have knowledge of how to be prepared for problems”, p=0,330> 0,05, with no statistical significance. Close to this was question 51, “To be able to understand the possible problems on the tour”, with a gap of 0,31, p=0,335 > 0,05 and no statistical significance. The results show clearly how these competencies are strong and no training actions needed. This is clearly a strong requirement in a position when operating outdoor activities with a risk of accidents and rapidly changing conditions. According to the company CEO, training is strongly focused on problem solving skills:

"So a lot of training is supposed focus on giving people examples of the problems that could face on the job and how to solve them, so yes problem solving can be taught." In addition: "..they are not guessing, in-a, in-a, you know we teach and train people for the most common problems and then give general solutions for the bigger problems that can rise that's unforeseen." (T. Yngvason, personal communication, November 30, 2012).

Therefore the current competency levels reflect this training objective.

Table 20 T-test values in problem solving & decision making skills

PROBLEM SOLVING & DECISION MAKING SKILLS	t	df	Sig (2 tailed)
50. To be able to understand the possible risks of the tour	-0,820	*23*	0,420
51. To be able to understand the possible problems on the tour	-0,984	*23*	0,335
52. Have knowledge of how to be prepared for problems	-0,996	*23*	0,330
53. To be able to find more information that supports my guiding	-0,168	*23*	0,868
54. To be able to solve problems independently on tours	-0,710	*23*	0,485
55. To be able to be spontaneous in case of a problem	-0,580	*23*	0,568

6.2.7 Customer service orientation

This category only had one question and therefore the result of 0,91 average performance discrepancy is not reliable.

Table 21 Competency discrepancies in customer service orientation

CUSTOMER SERVICE ORIENTATION	**Actual (AC) N=22** $\bar{x}_1$	σ_1		**Expected (EX) N=3** $\bar{x}_2$	σ_2	ΔD= $\bar{x}_2$- $\bar{x}_1$	C.
56. To be able to handle difficult situations with customers	4,09	*0,750*		5,00	*0,000*	**0,91**	**2**

The survey included many other questions under customer service skills, however these were located under a better fitting category. The question 56, "To be able to handle difficult situations with customers", can be improved with formal training such as role play and simulating situations and supported by theoretical approach with the intent to bring insight to why individuals might respond in a negative manner and how

to respond the right way. In a customer service job this is an important factor and the discrepancy should be further mapped. Furthermore the gap (0,91) is statistically significant with p=0,000 ≤0,05.

Table 22 T-test values in customer service orientation

CUSTOMER SERVICE ORIENTATION	t	df	Sig (2 tailed)
56. To be able to handle difficult situations with customers	-5,684	*21*	0,000

6.2.8 Result orientation

The result orientation category had an average of 0,14 discrepancy level.

Table 23 Competency discrepancies in result orientation

RESULT ORIENTATION	**Actual (AC) N=22** $\bar{x}_1$	σ_1		**Expected (EX) N=3** $\bar{x}_2$	σ_2	ΔD= $\bar{x}_2$- $\bar{x}_1$	C.
57. To be able to provide good customer service	4,41	*0,503*		5,00	*0,000*	**0,59**	**2**
58. To be able to go the extra mile for the customer	4,32	*0,839*		4,00	*1,000*	**-0,32**	**1**

This category included two questions, number 57, “To be able to provide good customer service” with an average gap of 0,59, p=0,000 ≤0,05, the gap is strongly statistically significant. Question 58, “To be able to go for the extra mile for the customer”, with a negative gap of -0,32, p=0,551 >0,05, no statistical significance found. To be able to provide good customer service was seen here as a tool to reach a result in work, in other words, high work performance. Since this is an absolute requirement for the job, this should be constantly maintained and measured, to build motivation to do better. As it was stated in an interview by the company CEO: “they [guides] have to be result oriented in they have to do job, and the job they do is very core thing, what they do is to return people who are happy.” (T. Yngvason, personal communication, November 30, 2012).

The survey results are aligned with the company owners´ insight on going the extra mile:

> "Some do what is expected and need to do that's the thing, the frame they have been given, while others just don´t think about when they step out of this brain and they go the extra mile and I think most of our guides are willing to do that…"(J. H. Andrésson, personal communication, December 12, 2012).

In addition, the competency to go the extra mile is dependent on individuals´ motivation. Both of these are therefore located in the inner circle of the Spencer and Spencer (1993) model of competencies, and are more difficult to change. Therefore this should be taken into account during the hiring process.

Table 24 T-test values in result orientation

RESULT ORIENTATION	t	df	Sig (2 tailed)
57. To be able to provide good customer service	-5,508	*21*	0,000
58. To be able to go the extra mile for the customer	0,605	*23*	0,551

6.2.9 Commitment to work

This competency category included two questions and received an average level of -0,32 discrepancy.

Table 25 Competency discrepancies in commitment to work

COMMITMENT TO WORK	**Actual (AC) N=22** $\bar{x}_1$	σ_1	**Expected (EX) N=3** $\bar{x}_2$	σ_2	ΔD= $\bar{x}_2$- $\bar{x}_1$	C.
59. Interest to train yourself more independently	4,64	*0,492*	4,33	*0,577*	**-0,31**	**1**
60. To be able to commit yourself to the company	4,32	*0,839*	4,00	*1,000*	**-0,32**	**1**

Both of the questions, 59, "Interest to train yourself more independently" and 60, "To be able to commit yourself to the company", received a negative discrepancy value. The first one of -0,31, p=0,335 and the latter one -0,32, p=0,551, meaning the actual competency levels are higher than expected. However since both questions had p-value higher than 0,05 the differences are not statistically significant.

This clearly signals how motivated and committed the respondents are to the company. These qualities are more difficult to change through formal training and development actions, and are more likely to be connected to the individuals' personal motivations and traits.

Table 26 T-test values in commitment to work

COMMITMENT TO WORK	t	df	Sig (2 tailed)
59. Interest to train yourself more independently	0,984	*23*	0,335
60. To be able to commit yourself to the company	0,605	*23*	0,551

6.2.10 Social skills and team work

There were in total four questions, which received an average discrepancy of 0,09.

Table 27 Competency discrepancies in social skills & team work

SOCIAL SKILLS & TEAM WORK	**Actual (AC) N=22** $\bar{x}_1$	σ_1		**Expected (EX) N=3** $\bar{x}_2$	σ_2	$\Delta D = \bar{x}_2 - \bar{x}_1$	C.
61. To be able to be polite for customers	4,68	*0,477*		4,67	*0,577*	**-0,01**	**1**
62. To be able to use social skills with customers	4,50	*0,512*		4,67	*0,577*	**0,17**	**2**
63. To be able to work with other Arctic Adventures& Arctic Rafting employees	4,50	*0,740*		4,67	*0,577*	**0,17**	**2**
64. To be able to follow the company values	4,32	*0,716*		4,33	*1,155*	**-0,01**	**1**

Interestingly two of the questions received a gap value of 0,17, both questions 62, "To be able to use social skills with customers" and question 63, "To be able to work with other Arctic Adventures& Arctic Rafting employees". No statistical significance was found from the discrepancies since, p= 0,606 and p= 0,713, both higher than 0,05.

The other two questions received a negative discrepancy value of -0,01, these were question 61, "To be able to be polite for customers", p=0,960 and 64, "To be able to follow the company values", p=0,975. Both question 61 and 64 received p-values higher than 0,05 and therefore were not statistically significant. All of these four competencies are naturally very important in the field of customer service. Interestingly in question 64

the managers´ answers received a standard deviation of 1,155, which indicates higher differences in answers.

The social skills and team work skills are more difficult to improve through training and individuals either possess them or not, which should be taken into consideration when hiring new employees since, according to the company CEO: "..by definition a good guide is a social person, person likes company of other people." (T. Yngvason, personal communication, November 30, 2012). This was supported by the other company owner:

> "If they have some skills there, it is easier to build professional skills on top it, and often the case is we have people with absolutely no skills except, aah, really good people skills, so there we try to take their that skill, which is a really good skill to have, people skill, and you build professional, you know, hard skill on top of that."
>
> in addition: "…this is often what we try to look into when we are hiring people, at what point, where do they stand with this skill, soft skill, this is the first one, like the people skill (J. H. Andrésson, personal communication, December 12, 2012).

This is reflected in the whole tourism industry in Iceland:

> "If you look at this needs analysis, that is what most managers answer, they are not really looking after education, they are looking for a type, a person that is good with human skills, human, human communication, that's number one." (M. Guðmundsdóttir, personal communication, December 20, 2012).

Table 28 T-test values in social skills & team work

SOCIAL SKILLS & TEAM WORK	t	df	Sig (2 tailed)
61. To be able to be polite for customers	0,51	*23*	0,960
62. To be able to use social skills with customers	-0,523	*23*	0,606
63. To be able to work with other Arctic Adventures& Arctic Rafting employees	-0,372	*23*	0,713
64. To be able to follow the company values	-0,032	*23*	0,975

6.2.11 Ecological awareness

In total seven competencies were included in this category and the average discrepancy was 0,24.

Table 29 Competency discrepancies in ecological awareness

ECOLOGICAL AWARENESS	Actual (AC) N=22 $\bar{x}_1$	σ_1	Expected (EX) N=3 $\bar{x}_2$	σ_2	ΔD= $\bar{x}_2$- $\bar{x}_1$	C.
65. Knowledge of Leave no trace policy	4,27	*0,883*	4,33	*1,155*	**0,06**	**2**
66. To be able to follow Leave no trace policy	4,18	*0,853*	4,33	*1,155*	**0,15**	**2**
67. To be able to inform customers about environmental factors	4,14	*0,710*	4,33	*1,155*	**0,19**	**2**
68. To be able use equipment in the most efficient way	4,27	*0,550*	4,67	*0,577*	**0,40**	**2**
69. Knowledge of how to recycle	4,00	*0,873*	4,33	*1,155*	**0,33**	**2**
70. Knowledge of how to operate tours in an eco-friendly manner	3,86	*0,889*	4,00	*1,000*	**0,14**	**2**
71. Knowledge of eco -friendly actions	3,91	*0,971*	4,33	*1,155*	**0,42**	**2**

The highest gap was only 0,42 in a question 71, “Knowledge of eco-friendly actions”, p=0,493 >0,05. Second highest was question 68, “To be able to use equipment the most efficient way”, with a value of 0,40, p=0,259 >0,05 . The third highest discrepancy was in question 69, “Knowledge of how to recycle”, with a gap of 0,33, p=0,554. All of these questions received p-value higher than 0,05 and therefore the discrepancies are not statistically significant.

Arctic Adventures promotes itself as an eco-friendly company, and therefore it is important for the employees to reflect this value. Even though the discrepancy levels are low, formal training and providing more information would be good, as stated these are important competencies for the company. Furthermore the standard deviation was 0,971 among guides regarding knowledge of eco-friendly actions, which indicates a greater scale of answers. On the other hand the answers from the management side had a higher level of standard deviation, which indicates the eco-friendly actions and values are somewhat unclear inside the company. According to the company CEO the Leave No Trace policy is important and should be promoted to the customers as he says: “Well they [guides] have to be aware of the leave no trace policies, we have to make sure that they on tours, they being, if necessary, they teach people and inform them about how we travel.” (T.Yngvason, personal communication, November 30, 2012).

Table 30 T-test values in ecological awareness

ECOLOGICAL AWARENESS	t	df	Sig (2 tailed)
65. Knowledge of Leave no trace policy	-0,108	*23*	0,915
66. To be able to follow Leave no trace policy	-0,279	*23*	0,783
67. To be able to inform customers about environmental factors	-0,422	*23*	0,677
68. To be able use equipment in the most efficient way	-1,158	*23*	0,259
69. Knowledge of how to recycle	-0,601	*23*	0,554
70. Knowledge of how to operate tours in an eco-friendly manner	-0,246	*23*	0,808
71. Knowledge of eco -friendly actions	-0,697	*23*	0,493

6.3 Competency typology applied

As discussed in chapter 6, Nordhaug (1998) divided competencies based on task, firm and industry specificity, as well as the level of specificity as low or high. The typology is presented again here in table 31. In this chapter the mapped competencies will be analyzed based on the Nordhaug´s typology.

Table 31 A competency typology (Nordhaug, 1998)

	FIRM SPECIFICITY		
	LOW		HIGH
TASK SPECIFICITY	INDUSTRY SPECIFICITY		
	LOW	HIGH	-
LOW	I Meta-competences	II General Industry Competences	III Intra-organizational Competences
HIGH	IV Standard Technical Competences	V Technical Trade Competences	VI Idiosyncratic, Technical Competences

The online survey consisted of 72 competencies from different competency categories: technical competencies, behavioural competencies, leadership and command skills, intellectual competencies and future orientation, communication skills, problem solving and decision making skills, customer service orientation, result orientation, commitment to work, social skills and team work and ecological awareness. Questions in the survey were grouped under these categories, but the name of the

category was not visible. This was done to avoid leading questions. Following Nordhaug´s competency typology the mapped competencies are now categorized in the 6 types based on the task-, firm- and industry-specificity. The research found competencies from all of the classes.

The meta-competencies found are listed in table 32; furthermore these are organized based on the competency type. In total 9 competencies (13%) of 72 are listed as meta-competencies, furthermore meta-competencies were discovered from 6 of the competency categories. These are competencies which are low in task-specificity, low in firm-specificity and low in industry-specificity. All of the listed meta-competencies are important for everyday work. Due to the nature of the meta-competencies, these can be transferred to other tasks, companies and industries (Nordhaug, 1998). For example, language skills in English are important in the field of guiding, however these skills can be used in many other fields of occupation. Meta-competencies can be acquired through formal education, training and development programs (Nordhaug, 1998). Therefore individuals can enter the company and guiding position by possessing meta-competencies from previous training and development. This should be kept in mind during the hiring process, to focus on individuals with well developed meta-competencies. Assuming that the whole guiding industry requires a similar high proportion of meta-competencies, which are easily transferred between companies, poses a threat to the employer. Because employees can easily swap over to another employer, employee retention should be highly emphasized.

Table 32 Meta-competencies among the guides

BEHAVIORAL COMPETENCIES	**Actual (AC) N=22** $\bar{x}_1$	σ_1		**Expected (EX) N=3** $\bar{x}_2$	σ_2	ΔD= $\bar{x}_2$- $\bar{x}_1$	C.
17. To be able to enjoy meeting new people	4,64	*0,492*		5,00	*0,000*	**0,36**	**2**
LEADERSHIP & COMMAND SKILLS							
23. To be able to be in charge of the situation at work	4,41	*0,503*		4,67	*0,577*	**0,26**	**2**
30. To be able to work independently	4,55	*0,510*		5,00	*0,000*	**0,45**	**2**
INTELLECTUAL COMPETENCIES & FUTURE ORIENTATION							

40. To have personal interest to develop yourself	4,73	*0,456*	4,67	*0,577*	**-0,06**	**1**
41. To be able to adapt into new situation	4,50	*0,598*	4,33	*0,577*	**-0,17**	**1**
44. To be able to meet the future training demands	4,41	*0,503*	4,67	*0,577*	**0,26**	**2**
COMMUNICATION SKILLS						
49. Language skills in English	4,32	*0,780*	5,00	*0,000*	**0,68**	**2**
PROBLEM SOLVING & DECISION MAKING SKILLS						
55. To be able to be spontaneous in case of a problem	4,45	*0,596*	4,67	*0,577*	**0,22**	**2**
COMMITMENT TO WORK						
59. Interest to train yourself more independently	4,64	*0,492*	4,33	*0,577*	**-0,31**	**1**

Meta-competencies include such fundamentally important competencies as: 30. “To be able to work independently”, 41. “To be able to adapt into new situation”, and “55. To be able to be spontaneous in case of a problem “.

According to the Spencer and Spencer (1993) model of central and surface competency model self-concept, traits and motives are hidden and the most difficult to reach and change. On the other hand, knowledge and skills are visible and easiest to reach and change. Therefore when hiring new staff the employer should pay attention more to the hidden competencies, the traits and motives, to ensure these are fitting to the position (Spencer & Spencer, 1993). Attitudes and values are located between the core personalities and surface competencies, for example in meta-competencies important areas such as: 17. “To be able to enjoy meeting new people”, and 40. “To have personal interest to develop yourself”.

Of the 9 meta-competencies, 2 had the biggest discrepancies in their competency category, which were studied in the previous chapter. These competencies have been bolded in table 32. Furthermore from these 2 competencies with most discrepancies, 1 was listed as the most important competencies in the management’s point of view; 30. “To be able to work independently”. The competency gap is small, however it should be given attention, since it has the management strategic priority.

The second competency category in the Nordhaug´s (1998) typology are the general industry competencies, which can be applied to different companies within one industry. The general industry competencies founded are collected and presented in table 33.

Table 33 General industry competencies among the guides

INTELLECTUAL COMPETENCIES & FUTURE ORIENTATION	Actual (AC) N=22 $\bar{x}_1$	σ_1		Expected (EX) N=3 $\bar{x}_2$	σ_2	ΔD= $\bar{x}_2$- $\bar{x}_1$	C.
38. Knowledge of expected information about Iceland and tourism	3,95	*0,785*		4,67	*0,577*	**0,72**	**2**
39. Understanding of your own part in the Icelandic tourism industry	3,95	*0,653*		4,00	*1,000*	**0,05**	**2**

The research determined only 2 competencies (3%) out of 72 to be part of general industry competencies. Both are clearly connected to the Icelandic tourism and their own part in it. The general industry competencies are valuable for employers when hiring employees. It is important to have a general view over the industry, strategies, processes and key players. These can be taught, since it is mostly knowledge, but it is time-consuming. From these 2 competencies, 1 was among the biggest discrepancies in its category: 38. ”Knowledge of expected information about Iceland and tourism”. This can partly be explained by the seasonal foreign employees, who are not fully confident on their knowledge about Iceland. Since general knowledge is part of the tour information, this should be taken into consideration in employee orientation.

The third classification consists of intra-organizational competencies, which are not specific to any task but are high in firm specificity. The determined intra-organizational competencies are collected in table 34; in total these were 8 (11%) out of all the 72 competencies. Many of them consist of company and tour knowledge and information. These competencies are learned when employment starts in the company.

Table 34 Intra-organizational competencies among the guides

TECHNICAL COMPETENCIES	Actual (AC) N=22 $\bar{x}_1$	σ_1		Expected (EX) N=3 $\bar{x}_2$	σ_2	ΔD= $\bar{x}_2$- $\bar{x}_1$	C.
3. Knowledge of Arctic Adventures operations as a company	3,5	*0,913*		4,00	*0,000*	**0,50**	**2**
4. Knowledge of Arctic Rafting operations as a company	3,68	*1,287*		4,00	*0,000*	**0,32**	**2**

BEHAVIORAL COMPETENCIES						
21. To have commitment to my work	4,59	*0,503*	4,67	*0,577*	**0,08**	**2**
COMMUNICATION SKILLS						
47. To be able to communicate with the company operational staff	4,36	*0,492*	4,33	*1,155*	**-0,03**	**1**
48. To be able to communicate with the company office staff	4,05	*0,844*	4,00	*1,000*	**-0,05**	**1**
COMMITMENT TO WORK						
60. To be able to commit yourself to the company	4,32	*0,839*	4,00	*1,000*	**-0,32**	**1**
SOCIAL SKILLS & TEAM WORK						
63. To be able to work with other Arctic Adventures& Arctic Rafting employees	4,50	*0,740*	4,67	*0,577*	**0,17**	**2**
64. To be able to follow the company values	4,32	*0,716*	4,33	*1,155*	**-0,01**	**1**

Intra-organizational competencies include factors which separated leaders from competitors. Good knowledge of company operations and communication inside the company has a great influence on the tour quality and professionalism, and is a competitive advantage. The technical competencies had small discrepancies, which supports the importance of these competencies and focus in past training actions. Furthermore none of the competencies listed in table 34 were among the highest discrepancies in the whole categories. This indicates a good position of the core competencies inside the company.

Interestingly the standard deviation among actual skills has high values, indicating some possibilities for improvements. Social skills and ability to work in a team with other employees at Arctic Adventures can be classified as a core competency. This is supported by the very small competency discrepancy. In addition the ability to follow company values can be included in core competencies. In addition this discrepancy has a negative value, which indicates high current competency levels. However the standard deviation among managers´ responses is high 1,155, which indicates different expectations of how to follow company values. As discovered in the focus group discussion, the friendly and supportive working environment among tour guides was highly valued. This was also noticed by customers and employees in competing companies. As one participant described:

> "I think that the customers more than often, more than once someone in my group has been asking, you know I am guiding with someone, and they are

asking are you really good friends. And you know someone I work with and but people can feel it. And [aa] I think it's really important, I don't think all companies have that."(Focus group discussion, personal communication, November 14, 2012).

Most of these intra-organizational competencies are skills and knowledge, which can be improved through training and development. However the values and motivation to follow the values are hidden. Therefore the best is to pay attention to this in the hiring and on-boarding process, so employees possess the right motivation to adapt to the expected values.

The fourth type of competencies is the standard technical competencies, which are high on task-specificity and low in firm- and industry-specificity. The research discovered 16 competencies (22%) among the tours guides which can be classified as standard technical competencies, which are presented in table 35.

Table 35 Standard technical competencies among the guides

TECHNICAL COMPETENCIES	Actual (AC) N=22 $\bar{x}_1$	σ_1	Expected (EX) N=3 $\bar{x}_2$	σ_2	ΔD= $\bar{x}_2$- $\bar{x}_1$	C.
11. To be able to provide First Aid	3,95	*0,844*	5,00	*0,000*	**1,05**	**3**
12. To be able to operate vehicles efficiently	4,15	*0,875*	4,67	*0,577*	**0,52**	**2**
13.To be able to operate vehicle repair (N=20)	2,65	*1,089*	2,33	*0,577*	**-0,32**	**1**
BEHAVIORAL COMPETENCIES						
14. Service attitude in my work	4,41	*0,503*	5,00	*0,000*	**0,59**	**2**
19. To be able to know and understand customer expectations	4,23	*0,685*	4,67	*0,577*	**0,44**	**2**
22. To be able to provide good first impression for clients	4,36	*0,658*	5,00	*0,000*	**0,64**	**2**
LEADERSHIP & COMMAND SKILLS						
25. To be able to seem trust worthy for clients	4,55	*0,510*	5,00	*0,000*	**0,45**	**2**
INTELLECTUAL COMPETENCIES & FUTURE ORIENTATION						
34. To be able to read customers	3,91	*0,610*	4,67	*0,577*	**0,76**	**2**
35. Knowledge in how first impression is formed	4,05	*0,486*	4,00	*0,000*	**-0,05**	**1**
CUSTOMER SERVICE ORIENTATION						
56. To be able to handle difficult situations with customers	4,09	*0,750*	5,00	*0,000*	**0,91**	**2**

RESULT ORIENTATION						
57. To be able to provide good customer service	4,41	*0,503*	5,00	*0,000*	**0,59**	**2**
58. To be able to go the extra mile for the customer	4,32	*0,839*	4,00	*1,000*	**-0,32**	**1**
SOCIAL SKILLS & TEAM WORK						
61. To be able to be polite for customers	4,68	*0,477*	4,67	*0,577*	**-0,01**	**1**
62. To be able to use social skills with customers	4,50	*0,512*	4,67	*0,577*	**0,17**	**2**
ECOLOGICAL AWARENESS						
69. Knowledge of how to recycle	4,00	*0,873*	4,33	*1,155*	**0,33**	**2**
71. Knowledge of eco friendly actions	3,91	*0,971*	4,33	*1,155*	**0,42**	**2**

These competencies can be learned through training and on the job observing, and transfer easily between companies and industries. For example providing First Aid depends on the situation or activity, therefore it is highly task-specific. Furthermore this is not dependent on the company, as these competencies are needed worldwide in many situations, not only in the Icelandic tourism industry. From these 16 competencies, 8 were among the biggest discrepancies in their category: 11. “To be able to provide First Aid”, 22. “To be able to provide good first impression for clients”, 25.” To be able to seem trust worthy for clients”, 34.” To be able to read customers”, 56.” To be able to handle difficult situations with customers”, 57.” To be able to provide good customer service”, 69.” Knowledge of how to recycle”, and 71.” Knowledge of eco friendly actions”. The competency related to First Aid had relatively high discrepancy, which should be looked into more thoroughly, since it is one of the most important competencies in guide occupation. In addition competencies related to first impression, trust worthiness, ability to read customers and customer service are important in guiding work and the discrepancy levels should be monitored in the future. From these 8 competencies with high discrepancy 3 had the management priority: 25.” To be able to seem trust worthy for clients”, 34.” To be able to read customers”, and 57. “To be able to provide good customer service”. Although the discrepancies were relatively small, they should be also monitored.

According to Nordhaug (1998) the fifth group of competencies are technical trade competencies, which are task-specific, industry-specific but not firm-specific. In the research in question 33 competencies (46%) were found from this class. These are presented in table 36. Many of these competencies are important on the daily work for

tour guides, including knowledge and skills on use of equipment, route selection on the tour, how to give good service for clients, leadership and communication skills, capability to foresee problems, to be able to solve problem situations and in addition to have ecological awareness. These competencies can be transferred to other companies inside the industry, which provides both a possibility and a threat. It makes it easier to hire new employees who have worked in the same industry in Iceland or internationally, however employees can move over to other company taking their knowledge and skills with them. Competencies related to leadership and communication skills are more deeply rooted and cannot necessarily be thought as indicated by the Spencer and Spencer (1993) model and should be paid attention to during the hiring process. Of the 33 technical trade competencies 10 competencies had the biggest discrepancy in their category. In technical competencies these were: 6.” Technical knowledge of equipment (excluding vehicles)”, 9. “To be able to choose a good route on the tour” and 10.a. “To be able to navigate on tours”. All three had relatively high discrepancies and should be looked into enhancing via training actions, since these are important on guiding work. In behavioural competencies the biggest discrepancy was found from 16. “Knowledge how to operate safe tours”. This competency is one of the core competencies in any out door activity. In leadership and command skills the competency 29. “To be able to provide client care” received a relatively small discrepancy. This competency had a management priority and has been emphasized in training actions. In the intellectual competencies and future orientation the competency 37. “To be able to operate fun tours from customer point of view” received a higher discrepancy and furthermore was listed as one of the management priorities. Therefore this competency should be enhanced via training. In communication skills question 45. “To be able to communicate clearly the rules of the tour to clients” received a small discrepancy. As discussed earlier, this competency is difficult to be enhanced via training or development actions. In problem solving and decision making skills the competencies 51. “To be able to understand the possible problems on the tour” and 52. “Have knowledge of how to be prepared for problems” were both listed as the management priority. This is reflected by the small discrepancies, which is obviously caused the focus on training actions. Finally in ecological awareness question 68. “To be able use equipment in the most efficient way”, had the biggest training gap of the category, however it was a small gap.

Table 36 Technical trade competencies among the guides

TECHNICAL COMPETENCIES	Actual (AC) N=22 $\bar{x}_1$	σ_1	Expected (EX) N=3 $\bar{x}_2$	σ_2	ΔD= $\bar{x}_2$- $\bar{x}_1$	C.
5. Knowledge of how to use equipment on the tour (excluding vehicles)	4,45	*0,739*	5,00	*0,000*	**0,55**	**2**
6. Technical knowledge of equipment (excluding vehicles)	4,14	*0,889*	5,00	*0,000*	**0,86**	**2**
7. To be able to operate equipment care during the tour (excluding vehicles)	4,18	*0,795*	4,67	*0,577*	**0,49**	**2**
8. To be able to operate equipment care after the tour (excluding vehicles)	4,27	*0,767*	4,67	*0,577*	**0,40**	**2**
9. To be able to choose a good route on the tour	4,23	*0,752*	5,00	*0,000*	**0,77**	**2**
10.a. To be able to navigate on tours	4,18	*0,795*	5,00	*0,000*	**0,82**	**2**
10.b. To be able to assess safety	4,32	*0,646*	5,00	*0,000*	**0,68**	**2**
BEHAVIORAL COMPETENCIES						
15. To be able to solve problem situations at work	4,41	*0,503*	4,33	*0,577*	**-0,08**	**1**
16.Knowledge how to operate safe tours	4,23	*0,612*	5,00	*0,000*	**0,77**	**2**
18. To be able to be convincing and assertive for customers	4,36	*0,658*	4,67	*0,577*	**0,31**	**2**
20. To be able to be professional at work	4,41	*0,503*	4,67	*0,577*	**0,26**	**2**
LEADERSHIP & COMMAND SKILLS						
24. To be able to maintain the status of leader in the eyes of customers	4,50	*0,512*	4,67	*0,577*	**0,17**	**2**
26. To be able to give assertive and clear commands	4,41	*0,666*	4,67	*0,577*	**0,26**	**2**
27. To be able to solve problems between individuals	4,09	*0,684*	4,33	*0,577*	**0,24**	**2**
28. To be able to operate group management	4,36	*0,492*	4,67	*0,577*	**0,31**	**2**
29. To be able to provide client care	4,27	*0,550*	4,67	*0,577*	**0,40**	**2**
INTELLECTUAL COMPETENCIES & FUTURE ORIENTATION						
33. To be able to foresee possible problems and scenarios on tours	4,09	*0,750*	4,33	*0,577*	**0,24**	**2**
36. To be able to operate safe tours from customer point of view	4,32	*0,646*	5,00	*0,000*	**0,68**	**2**
37. To be able to operate fun tours from customer point of view	4,09	*0,610*	5,00	*0,000*	**0,91**	**2**
42. To be able to be innovative: ideas for new tours	4,00	*0,926*	3,00	*0,000*	**-1,00**	**1**
43. To be able to be innovative: new ways to operate existing tours	3,91	*0,868*	4,00	*1,000*	**0,09**	**2**
COMMUNICATION SKILLS						
45. To be able to communicate clearly the rules of	4,36	*0,581*	5,00	*0,000*	**0,64**	**2**

the tour to clients							
46. To be able to communicate tour information to the customers	4,32	*0,568*		4,67	*0,577*	**0,35**	**2**
PROBLEM SOLVING & DECISION MAKING SKILLS							
50. To be able to understand the possible risks of the tour	4,41	*0,503*		4,67	*0,577*	**0,26**	**2**
51. To be able to understand the possible problems on the tour	4,36	*0,492*		4,67	*0,577*	**0,31**	**2**
52. Have knowledge of how to be prepared for problems	4,32	*0,568*		4,67	*0,577*	**0,35**	**2**
53. To be able to find more information that supports my guiding	3,91	*0,868*		4,00	*1,000*	**0,09**	**2**
54. To be able to solve problems independently on tours	4,41	*0,590*		4,67	*0,577*	**0,26**	**2**
ECOLOGICAL AWARENESS							
65. Knowledge of Leave no trace policy	4,27	*0,883*		4,33	*1,155*	**0,06**	**2**
66. To be able to follow Leave no trace policy	4,18	*0,853*		4,33	*1,155*	**0,15**	**2**
67. To be able to inform customers about environmental factors	4,14	*0,710*		4,33	*1,155*	**0,19**	**2**
68. To be able use equipment in the most efficient way	4,27	*0,550*		4,67	*0,577*	**0,40**	**2**
70. Knowledge of how to operate tours in an eco friendly manner	3,86	*0,889*		4,00	*1,000*	**0,14**	**2**

The sixth competency category in Nordhaug´s (1998) typology is idiosyncratic technical competencies, which are highly task-specific, firm-specific and industry-specific. These competencies are very valuable for an organization since they can only be used in a specific task inside one organization. In this research 4 (5%) idiosyncratic technical competencies were discovered, these are presented in table 37. The technical competencies were related to the knowledge embedded on the company tours, both on the customer and employee point of view. None of these had the biggest discrepancy of their category, which indicates a good level of knowledge and successful training and orientation actions for employees. These competencies can only be used inside of Arctic Adventures and should be well maintained, since also they are core competencies.

Table 37 Idiosyncratic technical competencies among the guides

TECHNICAL COMPETENCIES	Actual (AC) N=22 $\bar{x}_1$	σ_1	Expected (EX) N=3 $\bar{x}_2$	σ_2	ΔD= $\bar{x}_2$- $\bar{x}_1$	C.
1. Knowledge of tour descriptions and tour information for customers	4,00	*0,756*	4,67	*0,577*	**0,67**	**2**
2. Knowledge how to operate tours (locations, routes, timings etc)	4,27	*0,935*	5,00	*0,000*	**0,73**	**2**
INTELLECTUAL COMPETENCIES & FUTURE ORIENTATION						
31. Have knowledge of Arctic Adventures tours	3,68	*0,780*	4,33	*0,577*	**0,67**	**2**
32. Have knowledge of Arctic Rafting tours	3,73	*1,352*	4,33	*0,577*	**0,60**	**2**

6.4 Icelandic tourism industry

According to María Guðmundsdóttir from the Icelandic Tourist Industry Association (ITIA), the general education level in Iceland is low, because many lack formal education. According to her: "…because we have a very high-high percentage in Iceland, from 30 to 40%, which is high compared OECD." (M. Guðmundsdóttir, personal communication, December 20, 2012). One of the challenges for providing further education is bad personal experiences of the employees from the time they were in school. One reason can be for example dyslexia. The ITIA is working on to raising the educational level in the tourism industry by providing training courses for those individuals who lack formal education. Furthermore the lack of education and training lead to quality issues, which is often reported as poor level of service. In addition the general salary level in tourism is low, which does not support and motivate uneducated employees to educate themselves more when there is no reward for the earned credits or diploma. María Guðmundsdóttir also supported the national quality framework EQF and NQF, which increase transparency and transfer of education and skills between countries.

More educational possibilities were demanded for the field of tourism and especially for guiding. At the moment such institutions are for example providing formal education: the guiding program in Kópavogur Institute of Education, University of Iceland and Fjölbrautaskóli Austur Skaftafellssýslu. Training is time-consuming and

expensive for companies, especially when it has to be built up from the ground level. Therefore the responsibility of the government to provide more formal education opportunities in Iceland was called after: “And this is [aah] huge task for the company and it shouldn’t be a company doing this, it should be [aa], some school doing this, we should be hiring people from school.” (J. H. Andrésson, personal communication, December 12, 2012). At the moment the formal high quality education has to be acquired from abroad, often from Europe or Canada where the most prestigious institutions are located: “..when it’s the highest stage in this type of [aa] education, I think, I think Canada is, you know, they are the top..“ (J. H. Andrésson, personal communication, December 12, 2012).

Keilir, Atlantic Centre of Excellence started recently providing outdoor activity education in cooperation with Thompson Rivers University from Canada. The program is called Adventure Sport Certificate with a focus on outdoor activity as the field of tourism and adventure guiding as a profession. Fields of activities covered are for example hiking and trekking, ice climbing, glacier hikes, mountain guiding and river rafting (Keilir, 2013). In addition a new quality label, VAKINN, has been launched for the Icelandic tourism with twofold structure; it is for tourism companies outside of the accommodation business and a rating system for Icelandic accommodation companies (Vakinn, 2013).

When asked of future legislation and standardization, the CEO of Arctic Adventures replied that: “But yes the activities are getting more like, they are getting more regulated and they will become more regulated, aah legislation will become tighter.” (T. Yngvason, personal communication, November 30, 2012). At the moment outdoor activity in Iceland in some fields is lacking legislation, and was described as “Wild-Wild West” by Jón Heiðar Andrésson. The government is working on setting new regulations, but these were not seen as done correctly:

> “And the problem is this, is thing that you don’t think about until you have an accident which usually a death accident and they react, overreact to it, they put up some stupid standards, they put up some stupid training requirements or whatever, and you are all of the sudden facing, before you were facing no, you know, [aa], no demand or [aaa] no, no rules, no laws, not anything just the wild wild west, all of a

sudden you need to climb a mountain to get the guides, to be able to run the trips, because the government panicked." (J. H. Andrésson, personal communication, December 12, 2012).

In addition concerns were raised on the government setting legislation which is not tight enough, and therefore legally approving unsafe minimum standards for outdoor activities. This would lead to lack of training and required competencies for the employees. Therefore more interaction with the industry and companies was demanded, to ensure reasonable and working standards for the whole industry. In addition to expanding the standardization on all of the activity fields like super jeeps, snowmobiling, quad biking etc. Jón Heiðar Andrésson was hoping for the industry players to come together in the future and be able to agree on common guidelines for the whole industry. This view was also supported by María Guðmundsdóttir, who said: "…that this is a sector where little has been done." (M. Guðmundsdóttir, personal communication, December 20, 2012).

The future training needs were not seen as a big threat since the company has been investing in and emphasizing training actions, as Torfi Yngvason stated: "All in all the training of Arctic Adventures guides is getting, is getting, gets better every year and will probably su-will surpass all these regulations." (T. Yngvason, personal communication, November 30, 2012).

The future standardization also was seen as a benefit when hiring new employees, due to the international standards which translate across countries. Hiring employees with an international standard will ensure a certain level of competencies in the specific field. This came out as an important factor for the future hiring and training actions for Arctic Adventures:

"…as long as you have the certificates that you need to have or that you have knowledge from that school you have been in, where you can take-take the tests or do the education the minimal act of it, less we have to teach you of course the cheaper for the company." (T. Yngvason, personal communication, November 30, 2012).

The lack of control and legislation was also mentioned in the discussion with ITIA:

> “The access in coming into the industry is way too easy, anybody can come, anybody can start a business, and the biggest challenge, or the biggest difficulty or hindrance is, we think our association is so many people who don´t have the licenses in order, not doing proper job and they are casting bad name on the rest of the companies that are doing things well.” (M. Guðmundsdóttir, personal communication, December 20, 2012).

One of the future threats for the tourism industry was seen also as land use by the government. The possible increased amount of hydropower plants and factories was seen as a threat to Icelandic nature and the fundamental reason for tourism. Decision and plans for land use were called after: “Which part of the country should be kept for tourism and building up tours, so there are many decisions where we have had saying how we want to protect the country.” (M. Guðmundsdóttir, personal communication, December 20, 2012). The ITIA is planning to issue a nature pass, which would collect funding for nature preservation, to maintain the tourist attractions for future generations: “…we wanted to come up with a proposal for nature pass, every person that comes to Iceland has to pay for a nature pass, it goes towards nature preservation and protecting.” (M. Guðmundsdóttir, personal communication, December 20, 2012).

In Iceland the natural conditions can pose a threat to the tourism industry, for example through volcanic eruptions. However the threat can also come from the Icelandic society and government. One example was the attempt on raising the taxation on accommodation:

> “The government is now putting the tax on, and its going to have a lot of affect, because where we stand now, we are with most other European countries, whereas we are going to go way up in the price, and what do you look at when you travel, if I talk about myself, I look at the price of the ticket and I look at the accommodation.” (M. Guðmundsdóttir, personal communication, December 20, 2012).

However after the parliament elections the tax increase was withdrawn in June 2013.

Government actions which are not well consulted with the tourism industry can cause huge damage for all aspects of tourism. Raising the price of accommodation is one of these, since customers use this as primary criteria for holiday destination planning. María Guðmundsdóttir was also concerned how raising taxation could harm

the local accommodation companies through an increase in the black labour market and effects on foreign investors. In addition the current economic crisis in the Euro area can have an effect on the number of tourists when combined with the raised price level.

7 Discussion

The aim of this research was to gain a better insight into the Icelandic tourism industry and furthermore the required competencies for tour guides in an Icelandic outdoor activity company. The research also aimed to conduct a training needs analysis to determine whether any competency discrepancies existed. This was done by comparing the existing competency levels to the expected levels, in addition by taking into account the future standardization and legislation needs. Three research questions were set to guide the process:

1. What are the expected and current competency levels among the tour guides of Arctic Adventures?
2. What kind of training gaps are there and on what scale do they exist at the moment?
3. What training needs do future legislation and industry standardization pose for the guides at Arctic Adventures?

The TNA results showed clearly that the expected competency levels in the company are high, with the majority being close to excellent. On the other hand the actual levels were in most of the cases matching the expected management levels. However the survey did not measure the expected levels of performance, but the level of expected competencies. Furthermore the actual competencies were measured through participants´ self-estimation report and not for example through customers´ experience or performance appraisal.

As discussed in the earlier chapters, the training, learning and development actions are seen as a possibility for companies to gain competitive advantage. The current business environment is changing fast and setting new demands which can be attained through employee development (Kearns, 2004). The set training, learning and development policies should be aligned with company strategies to deliver the best and most efficient results and lead to higher performance (Blanchard & Thacker, 1999; Mankin, 2009). All training and development actions should aim towards higher transfer of training to the actual work (Noe, 2005). According to Harrison (2000) learning actions

are more focused on individual knowledge, values, skills and behaviour. This is the importance of strategic human resource development, to be proactive in employee development and therefore gain advantages over competitors (Blanchard & Thacker, 1999; Garavan, 2007).

Many companies are dependent on intellectual capital which is a tangible asset of the organization. These assets cannot be owned by the company and should be considered through employee retention (Brooking, 1998).

Education on the other hand is conceived of as more formal and nationwide than organizational learning and training actions (Mankin, 2009). However this research clearly discovered a need for more formal education in the Icelandic tourism industry. Lack of formal education possibilities sets more training demands for the companies, leading to higher cost, in addition to driving employees abroad to seek formal education in tourism. On the other hand, companies also need to reserve the foreign work force to be able to perform during high seasons. The lack of formal education has direct impacts on the service quality level, which has the most complaints of. However many employees in tourism are not seeking further education due to the low payment level, and education is not seen as delivering any considerable benefits.

Training and development actions should always be strategically planned through the four steps of the human resource development cycle: identification of HRD needs, design of HRD interactions, delivery of HRD actions and evaluation of HRD interventions (Mankin, 2009). This research conducted a TNA which is in the first phase of the HRD cycle. The results of a TNA will help the company to determine the actual training needs and non-training needs, since not all discrepancies can be developed trough training actions (Blanchard & Thacker, 1999; Brennan, 2003; Cekada, 2010; Gupta, 1999; Rossett, 1999). Conducting training actions when not needed is extremely expensive for the company (Cekada, 2010). The performance discrepancies can be connected to employee motivation, technology or lack of supplies, which cannot be fixed through training (Mankin, 2009).

The conducted TNA was concerned with employee competencies, which can be defined as knowledge, skills, attitudes, behaviour and personal traits (Á. Elíasdóttir, personal communication, February 14, 2012). The research revealed the high expected

competency levels among the managers, and respectively high current competency levels reported by the tour guides. Some of the competencies even exceeded the expected levels. However, a few performance discrepancies were discovered, some of which were skills and knowledge which are visible on the Spencer and Spencer (1993) iceberg model. These are the easiest to change and affect with training actions. The hidden factors such as self-concept, traits and motives are more difficult or even impossible to change via training actions. Therefore the company should take these competencies into account when hiring new employees. They should not only focus on skills and knowledge as these can be developed afterwards with training (Spencer & Spencer, 1993).

In technical competencies the biggest training needs were found related to First Aid skills, technical knowledge of equipment, navigation skills and route selection on tours. All of these above are related to knowledge and skills and therefore can be enhanced with formal traditional classroom training actions or via on-the-job learning (Spencer & Spencer, 1993).

In behavioural competencies the biggest gaps were related to knowledge of how to operate safe tours and how to provide a good first impression. Both of course are very important competencies in the field of guiding. In addition the level of service attitude was determined to be a training need. The behavioural competencies are located in the middle circle of the Spencer and Spencer´s (1993) model, therefore these can be enhanced with training actions, however it takes more time and effort. The gaps in leadership and command skills were small and were related to trustworthiness in front of clients, working independently and providing client care. Some of these are attributes that are difficult to enhance via training and therefore these should be qualifying factors when hiring new employees (Spencer & Spencer, 1993). On the other hand these competencies were listed with top importance by company management.

In intellectual competencies and future orientation, discrepancies were connected to how to operate fun tours in the eyes of customers, to be able to read customers and knowledge of Iceland. The competencies related to reading customers and operating fun tours were again listed high in importance and therefore the discrepancies should be looked into. These competencies are located in the visible side of the Spencer and

Spencer (1993) model and can be affected through training and development. In communication skills the language skills in English and the ability to communicate rules to the clients had training needs. Both are clearly linked to skills and can therefore be enhanced through training and development actions (Spencer & Spencer, 1993).

In problem solving and decision making skills, no training needs were discovered, since both expected and current competency levels were high. This reflects the focus of past training actions to problems solving skills and being prepared for different scenarios. However, in the customer service orientation, the only competency was related to difficult situations with clients, and reached a relatively high discrepancy. In result orientation a gap related to good customer service was detected, which was listed as an absolute requirement for being a good guide. Both of these competencies can be enhanced through learning and training, role play and real life examples can be used to elaborate these skills (Mankin, 2009). The TNA did not detect any performance discrepancies related to commitment to work; instead the current competency levels were higher than the expected. In addition the category of social skills did not receive any discrepancies either. The competency related to using social skills with customers was emphasized by the company management. Therefore the high current levels in social skills indicates correct hiring decisions. Social skills are difficult to teach, being related to personal traits (Spencer & Spencer, 1993).

Finally the ecological awareness received small gaps related to eco-friendly actions, how to use equipment in the most efficient way and how to recycle. These are competencies related purely to knowledge and therefore can be reached through training and development actions (Jackson & Schuler, 2003). The company management listed competencies related to leave no trace policy and informing customers of eco-friendly actions, as important competencies. The high actual levels indicate a well executed training or hiring of individuals with existing knowledge.

In the second step of the HRD cycle the appropriate training and development actions will be designed. It is important to set appropriate objectives and goals for the actions, as well as to choose the correct delivery channel (Mankin, 2009; Blanchard & Thacker, 1999). The third phase of the cycle is the delivery of the actions (Harrison, 2000; Mankin, 2009). For example the performance discrepancies detected in this

research can be solved through traditional formal classroom training with supportive material, or on the job through observation (Jackson & Schuler, 2000). In addition the vast amount of knowledge and information support the use of connectivism (Tracey, 2009). In the final fourth phase of the cycle the training actions will be evaluated (Mankin, 2009). The approach can follow Kirkpatrick's (1998) four levelled model, which is concerned with change in the individual's behaviour and the company's results. Training evaluation can also focus on the financial side of the training actions by using the return on investment (ROI) method (Phillips, 1997). The evaluation phase, if often neglected, however should be focused on to determine the possible benefits of the training (Goldstein & Ford, 2002) and meeting the expectations for the training (Kirkpatrick & Kirkpatrick, 2010).

The 72 competencies which were detected in the research were also analyzed based on Nordhaug´s typology (1998) to gain better insight into the nature of the required individual competencies. As a result, competencies were discovered from all of the six categories. The first category is meta-competencies, which are low on task-specificity, firm-specificity and industry-specificity. The research discovered 9 competencies in total from this category. These competencies are general in nature and can be applied in many professions in many companies (Nordhaug, 1998). This reveals that the profession of guiding requires also general competencies and many of them are connected to knowledge and skills. Therefore these competencies can be improved through training and development actions (Spencer & Spencer, 1993). In addition these skills enable individuals to move between companies easily (Nordhaug, 1998). This, on the other hand, will make employee retention more challenging, since it cannot be guaranteed through training (Cascio, 2003). Respectively, hiring new employees can be done more easily, since the new employee might have acquired competencies in another company or educational institution, in Iceland or abroad.

The team of guides include individuals with different backgrounds and skill levels, and often decisions are made on a team level. Therefore the company should create competency frameworks. As discussed earlier in this research, multiple approaches can be utilized (Bratton & Gold, 2003; Mansfield, 1996). In this case the single job approach would describe the different competency categories the most accurately (Mansfield,

1996). These are the categories mapped in the survey, for example caving, snorkelling and glacier hiking. All of these categories need their own specialization. This project could be approached by implementing the wheel of competence within each category, which would allow individuals to have more input into their job description and required competencies (Larsen & Bramming, 2000).

The second classification on Nordhaug´s typology (1998) are the general industry competencies which are applicable inside one industry. The research revealed 2 competencies which fall into the general industry category. These were connected to the Icelandic tourism industry and included knowledge of the industry as a whole. This knowledge can be taught to new employees since it is located on the surface of the Spencer and Spencer (1993) model. Good knowledge on Iceland and the tourism industry will assure better service for customers, when being able to answer questions and provide information. As María Guðmundsdóttir stated the most complaints in tourism are often connected to the quality of service (M. Guðmundsdóttir, personal communication, December 20, 2012). The third type of competencies is the intra-organizational competencies which differentiate the company from competitors (Nordhaug, 1998). These are the core competencies which enable the company to combine skills into a productive force. Core competencies enable companies to enter new markets, add to customer benefit in the end product and are difficult for competitors to copy (Prahalad & Hamel, 1990; Ulrich, 1997). The research found in total 8 intra-organizational competencies. The company should take good care of these competencies to maintain and ensure future competitive advantage, by monitoring possible performance discrepancies and delivering training and development actions. However some of the core competencies are more connected to motivation and personal traits and therefore need to be taken into consideration when hiring new staff (Spencer & Spencer, 1993).

The fourth category of competencies is the standard technical competencies, which are high on task-specificity and low on firm-specificity and industry-specificity (Nordhaug, 1998). In total 16 competencies were found from this category. Similarly to meta-competencies, standard technical competencies transfer across companies, and furthermore are also international in scale (Nordhaug, 1998). This can be a benefit

when acquiring more labour. In addition the research detected 33 technical trade competencies, which are specific in task and industry level, but not for a specific firm (Nordhaug, 1998). These are competencies that can transfer between companies inside Iceland and also internationally, therefore this can be seen as a benefit for employing new staff members. Finally 4 competencies were determined from the idiosyncratic technical competencies, which are highly task-specific, firm-specific and industry specific (Nordhaug, 1998). Therefore these competencies have a great importance to the company.

Finally the research set a goal to determine the possible future challenges and training needs caused by new legislation and standardization. As a result it can be stated that the company will not phase training needs from the new legislation in the near future. This is due to the high training standards set in the company, as shown by existing competency levels as also determined in the needs analysis. Even though the current standardization is low or non-existent, the future standards will be raised relatively slowly. In addition the research also found that the set standards might not be relevant, due to the government ignoring the industry voice and expert advice when setting legislation. Due to the lack of standardization in Iceland, Arctic Adventures is seeking guidelines and standards from prestigious companies and institutes abroad.

The research also discovered concerns towards the Icelandic government and actions on land use and taxation. The tourism industry is at the moment relatively new in Iceland and should be better supported. Concerns were raised about destroying Icelandic nature or setting economic demands for the industry which it cannot meet.

7.1 Limitations, contributions and future research

The results of this research can be generalized to some extent to the whole team of guides at Arctic Adventures. The challenge in the research was the low number of survey participants. Many of the participants were new to the field of tourism and to Arctic Adventures and were young in age. This has an effect on the overall results of the research. However it is important to make a note of high standard deviation among the current competency levels. This is due to different backgrounds and work experience in the field. As an assumption it can be said that the ratio of new employees was higher than the more experienced ones. Furthermore, as the conducted t-test's showed, some

of the performance discrepancies had a statistically significant difference in the current and expected competency level means. This also is due to the low number of participants. The number of managers was really low, therefore the expected competency levels were quite homogenous.

The main research method was the online survey which relied on honest self-assessment; this of course causes some limitations, since it is difficult to assess one's own competency levels. In addition the participants are more likely to rate their competencies above actual levels. Respectively the expected competency levels were asked from the management, who are more likely to set the level higher than is realistic. More accurate responses would be gained through one-on-one interviews, which were not possible in this case due to resource constraints.

For future research the same study could be conducted inside the same company, including also the freelance seasonal guides. This would make the participant pool bigger and the competency levels even more diverse. Also to measure the actual and expected performance levels, instead of competency levels.

Another interesting future research would be to implement the same methodology to all outdoor activity companies in the whole Icelandic tourism industry. This would provide a holistic overview of the current needs and demands of the whole industry. Furthermore this could be the best tool for the Icelandic government to execute right, appropriate and necessary actions for legislation, standardization and formal education possibilities.

Hopefully this research will provide some insight into the current situation in the tourism industry in Iceland, and will be used as an informative tool and resource.

8 Conclusions

Conducting this research has been an interesting journey from the start to the end. For one reason, the duration of this project turned out to be longer than expected, due to simultaneous full time employment in the company. This on the other hand created and provided deeper insight and access to the research topic. As the time passed the researcher became more convinced of the importance of this study.

It was evident that more legislation was needed in the field of tourism and especially for outdoor activities. The surprising fact was how the lack of legislation, control and standardization was typical for the whole tourism industry. The high demand of formal education in field of tourism was obvious; it was clearly stated by the interviewees. This factor was also noticed when composing survey questions, how the educational background is very heterogeneous in Icelandic tourism. In addition the government actions towards the industry seemed to be short term and the set standards were not thought through. In addition demand for better communication for the government and industry players exists. For the industry to be ready to defend its rights and set demands, the tourism companies must agree on common goals and standards.

While conducting this study, the researcher was surprised at the high levels of existing competencies in the team of guides. When starting the research, the assumption was to find bigger gaps, as well as with respect to the future standard and legislation. It became clear that the company management has set high competency demands and future changes will not easily pose a threat. Another surprising factor was the number of recognized competencies, in total 72; however these were general in nature and in the beginning more core competencies were expected. This poses both threats and benefits for the employers. Due to this factor, Arctic Adventures differentiates itself from competitors mainly through the friendly family-like atmosphere, the Arctic family.

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Appendix 1

Questions for focus group discussion

What are the core competencies/ skills in your daily work as a guide for Arctic Adventures? What makes you a good guide?

In the fields of:

1. TECHNICAL
2. BEHAVIORAL
3. LEADERSHIP AND COMMAND SKILLS
4. INTELLECTUAL
5. COMMUNICATION
6. INTER PERSONAL (personal harmony with others)
7. PROBLEM SOLVING AND DECISION MAKING
8. RESULT ORIENTATION
9. TEAMWORK
10. COMMITMENT (willing to work hard to get the job done)
11. CONSUMER ORIENTED
12. SOCIAL SKILLS AND ETCHICS (ability to enhance the status in the organization)
13. ECO FRIENDLY ACTIONS

Appendix 2

Interview questions- Company owners

1. What are the strategic goals for Arctic Adventures?
2. How do the guides fit into these goals?

What are the core competencies for guides at Arctic Adventures? What is required for a good guide? In the fields of:

3. TECHNICAL
4. BEHAVIORAL
5. LEADERSHIP AND COMMAND SKILLS
6. INTELLECTUAL
7. COMMUNICATION
8. INTER PERSONAL (personal harmony with others)
9. PROBLEM SOLVING AND DECISION MAKING
10. RESULT ORIENTATION
11. TEAMWORK
12. COMMITMENT (willing to work hard to get the job done)
13. CONSUMER ORIENTED
14. SOCIAL SKILLS AND ETCHICS (ability to enhance the status in the organization)
15. ECO FRIENDLY ACTIONS

Appendix 3

Interview questions- María Guðmundsdóttir, Icelandic Travel Industry Association

1. The term competency refers to skills, knowledge, attitudes and values of an individual. What are the most important competencies in tourism in Iceland as industry?

2. What are the biggest challenges in Iceland at the moment in tourism for tour operators in quality, safety, professionalism and environment awareness ?

3. What kind of training and learning needs do these cause at the moment?

4. What are the biggest challenges in Iceland in the future in tourism for tour operators in quality, safety, professionalism and environment awareness ?

5. What kind of training and learning needs they will cause?

6.What legislative changes and standardization are expected in the future in the Icelandic tourism industry and especially for tour operators?

7.Who has the main responsibility to over see and provide training& learning possibilities in tourism in Iceland for the current and future employees?

8. Does the government´s tourism strategy for 2011-2020 cause other training needs in the future for the tourism as industry and especially for tour operators.

9. How is the work of The Icelandic Travel Industry Association supporting the governments tourism strategy?

Appendix 4

Cover letter for the online survey

Hello

I am studying in the Human Resource Management Master´s program at the University of Iceland and currently I am writing my Master´s thesis and the aim is to conduct a training needs analysis among the tour guides at Arctic Adventures and Arctic Rafting. As part of my research I am collecting information through an online survey, which is send to all guides at Arctic Adventures and Arctic Rafting Drumboddstaðir who worked for full time during the summer season 2012, and continued or started to work during the winter season 2012-2013.

The aim of the research is to measure the current competency levels among the tour guides of Arctic Adventures and Arctic Rafting Drumboddstaðir, and to reveal any possible existing training and non-training needs inside Arctic Adventures and Arctic Rafting Drumboddstaðir, which in turn will benefit both the employees and the employer. Individual competencies are defined as: skills, knowledge, attitudes, behaviour, and values.

The survey consists of questions regarding to different fields of competencies. Answers are given on a scale from 1 to 5, where 1 is no current competencies and 5 are excellent current competencies.

Filling the survey will only take 5 to 10 minutes of your time. Results of the survey will be part of my research and thesis. All answers will be dealt with confidentiality and no individual cases are isolated and presented.

Link to the online survey.

I hope you find the time to participate and answer as honest as possible.

Thank you.

Appendix 5

The online survey form for guides

Competency survey for Arctic Adventures & Arctic Rafting guides

This survey is send to all guides at Arctic Adventures and Arctic Rafting in Drumboddstaðir who worked for full time during the summer season 2012, and continued or started to work during the winter season 2012-2013.

Thank you for your time and answers.

1. Background information

1. Gender
2. Year of birth
3. Please choose your highest completed level of education
    a. Compulsory education
    b. Vocational education
    c. Upper secondary school
    d. Under graduate
    e. Graduate
4. Please fill in your highest completed education in the tourism field.
   Choose "Not applicable" or write the title of acquired degree
    a. Not applicable
    b. Other:
5. When did you start to work for Arctic Adventures/ Arctic Rafting?
6. How many SUMMER seasons have you worked for Arctic Adventures/ Arctic Rafting?
7. How many WINTER seasons, including the current one, have you worked for Arctic Adventures/ Arctic Rafting?
8. How many SUMMER seasons have you worked as a guide OUTSIDE of Arctic Adventures/ Arctic Rafting?
9. How many WINTER seasons have you worked as a guide OUTSIDE of Arctic Adventures/ Arctic Rafting?
10. On which tour types you can guide at Arctic Adventures& Arctic Rafting?
    a. Caving
    b. Snorkeling
    c. Rafting on Hvítá
    d. Driver guided super jeep tours
    e. Self drive super jeep tours

f. Glacier tours
g. Mountaineering tours
h. Day hikes
i. Multi day hikes
j. Sea kayaking
k. Mountain biking

2. Please rate your current competency level in each statement.

Competencies are defined as: skills, knowledge, attitudes, behaviour and values.

11. My current competency level in the following statement is:

1:None, 2:Poor, 3: Fairly good, 4: Good, 5: Excellent

1. Knowledge of tour descriptions and tour information for customers
2. Knowledge how to operate tours (locations, routes, timings etc)
3. Knowledge of Arctic Adventures operations as a company
4. Knowledge of Arctic Rafting operations as a company
5. Knowledge of how to use equipment on the tour (excluding vehicles)
6. Technical knowledge of equipment (excluding vehicles)
7. To be able to operate equipment care during the tour (excluding vehicles)
8. To be able to operate equipment care after the tour(excluding vehicles)
9.To be able to choose a good route on the tour
10.a. To be able to navigate on tours
10.b. To be able to assess safety
11 To be able to provide First Aid

12.My current competency level in the following statement is:

If applicable

1:None, 2:Poor, 3: Fairly good, 4: Good, 5: Excellent

12. To be able to operate vehicles efficiently
13.To be able to operate vehicle repair

13.My current competency level in the following statement is:

1:None, 2:Poor, 3: Fairly good, 4: Good, 5: Excellent

14. Service attitude in my work
15. To be able to solve problem situations at work
16. Knowledge how to operate safe tours
17. To be able to enjoy meeting new people
18. To be able to be convincing and assertive for customers
19. To be able to know and understand customer expectations
20. To be able to be professional at work

21. To have commitment to my work
22. To be able to provide good first impression for clients

14. My current competency level in the following statement is:

1:None, 2:Poor, 3: Fairly good, 4: Good, 5: Excellent

23. To be able to be in charge of the situation at work
24. To be able to maintain the status of leader in the eyes of customers
25. To be able to seem trust worthy for clients
26. To be able to give assertive and clear commands
27. To be able to solve problems between individuals
28. To be able to operate group management
29. To be able to provide client care
30. To be able to work independently

15. My current competency level in the following statement is:

1:None, 2:Poor, 3: Fairly good, 4: Good, 5: Excellent

31. Have knowledge of Arctic Adventures tours
32. Have knowledge of Arctic Rafting tours
33. To be able to foresee possible problems and scenarios on tours
34. To be able to read customers
35. Knowledge in how first impression is formed
36. To be able to operate safe tours from customer point of view
37. To be able to operate fun tours from customer point of view
38. Knowledge of expected information about Iceland and tourism
39. Understanding of your own part in the Icelandic tourism industry
40. To have personal interest to develop yourself
41. To be able to adapt into new situation
42. To be able to be innovative: ideas for new tours
43. To be able to be innovative: new ways to operate existing tours
44. To be able to meet the future training demands

16. My current competency level in the following statement is:

1:None, 2:Poor, 3: Fairly good, 4: Good, 5: Excellent

45. To be able to communicate clearly the rules of the tour to clients
46. To be able to communicate tour information to the customers
47. To be able to communicate with the company operational staff
48. To be able to communicate with the company office staff
49. Language skills in English

17.My current competency level in the following statement is:

1:None, 2:Poor, 3: Fairly good, 4: Good, 5: Excellent

50. To be able to understand the possible risks of the tour
51. To be able to understand the possible problems on the tour
52. Have knowledge of how to be prepared for problems
53. To be able to find more information that supports my guiding
54. To be able to solve problems independently on tours
55. To be able to be spontaneous in case of a problem
56. To be able to handle difficult situations with customers

18.My current competency level in the following statement is:

1:None, 2:Poor, 3: Fairly good, 4: Good, 5: Excellent

57. To be able to provide good customer service
58. To be able to go the extra mile for the customer
59. Interest to train yourself more independently
60. To be able to commit yourself to the company

19. My current competency level in the following statement is:

1:None, 2:Poor, 3: Fairly good, 4: Good, 5: Excellent

61. To be able to be polite for customers
62. To be able to use social skills with customers
63. To be able to work with other Arctic Adventures& Arctic Rafting employees
64. To be able to follow the company values

20. My current competency level in the following statement is:

1:None, 2:Poor, 3: Fairly good, 4: Good, 5: Excellent

65. Knowledge of Leave no trace policy
66. To be able to follow Leave no trace policy
67. To be able to inform customers about environmental factors
68. To be able use equipment in the most efficient way
69. Knowledge of how to recycle
70. Knowledge of how to operate tours in an eco friendly manner
71. Knowledge of eco friendly actions

21.Other possible competencies

Fill in here other important competencies required in your work

Appendix 6

The online survey form for the managers

Competency survey for Arctic Adventures & Arctic Rafting.

This survey is send to the managers of Arctic Adventures and Arctic Rafting in Drumboddstaðir to determine the expected competency levels for tour guides.

Please choose in each question the expected competency level.

Thank you for your time and answers.

1. In each statement rate the realistic expected competency level of tour guides both at Arctic Adventures and Arctic Rafting in Drumboddstaðir. Competencies are defined as: skills, knowledge, attitudes, behaviour and values.

1. The expected competency level for a tour guide in the following statement is:

1:None, 2:Poor, 3: Fairly good, 4: Good, 5: Excellent

1. Knowledge of tour descriptions and tour information for customers
2. Knowledge how to operate tours (locations, routes, timings etc)
3. Knowledge of Arctic Adventures operations as a company
4. Knowledge of Arctic Rafting operations as a company
5. Knowledge of how to use equipment on the tour (excluding vehicles)
6. Technical knowledge of equipment (excluding vehicles)
7. To be able to operate equipment care during the tour (excluding vehicles)
8. To be able to operate equipment care after the tour(excluding vehicles)
9. To be able to choose a good route on the tour

10.a. To be able to navigate on tours

10.b. To be able to assess safety

11. To be able to provide First Aid

2.The expected competency level for a tour guide in the following statement is:

If applicable

1:None, 2:Poor, 3: Fairly good, 4: Good, 5: Excellent

12. To be able to operate vehicles efficiently
13. To be able to operate vehicle repair

3. The expected competency level for a tour guide in the following statement is:

1:None, 2:Poor, 3: Fairly good, 4: Good, 5: Excellent

14. Service attitude in daily work
15. To be able to solve problem situations at work
16. Knowledge how to operate safe tours
17. To be able to enjoy meeting new people

18. To be able to be convincing and assertive for customers
19. To be able to know and understand customer expectations
20. To be able to be professional at work
21. To have commitment to my work
22. To be able to provide good first impression for clients

4. The expected competency level for a tour guide in the following statement is

1:None, 2:Poor, 3: Fairly good, 4: Good, 5: Excellent

23. To be able to be in charge of the situation at work
24. To be able to maintain the status of leader in the eyes of customers
25. To be able to seem trust worthy for clients
26. To be able to give assertive and clear commands
27. To be able to solve problems between individuals
28. To be able to operate group management
29. To be able to provide client care
30. To be able to work independently

5. The expected competency level for a tour guide in the following statement is:

1:None, 2:Poor, 3: Fairly good, 4: Good, 5: Excellent

31. Have knowledge of Arctic Adventures tours
32. Have knowledge of Arctic Rafting tours
33. To be able to foresee possible problems and scenarios on tours
34. To be able to read customers
35. Knowledge in how first impression is formed
36. To be able to operate safe tours from customer point of view
37. To be able to operate fun tours from customer point of view
38. Knowledge of expected information about Iceland and tourism
39. Understanding of own role in the Icelandic tourism industry
40. To have personal interest to develop yourself
41. To be able to adapt into new situation
42. To be able to be innovative: ideas for new tours
43. To be able to be innovative: new ways to operate existing tours
44. To be able to meet the future training demands

6.The expected competency level for a tour guide in the following statement is:

1:None, 2:Poor, 3: Fairly good, 4: Good, 5: Excellent

45. To be able to communicate clearly the rules of the tour to clients
46. To be able to communicate tour information to the customers
47. To be able to communicate with the company operational staff

48. To be able to communicate with the company office staff
49. Language skills in English

7. The expected competency level for a tour guide in the following statement is:

1:None, 2:Poor, 3: Fairly good, 4: Good, 5: Excellent

50. To be able to understand the possible risks of the tour
51. To be able to understand the possible problems on the tour
52. Have knowledge of how to be prepared for problems
53. To be able to find more information that support guiding work
54. To be able to solve problems independently on tours
55. To be able to be spontaneous in case of a problem
56. To be able to handle difficult situations with customers

8.The expected competency level for a tour guide in the following statement is:

1:None, 2:Poor, 3: Fairly good, 4: Good, 5: Excellent

57. To be able to provide good customer service
58. To be able to go the extra mile for the customer
59. Interest to train himself/herself more independently
60. To be able to commit yourself to the company

9. The expected competency level for a tour guide in the following statement is:

1:None, 2:Poor, 3: Fairly good, 4: Good, 5: Excellent

61. To be able to be polite for customers
62. To be able to use social skills with customers
63. To be able to work with other Arctic Adventures& Arctic Rafting employees
64. To be able to follow the company values

10. The expected competency level for a tour guide in the following statement is:

1:None, 2:Poor, 3: Fairly good, 4: Good, 5: Excellent

65. Knowledge of Leave no trace policy
66. To be able to follow Leave no trace policy
67. To be able to inform customers about environmental factors
68. To be able use equipment in the most efficient way
69. Knowledge of how to recycle
70. Knowledge of how to operate tours in an eco friendly manner
71. Knowledge of eco friendly actions

11.Other possible competencies

Fill in here other important competencies required