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Validating the ICB-3 Behavioural Competence

Assessment Survey for the Maturation of the

Project Management Profession

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BRINGING OUT THE BEST: VALIDATING THE ICB-3 BEHAVIOURAL COMPETENCE ASSESSMENT SURVEY FOR THE MATURATION OF THE PROJECT MANAGEMENT PROFESSION

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Abstract

One of the most fundamental challenges the International Project Management Association (IPMA) faces is to mature the practice within professional project management. An essential part of this challenge is to define the necessary project managerial competences, how to measure them, and even how to teach these competences to project managers. The paper examines this challenge faced by the IPMA, namely in how it defines what competences individuals require to be able to execute their duties in a professional manner that will deliver the intended project outcomes. The paper also considers how assessments are made, of individual project managers. The paper draws upon the ICB-3 behavioural competence framework to explore if the competence criteria contained within it can be used to assess project management competences. The research questions answered here include the following: (1) What behavioural competences are needed for a qualified project manager? (2) Can the ICB-3 be used to measure such behavioural competences? (3) In what direction should the ICB be taken in the future? (4) How should the behavioural competences for project managers be trained? The prime methodology employed to test these hypotheses was the creation of an assessment survey based on the ICB-3 behavioural competences. This survey was subsequently tested using a valid social science methodology — more specifically the SPSS — in order to secure internal consistency, validity and reliability. In the conclusions the essential findings – that the ICB-3/ICB4 constitutes a promising foundation for assessing behavioural competences of professional project management practitioners, but needs further development as an assessment, training and development tool – are laid out. Indications for future research are discussed and advice given for future developments is provided. The paper concludes with some insights derived from the discipline of experiential learning on how this knowledge may be employed to train behavioural competences among future IPMA project leaders. The paper proposes a new instrument, the ICB-3 Behavioural Competence Assessment Survey, for this purpose.

Keywords:*Project management, behavioural competences, ICB-3, assessment, training*

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1 Introduction

One of the most fundamental tasks the International Project Management Association (IPMA) has been working on over the last decades is to mature the emerging field of professional project management. As a result, a set of central questions have emerged: "What are the necessary competences that the professional project manager needs to possess; how are these skills taught and what is the nature of the assessment process?"

On my journey towards the completion of a Master in Project Management (MPM) at Reykjavik University, I have been somewhat perplexed by what the profession considers as competences. My background as an experienced facilitator in training people in leadership and communication competences and my experience as an occupational therapist (OT) provided me with insights and methods that have proven useful when dealing with challenges such as the one that the IPMA is currently facing, namely defining the personal qualifications needed for project managers to perform their duties in a professional manner; to define the required personal competences needed in order to deliver optimal outcomes; and to assess the individual and to guarantee that he or she is qualified to achieve the expected results.

In the paper I will examine how competences are defined within the project management profession with a special focus on the "behavioural competences" in ICB-3, and what will most likely be re-named "Personal" and "Social competences" in the forthcoming ICB-4 which takes into consideration developments in the field through the rigors of occupational therapeutic practice and social scientific methodology. What the occupational therapist needs to know in order to support an individual to flourish in their chosen occupation is a primary concern: What does the subject need in order to function well (in our case as a project practitioner), how to support the individual in such a way as to enable and improve this functioning, and how to assess and guarantee the success of the intervention.

The research questions that will be answered are: (1) What behavioural competences are needed for a qualified project manager? Can the ICB-3 be used to measure such behavioural competences? (3) In what direction should the ICB be taken in the future? (4)How should the behavioural competences for project managers be trained?

In this paper I address whether the ICB-3 behavioural competence criteria — leadership, engagement & motivation, self-control, assertiveness, relaxation, openness, creativity, results orientation, efficiency, consultation, negotiation, conflict & crisis, reliability, values appreciation and ethics — can actually be used to assess project managers' competences. One major component of this project's methodology was a survey that was conducted. The survey was in the form of a questionnaire that was comprised of the original ICB-3 behavioural competencies list, but shortened and adjusted. Thus, a key contribution of the research is that it carefully translates the behavioural competences section of the ICB-3 — an internationally acknowledged professional project competence baseline — into an assessment questionnaire.

Moreover, I discuss the shaping of the forthcoming ICB-4, in particular in relation to the listed personal competences, which are engagement, self-control, credibility, inventiveness, leadership, self-reflection and personal relations; and listed social competences which are personal communication, cultural awareness, conflicts and crisis, team work, and negotiation.

I begin my discussion by providing an overview of the literature on the subject of behavioural competence — leadership and communication — in regard to project management. The discussion focuses on what competences are in general, what behavioural competences are in specific, and how they can (and possibly should be)

assessed. The chapter also includes a discussion on the training possibilities for project managers. In the following chapter on methods, the multi-layered study of the ICB-3 is explained. To limit the scope, however, only the behavioural competences suggested by IPMA in the ICB-3 are investigated in order to analyse how appropriate the ICB method is to assess the competences of future project management practitioners. I discuss how the survey was created and explain the iteration process it went through and how the Statistical Package for the Social Sciences (SPSS) was used as an estimate of the reliability and to find communalities. In the chapter on results, the findings from the research are presented in a shortened version. The data are presented in a manner that will allow the reader to assess the validity of the findings.

Unfortunately it is not possible to reflect upon all the research findings. They are, however, available upon request to the author. In the discussion chapter I critically interpret the data and explain trends and traces.

In the conclusion chapter I summarize the essential findings, provide indications for future research and offer advice on the directions for future developments. The paper provides some insights from the discipline of experiential learning on how it would be possible to train behavioural competences among future IPMA project leaders.

There are a number of reasons for embarking on this research journey on the subject of behavioural competences. This includes, but is not limited to, five key concerns: (1) behavioural competences are receiving more attention in the somewhat "technically inclined" world of project management; (2) an international certification body such as the IPMA that certifies a wide number of project managers globally should commit to build its measures upon a solid list of competences that have to do with the leadership and communication skills of future practitioners; (3) the behavioural competence assessment can — and should — be firmly grounded on evidence based research to guarantee these are the right competences to measure, and that they are assessed with the appropriate measures; (4) excellent leadership and communication skills are not just accessories for future project leaders but something that lies at the core of good project management; and, last but not least, (5) my background as an occupational therapist and as an experienced experiential learning facilitator has provided me with useful tools to analyse in particular the behavioural competence of ICB.

2 Literature Review

In project management the emphasis has for a long time been focused on technical skills. Yet, behavioural competences are receiving greater attention in the field. As organisations are searching for the best person to fill the position, they want a person who is competent and with good interpersonal skills (Fisher, 2011). Levin, in her book *Interpersonal Skills for Portfolio, Program and Project Managers* (2010), argues that the formula for management success must include a high level of interpersonal skills. Because of growing complexity within projects and increasing number of employees and stakeholders, who are often located in different cities and even countries, it is critical that the project manager has good interpersonal skills and can manage multiple leadership roles while ensuring customer satisfaction (Levin, 2010). The project management researchers, the IPMA specialists Knoepfel and Xue (2009), agree with Levin in this respect, when they say that project management competences and career paths have become important issues on all management levels; on an organisational level, on portfolio, programme and project levels and on the level of the individual. They claim that "individuals are expected to have visible managerial and professional career paths, which they can understand and develop, and organisations need to strengthen their ability to recruit and retain good professionals in project, programme and portfolio management" (Knoepfel & Xue, 2009).

2.1 Project management standards, certifications and associations

Modern project management is less and less "an accidental profession" where people are almost randomly assigned to lead complex projects. The increasing complexity that project managers are facing and the rapid growth in project oriented organisations, over the years, have contributed to the professionalization of project management. In their book *Project Ethics* (2013), Jónasson and Ingason make a strong case for the maturing of project management from being just a job to becoming a profession (Jónasson & Ingason, 2013).

The urge to professionalize the discipline is also manifested in the fact that large international project management associations have devoted considerable effort to define a body of project management knowledge and in the development of guides and standards. These documents are then used as the basis for education, training, certifications, licensing and qualification recognition (Crawford, 2007). The main international organisations and associations dedicated to the professionalization within the project management discipline are the International Project Management Association (IPMA) founded in 1965 and headquartered in Switzerland; the Project Management Institute (PMI) founded 1969 in the USA; and the Association for Project Management (APM) founded in the early 1970´s and headquartered in UK (Meredith & Mantel, 2012). All of these organisations strive to codify areas of knowledge required for the competent project manager practitioner; IPMA with its ICB or International Competence Baseline; PMI with its PMBoK - Project management body of knowledge; and APM with its APM Body of knowledge, all of which are well known as project management standards (Eberle, Meyer & Rosen, 2011).

One could also extend this list to include the Australian Institute of Project Management Standards (AIPM); the Australian National Competency Standards for Project Management (ANCSPM); the Japan's Guidebook for Project and Program Management for Enterprise Innovation; and the P2M and the SAQA National Qualifications Level 5 Standard, and the PRINCE2 Foundation and Practitioner Qualifications. There is also the interesting attempt to find unity in the above-mentioned diversity within the Global Alliance for Project Management Standards (GAPPS) with its vision to be the independent reference benchmark for alignment, "transportability and mutual recognition" of competency based project and programme standards and qualifications ("GAPPS," 2013).

The International Competence Baseline ICB-3:

The International Project Management Association (IPMA) provides professional certifications on four levels—D, C, B and A—that attest to practitioners´ knowledge and competence in project management. This four level competence system is named the 4-L-C system (see figure 1). The IPMA Competence Baseline (ICB) is the basis for the certification by the certification bodies of the national Member Associations that use these competence elements to assess their candidates and members. In the so-called National Competence Baseline (NCB), the national associations are allowed to contribute to the baseline, for example if they take into consideration competences in relation to socio-cultural specificity. When a candidate is certified in Iceland, it is done in accordance with the ICB, not the Scandinavian NCB.

The roles in the 4-L-C system, with their distinctive capabilities, include:
IPMA Level A: Certified Projects Director manages complex project portfolios and programmes.
IPMA Level B: Certified Senior Project Manager manages complex projects. Minimum five years of experience.
IPMA Level C: Certified Project Manager manages projects of moderate complexity. Minimum three years of experience.
IPMA Level D: Certified Project Management Associate applies project management knowledge when working on projects.
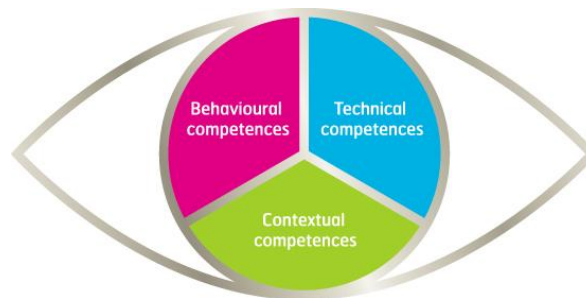
Figure 1 – *IPMA 4-L-C*

Figure 2 – *IPMA´s Eye of competence*

The ICB is meant to be the base for the professional certification provided through the 4-L-C system (see figure 1).The ICB describes the competences that the professional project manager practitioner should possess to succeed in his or her daily work. It is broken down into 46 competence elements, covering the technical competence for project management (20 elements), the professional behaviour of project management personnel (15 elements) and the relations with the context of the projects, programmes andportfolios (11 elements) (see figure 2).(ICB: IPMA Competence Baseline | IPMA: International Project Management Association). When explaining the underlying philosophy behind the behavioural competences, Caupin et al. articulate the IPMA position:

> Now, project managers manage their projects, programmes and portfolios in a fast changing context with many interested parties and external influencing factors. The projects are more numerous, more complex and more varied in nature. The demands for behavioural competences of managers and team members have become more pronounced and demanding. Conversely, we are facing a strong sense of individualism. The need for comprehensive descriptions of the competences for managing projects, programmes and portfolios in this changing context is obvious. This has created the demand for an adequate standard of professional behaviour. The 'personal attitudes' as documented in the IPMA Competence Baseline Version 2.0 are becoming more important. The project manager's success largely depends on the competence available in this range. To develop and realise good project plans and results, the project manager's behavioural competences, such as motivation and leadership, are an essential addition to his technical competence. Finally the project manager has to deal

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successfully with the organisational, economic and social context of the project. (Caupin et al., n.d., p. V).

The behavioural dimension in ICB:

The ICB is rich in content and provides the professional project manager with endless tips and tools. One of its advantages is its strong focus on the often called "soft" or "human skills" in project management. This has truly been an eye opener for the profession as it hints at the need to include both "intrapersonal" and "interpersonal" aspects in the competence baseline. This is mainly laid out in the section on behavioural competence elements, even though related considerations — such as teamwork and project communication — are also spread around in the document. All of this indicates that the so called "people factors" are emerging and are increasingly considered as important success factors in today's project management. Figure 3 details these changes within ICB2-ICB4.
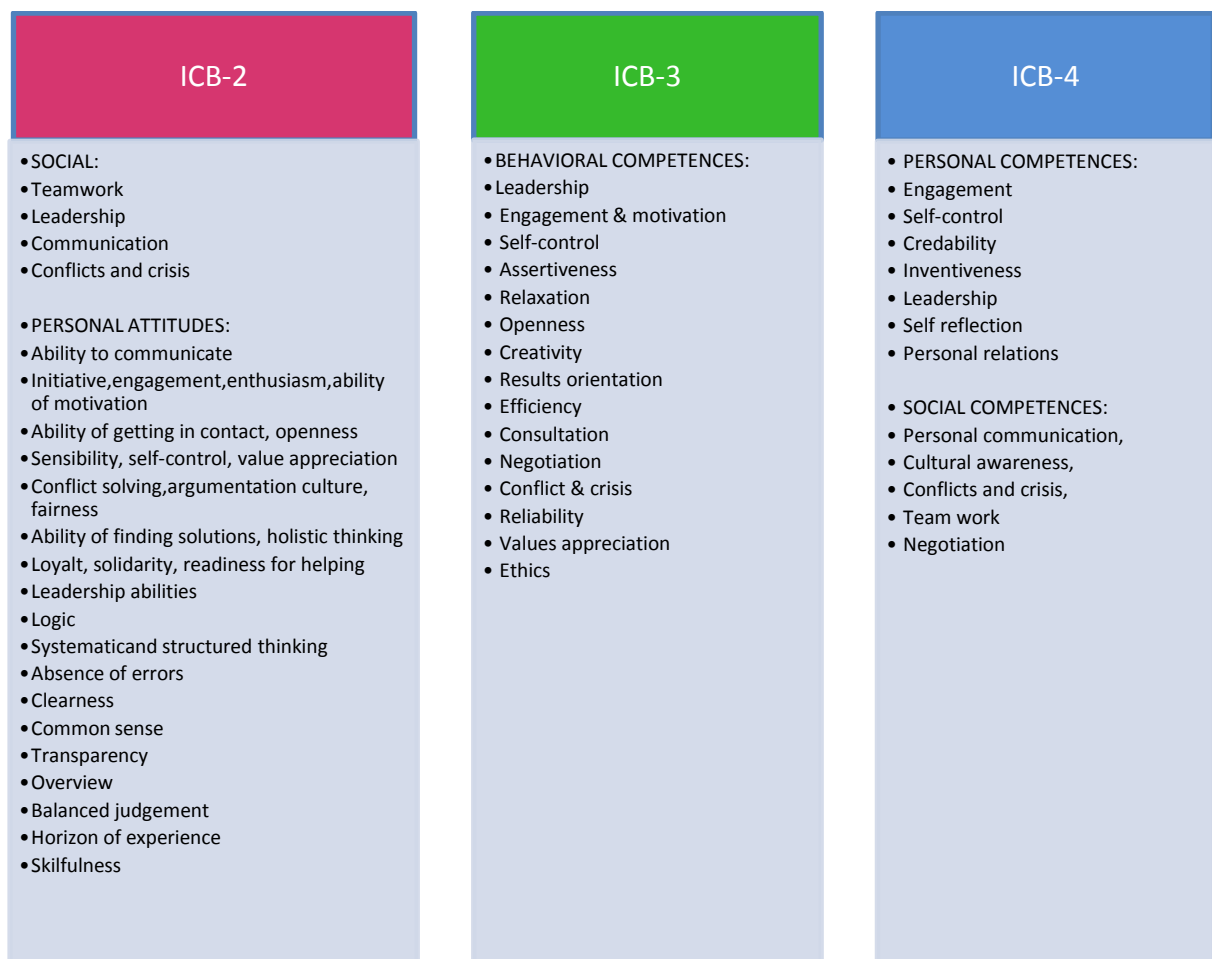
ICB-2	ICB-3	ICB-4
• SOCIAL: • Teamwork • Leadership • Communication • Conflicts and crisis • PERSONAL ATTITUDES: • Ability to communicate • Initiative,engagement,enthusiasm,ability of motivation • Ability of getting in contact, openness • Sensibility, self-control, value appreciation • Conflict solving,argumentation culture, fairness • Ability of finding solutions, holistic thinking • Loyalt, solidarity, readiness for helping • Leadership abilities • Logic • Systematicand structured thinking • Absence of errors • Clearness • Common sense • Transparency • Overview • Balanced judgement • Horizon of experience • Skilfulness	• BEHAVIORAL COMPETENCES: • Leadership • Engagement & motivation • Self-control • Assertiveness • Relaxation • Openness • Creativity • Results orientation • Efficiency • Consultation • Negotiation • Conflict & crisis • Reliability • Values appreciation • Ethics	• PERSONAL COMPETENCES: • Engagement • Self-control • Credability • Inventiveness • Leadership • Self reflection • Personal relations • SOCIAL COMPETENCES: • Personal communication, • Cultural awareness, • Conflicts and crisis, • Team work • Negotiation

Figure 3 – *The change within IPMA´s ICB´s behavioural competencies*

2.2 Key terms: "Behavioural" and "competence".

The online Merriam-Webster dictionary defines behavioural as anything that has to do with the "manner of conducting oneself" (in our case at work in projects) or as "anything that an organism does involving action and response to stimulation". It can, hence, refer to "the response of an individual, group, or species to its environment, the way in which someone behaves" or "an instance of such behaviour" ("Behaviour," n.d.). On a slightly more technical level, Kurt Lewin, sees behaviour as function of the individual personality

and the impact of the environment, or B = f (P, E)(Krainz, 2009;Jónasson & Ingason, 2012). Based on this, all of the ICB-3 competences describe behaviours, so IPMA might, in fact, want to consider to change the term to a more specific one— such as leadership/intrapersonal competences and or communication/interpersonal competences — as will be suggested in the conclusion of this paper.

The concept "competence" has its origins in the Latin word *competentia* which means "is authorised to judge" as well as "has the right to speak" or "to be suitable"(Caupin et al., n.d.). A competence is a work related skill and behaviour required to effectively perform a specific role. According to Merriam-Webster "competence" or "competent" can be seen as having requisite or adequate ability or qualities**:** *competent* teacher ("Competent," n.d.). Competence is, for bodies that provide certification for professional persons, the demonstrated ability of these persons to apply knowledge, skills, and possess the relevant demonstrated personal attributes, as they are defined in a certification scheme ("ISO/IEC 17024:2003," n.d.; Knoepfel & Xue, 2009)

In the article "Competition, Comparison, Collaboration, Mapping a Pathway through Project Management Standards", Crawford claims that not all is satisfied with the term "competence" in terms of project management (Crawford, 2013). GAPPS has, for instance, adopted the term "performance" instead of competence. Its argument is that the term "competence" denotes different meanings and that it "remains one of the most diffuse terms in the organizational and occupational literature" (Robotham & Jubb, 1996) Also, according to Woodruffe (Woodruffe, 1993), it seems like the term competency functions more like an umbrella term inclusive of all factors that affect job performance.

The current ICB-3, despite the above-mentioned considerations, classifies the following "behavioural competencies" as leadership, engagement & motivation, self-control, assertiveness, relaxation, openness, creativity, results orientation, efficiency, consultation, negotiation, conflict & crisis, reliability, values appreciation and ethics. It is clear that some of these terms are somewhat vague in defining "competences." A number of these terms are perhaps somewhat self-explanatory, but others are in need of clarificationone example being "ethics"' which here refers to the ability to conduct ethical project assessment. The behavioural competences are listed in an order of decreasing focus on the individual as well as an increasing number of people involved. The initial elements that are listed merely relate to the project manager him or herself, followed by the competences most related to his or her direct contact within the project and then competences that are important in relation to the entire project, interested parties, project environment and finally elements that have their origins in the economy, society, culture and history. One could say that this indicates a spectrum ranging from the most intrapersonal towards the most interpersonal competences.

2.3 Behavioural competences to succeed in project management

Many researchers have suggested what skills and attributes a project management practitioner should possess. While the characteristics of effective managers of projects, programmes, portfolios and multiple projects may not necessarily be the same, Kreinz (2009) argue, that the higher the level of the complexity of a situation, the higher the importance of behavioural competences and social skills (see figure 1).

As portrayed in the book *Project Leadership* (1996) by Briner, Hastings and Geddes, project leaders, when asked do define the core competencies of a project leader, say it is the ability: 1) to explain complicated things; 2) not to panic and become hyperactive; 3) to face up to problems; 4) to keep people informed about what is happening; 5) to sustain the "matrix" mentality, meaning keeping the mind on the big picture, whilst having a finger on the pulse (Briner, Hastings, & Geddes, 1996).

Meredith and Mantel (as cited in De Mascia, 2011) suggest a list of skills of competence they see as popular in the selection of project managers. The list includes: 1) a strong technical background; 2) a hard-nosed manager; 3) a mature individual; 4) someone who is currently available; 5) someone who is on good terms with senior management; 6) someone who can keep the project team happy; 7) someone who has worked in several departments; and 8) someone who can 'walk on water' (De Mascia, 2011, p. 12). The final listing should, most likely, be understood as having somewhat extraordinary skills.

Over the years many lists of project success factors have been produced. In Pinto's book *Project leadership: from theory to practice* (Pinto, 1998), common characteristics of successful implementation teams are: 1) a clear sense of mission; 2) an understanding of interdependencies; 3) cohesiveness; 4) trust among teammembers; and 5) a shared sense of enthusiasm (Pinto, 1998). Crawford defines project manager competence as a combination of knowledge, skills and behaviours (motives, traits and self concepts) that lead to superior results (Crawford, 2007).

Addressing the shifting developments in the field of project management, Briner (1992) comments, more than 20 years ago, that project management is moving away from simply seeing planning and control tools as the key to success towards focusing on the management of people and their performances. Reiss agrees and argues that projects generally involve people, and that project management is the management of change (Reiss, 1996) However, De Machia does not entirely agree. In her book *Project Psychology* (2011), De Machia states that these changes do not appear to be happening. In her assessments of project managers' roles, she emphasizes that the vast majority of candidates are not people focused and that they lack a sufficient level of emotional intelligence (De Mascia, 2011). *Emotional intelligence* (EI) is a title of a book by Goleman (Goleman, 1995) where he describes four domains on how to deal with emotions when they occur and how to transform one's own feelings into empathy to gain cooperation and, finally, collaboration. The four steps are self-awareness, self-management, social-awareness and relationship-management. This model is meant to help managers to act appropriately in situations where emotions are involved (Goleman 1995). The two focal points of emotional intelligence — that, according to De Mascia, project managers lack — are cooperation and collaboration.

A number of studies have been carried out to understand what factors contribute to project success, one of them being the study of Hylväri (Hylväri, 2007). In her research she found that the factors that had the greatest significance for project success were, among other things, the experience of the project manager in change management, his or her ability to motivate people and communicate well with them and good skills for conflict management. In their research from 1998, Zimmerer and Yasin found that the vital success factors of a competence project manager are leadership by example, clear vision and technical competence, decisiveness in decision making, good communication and motivational skill, the ability to stand up to upper management when necessary, supportiveness to team members and the encouraging of new ideas (Zimmerer & Yasin, 1998).

All of the above illustrates that people skills are being recognized as increasingly important and are critical factors that make projects more likely to be successful endeavours.

2.4 From defining behavioural competences to assessing them

It is thus far apparent that different project management associations and other bodies have produced a number of criteria regarding what they see as relevant factors and how they are handled in practice in their respective knowledge foundations. What needs to be

considered next is how these behavioural competences are assessed in practice. Some inspiration in this matter can be provided by the World Federation of Occupational Therapists. The occupational therapy process is based on initial and repeated assessments whereby the occupational therapist, together and in collaboration with the individual, employs standardized procedures, interviews, observations and consultation to identify the challenges and lacks of competence required in order to succeed.The ICB has, as will be shown in the conclusions, some potential to be a well structured knowledge foundation that can produce assessment frameworks that are easy to read and understand. Even though its content is somewhat overlapping, it is a serious attempt to sum up the crucial competences of the capable professional project manager.

In exploring options on how to improve the ICB, one might also want to take into account some other "peoples skills" measures, such as, for example: 1) the Occupational Personality Questionnaire (OPQ®) created by Saville and Holdswort (Developed for use in workplace settings, and is designed to provide businesses with information on the aspects of an individual's behavioural style that will impact on their performance of competencies at work.); and 2) the Leadership Development Questionnaire (LDQ) (The LDQ provides a broad coverage of 15 dimensions of leadership and the context in which leadership takes place) ("Leadership assessment and development," n.d.). Young & Dulewicz, (2006) compared these two measures and noted that the LDQ was better at predicting leadership performance. One could also consider the *Belbin test* that provides a typography for management teams and the *Behavioural Profile* that describes people's behavioural competence based on psychological trait theories and temperament. It views behaviour in three dimensions that are: 1) the differences in behaving (style); 2) the capability to encounter different people (flexibility); and 3) the capability to develop trust. In the past three decades, the tool has been tested and developed within organisational contexts and different studies show it is both reliable and functional, and can be used in either project management, general management and as a recruiting tool. *The Leadership Assessment* — a 360-degree evaluation assessment tool created by the occupational psychologist Tiia Arjanne — measures managers' leadership and social skills. The evaluation is based on 15 behavioural competences (Caupin et al. 2006), and each of the competence elements are measured with five questions with a five-step scale. Both the *Behavioural Profile* and *The Leadership Profile* are meant as development tools to increase leadership and communications skills.

As already stated, the aim of this project is to explore whether or not if the behavioural competencies in ICB-3 can be systematically used to actually assess project management competencies. The overall goal is to assist the IPMA to further develop a scoring system that does — as my discussion will illustrate — provide sufficient guidance to ensure inter-rater reliability and validity in the assessment process. The fact is — as well described by Duncan (2009) in his paper "An analysis of the Scoring approach in IPMA's 4-L-C" — that IPMA needs to guarantee that: "1) individual assessors within IPMA member associations evaluate candidates in a unified way so the "candidate's success or failure" is not just be left to the subjectivity of each assessor; 2) IPMA member associations use the same approach so organisations that hire IPMA certified people can rely upon the assessment´s results; 3) the scoring is based on clear and objective criteria related to the competence element assessed for the assessment´s results to be credible, and the candidate is actually capable to stand up to expectations" (Duncan, 2009). This illustrates that both the results of the 4−L−C assessments and the scoring approach needs to be both reliable and valid.

2.5 From assessing competences to training them

After consideration of the definition of project competences and assessment methods, attention needs to be paid to training possibilities. It has been argued that "people skills" are important and can contribute to project success — or, if not present, contribute or

project failures. Even a cursory examination of web resources illustrate the existence of countless training opportunities for both general managers and project managers that already possess the basics of project management skills. Many of those address the essential elements of 'people skills' both on intrapersonal levels that have to do with leadership, self-reflection and self-management and inter-personal skills such as communication, conflict resolution and negotiation ("Soft Skills Overview," 2013). According to Ingason in his article "A comparison of 17 programs in 24 universities based on the Eye of Competence" (as cited in Sedlmayer, 2009), "training programmes heavily focus on technical skills and lack a focus on behavioural elements: leading project management MBAs on all continents include less than ¼ of their efforts in social skills".

The occupational therapy profession teaches that any formal learning process that aims at fostering increased competence of any sort needs to be based both on an initial and repeated assessment. Together with the person who is to be trained, the focus is on both individual and environmental abilities and problems related to activities the person has to deal with. Assessment includes the use of standardized procedures, interviews, observations in a variety of settings and consultation with significant people in the person's life ("How do OT's work?," 2013). Further, adding to these insights from experiential learning, there are three kinds of learning: *Received knowledge* (or the "heard" or "read knowledge") is knowledge where people learn by listening to others, read books or get information from reliable sources and it creates "borrowed wisdom". *Intellectual knowledge* is the knowledge that is created and gained when received knowledge is reflected upon so it becomes intellectually acknowledged. It is digested, but still remains borrowed wisdom. *Experiential knowledge* is, however, knowledge that is brought about through individual experience as a personal realization of truth. This leads to personal wisdom, by which one lives and it is transformative. Experience alone changes our behaviour (Deltuva, 2010).

According to some leading figures in education — such as the American pragmatist John Dewey, who argued that truth is to be defined by experience, the social-scientist Kurt Lewin and the pedagogues Jean Piaget and David A. Kolb´s work on experiential learning — in order to earn a certain competence, one only learns by doing it. What this means for training competence in project management is that it needs to be done in an experiential fashion (Kolb, 1984). Experiential learning is an important approach that has influenced the management training literature as well as adult education. Without a doubt, the two concepts that characterise the approach most clearly are experience and reflection (Miettinen, 2000).

3 Method

The research questions in this study are: 1) What behavioural competences are needed for a qualified project manager? 2) Can the ICB-3 be used to measure such behavioural competences? 3) In what direction should the ICB be taken in the future? 4) How should the behavioural competences for project managers be trained? The method used to answer these questions is a multi-layered methodology that draws upon qualitative approaches to develop an instrument — an assessment questionnaire based on ICB-3 — which is rigorously tested with statistics that aim for more quantifiable data. The research procedure will be explained below:

3.1 Research procedure

1) *"What behavioural competences are needed for a qualified project manager?"*

The first question was answered in the following way: First, an attempt was made to map all the different competencies from the different standards (ICB-3, Scandinavian NCB, PMBoK, APM and GAPPS) to find a common factor between them. This turned out to be complicated due to different uses of terms and their conceptualisations. Second, few IPMA experts were interviewed in a hope to understand better the underlying premises of the statement used to describe competences in the ICB-3. Initially the CEO of the Project Management Association in Iceland (VSF), Theodór Ottósson, as well as Egill Skúli Ingibergsson who is an experienced assessor for the IPMA 4-L-C program, were asked about their opinions about the 142 statements defining the behavioural competencies in ICB-3 and how they are assessed. I made contact with Morten Fangel, founder and the former president of both IPMA and the Danish PM Association and the editor of the Danish National Competence Baseline which the NCB for Scandinavia is originally based on. I inquired about the work on the new ICB-4 and the Scandinavian National Competence Baseline 2010 (NBC) to learn what, if any, changes are planned. Thirdly, a critical exploration of the structure of the 15 behavioural competences was carried out and some questions emerged: Is the order random or are the competences laid out in order of importance? What lies behind each statement? Is there interdependency among the themes? Why are these statements chosen in specific? What competences should be there, but are not included? Are competencies like relaxation, creativity and values appreciation more important than, for instance, trust building? Why are communication and team work part of the technical competences when they are usually topics associated with the 'soft' side of project management (Armstrong, 2009).

2) *"Can the ICB-3 be used to measure behavioural competences of project management practitioners?"*

The second question was answered by creating a questionnaire based on the ICB-3 behavioural competence and by testing its reliability and validity by both asking the participants about their experiences of taking this questionnaire and by analysing the data statistically. The aim was to see if it was possible to standardize the ICB-3 competences in a survey in order to check its validity. This included finding internal consistencies, contradictions, defining what questions are too similar or those that may measuring the same factors. The list of 142 competence statements was simplified and shortened with the aim of reducing this number to be no greater than 100. An attempt was made to reconstruct statements that included two or three themes within the same question. An example could be the first statement in 2.01: "Can delegate tasks, has confidence in others and coaches them to develop and live up to expectations" is revised as: "Can delegate tasks"; "has confidence in others" and "coaches them to develop and live up to expectations." How this was done in details is explained in the following 5 step procedure:

Step 1: *Translating the ICB-3 statements into an initial questionnaire.* In this step each of the 142 ICB-3 statements suggesting the "right" behaviours were carefully translated into 103 questions for self-assessment (1st person statements.) In doing this the focus was on logical consistency, clarity and on the avoidance of jargon, repetitions and questions that inquired after numerous factors simultaneously. Sub-statements were synchronized so it would be easier to answer them. The goal had been to limit the number of questions to 80, so taking the survey would not take too much time. This limitation forced the developer to set clear priorities for the topics.

Step 2: *Critical review of the initial questionnaire by 10 experts.* The questionnaire that was produced in step 1 was sent out to 10 experts in survey methodology: 5 with a

MPM-degree, 5 with a master's degree or PhD degree in psychology, anthropology, health related subjects and humanities. These experts took the survey and critically examined its questions and provided feedback. Based on their recommendations many significant revisions were made to the questionnaire and a new questionnaire with 103 questions was made and was developed into a "ICB-3 behavioural competence survey"*(ICB-3 BCS working version).*

Step 3: *The ICB-3 BCS working version tried by 135 project managers.* The new questionnaire was sent out to 135 individuals within the project management community in Iceland. All of them are IPMA certified (mostly D level, but a few on C level). The list was sent out electronically so results could be more easily processed. The 103 questions were on a five-point Likert-scale. Out of the 135 participants, 102 (75,5%) responded. One reminding email was sent out.

Step 4: *The data from step 3 analysed by using the SPSS.* The data from step 3 was analysed with the Statistical Package for the Social Sciences (SPSS) and a factor analysis was used to identify the subthemes in the *ICB-3 BCS working versions*. The factor analysis showed few subthemes, ranging from 1 to 3 subthemes. To identify questions that could be deleted, a component matrix was made. It displays each variable loading on each component (always the strongest component) but which creates their own retained component. Subsequently, the *ICB-3 BCS working version* was ran through Cronbach´s Alpha, which is a coefficient of internal consistency and commonly used as an estimate of reliability, in order to gauge to what extent the questions "measure the same things", and/or to which degree two observers record the same data in the same circumstances. Cronbach's alpha will generally increase as the intercorrelations among test items, and is thus known as an internal consistency estimate of reliability of test scores. An internal consistency over 0.7 is acceptable. In factor analysis "communalities" indicate how well each variable fits the factors extracted in the factor analysis. If the communality of a variable is lower than 0.3 then it does not fit with that factor. In this step all variables with low loadings were taken out without reducing reliability and this enabled for a shortening of the list of questions without compromisingreliability. This was done through iterations were different loadings were tried after certain questions had been removed. All questions below 0.4 were removed if they did not lessen the reliability and few that were above 4.0, however, only if reliability did not go below 0.7.

Step 5: *Based on step 4 the ICB-3 Behavioural Competences Assessment Survey (72 questions) was created.* Based on the findings in step 4, the questions in the ICB-3 BCS working version 1 were again revised and a new, shorter version, *ICB-3 Behavioural Competences Assessment Survey,*was produced. This list was carefully read through by Bob Dignen, an expert in the English language who specialises in project management. The survey was then adjusted accordingly. The ICB-3 Behavioural Competences Assessment Survey can be seen upon request from the author.

3) *"In what direction should the ICB be taken in the future?"*

The third question will be answered by looking into what *ICB-3 Behavioural Competences Assessment Survey* indicates and comparing it with other standards and what has been learned about the development of the new version of ICB-4.

4) *"How should the behavioural competences for project managers be trained?"*

The fourth question will be answered by looking at indications from the interviews, comments from the critical readers and considering how experiential learning can be used to strengthen the competences that the *ICB-3 Behavioural Competences Assessment Survey*are assessing.
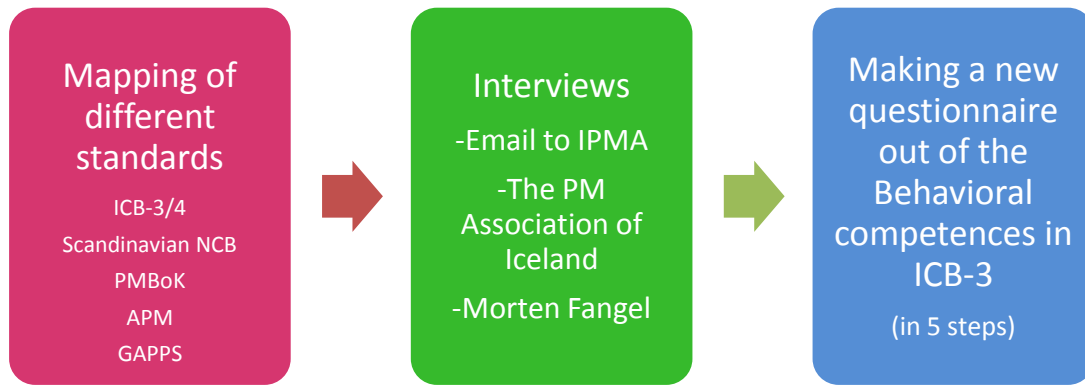
Figure 3 – *The process of making of a questionnaire out of the ICB-3´s behavioural competencies*

3.2 Limitations

There are limits to the comparison a few differently structured lists in the methodology. This many not provide a full overview of all of the different competences. There is also a risk in translating the statements of behavioural statements in the ICB-3 into questions, since they are not intended to be direct questions. There is also a risk in trying to downsize a list from 142 questions to 72 in consideration of what may be excluded in the process. Limitations regarding the input of experts might be that they do not fully understand the premises of the baseline of the ICB-3. Limitations regarding the questionnaire that was sent out to the 135 respondents is that they are too few to fully validate the list and also that the response dropped considerably after about 60 questions. In answering questions three and four, I can only speculate on the future trends and in what direction ICB-4 should be taken and how the behavioural competences should be trained.

4 Results

In this chapter the main results from the multi-step approach used in the research will be laid out. The results are mainly qualitative (interviews and answers to open questions by experts and participants), but also statistical and hence somewhat quantifiable (data based on SPSS). The chapter will be structured according to the four research questions: 1) What behavioural competences are needed for a qualified project manager? 2) Can the ICB-3 be used to measure such behavioural competences? 3) In what direction should the ICB be taken in the future? 4) How should the behavioural competences for project managers be trained?

1) Results regarding the first question*: "What behavioural competences are needed for a qualified project manager?"*

The attempt to critically compare a few differently standards (ICB-3, ICB-4 (as far as it is known to the author), the Scandinavian NCB, PMBOK, APM GAPPS) proved to be problematic as these standards do not cover or denote the same competences. Not all use the same words and phrases, and the language is often imprecise. In the ICB-3, Scandinavian NCB, APM, PMBoK, GAPPS and the current version of the future ICB-4, there are some commonalities, such as in regard to leadership, negotiation, openness, conflict management and cultural awareness. Communication and teamwork are mentioned in ICB-3, however, no information is to be found concerning why communication and teamwork are a part of the technical competences instead of behavioural competences. This will, supposedly, be changed in the future ICB-4. "Ethics"

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is an example of a competence that is listed only in ICB-3, although it is not exactly a "competence" as a competence needs to describe an action. It should rather be presented as "the ability to reflect on the project with ethical thinking". This will, according to the author´s knowledge, be changed in the future ICB-4. The behavioural competences in the ICB-3 are listed in an order ranging from a focus on the individual towards an increasing number of people involved. One way to interpret this is to say it ranges from the most intrapersonal competences towards the most interpersonal competences.

The attempt to gain information about how the behavioural competences in the ICB-3 were chosen, the author at first consulted members of the IPMA Research Committee (Reinhard Wagner VP of R&D / Awards, IPMA Research Committee, personal communication, email, January 21st 2013) Reinhard Wagner replied to my query:

> Usually IPMA develops standards (like in ISO) with a group of experts. The same approach was used developing IPMA ICB, so it was not a copy of literature or a result of research activities but a result of a consensus building process of an international group of experts. There is lot of research based on the ICB behavioural competence, we do not provide such information because it is the copy right and the information of the researchers which you should identify through your own research (R.Wagner, personal communication, January 21st 2013)

In my interview with Theodór Ottósson, the CEO of the Icelandic Project Management Association (VSF) and Egill Skúli Ingibergsson assessor for the IPMA 4-L-C programme at The Icelandic Project Management Association (VSF) about the behavioural competence statements in ICB-3,Ottósson stated:

> The standard was developed over a long period of time, and has changed a lot. In the beginning the focus was on the technical competences, but then people started realising that people skills are also very important, personal skills of the project manager. There are other and more requirements towards management today and it is important to be able to work with people. Because of this the behavioural competences have today gained more weight (Ottósson, personal communication, February 4, 2013).

Morten Fangel at Fangel Consulting, in a personal correspondence, noted that the ICB was partly built on material from Holland and has changed considerably over time from ICB-2 to ICB-3. Fangel, among others, have in the Scandinavian NCB changed many of the competences after having critically considered what competences they believe should be included. They have, for instance, removed "Leadership", which they contend is too general of a term and should be replaced with "provide direction."(M. Fangel, personal communication April 12, 2013). The newest version of the Scandinavian NCB from 2010 is in many ways a simplified list and can be seen at *www.danskprojektledelse.dk*

2) Results regarding the second question: *"Can the ICB-3 be used to measure such behavioural competences?"*

In an interview with Theodór Ottósson and Egill Skúli Ingibergsson, they were also asked how the statements in ICB-3 are measured. They replied that they follow the IPMA Certification Regulations and Guidelines (ICRG) for the C and B certification process in regard to measuring competences and the assessment process. Ingibergsson continued:

> Regarding the self-assessment of behavioural competences in ICB-3, many people are a little bit nervous about answering these questions and people do it very differently, some are very cautious while others are more certain in their answers. (Ingibergsson,personal communication, February 4, 2013).

In the attempt to downsize the ICB-3 list from 142 statements to a concise list of questions, the list was first translated into a 1st person questionnaire (which could also be used in a peer evaluations by transmuting them into 3rd person (he/she) statements). In minimizing the list, the emphasis was placed on logical consistency, sense making and on the avoidance of jargon, minimizing repetitions and questions that sought answers to numerous factors simultaneously. The list was then distributed to readers for critical feedback. The following quotations reflect their comments:

> It is important to look at the different statements and especially if the word "and" is in the sentence. Are you asking about one thing or two or possibly three different things in one question? It is important to only measure one thing in each question, but of course it can be that despite interconnection it is possible that things are so closely related that it is OK.

> Statement 18 is an example of bulletproof assertion in my opinion:"I lead by giving time for honest interpersonal communication" here there is no interconnection, clearly only one item being measured …

> You have 10 reply options, reducing them to 5 would be better (unless there is a specific reason.)

> The survey is very long; I recommend that you reduce the number of statements per part if possible.

One potential limitation of personal assessment is that individuals can have blind spots regarding their own skills and personality. People tend to overestimate their abilities, which can limit the usefulness of any test. This gap between how a person sees him or herself and an objective measure of his or her competence level can produce biases. For the most accurate results, test-takers must be prepared to answer questions candidly and resist the temptation to overestimate their abilities. Other comments from the critical readers include the following:

> The questions you have listed are very direct and predictable - if a person always answers with "Strongly agree" the cut will be very high, which is generally accepted as good,but if you answered "strongly disagree", the predictability of the cut will be low, which is generally badly accepted.

> Most personality/behaviour tests are more "tricky", i.e. it is (or should not be) directly predictable on the basis of each question or question form what the outcome will be (here the Belbin could be an example).

> I think that such direct questions could perhaps be useful for self-evaluation; since the result is primarily intended for those who take the exam and it is up to oneself if he/she answered honestly or not. I think for this reason that it should not be used directly as an interview questionnaire that an employer submits to the candidates. An example is that all job seekers would answer question 74 with "Strongly Agree".

Another suggestion from the critical readers was that it would possibly be helpful to ask respondents to measure themselves against someone else who was considered to have exceptional behavioural competencies. It is hypothesised that this could possibly reduce the high scores.

A five-point scale appeared to be adequate for the respondents, but the extreme values of the scale were used quite regularly.

Experience shows that participant enthusiasm and information integrity begins to suffer after 50-80 assessment responses, and the most commoncriticism were that the list was too long, and that some of the questions too difficult to understand. In the first seven parts of the questionnaire, the response rate was approximately 80% and which dropped

considerably the further the questionnaire extended. By the close of the questionnaire, only a 50 to 60% response rate was achieved.

Due to the limited time and less than ideal number of respondents the author was not able to completely validate the list. For a full validation one would need 1030 answers or ten times more respondents than the questions. This is, however, not of a vital importance for a list of this sort. It is beyond the scope of this paper to go into details on how the respondents evaluated themselves, or their own levels of competence. This was not the aim of the research, but only to evaluate what impact the questions as such would have in an attempt to guarantee that it could be used as a measurement. Many of the respondents commented that the list was too long; they did not fully understand all the questions; they got tired and thus did not finish the list; and that too many questions sought answers asking about the same things.

To give an example of a few statement changes through the process one could mention the following:

First Statement in Part one of the questionnaire / 2.01 Leadership:
"Can delegate tasks, has confidence in others and coaches them to develop and live up to expectations" was changed into "I can delegate tasks, have confidence in others and coach them to develop and live up to expectations".

This sentence states a number of diverse themes: "Can delegate tasks"; "has confidence in others" and "coaches them to develop and live up to expectations", and, therefore, it was important to make changes in order to be able to translate it into an easily understood question. The final version was constructed as follows: "I lead my team by showing confidence in others and coach them well"

Second Statement in part two of the questionnaire / 2.02 Engagement and motivation:
"Welcomes initiatives and stimulates engagement from others" was at first revised as:"I welcome initiatives and stimulate engagement from others" and after comments from the critical readers and Bob Dignen it was modified as:"I engage and motivate my team by involving them in the planning process."

Sixth statement in part three of the questionnaire / 2.03 Self-control:
"Balances work and private life" was changed into "I show self-control by balancing work and private life." But after analysing the findings through SPSS, this question was removed to raise the reliability of this part.

All in all 25 questions were deleted, but two, one in Part 1 and one in Part 6 (openness), were rephrased and used in the questionnaire since they were considered important for the list as a whole. The overall result is that it was impossible to use the list as a personal evaluation as it was too long and too complicated. The list is now 72 questions and is now divided into "Leadership/intrapersonal competences" and "Communication/interpersonal competences". In order to validate the list it has to be re-tested.

3) Results regarding the third question: *"In what direction should the ICB be taken in the future?"*

The survey clearly indicated that it was difficult to understand all of the questions on the part of the readers. The list suffered from overlapping and repetitions. It was also too long. Despite this the ICB has the potential to become a well structured knowledge foundation for a sound evaluation assessment. Even though its content is somewhat overlapping, it is a serious attempt to sum up the crucial competences of the capable

professional project practitioner. Yet its content should be simplified for sake of clarity and improve understanding on the part of the reader. Based on this, in fact, all of the ICB-3 competences describe behaviours (with the exception of "ethics" which could be changed into "ethical behaviour"). In order to clarify the list, IPMA may want to change the list so it defines two main themes: Leadership/intrapersonal competences and or communication/interpersonal competences, as will be suggested in the conclusion of this paper. This is supported by indications shown in the ICB-4 where the two main themes are personal competences and social competences.

4) Results regarding the fourth question: *"How should the behavioural competences for project managers be trained?"*

The investigation revealed through an internet search that there are over 1,150,000 hits reported when searching for "training soft skills"through a search engine; the phrase "project management soft skills training" provided 81,500 results. In the survey sent out to the 135 respondents, they were asked: "Do you think project teams can be used as place to train and foster interpersonal communication skills/competences? If so, how do you think it should be done?" The following quotations reflect their comments:

> Yes I think so, by giving the project team a task/project to work and train themselves with a coach how to reach the goal.

> Yes, but not sure how to accomplish this. I believe this happens if you are open to understanding yourself and your reactions in a project team.

> Yes. Introduce structured methods for working in groups or teams. A simple example is training the group in structured brainstorming. That alone engages all, requires them to listen to their team members, consider ideas, provide their opinions and criticisms in a constructive manner, etc.

> Yes, I try to learn from my mistakes and successes. When meetings or projects are finished I think about what I was doing wrong and what I was doing right and what I can learn from the experience.

> It is difficult but possible I believe. With a lot of training in terms of how express your feelings and thoughts.

> Definitely but I am not too sure how you would do it, but I do think it would be an excellent venue. Because of the relative closeness that occurs when working together on a project, it is possible to achieve a level of intimacy that is hard to fabricate.

5 Discussion

Overall, the research has proved to be an interesting exercise both in terms of research methods and with its fruitful implications for the future of defining the right "behavioural" competences or rather the leadership and communication competences for the professional project management. The intellectual product — the ICB-3 Behavioural Competence Assessment — has both been designed and tested. In the process of its creation many issues surfaced that now will be discussed and interpreted. As in the previous chapter, the structure of the following discussion will be organised in relation to the research questions.

1) *"What behavioural competences are needed for a qualified project manager?"*

The ICB-3 behavioural competences is of central importance for the IPMA certification process for project management practitioners. It lays a valid foundation for identifying the key behavioural competences required on the part of professional project management professionals and, therefore, provides an indication of what should be measured or assessed. It does not, however, provide the necessary means of how to make such assessments. It is, therefore, suggested here that a self assessment survey — such as the ICB-3 Behavioural Competence Assessment Survey introduced here— should be implemented in the certification process of IPMA in the future.

2) *"Can the ICB-3 be used to measure such behavioural competences?"*

The ICB-3 can be used as a foundation for measuring behavioural competences. As the results showed, however, the participant enthusiasm and information integrity begins to suffer after they have answered 50 to 80 assessment questions. It is therefore important to shorten the questionnaire and to make it much more concise, which is suggested in the ICB-3 Behavioural Competence Assessment Survey. When used for assessment, the new method is intended to help the project managers to see where they stand and also to help an assessor to see whether, and in what areas, work needs to be done to improve leadership and communication skills, and to what extent the project management practitioner is likely able to perform competently on future projects. The author hopes, however, that this new list will not only be used as an assessment tool but also as a developmental tool. It is firmly based on the 15 behavioural competences in the ICB-3 and it very likely can be used to design a future development strategy with a trainer, consultant or a coach. The ICB-3 Behavioural Competence Assessment Survey can be used for direct observation of the candidate in a workplace environment and could help companies to select the most suitable person to match different project contents and requirements.

Workshops may, furthermore, be developed that are based on the ICB-3 Behavioural Competence Assessment Survey in order to make it easier for all parties to articulate both learning and observations. It is argued here that there should not only be knowledge-tests and interviews (prolonged by some questions regarding social skills) but also an "action part" where candidates can assess themselves as project leaders through practical experience. The basic idea is articulated as follows: if one wants to assess behaviour, then one should a) let people behave, b) observe that behaviour; c) work with the material; and b) discuss and reflect upon the experience.

The ICB-3 Behavioural Competence Assessment Survey can help those seeking employment to demonstrate the specific skills which would make them valuable to a potential employer. Many employers now purposefully screen applicants for specific characteristics, so once a person knows her strengths, she can emphasize them on an application or in an interview. A company may be looking for someone who can be an effective team leader or who has demonstrated great active listening skills, for example. Knowing that she has these strengths and being able to discuss personal examples of them with prospective employers can give job-seekers a competitive edge in the market.

3) *"In what direction should the ICB be taken in the future?"*

The main future concern for IPMA should be to find way to mature the project management profession along the "right" path so its advocates can better serve themselves, the team, their organisation, and society in general. The ICB focus on behavioural competences is a valuable step in that direction. It could, however, be accomplished more effectively by breaking the behavioural competence down into two main themes: Leadership competences,with a focus on the intrapersonal abilities of the

project management practitioner (such as self-control, engagement, critical thinking, personal integrity and ethical behaviour, etc.); and communication competences with a focus on interpersonal abilities (listening skills, negotiation, conflict management, motivation, etc.). The ICB-4 seems to entail great promises in this direction, even though it seems that it is still in the process of development. Insights, not from engineering and the business world, but rather from the humanities, psychology and occupational therapy could prove to be valuable resources in these endeavours.

4) *"How should the behavioural competences for project managers be trained?"*

A number of studies have been carried out in order to understand what factors contribute to project success. As cited earlier in the literature review, some leading figures in education suggest that in order to earn a certain competence, one only learns through practical experience. It is recognised in this paper that there are many different techniques available for assessing competence. Moreover, there are many paths that can be followed by project management practitioners in order to develop their competences.Overall, it is important to provide project management practitioners the opportunity to learn and to be able to improve their behavioural competences. The best way is through practical experience.

At the IPMA Expert seminar in Zurich 2009, many agreed that it was important to train for developing behavioural and contextual competences. Some of the critical questions raised were in regard to how to effectively develop project managers and meet the ICB-3 criteria. One thing that was agreed upon was that workshops would be a good option, so long as it is remembered that project management practitioners are people with distinct personalities, needs, beliefs, values and attitudes, innate capabilities. However, practice and experience are the most significant ways in which real competency skills are developed (Goff, 2009)(McKinlay, 2009)(Krainz, 2009)**.** One of the IPMA seminar participants, Jalalian, argued (Jalalian, 2009):

> The most effective format for delivering project management training courses (i.e. highly appreciated by the participants) has been "workshop" format, in which a high degree of the interactions between the instructor and the participants themselves (through the administration of individual and group exercises) is established. Experiences show that other formats, like "lectures", are generally regarded as of no (or little) value to project management learners.

De Mascia (2011), contends in her assessments of project managers roles that the vast majority of candidates are not "people focused" and that they lack a sufficient level of emotional intelligence; the two focal points of emotional intelligence — that it is posted that project managers lack — are cooperation and collaboration (De Mascia, 2011). According to Deltuva (Deltuva, 2010):

> ... if our aim is to increase the quantity of information about the world of objects (natural sciences) we better organize lectures and pass information in as many efficient ways as possible. But if our aim is to facilitate the changing of human behaviour, we should go experiential. We should respect the subjective nature of human beings (human sciences) and respect the fact that personal discovery is essential and necessary for real change in human beings.

Based on insights gained form occupational therapy, any learning process needs to be based both on initial and repeated assessment that follows standardized procedures, interviews, and observations conducted in a variety of settings. Here the proposed ICB-3 Behavioural Competence Assessment Survey may play a central role. Further, adding to these insights from experiential learning, *experiential knowledge* — the knowledge that increases competence — is acquired through individual experiences as a personal realisation of practical truth. In order to achieve a level of project management competence, one learns through practical experience. This means that any training of behavioural competences in project management needs to be done in an experiential

fashion that takes into consideration both the intrapersonal and interpersonal competences needed for the future professional project management practitioner.

6 Conclusion

Desirable competencies have been classified and labelled in numerous ways. It is important that professional certification bodies like the IPMA have a consensus on what are the necessary competences of a professional project management practitioner. In the ICB-3, all the competences describe behaviours, so IPMA might, in fact, want to consider to change the term to a more specific one — such as leadership/intrapersonal competences and or communication/interpersonal competences. It is also important that these competences are assessed in a universal way and that they are trained in a consistent manner.

IPMA´s webpage ("Understanding Competence | IPMA: International Project Management Association," n.d.) states that *"The assessment is the mechanism which determines a candidate's competence by one or more means such as written, verbal, practical and observational*." Workshops have been optional for the different member associations and I contend that this is something to reconsider, as these workshops should perhaps be mandatory.

If we truly want to produce well-rounded project managers, it needs to be remembered that practical wisdom cannot be acquired solely through theoretical methods. In order to foster a needed change in behaviours to create new beliefs and attitudes, individuals must also acquire knowledge, through practical experience. Those deliberative, emotional, and social skills that enable us to put our general understanding of well-being into practice in ways that are suitable to each occasion are unlikely to be acquired solely through classroom environments. This can be accomplished through different knowledge-sharing activities and experiential training, even if it means breaking with long-standing practices.

7 Acknowledgements

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