

Appendices

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Appendix A:

Appendix A1: Research history

Prelude

The following paragraphs will briefly describe the roots and progress of this research project and the way in which the original research project grew into the current thesis. The brief research history will take the reader through the different phases of the original research project and the four turning points in the research process, and will highlight the relevant course of events to illustrate the logic of the process.

Research phase 1

Original title

“Multi-dimensional key factors in the sustainable use of an electronic support system by e-learning practitioners”

At the Tshwane University of Technology (TUT) an intervention was required to address the gap between the competency level of the novice WebCT practitioner and the entry level of the WebCT environment. Owing to a lack of technical skills, the ineffective utilisation of resources and time constraints, WebCT practitioners, who are not necessarily trained instructional designers, struggle to design and develop course material for application in a learning management system (LMS). A steep learning curve is necessary in order to achieve the standards set for the development of quality didactic materials. As an instructional designer trying to support and guide these lecturers, I asked myself a number of questions:

- How can this problem be solved and what do we need to know in order to solve the problem?
- Would an intervention in the form of an electronic support system make a difference?
- What is the multidimensional set of critical factors involved in the sustainable use of an electronic support system by WebCT practitioners?
 - What are the **distinguishing features** of a usable **web-enabled support system** for WebCT practitioners?
 - What are the key **human factors** that influence the sustainable use of the electronic support system?
 - What are the **characteristics** and the personal **profile** of e-learning practitioners?
 - What are the key environmental/Institutional factors that influence the sustainable use of an electronic support system? (Issues that have to be considered include infrastructure, technical, social, educational, organisational and work environments.)

With these questions in mind I formulated my main question:

What is the multi-dimensional set of critical factors (technological, human, and environmental) involved in the sustainable use of an electronic support system for e-learning practitioners?

The aim was to identify the key issues, role players and distinguishing features with regard to a useful electronic support system for e-learning practitioners.

At TUT a one-on-one approach, “just enough, just in time, just for you”, was followed. However, this is time-consuming and has a huge impact on human resources. Not all lecturers have a background in education, as many of them are specialists in their subject field in industry and do not have the necessary didactic skills. WebCT practitioners do not necessarily possess instructional designer skills and sometimes have to go through a steep learning curve in order to achieve the standards set for quality didactic materials. Thus, to optimise the Multimode Teaching and Learning initiative, the Partners@Work Programme¹ was implemented in June 2004. The focus now was on a few very important issues for the institution, rather than on a lot of intermittent smaller uncoordinated projects. The approach shifted to a structured capacity-building programme stretching over a year. Scaffolding, guidance and support are very important programme elements for these lecturers to ensure quality and excellence in teaching and learning.

Researchers (Landauer, 1995; Norman 1996; Long 1996; Cook, 2002) call for more research on ways to design systems that match the cognitive capacities of users, or mesh smoothly with the social and organisational settings in which the system will be used. Many existing IT systems have not been successful because these factors have not been incorporated in their design. The first main research aim of the project attempted to address precisely this plea, and investigated the user-defined quality attributes, as perceived by e-learning practitioners, relating to the usefulness of an electronic support system.

Practitioners need simplified design tools, examples of best practices and “show-me” options, design templates and communication networks, as well as access to knowledge-building communities. Various examples (Conole & Oliver, 1998; Conole, 2000a; Conole, 2000b; Petrides,

¹ P@W Programme

The P@W Programme is a formal capacity-building programme for e-learning practitioners at TUT. The Partner group consists of 14 members who follow the programme for 6 months and then practise what they have learned for another 6 months.

2000; Conole, Crewe, Oliver & Harvey, 2001; Leask, 2001; Wiley, 2002; Conole, 2002) of such aids are cited in the literature, but fail to explain the critical factors or dynamics involved in the sustainable use of support systems. In an attempt to explore the role of an electronic support system as supporting agent in the instructional design process in a WebCT environment at TUT, the original project focused on WebCT practitioners' experiences of, perceptions of and attitudes to the usefulness of an electronic support system (TESS) for instructional design. The research process that commenced was guided by the research proposal with detailed descriptions of the research questions, goals, design, methodology, research methods, tools and techniques. Research findings showed promising results and positive feedback from the participants.

However, the question remained as to whether technological support in the form of electronic support systems, frameworks, toolkits, templates and wizards can play a sustainable supportive role (Conole & Oliver, 2002b; Cook & Olivier, 2002). A continuing cycle of design and revised work practice will answer the question of whether TESS can play a sustainable supportive role in the P@W programme. As was stated in the original research questions, however, other critical key factors in sustainability also come into play. Therefore the research focus shifted to the human and environmental/institutional factors.

Research phase 2

Research progress: First turning point in the searching process

As I explored the domain of the e-learning practitioner in my search to answer questions about the key human and environmental factors, I realised that this research area has a wealth of possibilities and that it might spread the research focus too wide and therefore become unfocused if the thesis were to include all the original research questions. Advice and expert opinion I received from participants in the departmental research proposal defence, which took place on 24 February 2004 at the University of Pretoria, suggested that I limit the study to focus on the e-learning practitioner only. Thus the focus narrowed to the human factors in the study and zoomed in to focus on the original research question:

*What are the **characteristics** and the personal **profiles** of the e-learning practitioners?*

Further refinement of this question resulted in a study titled: ***"In search of the latent structure of an e-learning practitioner construct"*** embodied the following main research questions:

- 1 What is the latent structure of the e-learning practitioner construct in terms of person attributes?**
- 2 What is the latent structure of the e-learning practitioner construct in terms of the work environmental context?**
- 3 How do the environmental and person attributes fit together in the structure of the e-learning practitioner construct?**

Naturally the study of a specific practitioner will always include a work context to give structure and meaning to the construct under investigation. Therefore for the purpose of this project the work environment was narrowed down to the e-learning practice and the P@W programme at TUT.

What are the reasoning processes behind this shift in focus?

Using systems theory as a theoretical basis for reasoning I will outline the succession of activities and thinking processes that formed the foundation and starting point of this thesis. As explained in the preceding paragraphs, the triad of person, job and context are embedded in the TUT organisational system. The interaction and relationship between the person and the job are influenced by a large number of influences from the micro-, meso- and macrolevels of the organisation. The practical problem of the e-learning practitioners not coping with the electronic teaching and learning environment was addressed by the practical intervention of TESS as a possible solution. One leverage point for intervention was identified as electronic support for e-learning practitioners. However, other support strategies, for example training and environmental adaptations, were implemented as well. The P@W Programme as an intervention is one example of this. These practical interventions again triggered questions about their success. Before any success can be measured, however, one needs to think about the “who”, “what” and “how” of the situation. The “who” became the focus of this study and is reiterated in the study title: “In search of the latent structure of an e-learning practitioner construct”.

The question about latent structure in terms of systems theory immediately brings phrases like “characteristics”, “patterns”, “relationships” and “purpose” to mind. Focusing on the meaning and implications of these terms of reference, I realised that the e-learning practitioner construct embodies not only the characteristics of the person doing the job, but also the characteristics of the

job being done. To have meaning, the interactional relationship between the person and the job needs to be situated in a specific context. Influences from within the person, the job, and the context will interact and form relationships not only with the relevant system or subsystem, but also with the other systems and subsystems in the organisation. These influences can either be positive or negative and the resulting feedback loops will impact on the outcome produced by the system. Interventions in terms of capitalising on the activation of cues present in the environment may result in positively valued behaviour from the system. Since a number of possibilities are available, knowing which interventions to impose where, in order to get the valued outcome, poses a problem. Examples of possible interventions that may contribute to congruence between the two subsystems include

- changing the environment to a more supportive environment
- changing the interaction between the person and the job by changing the job characteristics
- strengthening the interaction and relationship between the person and the job by adding positive influences (motivators and releasers) as cues to activate certain characteristics of the person
- strengthening the interaction and relationship between the person and the job by decreasing negative influences (demands and distracters) as cues to activate certain characteristics of the person

It follows that if certain information about the systems' input characteristics is known and the process of interaction and the resulting relationships between the subsystems in the system are identified, it might be possible not only to pinpoint the leverage point for practical interventions, but also to uncover the nature of these interventions.

After careful consideration I decided not to include a detailed account of the planning of practical interventions as part of this study, but rather to propose practical interventions as recommendations for enhanced practice. Therefore guided by my reasoning framework and the research activities discussed in the previous paragraphs, I continued the **search** journey with a literature study to identify the characteristics of the e-learning practitioner.

Research phase 3

Research progress: Second turning point in the searching process

Pre-study activities

After a thorough literature search on the characteristics of e-learning practitioners, I came to the conclusion that many words were spoken but few prevailed. The concept 'e-learning practitioner' is not a term preferred by many authors and substitute concepts, for example online professor, online teacher, e-moderator and others were used as search words to compile records about the characteristics of the e-learning practitioner. From the literature search I analysed the information gathered in terms of categories, themes, and characteristics of the e-learning practitioner to enable me to construct a framework or preliminary taxonomy for the characteristics of e-learning practitioners. I used this preliminary taxonomy as basis for a pilot survey that was conducted at the WebCT conference in April 2004 in Stellenbosch. A synopsis of these activities is presented in the following paragraphs (refer to Chapter 2 for an in-depth discussion on these activities).

Phase 1: Pilot screening survey

The following research activities took place:

1. The **pilot questionnaire** with statements on e-learning practitioner characteristics was developed.
2. The **survey was piloted at the WebCT Conference, 5-6 April 2004, Stellenbosch.**
3. Sixty-six questionnaires **were distributed, 20 were completed.**
4. The aim of this pilot study was to

- make **contact** with e-learning practitioners
- **screen** for possible characteristics of e-learning practitioners **add** contributions from e-learning practitioners to the literature information

The response rate on the survey was 30 percent, which may be viewed as fairly satisfactory.

Phase 2: Development of an initial framework for the characteristics of the e-learning practitioner

The following research activities took place

1. **Indicators of characteristics** of practitioners derived from the WebCT survey results, as well as from the data provided by the literature study, were combined to develop an initial

framework for the characteristics of e-learning practitioners.

2. The aim of the **framework for characteristics** of e-learning practitioners that was developed was to construe a classifying scheme of indices. Analysing the responses from the participants, I realised that the classification system was too broad to be useable; I therefore started a series of discussions and brainstorming sessions with experts in the field of psychology. The aim of these sessions was to focus and streamline the framework.

The industrial psychologist from the Centre for Continuing Professional Development at TUT assisted me in the combing process. One of the main concerns was the focus of the questionnaire. The existing framework included a variety of styles, skills and person attributes. Thus the compelling question was “what is the focus area in terms of characteristics?”. We had lengthy discussions about this and taking previous and concurrent research studies into consideration we decided that it would be wise to focus on personal styles and attributes in the context of personality characteristics; the reason being that the inclusion of personal skills or competencies could subtly change the focus of the survey away from the intrinsic characteristics of the e-learning practitioner, and the participants might have focused their attention on the roles of the e-learning practitioner.

Phase C: Online survey

The following research activities took place

1. Used the new framework developed for drawing up a **questionnaire** on the characteristics of the e-learning practitioner in terms of person attributes. Tested and evaluated a questionnaire published **online** using the programme *Perception for Web*. Participants were members of the Centre for Continuing Professional Development, instructional designers from the Department of Telematic and Partners in the P@W Programme.
 - The aim was to **pilot** the questionnaire before sending it out to the online knowledge building communities on the **IT Forum** mailing list, as well as to e-learning practitioners at **South African universities**.
 - The aim of the **survey** was to obtain **self-stated importance statements** and **expert opinions** from practitioners in the field of e-learning practice. The questionnaire would guide them in their thinking and their answers would provide content to guide the researcher in synthesising their answers into mental models of elicited shared meaning about the characteristics of e-learning practitioners.
3. One method of **data analysis** for determining patterns and themes from the collected data is to conduct a factor or taxometric analysis.

- Therefore, if < 300 respondents completed the survey, do:
 - multivariate analysis: **factor** and **cluster analysis**
 - factor analysis: used to reduce the number of variables, to detect structure in the relationship between variables, and to classify cluster analysis (also called taxonomy analysis): used to identify homogenous groups of cases in a population, and encompasses a number of different classification algorithms

- If > 300 respondents completed the survey, do **taxometric analysis**
 - Taxometrics is a statistical procedure for determining whether relationships among observables reflect the existence of a latent taxon (type, species, category, entity).
 - The use of taxometric analysis to determine the latent structure of constructs is cited in the literature as a valid method for determining whether the structure under investigation is taxonic or dimensional.
 - The aim of taxonomy development is to identify latent structure, plot the taxonomy, identify taxa and characteristics of each taxon, and the profile of the e-learning practitioner.
 - However, these methods focus on specific elements present in the construct under investigation, and may lack holistic situated and contextualised descriptions of aspects of the particular construct.
 - Keeping these limitations in mind, I decided to proceed with this approach, but to enrich the data by adding qualitative data sources and including anecdotal data from the participants at TUT. After data analysis the classification scheme or taxonomy that resulted was to be applied to a case study at TUT in an attempt to integrate theory and practice.

The pilot online survey was available to participants for a trial time period of two months (November 2004 – January 2005). However, for various reasons, for example workload, pressure to participate in a mini research conference, and end-of-the-year syndrome, the response rate was very low. I also realised that no matter what the specific conditions might be, this scenario might be typical for other e-learning practitioners as well. In spite of knowing that a low response rate to online surveys and questionnaires is more the rule than the exception in the online environment, I optimistically hoped for a significant reaction, but after only a few responses to the request for

participation, I accepted the situation. This had implications for the study in terms of the proposed taxometric analysis of data. The original research goal was to collect data on the characteristics of the e-learning practitioner from relevant international knowledge-building communities (e.g. members of the ITForum discussion group). The analysed data would have been used firstly to identify whether the emerging pattern types are dimensional or taxonic and secondly to describe the profiles of each pattern type. Then, putting theory into practice by mapping the profiles of the Partners in the P@W Programme against these described profiles, it would have been possible to synthesise an in-depth description of the characteristics of the e-learning practitioner. However, for the following two reasons, I did not take that road. Firstly, although a taxometric analysis may be an excellent method for identifying a dimensional or a taxonomic classification scheme for e-learning practitioner features, it might not provide sufficient depth for an enriched description of the profiles of e-learning practitioners. Meehl (1999:165) describes taxometrics as a statistical procedure for determining whether relationships between observables reflect the existence of a latent taxon, but adds that anecdotal data should be included to add quality to taxometric research. Secondly, to conduct a valid taxometric analysis a minimum of 300 data sets is needed. I made provision for the possibility that the response rate might fail to deliver 300 data sets, and thus planned for an alternative factor analysis to cater for a smaller number of data sets. However, after the poor reaction to the pilot questionnaire, I decided that this alternative was not worthwhile. It also became apparent from the experience of my fellow researchers and colleagues that a low response rate to a call for participation in online questionnaires and surveys is a general limitation to research studies at higher education Institutions. I thus had to make a decision about the way forward.

Research phase 4

Research progress: Third turning point in the searching process

Further brainstorming sessions with colleagues and various experts from the Departments of Human Resource Management and psychologists from the Centre for Continuing Professional Development about possibilities for the way forward crystallised in the following:

- streamline the process by narrowing the focus onto existing taxonomies
- use validated, reliable and tested measuring instruments for profiling
- narrow the focus to e-learning practitioners at TUT (It would not have been a cost-effective decision to use online profiling instruments.)

The next paragraphs will elaborate on the choices made.

Streamlining the process by narrowing the focus

Patton and McMahon (1999:10) describe the intrapersonal system of the individual as “composed of several intrapersonal content influences, including gender, age, self-concept, health, ability, disability, physical attributes, beliefs, personality, interests, values, aptitudes, skills, world of work knowledge, sexual orientation, and ethnicity”. This complex intrapersonal system interacts with other interrelated systems, for example social and environmental systems, and processes between these systems are explained by means of the recursive nature of interaction within and between these systems, change over time and change (Patton & McMahon, 1999).

Through the ages, understanding human behaviour and interaction with the self, social and environmental systems has been both an intriguing and elusive endeavour. In our modern world, steamrollered by the pace and magnitude of technological advancements, human behaviour and interpersonal communication come under immense pressure to adapt to new and changing environments. Understanding how people behave and deal with their environment, especially their work environment, becomes more complex. This is illustrated by the explosion of activity in the research domains of human behaviour and industrial psychology. Research on personality in the workplace has resulted in a vast number of theories / models / taxonomies and typologies on personality types, traits and factors, for example the Big Five taxonomy, Holland’s RIASEC model, and Schutz’s FIRO-B model. Bergh and Theron (2001:310) define personology (the study of personality) as being “about the consistent and repetitive patterns of behaviour, in both unique and universal aspects. Which affect people’s functioning in the context of their environments?” They include all domains of human behaviour in the study of personality and continue by saying that

personality theories provide conceptual and integrative systems or paradigms for explaining, describing and predicting human behaviour. Every system, including personality, is defined by essential characteristics that are interrelated, and the configuration of relationships is the pattern within the system, organised from within by rules that govern their behaviour. Furthermore, Berens (1999) states that systems are "driven" to operate in certain ways. Understanding and working with the inherent operating principles can save energy. Conversely, by forcing a system to behave in ways inconsistent with its nature, we expend energy and encounter resistance.

The e-learning practitioner as a complex system interacts with the work environment system in terms of working practice. Numerous influences, for example personality traits, job demands, distracters and releasers, are constantly impacting on the dynamics of the interacting systems. "One cannot know a complex living system in any definite way, since it is constantly changing, adapting and evolving" (Berens, 1999) and it is not within the scope of this study to do a comprehensive study on human personality or human behaviour as a living system. As mentioned by Berens (1999), "systems cannot be measured, they can only be mapped by using different lenses of focus". Therefore, looking at the person attributes or essential characteristics of the e-learning practitioner, contextualised in an e-learning work environment, can for the purpose of this study best be mapped by using the lens of measuring behavioural work styles manifesting themselves in behavioural responses in the work environment.

Choosing validated, reliable and tested measuring instruments for profiling

The Thomas International Personality Profile Analysis (PPA) was chosen as the measuring instrument. The PPA has been described as "a validated, non-critical, behavioural analysis that will emphasise a person's strengths and capabilities in the work environment" (see Chapter 2 for a detailed description of the Thomas International System). Human behavioural style patterns translated into the *DISC language* describe four basic organising principles. Combinations of these factors, expressed in a variety of different ways, provide an assessment of a person's behavioural style. A DISC profile reports a style or characteristic of behaviour in a work situation. Four factors (dimensions) or "typical patterns of interaction" (Thomas Disc Systems, n.d.) of the person in his working environment are important, namely:

- "Dominance (an active positive posture in an unfriendly environment), it represents how people react to challenges;
- Influence (an active, positive posture in a favourable environment), it represents how people

influence other people to their own view point;

- Steadiness (passive agreeableness in a favourable environment), it represents how people respond to the environmental pace, and
- Compliance (a cautious, undecided response to an antagonistic environment designed to calm the degree of antagonism), it represents how people respond to rules and procedures set by others.” (Thomas Disc Systems, n.d.)

Each DISC profile shows the relevant importance of the four DISC factors in a person’s behaviour. These four factors have different properties and subtraits and may lead to more than 1400 variations of analysis (Thomas International Career Consultants, 2003). These combinations facilitate complex interpretations that report on behaviour style.

Narrowing the focus to e-learning practitioners at TUT

Although the PPA is not a clinical instrument, nor is it intended for diagnosis of abnormal behaviour, only trained registered people may perform a PPA. In South Africa, Thomas International offers their services to business organisations, not to individuals. Thus it would have been difficult, if not impossible, for me to use the PPA on a wide scale. I thus contacted the registered Thomas International analyst (industrial psychologist) employed by TUT, who liased closely with a consultant analyst from Thomas International, and we decided that it was possible to use the PPA for data capturing and analysis of the characteristics of the e-learning practitioner at TUT.

These decisions directed the study into the next research phase described in section 1.2 under the heading **Research phase 5**.

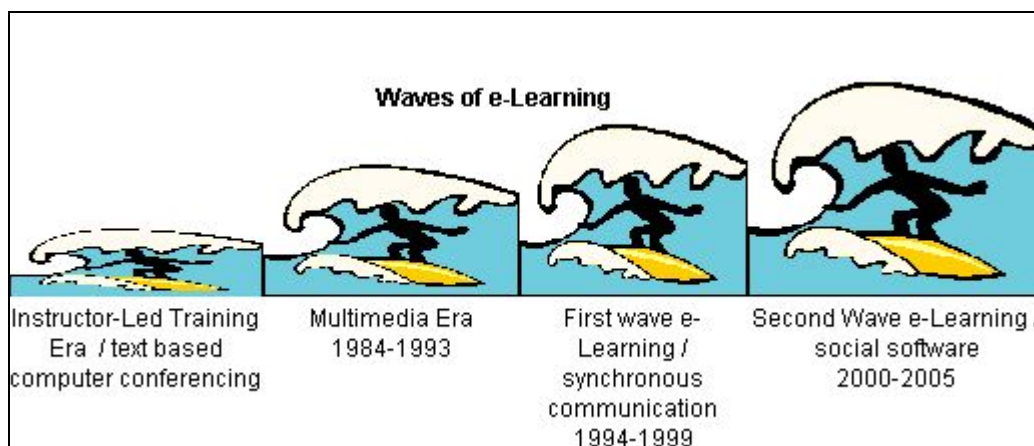
Appendix B

Appendix B1: Historic overview of e-learning development

A brief historic overview of the evolution of e-learning is necessary **to understand and position the TUT environment in an e-learning setting**. Understanding of the historic origin of current trends will contribute to an understanding of the dynamics involved in the e-learning environment that impact on the e-learning practitioner and the e-learning practice.

Generations of online teaching and learning (Dirckinck-Holmfeld, 2002 in Salmon, 2003) or **waves in e-learning** (Thomson NETg, 2005) are often used to describe the history of e-learning (see figure 2.4 for a summary of the different e-learning waves.).

Figure B1.1: Summary of generations / waves of e-learning (from Dirckinck-Holmfeld, 2002, in Salmon 2003; Thomson NETg, 2005)



The **pre-era** prior to 1983 included instructor-led initiatives and continued in the 1990s with online learning environments using asynchronous text-based computer conferencing and Internet-based training (Thomson NETg, 2005). These activities were followed by the **multimedia era** which started in 1984 and continued till 1993 (Dirckinck-Holmfeld, 2002 in Salmon 2003:3). Realisation that reading e-learning courses online lacked something, multimedia was added to bridge the gap, thus moving into the next era of hypertext and multimedia web-based teaching and learning (Dirckinck-Holmfeld, 2002, in Salmon 2003:4). Expectations to provide cost-effective Internet-based training were unfulfilled and predictions by IDC that "in 1999 of 100% annual growth rates for e-learning and a worldwide market by 2003 exceeding \$34b", were not realised (Training Foundation, 2004b:2).

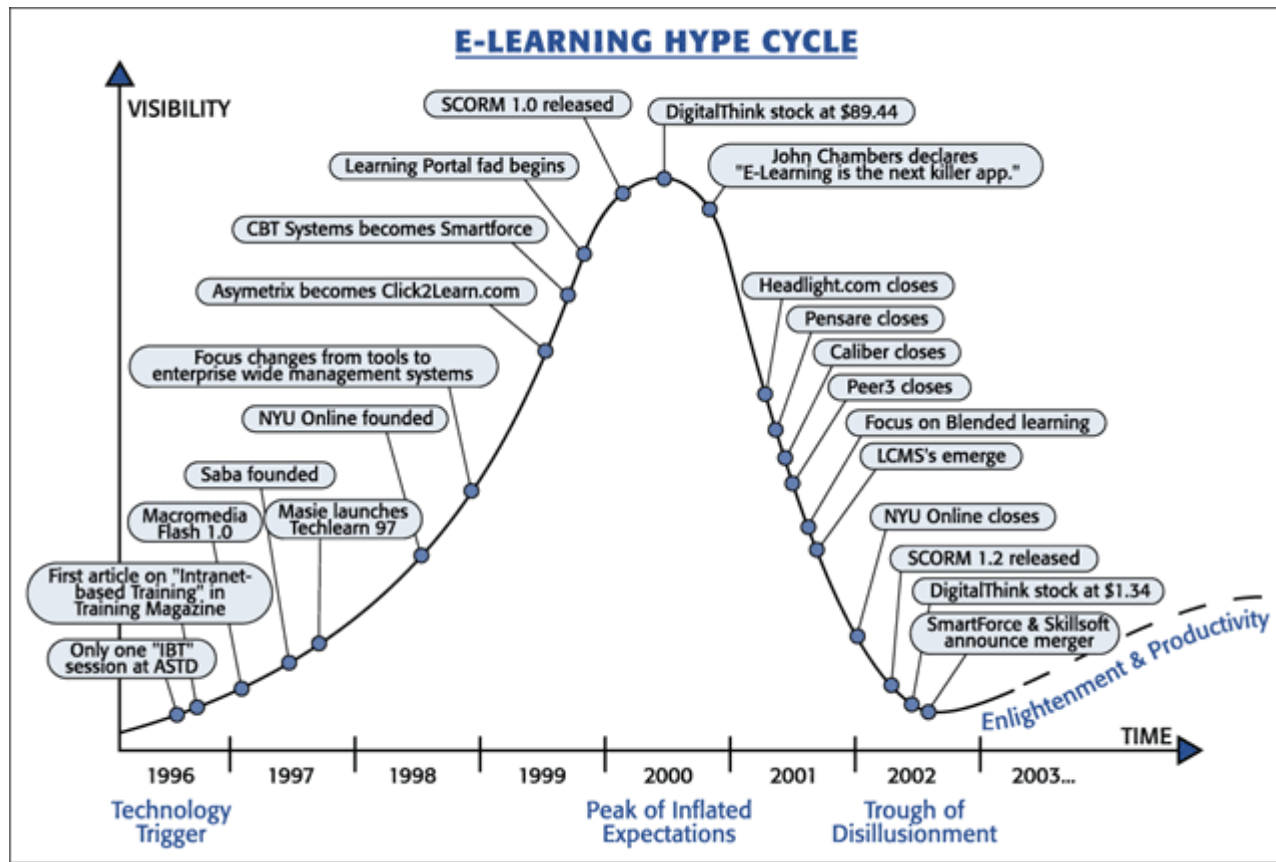
The hype around e-learning is well-known and according to Leinonen (2005:4) is a classical example of creating needs by building an e-learning industry, “even it was not proven that anyone (except the IT managers) needed these products”. The Training Foundation (2004b) identifies a number of fundamental flaws in e-learning implementation, and statements such as you cannot practise e-learning without expensive learning management software; e-learning should be driven by technology; trainers should use commercial learning content; learners should do it themselves and teachers could be replaced by technologies to save on costs were proven wrong (Training Foundation, 2004b). Many organisations realised that e-learning should be in the hands of e-learning professionals, who are concerned about the learner and who drives the teaching and learning process (Training Foundation, 2004b).

Leading to the third era in e-learning was the idea of synchronous communication (Dirckinck-Holmfeld, 2002 in Salmon 2003:4). Communication became a focus area, changing the roles of the learner and e-learning practitioner alike (Salmon, 2003:52). Developing required skills, understanding the capabilities of a diverse range of technologies, changing pedagogical approaches, designing and producing own teaching materials and moderating e-learning became priorities for the e-learning practitioner (Training Foundation, 2004a:3).

The era of social software and free and open content (Leinonen, 2005:5) integrating emerging mobile technologies brought another dimension to e-learning. Communication with learners, peers and colleagues is becoming increasingly easier with the implementation of tools such as bloggers and wikis (Leinonen, 2005:5). Initiatives to stimulate thinking about free and open content are demonstrated by projects such as Creative Commons and Wikipedia (Leinonen, 2005) and by the visionary steps taken by institutions such as MIT , and are typical illustrations of current e-learning trends.

In the debate on the current status of e-learning (Kruse, 2002; Mackintosh, 2004; Zemsky & Massy, 2004; Twigg, 2004) there are opposing views on the survival of e-learning. Kruse (2002:1) supports the idea of “waves of e-learning” and illustrates the e-learning hype cycle through the lens of Gartner’s Technology Hype Cycle (see figure 2.5). The cycle shows “unrealistic expectations, followed by a period of ambivalence from a weary and disappointed market” (Kruse, 2002:1). According to Kruse (2002:1) this is also a positive wave moving the cycle on towards enlightenment and productivity.

Figure B1.2: Gartner's Technology Hype Cycle for e-learning (Kruse, 2002)



Kruse (2002) believes that there is a symmetry to the technology curve and as it took four years to move from the triggers to the peak, it may take another four years to reach the enlightenment and productivity stage (Kruse, 2002:1). According to Kruse (2002:2) e-learning is now moving towards the stage of enlightenment and productivity and the key in this dynamic movement upwards towards productivity, impacting positively on teaching and learning, lies in **sustainability**.

However, an opposing view to Kruse's (2002) is reflected in the report by Bob Zemsky and Bill Massy (2004) on the implementation of technology at selected campuses in the United States, entitled "Thwarted innovation: What happened to e-learning and why". As pointed out by Twigg (2004), Zemsky and Massy (2004) use past tense verbs to describe e-learning, reflecting a rather negative stance. Much controversy in the e-learning community was triggered by this report and Twigg (2004) questions the expert opinion of Zemsky and Massy in the field of e-learning. She is of opinion that they are distinguished researchers but not necessarily experts in the field of e-learning (Twigg, 2004). Furthermore, Twigg (2004) is critical of Zemsky and Massy's (2004) research sample, saying that their sample is not representative of higher education in the United States of America and she concludes her article with "A little knowledge is a dangerous thing" (Twigg, 2004). However, Mackintosh (2004)

points out that the findings in the report are well-known to people practising in the field and that if organisations do not recognise the need for mixed-team efforts to develop effective e-learning resources, they are likely to experience the problems reported by Zemsky and Massey. Mackintosh (2004:1) also quotes Christensen, Aaron and Clark (2003:45) by saying that distance learning is growing at three times the rate of conventional campus-based delivery in the United States. These observations are reiterated by official US government statistics stating that the proportion of college learners using computers in their classes rose from 63 percent in 1997 to 85 percent in 2003 (NCES: 2004). Mackintosh (2004) also emphasises **sustainability** as a key issue in e-learning, and says that lessons can be learnt from past experiences: “transforming for e-learning futures by managing the tensions between sustainable economics and innovation and capitalising on significant future trends” (Mackintosh, 2004:5).

Implications for this study

Sustainability as a key issue in e-learning is important for this study in terms of environmental characteristics. Sustainable e-learning practice may contribute to a stable work environment which in turn may influence interaction with the different work behavioural styles of e-learning practitioners.

Appendix B2: Personality-orientated job analysis

Job analysis has come a long way from emphasis on task analysis to descriptions of systematic procedures for data collection on work behaviours that can be task or worker related (Harvey, 1991:72); or behaviours that interact with machines, tools or technologies, performance rating, working conditions and personnel requirements such as skills, personality traits (Harvey, 1991:73), aiming at the isolation of specific tasks, roles and responsibilities involved in the job (Bergh & Theron, 2001; Grobler, Wörnich, Carrell, Elbert & Hatfield, 2004:78). Ilgen and Hollenbeck (1991) view jobs and job roles as “represented patterns of behaviours of organisational members” and differentiate between jobs and roles in terms of established versus emergent task elements (Ilgen & Hollenbeck, 1991:172). In organisation structural terms a position is the “most basic structural entity” (Harvey, 1991:79) in an organisation, representing the collection of duties, work tasks, practical activities (elements), responsibilities and “associated contextual characteristics that are assignable to a single person, this person is termed the position incumbent” (Harvey, 1991:79). Harvey (1991:79) further points out an important difference between an incumbent, who is a real person, and the position, which is a “hypothetical construct” that can be changed at the discretion of the employing organisation. Likewise, a job is a “collection of similar positions” sharing the same job title (Harvey, 1991:79). Job analyses use positions and jobs as units of analysis, whereas the job holder frequently serves as a source of information about the position or job – the person is not the unit of analysis (Harvey, 1991:80-81). Job families are collections of jobs that share a purpose (Harvey, 1991:80), for example instructional designers and educational technologists in e-learning practice. Further conceptual groupings in terms of organisational structure are job classes and occupations.

Specific orientations may direct the job analysis process towards selected job foci, for example personality- or trait-orientated job analysis to link job descriptions and the type of person expected to perform the job well. After the purpose of the job analysis is defined, the next step in the job analysis process is to identify the core issues about the work to be done. Different taxonomies of job analysis methods, focusing on “nominal or dimensional categories” (Harvey, 1991:81), and “task- or person-oriented approaches” (Robinson, 2001) can be applied to assist in the choice of a job analysis method. Popular job analysis methods are Critical Incident Technique, Hierarchical Task Analysis, Position Analysis Questionnaire, and Fine’s Functional Job Analysis (Harvey, 1991:86; Robinson, 2001; Hartley, 2004). Outcomes such as job descriptions and job specifications are derived from the job analysis process (Grobler et al., 2004:78). Typically the job description focuses on tasks, responsibilities and duties that the incumbent must perform, whilst job specification focuses on describing the skills, knowledge and abilities that are needed to perform the job (Grobler et al.,

2004:95). According to various South African authors, renewed interest in job selection processes (and by implication job descriptions) in South Africa is the result of revised labour and employment equity legislation (Bergh & Theron, 2001:312; Grobler et al., 2004:175). Depending on the purpose and context, job descriptions may vary from broad to precise descriptions applied in various situations by human resource professionals, for example Grobler et al. (2004:90) list a number of major uses including recruitment, interviewing, orientation, training, job evaluation and salary surveys.

Modern approaches in fast-moving organisations are to assign a person to a specific project and when the project changes the person's tasks and responsibilities will change accordingly and, according to Grobler et al. (2004:104), multitasking, that is, working on more than one project simultaneously, is becoming a popular approach in many organisations. Experts agree that the worker of the "future will be far more independent and self-directed than today's" (Grobler et al., 2004:104).

Recent research in the private and public sector in South Africa has revealed that in more than 500 companies almost no use is made of flexible working arrangements, or teleworking and home-based work, which is an indication that true flexibility has not reached the South African workplace (Grobler et al., 2004:126). Would it be fair to reason that higher education institutions are displaying the same pattern and that this might be a reason for the slow adoption of the idea of virtual offices for e-learning practitioners?

Job redesign is becoming more important to organisations and the focus is shifting towards customer satisfaction and empowering employees (Grobler et al., 2004:104). "The success of the organisation depends on its employees" (Grobler et al., 2004:104) and therefore organisations should optimise on workforce benefits such as the behavioural style diversity of the workforce, person-job fit and cultural cohesion (Shelton, McKenna & Darling, 2002) This has the implication of recognising the individual's needs and reinforcing positive motivational influences (Grobler et al., 2004:105).

Models for job redesign

Recent interest in theory and research on job redesign emphasise the importance of human factors, motivational characteristics and job characteristics (Boonzaier, Ficker & Rust, 2001:11). Hackman and Oldham's (1975) job characteristic model (JCM) is well-known and is widely accepted (Parker & Wall, 1998; Kuk, Kivimaki, & Elovaino, 1999:4; Boonzaier et al., 2001:11; Thomas, Buboltz, & Winkelspecht, 2004:205). The basic JCM model presents a relationship between five job characteristics (independent variables) and personal and work relevant outcomes as dependent variables, mediated by three psychological states (Ilgen & Hollenbeck, 1991:178; Boonzaier et al., 2001:12). Three job characteristics, namely skill variety, task identity and task significance, foster the emergence of the

first critical psychological state – “experienced meaningfulness of work” (Boonzaier et al., 2001:12). The fourth job characteristic, autonomy, contributes to perceptions of “experienced responsibility for outcomes of the work” and “knowledge of results of the work activities” (Boonzaier et al., 2001:12) is determined by feedback from the job (Ilgen & Hollenbeck, 1991:178). One of the assumptions of the JCM is that the potential of a job to prompt self-generated motivation is the highest when all five job characteristics are present (Ilgen & Hollenbeck, 1991:179).

Theoretical interest in this model inspired various research studies, for example validity studies by Boonzaier et al. (2001); proposed integrated model studies (Kuk et al., 1999) and job characteristics and personality as predictors of job satisfaction (Thomas et al., 2004). Thomas et al. (2004:215) used the Job Characteristics Inventory, the Myers-Briggs Type Indicator and the satisfaction scale of the Job Diagnostic Survey to investigate the nature of the relationship between job characteristics, personality and job satisfaction. Their findings indicate that “personality had neither a direct effect on satisfaction nor a moderating effect on the job characteristics-job satisfaction relation” (Thomas et al., 2004:205). Therefore the study did not support findings from Agho et al. (1994) that “personality impacts on behavioural responses of individuals in their work environment” (Thomas et al., 2004:215). However Van den Berg and Feij (1993:337) support Agho et al.’s (1994) findings. They found that personality traits had several significant longitudinal effects on the job experience criteria, including job satisfaction.

Assessment of research on the JCM by Boonzaier et al. (2001) reveals that the Job Diagnostic Survey is the most widely used instrument in job redesign research and that the JCM has generated the most research and discussion of all the job redesign theories. However, criticism has been voiced regarding shortcomings in the model and the survey instrument. Parker and Wall (1998:14-15) comment on some of these shortcomings by saying that the model fails to identify the relationships between the outcome variables and that the model has not stood up to the empirical test. Their observations are reiterated by Boonzaier et al. (2001:23) who state that in spite the fact that the model is flawed, the model does offer directives for diagnosing work situations.

According to Boonzaier et al. (2001:14) and Parker and Wall (1998:13), the JCM is considered the most influential, well-known and widely discussed theory of job redesign. However, in their research review on this model Boonzaier et al. (2001) question the postulated relationships between job characteristics and psychological states, as well as the relationships between psychological states and personal and work outcomes (Boonzaier et al., 2001:24). In their conclusion they plead that future research goals relating to the JCM should be the “identification, definition and measurement of appropriate worker and work environment characteristics (person and environment factors) which

would account for significant amounts of variance in motivation and satisfaction beyond the influence of the job characteristics and so enhance the predictive validity and practical usefulness of the model” (Boonzaier et al., 2001:25). Research initiatives pertaining to the JCM are more focused on quantitative analysis techniques not relevant for this study, but which did however **trigger a process of analogue thinking**, with consequent job redesign implications that will be discussed in proceeding paragraphs.

Implication for this study

- Theme foci evident from the empirical research on the JCM relate to “factor structure of the job characteristics and subjective, objective and additional job characteristics” (Boonzaier et al., 2001:14).
- “Subjective ratings of job incumbents can be regarded as a sufficient and valid indicator of the extent of the job characteristics present in their jobs” (Boonzaier et al., 2001:16).
- Energy wasted on frustrating environmental factors, negatively influences the relationships between the job characteristics and work behaviour (Oldham 1976 in Boonzaier et al., 2001).
- Depending on the purpose and context, job descriptions may vary from broad to precise descriptions applied in various situations by human resource professionals (Grobler et al., 2004:89-90).
- “The success of the organisation depends on its employees” (Grobler et al., 2004:104) and therefore organisations should optimise on workforce benefits such as the behavioural style diversity of the workforce, person-job fit and cultural cohesion (Shelton et al., 2002). This implies recognising the individual’s needs and reinforcing positive motivational influences.
- Commenting on the research review conducted by Boonzaier et al. (2001), these authors concluded by saying that “according to these criteria, three dominant sets of variables constitute the world of work, namely the characteristics of the job, characteristics of the worker and characteristics of the work environment” (Boonzaier et.al. 2001:23).

The ideas embodied in the above statements inspired various reasoning and thinking processes. Analogue thinking was applied to link the Human Job Analysis (HJA) and the person-situation interactionist model to the JCM resulting in conceptualising an enriched HJA.

- HJA techniques were chosen to analyse a job that does not formally exist – the resulting job description provides a broad holistic overview of the job scope, characteristics and

structure. The aim of the study is not to design a job description for e-learning practitioners but to explore the job characteristics and their relationships in the job structure.

- The enriched HJA used the HJA technique to identify the job characteristics and factor structure of the e-learning practice.
- Subjective and objective ratings from different sources were used. Various groups of people, for example an expert focus group, specialist groups and e-learning practitioners were asked to participate in the analysis process and to give their subjective opinion on job characteristics of e-learning practice. The outcome of these analyses was an enriched HJA;
- Descriptions of trait activators as perceived by job incumbents were used.
- The outcome was presented as a broad narrative job description.
- The PPA was used to identify diverse behavioural styles in the participant group.
- HJA was applied to the results of the PPA to determine person-job fit.

With respect to the second research question, human job analysis in terms of the DISC dimensions is important for this study to describe the (1) characteristics of the e-learning practice, (2) the job profiles and (3) the job structures.

Appendix B3: Definition of personality in the work context

Globalisation and changing socio-political order influence “scientists to rethink their theories, concepts and methodologies in explaining and assessing human behaviour” (Bergh & Theron, 2001:314). Bergh and Theron continue by saying that South Africa is already showing signs of organisational restructuring and changes in the composition of the workforce in reaction on the new socio-political order, but cautioned against using cultural heritage as an excuse to exclude any existing psychological idea or practice that best explains individual differences and similarities within a certain context. The South African Employment Equity Bill (Government Gazette. Notice 1840 of 1997:23) regulates equity in the workplace and guides affirmative action strategies and other policies for empowering people. The latter must be based on principles of justice and equity. It is important to distinguish between applying individual differences optimally and being prejudiced or discriminating because of those differences (Bergh & Theron, 2001:12). Debates on the application of individual differences in job recruitment and selection processes being elitist practices need to be contextualised in terms of point of departure.

Definitions make one’s assumptions explicit, so the way in which one defines personality is quite consequential: “it affects how one selects variables when studying personality phenomena” (Saucier & Goldberg, 2003), which implies that no universally excepted definition exists. However, Bergh and Theron (2001) are of opinion that there is some agreement on a number of aspects that should be included in a definition of personality. These aspects include “external, visible and observable physical appearances, behaviour and traits”, for example personal attractiveness; “possible covert behaviours, emotions, attitudes, values, thoughts and feelings; enduring patterns”, as well as “the dynamic nature of behaviour; uniqueness”; “wholeness and differentiation in personality”; acceptance that personality refers to “a living human being able to adapt in situations” (Bergh& Theron, 2001:320).

Bergh and Theron (2001:320) provide a useful summary of definitions from the literature that successfully integrate some or all of these aspects in their definitions of personality, for example definitions from Allport, Michel, Cattell, Sullivan and Meyer. Personality described as “the dynamic organisation within the individual of those psychophysical systems that determine his characteristic behaviour and thought” (Allport, 1961:28) is a widely accepted view of the systemic, interactional and integrated nature of personality. Pervin and John (1997:4) provide a definition of personality as “those characteristics of a person that account of consistent patterns of feeling, thinking and behaving”. From a work perspective personality might be seen as those characteristics that “fit the demands of the working environment” (Bergh & Theron, 2001:320).

Assumptions and controversies with regard to personality

Assumptions about the workplace are mostly influenced by American and European schools of thought – emphasising the positivistic and empirical paradigm of human behaviour.

Influences from African and Asian cultures, which place emphasis on a metaphysical and spiritual tradition. are limited (Bergh & Theron, 2001:317-318); but in spite of a variety of approaches and controversies with regard to personality in the work environment, many commonalities in personality structure and processes exist. Examples are concepts such as traits, response, habit and type to describe personality structure or “dynamic motivational concepts” (Pervin & John, 1997:7) to describe process.

These concepts provide possibilities for comparison and differentiation between different personality theories. Some theories postulate that personality is more than the sum of the “parts” and that personality can be studied in interaction with its other subsystems and surrounding systems such as work. Other approaches such as trait theories also use elements of behaviour to explain personality. Arguments about the influence of heredity versus environment in human behaviour are well known (Pervin & John, 1997:14; Bergh & Theron 2001:317, 325).

A complete theory of personality should consider five areas of personality, namely the **structure** (i.e. “characteristics of the person and how are they organised” (Dawda, 1997), **process** (i.e. “characteristics develop and change over different contexts”), **growth** and **development**, **psychopathology** (i.e. nature and cause of disordered personality functioning) and **change** (how people change and why they resist change) (Pervin & John, 1997:5) to be able to address the issue of both individual differences and similarities and the “intra-individual complexity of personality organisation and dynamics” (Dawda, 1997). Various personality theories, based on different conceptual and integrative systems or approaches, try to explain personality and to predict human behaviour. These theories are reflected in the different definitions of personality (Bergh & Theron 2001:320-325).

Approaches to personality in the work context

A number of theories relevant for the South African work context are listed by Bergh and Theron (2001:315-319) and include:

- psychodynamic or psychoanalytic theories
- behaviouristic or learning theories

- humanistic, phenomenological, existential approaches
- factor or trait theories
- cognitive theories
- occupational-orientated personality theories
- biological perspectives
- African and other perspectives
- personality psychology and integrated science

Two of these theories are relevant for this study, namely factor or trait and occupational-orientated personality theories.

➤ **Factor or trait theories**

Many factor theories have been proposed and are the most widely used career development theories (Patton & McMahon, 1999:14). These approaches assume that human behaviour is characterised by consistent patterns of behaviour described as dimensions, traits, factors and types, and that these different capacities can be measured (Patton & McMahon, 1999:15; Bergh & Theron, 2001:375). Trait theorists agree that human behaviour and personality can be organised into a hierarchy (Pervin & John, 1997:6) where **traits** can be defined as consistent patterns of thoughts, feelings or actions that distinguish people from one another. These tendencies remain stable across the life span but the characteristics of behaviour can change considerably through adaptive processes (Carlton, 2000).

Factors can be described as higher level dimensions in a hierarchical model of the variables in the domain (Goldberg, 1999a). A number of assessment instruments, based on factor analysis, are available to identify the trait profiles of individuals (Goldberg, 1999b; Patton & McMahon, 1999:15). Although the development of many assessment instruments has been a major contribution to career counselling, criticisms have been directed toward counselling practices based solely on trait factor models (Patton & McMahon, 1999:16). Models such as the Five-Factor Model of personality; the NEO Five Factor Model and the 16 Factor model are typical of these theories (Pervin & John, 1997:258-259; Goldberg, 1999a). Type theorists such as Jung and Eysenck also developed typologies of personality (Pervin & John, 1997:144, 234, Buchanan & Huczynski, 2004:52). Jung identified two broad personality categories (extrovert and introvert) and four personality types (Buchanan & Huczynski, 2004:146). His approach focuses on the information-processing characteristics of the individual, presented as the sensing, thinking, feeling and intuition four personality types (McKenna, 2000:58). Another prominent type theorist is Eysenck, who identified two basic dimensions, extroversion/introversion and neuroticism/stability in the structure of personality (Buchanan & Huczynski, 2004:52). He added a third dimension namely 'psychotic' at a later stage and postulated

his Three-Factor Model and the Eysenck personality inventory to measure dimensions of personality (Pervin & John, 1997:234-235; McKenna, 2000:52-54).

According to Patton and McMahon (1999), empirically related models such as the Big Five and the Five Factor Model are changing the view on personality at work and offer much for the understanding of the construct of personality (Patton & McMahon, 1999:19). According to Goldberg (1993 in Pervin & John, 1997:257) “the electrifying burst of interest in the most fundamental problem of the field [is] the search for a scientifically compelling taxonomy of personality traits” However, meta-analytic research on the relationship between the Big Five factors of personality and job criteria indicates that conscientiousness and emotional stability are valid predictors across job criteria and occupational groups, and according to Salgado (1997:30), the remaining factors are valid only for some criteria and for some occupational groups.

Trait factor theory is prominent in the career development domain and the work of Frank Parsons is seen as “a lasting influence” (Patton & McMahon, 1999:12) in the field of career guidance and he is best known for his contribution to career selection. He identified three key elements of the career decision-making process (Patton & McMahon, 1999:13):

- Gaining self-understanding: each individual has unique attributes that must be understood by the person himself
- Obtaining knowledge about the world of work: for example job opportunities, requirements and conditions of success in different job areas
- Reasoning about the relations of these two groups

➤ **Occupational-orientated personality theories**

Evolution formed the static trait-and-factor theory to more developmental and dynamic approaches that assume that the principle of give and take is a feature of the **person-environment fit** approach (Patton & McMahon, 1999:19). Chartrand (1991 in Patton & McMahon, 1999:19) proposes that “the greater the congruence between personal characteristics and job requirements, the greater the likelihood of success”. Furthermore, the person and the environment change continuously in ongoing adjustments (Patton & McMahon, 1999:19).

This assumption is central to Holland’s theory of vocational choice. Building on Parson’s tradition, Holland describes his typology as a structure for organising information about jobs and people (Bimrose, n.d.). Holland’s RIASEC model defines relations and interactions between six personality types: realistic (**R**), investigative (**I**), artistic (**A**), social (**S**), enterprising (**E**) and conventional (**C**) and

environments (Holland, 1992). According to Holland (1992:26), “a person’s personality pattern is the profile of resemblances to the personality types”. He summarises types as models for assessing people to derive hypotheses about people’s career paths, organising knowledge and conceptualising personality (Patton & McMahon, 1999:22-23). Personality types may be defined by vocational interest (de Bruin, 2002) and, according to Holland’s definition, teachers may be classified as being from the *social* personality type (Holland, 1992:25). According to Patton and McMahon (1999) one assumption of Holland’s model is that “individuals seek out work environments that are compatible with their attitudes and values and that allow them to use their skills and abilities” and that interaction between the person and the environment determines behaviour (Patton & McMahon, 1999:21). Outcomes such as job satisfaction can be predicted from knowledge of personality types and environmental models (Patton & McMahon, 1999:22).

In addition to the development of a theory to predict occupational selection based on individual differences, Anne Roe developed a classification system listing eight occupational groups and six levels of occupations from which several interest inventories were developed (RCEP, 2004).

Practical applications of occupational-oriented personality theories are vocational assistance, explanation and predictions using vocational data, facilitation of career interventions and application in social and educational research (Holland, 1992).

Implication for this study

Although pure trait factor models have largely faded into more dynamic person-environment fit models, assumptions from trait factor theory that are important for this study are that

- trait factor theory does not attempt to understand the development of personality or predict human behaviour in the workplace
- it focuses on identifying personal characteristics and profiles of e-learning practitioners and the e-learning practice

Person-environment fit theory addresses the

- relationship between the characteristics of e-learning practitioner and e-learning practice
- congruence between the person and the job

Appendix B4: Person-organisational fit (P-O fit) defined

Broad definitions of P-O fit refer to P-O fit as the congruence between a person and the organisation, which suggest that there are two distinct entities, “the person (P) and the organisation (O)” (Van Vianen, 2001). Some authors treat the P and the O as independent and the relationship between them as dependent on the specific nature of the components and how the components are assessed (Van Vianen, 2001). Hollenbeck (2000) developed a theory of ‘fit’ derived from structural contingency theory, stating that an integrated theory of P-O fit should include both internal and external fit approaches. He defines internal fit as a “fit between the organisation’s structure and its own members” and external fit as a fit between the “organisation and its environment” (Hollenbeck, 2000). Hollenbeck (2000) argues that organisations can be differentiated along three dimensions of structure which interact on the one hand with the environment (external fit) and on the other hand with the members of the organisation (internal fit). Performance is determined by the interaction between the internal and external fit, “such that the lack of fit on one dimension can neutralise the otherwise positive effects of a good fit on the other dimension” (Hollenbeck, 2000). Hollenbeck (2000) identifies two main dimensions of organisational structure as being centralisation and departmentation and is of opinion that “no one structure is ideal across all environments” (Hollenbeck, 2000). For example, structures high in centralisation functioning in stable environments tend to perform best but not so efficiently in unpredictable environments. “Decentralised and divisional structures tend to perform better” [in unstructured and unpredictable environments] “because they promote flexibility” (Hollenbeck, 2000).

In the fast changing world of work, organisations not only need **efficiency**, where one type of structural configuration is applicable, but also **flexibility**, the outcome of another type of structure. To address this dilemma Hollenbeck (2000) adds another critical dimension – **adaptability**. “An adaptive structure is one that tries to achieve **responsiveness** by changing structural configurations on line in order to match the current operating environment” (Hollenbeck, 2000). According to Hollenbeck (2000), these changes involve “horizontal movement from functional to divisional departmentation, vertical movement from centralised to decentralised authority or diagonal movement across both dimensions of structure”. The three dimensions, efficiency, flexibility and adaptability are components for a good external fit (Hollenbeck, 2000).

Hollenbeck (2000) continues by saying that components of internal fit focus on dimensions such as the structure of the team or subunits, and the nature of the organisational structure impacts on the role requirements that exist in the subunits, which has implications for the type of people best suited to such roles. Thus it is important to establish the characteristics of the person to be able to describe the

internal fit in terms of structure-person fit. “In matching people to structures these dimensions can be used to understand how and why certain types of people are variable suited to different types of structures” (Hollenbeck, 2000). The structurally based model for person-organisation fit proposed by Hollenbeck (2000) using a multidimensional approach posits that for person-organisation fit, a good external fit between the **organisational structure** and **the environment** and a good internal fit between the **organisational structure** and **the members** of the organisation are needed.

According to the structural contingency theory the fit between individual characteristics and organisational characteristics influences outcomes such as work performance (Lindholm, 2003), intention to quit and job satisfaction (Cable & DeRue, 2002). In an empirical examination of Kristof’s conceptualisation of the multidimensional nature of P-O fit, Westerman and Cyr (2004:258) investigated supplementary fit (measured by values congruence and personality congruence) and needs-supplies fit (measured by work environment congruence) and found that personality congruence was a direct predictor of employee intention to remain with the organisation. Westerman and Cyr (2004:252) listed various researchers who indicated the importance of P-O fit for organisations by significant relationships between P-O fit and a number of categories (see table 2.19).

Table B4.1: Important P-O fit relationships for organisations as indicated by a number of researchers

Important P-O fit relationships for organisations	
Researchers	Category
Cable & DeRue, 2002	Relationships between P-O fit and turnover
Dawis & Lofquist, 1984; Cable & DeRue, 2002	Relationships between P-O fit and work attitudes
O’Reilly & Chatman, 1986; Cable & DeRue, 2002	Relationships between P-O fit and organisational citizenship behaviours
Posner, 1992	Relationships between P-O fit and teamwork
Posner, Kouzes & Schmidt, 1985	Relationships between P-O fit and ethical behaviour
Matteson & Ivancevich, 1982	Relationships between P-O fit and stress
Tziner, 1987	Relationships between P-O fit and work performance
Tett & Burnett, 2003	Relationships between P-O fit and job performance

But there is a gap in the research literature – no reference is made to the relationships between person-organisation fit in terms of the role of staff development or staff training programmes.

There is agreement amongst researchers and practitioners on the importance of P-O fit as a key element in maintaining a flexible and committed workforce, optimising effectiveness of the organisation (Shelton et al., 2002; Sekiguchi, 2004:184). However, there is no consensus on the operationalisation of the P-O fit construct. In an attempt to address this issue, Kristof (1996) conducted an extensive literature review and identified the following as examples of the operationalisation of P-O fit: measuring “similarity between characteristics of persons and organisations”; “goal congruence between organisational leaders and peers”; matching “individual needs and organisational systems and structures” and matching “individual personality characteristics and organisational climate’ (personality) (Sekiguchi, 2004:182). **However, little is known about “which characteristics of people and environments are crucial for establishing fit”** (Van Vianen, 2001).

These observations underline the importance of a distinct conceptualisation of relevant concepts to ensure accurate operationalisation of the construct under investigation. Clear differentiation on the **fit type** may be useful in these endeavours, for example using person-job fit type as the theoretical framework of choice to measure goodness of fit between the person characteristics of the e-learning practitioner and the characteristics of the e-learning job. Customised measuring instruments such as the PPA and the HJA may be helpful in operationalising the measurement of the similarity between the person and the job characteristics.

Person-organisation fit issues

Ryan and Kristof-Brown (2003) shift the focus back to the individual by pointing out four important issues regarding the role of personality in P-O fit assessments. They highlight the relevance of personality in P-O fit; positive and negative influences of P-O fit on personality; accuracy of fit perceptions and fit related to adaptability as key issues in P-O fit (Ryan & Kristof-Brown, 2003:263). In short this implies that because of the stability and visibility of personality over time, assessment based on personality should not change dramatically over time and therefore personality can be seen as relevant in P-O fit (Ryan & Kristof-Brown, 2003:265, 269). Information supplied by Thomas International supports Ryan and Kristof-Brown’s opinion that perceptions of misfits may sometimes lead the person to become more self-aware and even to perceive the misfit as an opportunity for self-development (Thomas International Resources, n.d.; Ryan & Kristof-Brown, 2003:273). Furthermore, misfit in one dimension may prove to be beneficial to another application.

Accuracy of fit perceptions relate to subjectivity and willingness to change, especially in the fast changing world of work where “employees will hold multiple jobs over the course of their employment” (Sekiguchi, 2004:186). Perceptions about goodness of fit relate to a variety of fit types and, as modern

organisations are dynamic and fluid, a good fit depends on the adaptability of the person in terms of their ability and motivation to adapt (change) to fit the situation (Chatman, Caldwell & O'Reilly, 1999; Ryan & Kristof-Brown, 2003:282).

On the other hand it is challenging for organisations to coordinate behavioural style diversity, person-job (P-J) fit and cultural cohesion, and “many organisations now use behavioural style and personality assessments in their screening process in order to better optimize job/person fit” (Shelton et al., 2002). In their article titled “Leading in the age of paradox: optimizing behavioural style, job fit and cultural cohesion” Shelton et al. (2002) emphasise the importance of optimisation of behavioural style diversity to the benefit of not only the individual worker but also the organisation. These authors highlight a paradox in terms of the optimisation of behavioural style, P-J fit and cultural cohesion in organisations and propose the creation of quantum organisations to bridge the gap (Shelton et al., 2002). Lindholm's (2003:130) stance supports this line of thinking by pointing out that researchers in higher education have studied a number of the component parts of P-O fit using quantitative approaches which lack subtleness in terms of the identification and “interpretation of variations between individuals and across organisational contexts” (Lindholm, 2003:130). Lindholm (2003) calls for a qualitative approach to the study of P-O fit, to enable an understanding of the “causes and consequences of people's experiences and behaviour at work” (Lindholm, 2003:130).

Person-organisation fit research

General research initiatives pertaining to higher education have focused on a variety of components of P-O fit, for example culture, climate, faculty expectations and socialisation (Lindholm, 2003:130). Cross-cultural research on P-O fit is emerging slowly and evidence of one study by Parkes, Bochner and Schneider (2001) was found. They investigated individualism and collectivism across Australian and Asian cultures. Lindholm (2003:130) points out that elements such as culture, climate and socialisation are not integrated into conceptual models of P-O fit and that there is a lack of coherence. Researchers are urged to apply **qualitative approaches** to investigate P-O fit in terms of work behavioural style (Lindholm, 2003:130), focusing on cross-cultural perspectives, simultaneous effects of fit type combinations and research on **organisational learning** and the way team members operate when they employ virtual teams as communities of practice (Andrews & Schwartz, 2002; Cascio, n.d.).

Ryan and Kristof-Brown (2003) agree with Hollenbeck's (2000) caution against a too narrow a focus on only one type of fit, considering the fact that a poor fit in one dimension may neutralise a good fit in another dimension. The idea of multiple fit possibilities not only stimulates creative thinking in terms of how these possibilities may spur research opportunities, but also creates awareness of the minefield

of complexities that exists. This is underlined by a number of P-O fit issues mentioned in the literature, which were discussed in the previous section..

Appendix C

Appendix C1: PPA Form

Example of the PPA form:

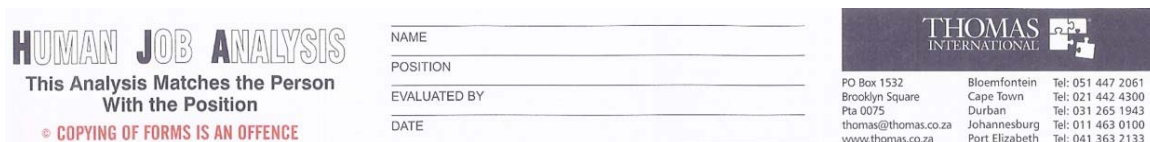
Copying forms from Thomas International is illegal therefore to represent the PPA form only the logo is displayed.



Appendix C2: HJA Form

Example of the HJA form:

Copying forms from Thomas International is illegal therefore to represent the HJA form only the logo is displayed.



Appendix C3: Face-to-face interview data sheet

Example of Face-to-Face interview data sheet

Face-to-Face interview data sheet							
Faculty	Department	Name	Identity code	Date	Comment from participant	Category	Data code

Appendix C4: Participant observation sheet for ECG meeting

Participant observation sheet for expert consensus group meeting on 24 June 2005

Participant observation sheet		
Statement number	Statement	Notes on participant behaviour and comments made by them

Appendix C5: ECG member checking and verification of the HJA

Expert consensus group (ECG) : Member checking and verification of the HJA done by the expert consensus group done on 24-29 June 2005.

Translated e-mail to invite participants from the expert consensus group to verify the constructed HJA sent on 29 June 2005

From: Hermien Johannes
To: A,B,C,D,E
Date: 29 June 2005 12:37:40 AM
Subject: Feedback on HJA

Dear colleagues

Once again many thanks for your input into the Human Job Analysis on Friday. I am sending you each a copy of the HJA as we discussed it.

HJA Graph and data sheet inserted here

This graph is only a theoretical benchmark and in order to increase its validity it is compared with "star performers" in the profession – actual benchmarks.

The process goes even further, however, and if you are interested you may take it further: **READ THE LIST OF CHARACTERISTICS BELOW** and indicate whether you agree that it is an acceptable version of the way in which you see the person who fills this position.

Descriptive words:

- Self-Starter (selfbeginner); Daring (Onverskrokke); Assertive (selfgeldend); Decisive (Beslis); Inquisitive (nuuskierig);
- Influential (invloedryk); Persuasive (oorredend); Positive (positief); Participating (deelnemend) Communicative (kommunikerend), and
- Independent (Onafhanklik); Persistent (Volhardend); Strong-willed (Wilskragtig); Firm (Ferm).
- Directing and Leading;
- Individuality – (Antagonistic situations require taking direct and positive action where there may be little or no precedent to go on. The job carries freedom to act and the authority to make decisions even when they may be unpopular), and
- Self-confidence – (Contact situations require motivating and influencing people where there is little protocol or precedent available to serve as guide. He/she may be required to commit himself/herself by taking a position or "stand" which is controversial).

The next step is to indicate one block in each descending column (the same colour) in the Master Job Graph below that best describes the characteristic that the person needs for the position (use the number for reference).

The analyst from Thomas International will then be able to draw up a profile and we can try to obtain a more complete picture from the data collected.

'MASTER JOB GRAPH INTERPRETATION' document inserted here

I would greatly appreciate your comments on this.

Kind regards

Hermien.

Appendix C6: Invitation to e-learning practitioners to participate (Char1)

Invitation to the e-learning practitioners at TUT to participate in this research study and to give their feedback on three questions (Char1)

Dear Colleague,

I am an Instructional Designer at the Tshwane University of Technology conducting a research study on the characteristics of the e-learning practitioner.

The term e-learning practitioner includes online educators, online course developers (instructional designers) and online course presenters.

Uncovering the profile of these practitioners is the primary goal of this research initiative.

It would be much appreciated if you can give your valuable input to this research inquiry by completing a "Personal Profile Analysis". The aim of this profile analysis is to get a behaviour analysis of what people think of themselves in the work situation.

Personal details are not important for this study, however if you would like to receive feedback on the Personal Profile Analysis and the Human Job Analysis please provide your details.

1. Instructions on how to complete the PPA and/or HJA are on the answer sheet.

This profile analysis should take no more than 15 minutes of your time to complete.

2. If you would like to **match your profile** with your job profile, complete the "Human Job Analysis" as well. Add your details if you would like feedback on the match

3. Participation in this study

Participation in this study is voluntary.

All the data that you provide will be handled confidentially, which means that access to your data will be strictly limited to the investigator (Hermien Johannes) and the data analyst (), registered Psychologist, from the Department of Staff Development, TUT).

The data obtained from this study will not be used to report on individual participants. Participants may request feedback on their own results for personal use.

4. Request

We would like to request your permission to do the following during and/or after the study:

- to integrate your profile results with other research findings with the aim of uncovering the characteristics of the e-learning practitioner.
- for publication as research reports
- for publication in reputable scientific journals.
- in presentations at scientific meetings (congresses)

Consent:

Do you agree to take part in this study?

YES NO

Research participant signature

Date

Thank you for your participation.

Friendly regards

Hermien Johannes.

What is/was the time period that you acted as online teaching and learning facilitator?

- a. **None**
- b. **1-6 months**
- c. **7-12 months**
- d. **13-18 months**
- e. **19-24 months**
- f. **2-3 years**
- g. **More than 3 years**

In your opinion, what are the outstanding **personal attributes (characteristics)** of an e-learning practitioner?

Appendix C7: Invitation to virtual group to participate (VG)

Invitation to the members of the Department of Telematic Education (VG) to participate in a discussion on job analysis for e-learning practitioners

From: Hermien Johannes

To: A,B,C,D,E,F,G,H

Date: 07 July 2005 12:23:56 PM

Subject: support

Dear Colleagues,

IF possible, could you please help me with answers to the following questions? I need this information for the completion of the e-learning practitioner job analysis. The following questions pertain to: Details on specific job functions of the e-learning practitioner as perceived by practitioners from the Department of Telematic Education

1. What are the specifics of acceptable or excellent performance for this job?
2. What functions will the e-learning practitioner perform?
3. Is this job essentially pro-active or re-active?
4. What are the most critical characteristics which are non-negotiable?
5. What is the management style of the person to whom the position reports?

The following questions pertain to: Star performer as perceived by practitioners from the Department of Telematic Education.

1. How would you describe a star performer in the field of e-learning practice at TUT?
2. Can you name any star performers in your faculty?

I am very dependent on your support and want to thank you sincerely for everything that you have done to help so far.

Friendly regards

Hermien

Appendix C8: Invitation to the Partners to participate (Essay)

Invitation to the Partners to participate in research activities on 17 May 2005 (essay).

Partners@Work Programme
17 May 2005

Time	Activity
08:00 – 08:30	Coffee/Tea
08:30 – 9:00	Welcome & Finalisation of arrangements for the 'Graduation'
09:00 – 11:00	Focus Group 1
11:00 – 11:15	Coffee/Tea
11:15 – 13:00	Focus Group 2
13:00 – 13:30	Lunch
13:30 – 14:30	Research projects & Individual Video Diaries
14:30 – 16:00	Project Summaries & Individual Video Diaries



Activities

17 May 2005

Assignment 3: Research assistance

Please complete the questionnaires provided with regards to your experience on the Partners@Work programme.

Appendix C9: Invitation to e-learning practitioners to participate (Blog)

Invitation to the Partners to participate in writing reflective diaries (blog).



Homework for...

...14 July 2004

1. In your **Blogs**, reflect on your experience of today's worksession, and
2. Create links in your blog to the different items in your e-portfolio.

...20 July 2004

1. In your **Blogs**, reflect on your experience of today's worksession.
2. Complete the **survey** for Worksession 3 (13 - 14 July 2004) in WebCT.
Remembering that the surveys are *completely anonymous* – please feel free to be as critical and honest as you feel you need to be.

Appendix C10: Invitation to e-learning practitioners to participate (eMod)

Invitation to the Partners to participate in e-Moderating course discussions (eMod).

myWebCT Check Browser Log Out Help
Resume Course Course Map

E Moderating

Homepage > Discussions

Discussions

[Compose message](#) [Search](#) [Topic settings](#)

Click on a topic name to see its messages.

Topic	Unread	Total	Status
Announcements	0	34	public, unlocked
General discussion	0	39	public, unlocked
Gilly's forum	0	8	public, unlocked
1.0 - Arrivals	0	63	public, unlocked
1.4 - Experience and expectations	0	55	public, unlocked
1.5 - Getting Help	0	37	public, unlocked
1.6 - Latecomers	0	47	public, unlocked
Session 1 Reflections	1	53	public, unlocked
2.1 - Working Online	1	51	public, unlocked
2.2 - Asynchronous Working	3	64	public, unlocked
2.3 - Your resume	1	119	public, unlocked
3.7 - Interventions	8	22	public, unlocked
Session 3 Reflections	9	34	public, unlocked
4.5 - Designing E-tivities	18	114	public, unlocked
Session 4 Reflections	9	25	public, unlocked
5.1 - E-moderator role in development	11	57	public, unlocked
5.2 - Building a development plan	9	50	public, unlocked
5.3 - The entire course	11	31	public, unlocked
5.4 - Mirrors	4	26	public, unlocked
Session 5 Reflections	8	27	public, unlocked
Cyberbar	13	91	public, unlocked
Group Conference - Blue	48	131	public, unlocked
Group Conference - Red	3	186	public, unlocked
All	275	1846	---

Compiled Messages:

Message no. 40

Posted by E- Convenor (Emod) on Tuesday, October 5, 2004 09:47

Subject: Check in here regularly please!

Hi everyone,

I just wanted to suggest that this is a good discussion area to check regularly as I will be posting any general news or items here.


cheers

Econvenor

Appendix C11: Invitation to the Partners to participate (RS)

Invitation to the Partners to participate in research activities on 17 May 2005 (RS).

Partners@Work Programme 17 May 2005	
Time	Activity
08:00 – 08:30	Coffee/Tea
08:30 – 9:00	Welcome & Finalisation of arrangements for the 'Graduation'
09:00 – 11:00	Focus Group 1
11:00 – 11:15	Coffee/Tea
11:15 – 13:00	Focus Group 2
13:00 – 13:30	Lunch
13:30 – 14:30	Research projects & Individual Video Diaries
14:30 – 16:00	Project Summaries & Individual Video Diaries



Activities

17 May 2005

Assignment 1: Summaries

TUT Prepare a summary of your Partners@Work project in no less than 300 words. Include the reason why you choose to use technology in the first place (i.e. What was the problem?). Then summarise what you did, and why. Follow this up with a succinct summary of your results. End off with a paragraph identifying in short what it is that you are particularly proud of.

Add this Word document as an attachment to a message on the Bulletin Board in the Partners@Work course before 16:00 today.

These summaries will mainly be used by Corporate Relations during the course of the year as a basis for stories that will be published in eTutor and Tutor, as well as potentially in Rhythm. These are some of the internal and external communication channels of the University and will provide you with some well-deserved publicity. The summaries will also be uploaded onto the website, where we will create an archive for each year's Partners@Work group.

Appendix C12: Invitation to the Partners to participate (Char2)

Invitation to the Partners practitioners to participate in study (Char2).

“In search of the latent structure of an e-learning practitioner construct”

Thank you for your interest in this survey. I am doing research on the characteristics of the e-learning practitioner. **The term e-learning practitioner includes educators, who may include course developers, course presenters, and e-moderators who facilitate online teaching and learning processes.** Uncovering a profile of these practitioners is the primary goal of this research initiative. You are invited to participate in this survey. The 8 questions should take no more than 20 minutes of your time to complete.

Regards

Hermien Johannes.

1. Please provide your name:	2. What is/was the time period that you acted as online teaching and learning facilitator? h. None i. 1-6 months j. 7-12 months k. 13-18 months l. 19-24 months m. 2-3 years n. More than 3 years
------------------------------	---

3. In your opinion, what are the outstanding **personal attributes (characteristics)** of an e-learning practitioner.

4. In the role as **Online teacher/facilitator/e-moderator** that you played during the Partners@Work programme, you experienced various positive and negative influences. How did you react (what did you do) on:

1. Programme demands; (e.g. I reacted on numerous e-mails from students by working longer hours in the evening for example I got 60 replies from students and it took me 5 extra hours to reply to them)
2. Distracters; (e.g. During an online WebCT training session the internet went down and I didn't know what to do and decided to phone my instructional designer).
3. Releasers (e.g. New knowledge about different online teaching and learning strategies activated me to change my teaching approach).

5. In the role as **Instructional designer** that you played during the Partners@Work programme, you experienced various positive and negative influences. How did you react (what did you do) on:

1. Programme demands;
2. Distracters;

3. Releasers.

6. In the role as **Learner/student** that you played during the Partners@Work programme, you experienced various positive and negative influences. . How did you react (what did you do) on:

1. Programme demands;
2. Distracters;
3. Releasers.

7. In the role as **Researcher** that you played during the Partners@Work programme, you experienced various positive and negative influences. How did you react (what did you do) on:

1. Programme demands;
2. Distracters;
3. Releasers.

8. In the role as **Manager** that you played during the Partners@Work programme , you experienced various positive and negative influences. How did you react (what did you do) on:

1. Programme demands;
2. Distracters;
3. Releasers.

Thank you for your participation.

Appendix C13: Invitation to the Partners to participate (FGQues)

Invitation to the Partners practitioners to participate in study (FGQues).

“In search of the latent structure of an e-learning practitioner construct”

Thank you for your interest in this survey. I am doing research on the characteristics of the e-learning practitioner. **The term e-learning practitioner includes educators, who may include course developers, course presenters, and e-moderators who facilitate online teaching and learning processes.** Uncovering a profile of these practitioners is the primary goal of this research initiative. You are invited to participate in this survey. The 8 questions should take no more than 20 minutes of your time to complete.

Regards
Hermien Johannes.

1. Please provide your name:	2. What is/was the time period that you acted as online teaching and learning facilitator? o. None p. 1-6 months q. 7-12 months r. 13-18 months s. 19-24 months t. 2-3 years u. More than 3 years
------------------------------	---

3. In your opinion, what are the outstanding **personal attributes (characteristics)** of an e-learning practitioner.

4. In the role as **Online teacher/facilitator/e-moderator** that you played during the Partners@Work programme, you experienced various positive and negative influences. How did you react (what did you do) on:

1. Programme demands; (e.g. I reacted on numerous e-mails from students by working longer hours in the evening for example I got 60 replies from students and it took me 5 extra hours to reply to them)
2. Distracters; (e.g. During an online WebCT training session the internet went down and I didn't know what to do and decided to phone my instructional designer).
3. Releasers (e.g. New knowledge about different online teaching and learning strategies activated me to change my teaching approach).

5. In the role as **Instructional designer** that you played during the Partners@Work programme, you experienced various positive and negative influences. How did you react (what did you do) on:

1. Programme demands;
2. Distracters;
3. Releasers.

6. In the role as **Learner/student** that you played during the Partners@Work programme, you experienced various positive and negative influences. . How did you react (what did you do) on:

1. Programme demands;
2. Distracters;
3. Releasers.

7. In the role as **Researcher** that you played during the Partners@Work programme, you experienced various positive and negative influences. How did you react (what did you do) on:

1. Programme demands;
2. Distracters;
3. Releasers.

8. In the role as **Manager** that you played during the Partners@Work programme , you experienced various positive and negative influences. How did you react (what did you do) on:

1. Programme demands;
2. Distracters;
3. Releasers.

Thank you for your participation.

Appendix C14: Validity and reliability of PPA in South African context

Thomas International validation documents



12 April 2005

Thomas International Management Systems SA
A division of JCS Human Dynamics (Pty) Ltd – Reg No 1998/12919/07
Director: J.C. Schutte (Managing)

www.thomas.co.za

Tshwane University of Technology
Private bag X680
Pretoria
0001

PO Box 1532, Brooklyn Square 0075
Suite 201, Brookfield Park, 273 Middel Street
New Muckleneuk, Pretoria

Pretoria	(012) 346 3721 T	(012) 346 5965 F
Bloemfontein	(051) 447 2081 T	(051) 447 2061 F
Cape Town	(021) 442 4300 T	(021) 447 9139 F
Durban	(031) 265 1943 T	(031) 265 1950 F
Johannesburg	(011) 783 7474 T	(011) 884 3235 F
Port Elizabeth	(041) 363 2133 T	(041) 363 9078 F

Dear

RE: THE PPA IN THE SOUTH AFRICAN CONTEXT: REQUEST

Herewith the information regarding the academic research work in South Africa on our instruments, as requested by Tshwane University of Technology.

(a) Validation & Reliability in the International Context

Here I refer to International Resource Book by Prof Sidney H Irvine, PhD FBPS IBSN 0-9544 897-0-5.

The above publication describes and demonstrates all the various international studies and requirements for us to comply with the International Test Commission's (ITC) regulations.

I have also attached as a separate file, Prof Irvine's summary, Chapter 10 of the above publication.

(b) Research in the South African Context

Thomas International are committed to continuous research. As we are satisfied that the international studies established the construct and criterion related validity, internal consistency and test-retest reliability of the PPA under various circumstances we have chosen to focus initially on normative studies (see information provided below). In addition we have followed the draft suggestions of the International Test Commission (ITC) to ensure that we comply with international criteria of computer based assessment procedures. Our company will have a representative at the World Psychology Conference when the ITC draft criteria are expected to be adopted as standard operating procedure.

We are committed to continuous research not only to comply with the Labour Act of South Africa, but also to provide a scientifically based service to an international business community of nearly 70 000 organisations in 52+ countries across more than 40 language groups.

In terms of South African law the main questions to ask are:

(i) Has the instrument scientifically been shown to be valid and reliable?

Please see publications indicated above.

(ii) Can it be applied fairly to all employees?

Please see publications indicated above. In addition it should be noted that the instrument has been used extensively and successfully for an extended period of time in a number of different countries.

We service multinational clients, e.g. IKEA, Sony, Starwood Hotels Groups, ABB, Inter-Continental Hotels, etc.

(iii) Is it not biased against any employee or group?

Rhetorical evidence suggests that the instrument can be used with great success across different cultures. The populations of the USA, Britain and Europe are by no means culturally homogenous, and one may expect more heterogeneity between so-called Western people and Eastern cultures. Yet the PPA has been used for an extended period of time across these different cultures.

However, in South Africa we do not accept international norms on face value. The answer is already obvious, given the international usages and popularity in many countries. We have to be realistic - just as the South African White population is a cosmo-genetic world of collection, so are the black populations in the USA and England for example, also a cosmo of genetic collections. They have already been included in the academic studies and thus form part of the overall international results as published. Language "barriers" or country cultural specific interpretations can influence the constructs of our instruments and thus need regular research to adopt with changes as generations move along. A classic example would be the word "gay", used on the original UK construct that was understood as meaning happy, jovial, outgoing 20 years ago, which is today referred to as interpretation of a sexual orientation. Therefore adjustment had to be made and is continually made to keep up with the dynamics of the global world we are evolving to. In South Africa, Thomas International has embarked on an extensive research programme. Part of this exercise is to build a comprehensive database under supervision of Prof SH van Deventer. At present the database contains more than 10 000 records and we have been able to conduct preliminary research studies based on these cases. However, due to past legacies we still have insufficient numbers on some sub-groupings. At this stage the general norm for South Africa was calculated using a sample of 3738 individuals of age 20+, with an education level of 4+ and consisting of 54% Black, 28% White, 13% Coloured and 5% Indian/Asian; Gender: 54% Male and 46% Female; Education level: 52% level 4, 26% level 5, 15% level 6 and 7% NQF 7/8. Due to the database growing from industries using the PPA, we suspect that the proportion of the various racial groups corresponds with proportions found in the work environment, but we do not have empirical information to support this notion.

(c) Reasons for our present focus on norms

The PPA is an ipsative measure and concerns intra-individual comparisons. From this perspective it is irrelevant to ask for South African norms. The reason for our interest in South African norms is not to determine a norm to compare one person to another. It is to determine whether the questionnaire "works" for South Africans. From a personological perspective there is no reason to think that the questionnaire would not work. South Africans are, after all, human beings, and the PPA's Technical Manual indicates that the test "works" for human beings. However, there are practical factors that may influence the responses provided by South Africans, for example language proficiency and attitudes towards psychometric evaluation. Thus the aim of the norm study is to calculate standard scales on which to plot South African profiles.

(d) Preliminary findings

The norms we have calculated thus far support the notion that the South African standard scale deviates only slightly from the PPA standard scale. In other words, the shape of a profile plotted on the standard PPA scale would be similar to the shape of a profile plotted on the South African scale as illustrated in the table below:

Source	US Mean Hendrickson 1958	US Mean N=283 1998	UK Mean N=4083 1983-86	UK Mean N=4083 1983-86	SA Pretoria N=327 1997	SA Mean N=3738 1997	Population Std Dev 1996	SA Population Std Dev 2003
<i>Dominance_Most 1</i>	6.5	5.10	7.2	6.76	5.53	5.23	3.5	3.03
<i>Dominance_Least 2</i>	5.0	5.54	4.2	5.54	5.20	5.04	2.9	2.67
<i>Dominance_Self3</i>	1.5	-0.43	3.0	1.42	0.32	0.20	5.8	4.96
<i>Influence_Most1</i>	4.0	5.10	5.7	4.50	4.60	4.71	2.4	2.07
<i>Influence_Least2</i>	4.0	4.01	3.1	3.98	4.15	4.62	1.9	2.18
<i>Influence_Self3</i>	-0.0	1.08	2.6	0.51	0.45	0.09	3.6	3.53
<i>Steadiness_Most1</i>	4.5	5.79	4.0	5.35	4.73	4.97	2.6	2.22
<i>Steadiness_Least2</i>	6.1	5.00	6.5	5.15	5.90	5.74	2.6	2.24
<i>Steadiness_Self3</i>	-1.6	0.79	-2.5	0.20	-1.17	-0.77	4.5	3.77
<i>Compliance_Most1</i>	3.7	3.98	4.1	3.57	5.28	5.44	1.8	2.03
<i>Compliance_Least2</i>	6.5	6.25	7.7	6.54	5.05	5.41	2.3	2.23
<i>Compliance_Self3</i>	-2.8	-2.28	-3.6	-2.98	0.23	0.05	3.3	3.41

Note: Most1 refers to distribution for Most Like Me words: Least2 refers to Least Like Me word ranks: and Self3 is the sum of Most-Least rank totals.

This information clearly shows that we can concur with the following remark made by Prof Erwin in the technical resource book: "The Table is nevertheless remarkable in one respect. The averages are similar regardless of origin and have a robust consistency within limits of reliability. The last column provides an estimate of the standard deviation of the word totals. Inspection shows that the difference among the averages is not great in terms of the total variance and limits to scale reliability. Only minor adjustments to the profile graph were needed to harmonise the system with the responses of personnel in United Kingdom companies."

The fairness application of the PPA is the joint responsibility of Thomas International and the company using the instrument. The processes and procedures in which our systems are being utilised are therefore carefully considered in a consulting process between our trained and accredited consultant and our team of psychologists on the one hand, and the accredited person from the various companies on the other. The accreditation process aims to ensure that the application of our instruments complies with the fairness as regulated by the EEA.

I sincerely hope the above addressed your request relating to the PPA validation and reliability studies.

If you have any questions in this regard, please feel free to contact me and I will refer you to the relevant party/parties.

Yours sincerely

Appendix C15: Ethical clearance from the University of Pretoria

Ethical clearance from the University of Pretoria

ANNEXURE D



UNIVERSITY OF PRETORIA
FACULTY OF EDUCATION
RESEARCH ETHICS COMMITTEE

CLEARANCE CERTIFICATE <u>DEGREE AND PROJECT</u>	CLEARANCE NUMBER : CS11/01 PhD Curriculum Studies In search of the latent structure of an e-learning practitioner construct
<u>INVESTIGATOR(S)</u>	H Johannes
<u>DEPARTMENT</u>	Curriculum Studies
<u>DATE CONSIDERED</u>	November 2005
<u>DECISION OF THE COMMITTEE</u>	APPROVED

This ethical clearance is valid for 3 years and may be renewed upon application

CHAIRPERSON OF ETHICS COMMITTEE	Dr C Lubbe
DATE	23 November 2005
CC	Prof JG Knoetze Mrs J Beukes

This ethical clearance certificate is issued subject to the following conditions:

1. A signed personal declaration of responsibility
2. If the research question changes significantly so as to alter the nature of the study, a new application for ethical clearance must be submitted
3. It remains the students' responsibility to ensure that all the necessary forms for informed consent are kept for future queries.

Please quote the clearance number in all enquiries.

S6680/03

Appendix C16: Ethical clearance from the Tshwane University of Technology

Ethical clearance from the Tshwane University of Technology



Tshwane University
of Technology
We empower people

Ethics Committee

14 February 2005

Ref# :2004/11/027/AddendumA Name : Johannes H Student : N/a

Ms H Johannes
Telematic Education
Pretoria campus

Dear Ms Johannes

TITLE : "In search of the latent structure of an e-learning practitioner construct".

INVESTIGATOR : H JOHANNES

Enrolled for PhD at the University of Pretoria, Department of Curriculum Studies.

Ethics Committee letter dated 19 January 2005 refers.

Kindly **take note** that the Committee evaluated aforementioned researchers proposal on **23 November 2004** and not 23 November **2005** as incorrectly stated in the letter.

Sincere apology for any inconvenience caused in this regard.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'L Meyer', written over a faint circular stamp.

L MEYER (Ms)
Senior Administrative Officer: Ethics Committee
(Ref#2004=11=027=JohannesH=AddendumA)

cc FRC Chairperson: N/a
HOD: N/a
Faculty Officer: N/a
Other: N/a

We empower people

Appendix C17: Application for research approval

Approval of research involving human respondents from the Tshwane University of Technology

19 January 2005

Ref# : 2004/11/027 Name : Johannes H Student : N/a
--

Ms H Johannes
Telematic Education
Pretoria campus

Dear Ms Johannes

TITLE : "In search of the latent structure of an e-learning practioner construct".

INVESTIGATOR : H JOHANNES

Enrolled for PhD at the University of Pretoria, Department of Curriculum Studies.

Thank you for submitting the proposal for Ethics Committee notification.

The Ethics Committee of Tshwane University of Technology, on 23 November 2004, has taken note of your enrollment at the University of Pretoria for your PhD studies.

The Committee wishes you well with your research.

Yours sincerely,



D DU TOIT (Prof)
Chairperson: Ethics Committee
(Ref#2004=11=027=JohannesH)

cc FRC Chairperson: N/a
HOD: N/a
Faculty Officer: N/a
Other: Mrs A Bothma

We empower people

Appendix C18: Thomas International (TI) certification

Thomas International certification



Appendix C19: Consent form: Partners

Consent form: Partners

“In search of the latent structure of an e-learning practitioner construct”

Dear Partner,

I am an Instructional Designer at the Tshwane University of Technology conducting a research study on the characteristics of the e-learning practitioner.

The term e-learning practitioner includes online educators, online course developers (instructional designers) and online course presenters. Uncovering the behavioural profile of these practitioners in a work situation is the primary goal of this research initiative.

It would be much appreciated if you can give your valuable input to this research inquiry by:

- completing a “Personal Profile Analysis” form. The completed form will be analysed by a computerised system from Thomas International under the supervision of Me Mariana Pretorius (registered industrial psychologist, from the Centre of Continuing Professional Development, TUT). The aim of this profile analysis is to analyse work behaviour in terms of what people think of themselves in the work situation. The profile obtained from the analysis will be generated by the computerised system into a printed report. The data from the profile reports will be used as research data. **Personal details are not important for this study, however if you would like to receive feedback on the Personal Profile Analysis (PPA) and the Human Job Analysis (HJA), please provide your details.**
- completing the 8 questions on the attached questionnaire. This questionnaire should take no more than 20 minutes of your time to complete.

1. **Instructions** on how to complete the PPA and/or HJA are on the answer sheet. This profile analysis should take no more than 15 minutes of your time to complete.

2. If you would like to **match your profile** with your job profile, complete the “Human Job Analysis” as well. Add your details if you would like feedback on the match

3. Participation in this study

Participation in this study is voluntary and you may withdraw from the research project at any time.

All the data that you provide will be handled confidentially, which means that access to your data will be strictly limited to the investigator (Hermien Johannes) and the data analyst, Me Mariana Pretorius, registered industrial psychologist, from the Centre of Continuing Professional Development, TUT.

The data obtained from this study will not be used to report on individual participants. Participants may request feedback on their own PPA/HJA results for personal use.

4. Request

We would like to request your permission to do the following during and/or after the study:

- to integrate your profile results with other research findings with the aim of uncovering the characteristics of the e-learning practitioner;
- to use excerpts from your answers to the open-ended questions stated in the attached questionnaire. These excerpts will be used anonymously and your name or any indication of your identity will not be revealed.
- to use direct quotations from your reflective notes on your experiences as Partner in the P@W Programme to illustrate aspects of the e-learning practitioner profiles. These excerpts will be used anonymously and your name or any indication of your identity will not be revealed.
- to use research findings for publication as research reports;
- to use research findings for publication in reputable scientific journals, and
- for presentations at scientific meetings (congresses)

Consent:

If you are willing to participate in this study, please sign this letter as a declaration of your consent, i.e. that you participate in this project willingly and that you understand that you may withdraw from the research project at any time. Participation in this phase of the project does not obligate you to participate in follow up individual interviews, however, should you decide to participate in follow-up interviews your participation is still voluntary and you may withdraw at any time. Under no circumstances will the identity of interview participants be made known to any person including any person, group or interested parties from TUT.

Do you agree to take part in this study?

YES

NO

Research participant's signature

Date

Researcher's signature

Date

Thank you for your participation.

Friendly regards

Hermien Johannes.

Appendix C20: Consent form: e-Learning practitioners

Consent form: e-Learning practitioners

Dear Colleague,

I am an Instructional Designer at the Tshwane University of Technology conducting a research study on the characteristics of the e-learning practitioner.

The term e-learning practitioner includes online educators, online course developers (instructional designers) and online course presenters.

Uncovering the profile of these practitioners is the primary goal of this research initiative.

It would be much appreciated if you can give your valuable input to this research inquiry by completing a "Personal Profile Analysis". The aim of this profile analysis is to get a behaviour analysis of what people think of themselves in the work situation.

Personal details are not important for this study, however if you would like to receive feedback on the Personal Profile Analysis and the Human Job Analysis please provide your details.

1. **Instructions** on how to complete the PPA and/or HJA are on the answer sheet.

This profile analysis should take no more than 15 minutes of your time to complete.

2. If you would like to **match your profile** with your job profile, complete the "Human Job Analysis" as well. Add your details if you would like feedback on the match

3. Participation in this study

Participation in this study is voluntary.

All the data that you provide will be handled confidentially, which means that access to your data will be strictly limited to the investigator (Hermien Johannes) and the data analyst (), registered Psychologist, from the Department of Staff Development, TUT).

The data obtained from this study will not be used to report on individual participants. Participants may request feedback on their own results for personal use.

4. Request

We would like to request your permission to do the following during and/or after the study:

- to integrate your profile results with other research findings with the aim of uncovering the characteristics of the e-learning practitioner.
- for publication as research reports
- for publication in reputable scientific journals.
- in presentations at scientific meetings (congresses)

Consent:

Do you agree to take part in this study?

YES NO

Research participant signature

Date

Thank you for your participation.

Friendly regards

Hermien Johannes.

Appendix C21: Validity and reliability of the TI System Instruments

Validity and reliability of the Thomas International System Instruments (Source: International Resource Book by Prof Sidney H Irvine, PhD FBPS IBSN 0-9544 897-0-5).

CHAPTER 10

The Personal Profile Analysis Technical Resource Book: Summary and Discussion

By 1997, the stage had been set for the revalidation of Personal Profile Analysis by the creation of the experimental forms Assertive(D) Personable(i) Nurturant(S) Quiet(C) (APNQ) and The Job Satisfaction/Job Prescription Profile and the Thomas International Employee Evaluation Form. These instruments were capable of addressing critical aspects of Personal Profile Analysis reliability; and content, convergent, construct and criterion validity. With the contribution of other materials that were not derivatives of the original Personal Profile Analysis, including The Air Force (Christal) Self Description Inventory, The (Irvine) Self Inventory the Biological Adaptation to Night and Day Situations and Health-Related QoL at Work, an extensive reference framework for restandardisation was in place.

There is perhaps only one technical point to address here. I hope readers will be able to tolerate a small but critical parenthesis. This particular array of instruments not only meant that the qualities in Personal Profile Analysis could be assessed by quasi-parallel forms (APNQ and JSP). They could also be assessed by measures that were normative, and not ipsative in origin. The Air Force (Christal) Self Description Inventory and The Self-Inventory are both Tupes-Christal Big Five Theory inventories using rating scales and not, as in Personal Profile Analysis ranking methods. In short in the revalidation of Personal Profile Analysis we were able to appraise multi-traits by multi-methods, a classical research paradigm seldom achieved in real life.

Towards the end of Part 3 the full impact of these studies becomes apparent. Briefly, reliability estimates, whether internal consistency or parallel form, are not only good in the main, they are always very consistent, regardless of context. D is always reliable as are I and S. The C scale has not always emerged as consistently reliable as the others, but it is, as Marston reveals, a complex construct worthy of more research. The APNQ C scale has proved more consistent with improved reliability; but it was made with the benefit of hindsight.

The validity studies are as thorough and as rigorous as modern methods will permit. Broad pictures are provided through data reduction methods. The factors underlying the strengths of Personal Profile Analysis are always present and consistent. In short, the Dominance vs. Compliance/Quietude and Influence vs. Steadiness/Nurturance bipolar domains are the 'generic inheritance' of Personal Profile Analysis in all its forms and isomorphs. The availability of the Tupes-Christal Big Five Theory inventories reveal that Personal Profile Analysis is not marked by other personality domains such as Cognitive Habit of Mind or Neuroticism. These are qualities that Personal Profile Analysis does not pretend to surface in individuals because it is not a global psychometric personality test restricted to psychologists.

For all its apparent simplicity as a means of conducting a structured interview, Personal Profile Analysis proves to be indicative of an intuitively certain and scientifically verifiable array of behaviours present in other inventories. The extensive definitional studies using the large sample sizes to regress items against Dominance Influence Steadiness and Compliance word tallies (Graph3) have had a major impact on the revalidation process. In table after table, in Chapter 8, the positive and negative weight items provide complete independent definitions of what the word choices portend for the same

set of subjects. People who choose certain words in Dominance Influence Steadiness and Compliance can be relied upon to define their actions in the other items presented in different instruments.

These definitions are not unique to one mode or cultural context of form completion. The paper-and-pencil and computer-delivered cohorts were very similar in the behaviours endorsed. The same definitions emerged when the Dutch and Turkish samples were combined at the risk of confounding translations and cultures.

This was a central event in the revalidation of Personal Profile Analysis because it meant that Personal Profile Analysis had proved to have invariant qualities across modes of delivery, language barriers and different Tupes-Christal Big Five Theory inventories. Consequently, this resource book finally establishes Personal Profile Analysis as a consistent and, within its prescribed and limited range, valid indicator of how people see themselves in these domains; and how that vision may be described in easily understandable terms.

In retrospect, the efforts of those who have striven to perfect the product and to make it available to people with no specialist psychological training have been vindicated by these old and new studies. Technically, the revalidation of PPA has proven to be a worthwhile research enterprise involving years of data collection and months of considered analyses. Others will rightfully view the results from commercial considerations. Because all the facts and inferences provide the necessary resources, they may now evaluate for themselves what Personal Profile Analysis might contribute to their own business enterprise. They will not have far to look to enable an informed judgment.

At the beginning of this section I confessed how in the early days of my association with Personal Profile Analysis I thought that it would be much easier to attack it than to defend it. There was at that time little or no verifiable evidence of its function and meaning. The research and synthesis in this The PPA Technical Resource Book need no defence; nor, in my view does the present-day user of Personal Profile Analysis - given proper training and access to professional advice whenever difficult decisions have to be made.

Finally, as long as the published employment policy and practice of the user foster a climate of equal opportunity, the careful and considered use of Personal Profile Analysis within the structured interview should provide support for both policy and practice. Not only has Personal Profile Analysis proven to be technically sound, it is also administratively convenient: and, in the hands of a discerning and sensitive user, should prove to be politically defensible. Personal Profile Analysis has finally come of age with the publication of this resource book.

Appendix C22: Preliminary taxonomy survey forms

Preliminary Taxonomy survey forms

"What is an e-learning practitioner?"- Survey

Thank you for participating in this survey.

I am a PhD student from the University of Pretoria conducting a research study on the characteristics of the e-learning practitioner.

The term e-learning practitioner includes online lecturers, online course developers and online course presenters.

Uncovering the profile of these practitioners is the primary goal of this research initiative.

As a result of completing this questionnaire you will receive a free summary report on the profile of an e-learning practitioner.

The questionnaire should take no more than 15 minutes of your time to complete.

Please respond to this questionnaire by 8/04/2004 in order to receive your **free results** report.

Email johannesh@tut.ac.za if you would like to receive a Word document of the survey for your review.

Regards

Hermien Johannes.

Please create a unique ID code by using your email address

Which title most closely matches your current job?

- a. Higher Education - Instructional designer
- b. Higher Education – Lecturer
- c. Higher Education - Student
- d. Higher Education - Support Staff

- e. Higher Education – Administration
- f. Higher Education - Curriculum specialist
- g. Higher Education - Online facilitator
- h. Higher Education - Courseware developer
- i. Higher Education - Technical Staff
- j. Primary School – Teacher
- k. Secondary School – Teacher
- l. Self-Employed
- m. Not applicable/Prefer not to say

Do you make use of a learning management system?

- a. Yes
- b. No
- c. Prefer not to say

If you answered "No" or "Prefer not to say" on the previous question please proceed to question 4. If you answered "Yes" on the previous question please proceed to question 1 "

question 1

Select the learning management system that you use currently?

- a. Blackboard
- b. WebCT
- c. eCollege
- d. Other

question 2

In what capacity are you using this Learning Management System?

- a. Designer
- b. Student
- c. Teaching assistant
- d. Other
- e. Prefer not to answer

question 3

Rate your experience as a Learning Management Systems user

- a. Power user
- b. Advanced
- c. Intermediate
- d. Novice
- e. Prefer not to say

question 4

Select all the indices (character properties) of the character profile of an e-learning practitioner that you feel are important. Please add more possibilities to the existing list in the block below.

- a. Professional knowledge and skills
- b. Technical skills
- c. Curriculum skills
- d. Management style
- e. Teaching skills
- f. Personal/affective traits
- g. Communication style
- h. Teaching style
- i. Brain preference

- j. Personality traits
- k. Learning style

question 5

Select all the technical skills that you feel are important for the e-learning practitioner .

Please add more possibilities to the existing list in the block below.

- a. Understanding site design
- b. Using a discussion board
- c. Instructional design skills
- d. Program development in the LMS
- e. Email skills
- f. Coping with new programs and packages
- g. Keyboard/mouse skills
- h. Authorising skills

question 6

Select all the curriculum skills that you feel are important for the e-learning practitioner .

Please add more possibilities to the existing list in the block below.

- a. Program development
- b. Development of course material
- c. Assessment competencies

question 7

Select all the management skills that you feel are important for the e-learning

practitioner. Please add more possibilities to the existing list in the block below.

- a. Time management
- b. Planning skills
- c. Organisational skills

question 8

Select all the teaching skills that you feel are important for the e-learning practitioner.

Please add more possibilities to the existing list in the block below.

- a. Motivating
- b. Listening
- c. Mentoring
- d. Mediating chat
- e. Active participation
- f. Creative
- g. Reflective
- h. Understanding

question 9

Select all the personal/affective skills that you feel are important for the e-learning practitioner. Please add more possibilities to the existing list in the block below.

- a. Patience
- b. Persistence
- c. Coping with frustration
- d. Flexibility
- e. Problem solving
- f. Coping with time demands

- g. Compassionate

question 10

Select all the communication skills that you feel are important for the e-learning practitioner. Please add more possibilities to the existing list in the block below.

- a. Student support
- b. Counselling skills
- c. Constant feedback
- d. Understanding language needs
- e. Focus on one-to-one communication
- f. Active approach
- g. Interpersonal skills
- h. Responsiveness
- i. Flexibility

question 11

Select all the teaching styles that you feel are important for the e-learning practitioner. Please add more possibilities to the existing list in the block below.

- a. Delegator: Concerned with developing students' capacity to function in an autonomous fashion
- b. Formal authority: Possesses status among students
- c. Facilitator: Emphasizes the personal nature of teacher-student interactions
- d. Personal model: Believes in "teaching by personal example"
- e. Expert: Possesses knowledge and expertise that students need

question 12

Select all the personality attributes that you feel are important for the e-learning practitioner. Please add more possibilities to the existing list in the block below.

- a. Take chances
- b. Prompt
- c. Does not need sleep
- d. Good sense of humour
- e. Perceptive
- f. Collaborative
- g. Adventurous
- h. Creative
- i. Motivated
- j. Adaptable

question 13

Select all the learning styles that you feel are important for the e-learning practitioner. Please add more possibilities to the existing list in the block below.

- a. Likes to: read, write and tell stories.
- b. Likes to: do experiments and figure things out,
- c. Likes to: draw, build, design and create things, daydream, and to look at pictures/slides
- d. Learns best by: rhythm, melody and music.
- e. Learns best by: touching, moving, interacting with space and processing knowledge through bodily sensations.
- f. Learns best by: studying natural phenomenon, in a natural setting, learning about how things work.
- g. Learns best by: sharing, comparing, relating, cooperating and interviewing.

- h. Learns best by working alone, individualized projects, self-paced instruction and having own space.

Thank you for your participation. Please add comments and recommendations in the block below.

Appendix D

Appendix D1: PPA and HJA form collection and analysis activities

Examples from PPA and HJA form collection and analysis activities

Table D1.1 Example of Excel data sheet for PPA and HJA form collection

Date Contacted	Mode of appointment	Appointment	Delivery mode	Received back	PPA received	PPA done	DISC	HJA received	HJA done	DISC	Notes
1/6/2027	email		Personally	yes	yes	yes	D=-1, I=5, S=-4, C=-2	no	no		
1/6/2005		9/6/2005	Personally	yes	yes	invalid	no	yes	yes	D=10, I=8, S=1, C=2	
1/6/2032	email		Personally	yes	yes	yes	D=1, I=6, S=-5, C=-2	no	no	no	
1/6/2051	email	10/6/2005	Personally	yes	yes	yes	D=3, I=-9, S=1, C=-1	no	no	no	
1/6/2053	email	10/6/2005	Personally	yes	yes	yes	D=1, I=6, S=-5, C=-4	no	no	no	
1/6/2058	email	7/6/2005, 9/6/2005	Personally	yes	yes	yes	no	no	no	no	
2005/05/23	telephone	23/5/2005	Personally	yes	yes	yes	D=-8, I=1, S=6, C=4	yes	yes	D=8, I=6, S=5, C=7	Use WebCT for quizzes, animations and multimedia in online class presentation.

Table D1.2: Summary of the TUT groups' work style combinations

TUT: style combinations	Frequency	TUT Population style combinations	Frequency	TUT excluding star performers: style combinations	Frequency	Star performers: style combinations	Frequency	Partners: style combinations	Frequency
C/IDS	1	C/IDS	1	C/IDS	1	CD/IS	1	C/SID	1
C/SDI	1	C/SDI	1	C/SDI	1	CSI/D	2	CS/DI	1
CD/IS	2	C/SID	1	CD/IS	1	D/CSI	1	CS/ID	2
CD/SI	2	CD/IS	2	CD/SI	2	D/ISC	1	CSD/I	1
CDI/S	1	CD/SI	2	CDI/S	1	DS/CI	1	DI/CS	1
CI/SD	3	CDI/S	1	CI/SD	3	IC/DS	1	DS/IC	1
CS/DI	3	CI/SD	3	CS/DI	3	ID/CS	2	ID/SC	2
CS/ID	1	CS/DI	4	CS/ID	1	SC/ID	2	IS/DC	1
CSD/I	1	CS/ID	3	CSD/I	1	SCD/I	1	S/CID	1
CSI/D	3	CSD/I	2	CSI/D	1	DC/IS	1	SD/IC	1
D/CSI	1	CSI/D	3	DI/CS	1	Total: 10	13	Total: 10	12
D/ISC	1	D/CSI	1	DIC/S	1				
D/SCI	1	D/ISC	1	DIS/C	1				
DC/IS	1	D/SCI	1	IC/DS	1				
DI/CS	1	DC/IS	1	ICD/S	3				
DIC/S	1	DI/CS	2	IS/CD	1				
DIS/C	1	DIC/S	1	ISC/D	1				
IC/DS	2	DIS/C	1	SC/DI	1				
ICD/S	3	DS/IC	1	SC/ID	3				
ID/CS	2	IC/DS	2	SCD/I	1				
IS/CD	1	ICD/S	3	SCI/D	1				
ISC/D	1	ID/CS	2	SD/IC	1				
SC/DI	1	ID/SC	2	Total:22	31				
SC/ID	5	IS/CD	1						
SCD/I	2	IS/DC	1						
SCI/D	1	ISC/D	1						
SD/IC	1	S/CID	1						
Total: 27	44	SC/DI	1						
		SC/ID	5						
		SCD/I	2						
		SCI/D	1						
		SD/IC	2						
		Total: 32	56						

Excerpt D1.1: Thank you letter to participants

From: Hermien Johannes
To: --- -- -- -- --
Date: 13 June 2005 09:42:31 AM
Subject: Thank you

Dear Colleagues,

Sincere thanks for your participation in my e-learning practitioner project. We will send you the PPA results as soon as available.

Regards

Hermien

Excerpt D1.2: Correspondence between researcher and analyst from Thomas International

From: Hermien Johannes
To: -@thomas.co.za
Date: 17 June 2005 10:32:24 AM
Subject: TUT PPA

Hallo --

-- and myself had a discussion on PPA profiles from "e-learning practitioners" at TUT and she suggested that I contact you to arrange, if possible, for a meeting between me and you. Would it be possible for us to meet before 24 June 2005 as I will be out of town from that date.

I have played around with the scores of a specific group of "e-learning practitioners" (attached) and have a few questions to you.

1. Is it possible/advisable to get a group profile on the PPA and the HJA.
2. Is it worth anything to draw up a group profile?
3. Can one make valid conclusions from a frequency list of the descriptive words assigned to each individual profile, by adding all the descriptive words from the group into one spreadsheet? By sorting the frequency of each descriptive word can one deduct that a certain factor is more dominant than the others.

I attached the spreadsheet.

If possible I would like to discuss personally different conclusions that one can draw from the PPA and HJA.

Friendly regards

Hermien

Appendix D2: Examples of Human Job Analysis

Appendices are not available online.

Appendix D3: Analysis of responses on conversational question (F2F)

Analysis of responses on conversational question asked before participants completed the PPA

Category	e-Learning practice motivators / de-motivators	Re-action / interventions from e-learning practitioner
1. Lack of infrastructure:	1. Not enough computer labs for number of students	Present classes in group sessions Stopped using WebCT Stopped using WebCT in 2001 and since then this person became re-interested only recently. Does not present multimode classes anymore.
	2. Not enough computers available for number of students	Group students together. Allocate sufficient time for students to do online work in their own time in the library or ERC's Due to improvements in the infrastructure, e-learning activities may be taken up again
	3. Computer labs are not equipped for class presentations, e.g. no data projectors, white boards	Try additional resources and ad hoc funds Utilised ad hoc funds Utilised additional resources
	4. Computer labs are not suitable for class presentations, e.g. high noise levels, bad acoustics no curtains or blinds	Try additional resources and ad hoc funds
2. Accessibility	1. Very slow internet connections.	Students use memory sticks to transfer data from the source to their own computers. Does not present multimode classes anymore. Stopped using electronic tests.
	2. Unreliable internet connections	Task groups at TUT to try and resolve technical problems. Stopped using electronic tests.
3. Static courses	1. Little student participation	Staff training to encourage the use of e-tivities. Student training Need for staff training
	2. Low level and frequency online communication	Staff training to encourage the use and quality of online communication. Student training
4. Lack of skills	1. Lack of skills and knowledge	Staff and student WebCT training and course to enhance computer literacy.
5. Participation in e-Learning practice	1. Staff development	WebCT training, e-moderating and online facilitating training.
	2. Encouragement	Encourage students and e-learning practitioners to participate
	3. Available Telematic Education support	

	4. Available project funds	
6. Multimode teaching and learning	1. Use WebCT integrated in face-to-face class presentation. .	Accepted the job challenges and kept on developing and improving courses Used communication tools to provide feedback and to identify problems Utilised available resources
	2. Use e-tests as pre and post tests	Used e-tests
7. Practical subject	1. Used visual material to stimulate process and procedural thinking skills	Successful application of multimedia. Will repeat in the future
8. Video conferencing	1. Used electronic communication for example video conferencing to enrich the teaching and learning experience for learners. .	Had several video conferencing sessions with peers internationally
	2. Used the medium to communicate academic work to peers in other locations	Had several video conferencing sessions with peers internationally
9. Time constrains	1. Too much to do in too little time	Asked for more in-depth training and to become a Partner next year Diminish pressure on person, provide extra support from TE Use additional administrative support staff
	2. Do you know of somebody who can help us to maintain WebCT courses and to develop more WebCT material.	Called for help with instructional design aspects of WebCT
10. Personal feelings	1. I love to teach	
	2. I am disillusioned with WebCT	Wanted to stop using WebCT
	3. I don't want to use WebCT any more, too much hassles	Wanted to stop using WebCT
	4. I can not guarantee quality service to the students, so I am not going to use WebCT in the next semester.	Wanted to stop using WebCT
11. Computer related problems	1. Technical problems with computers	Support from TE
	2. Problems with specific software	Support from TE
12. Personal growth	1. Learnt new skills	Personal appointment with ID to learn new skills. Eager to explore and learn more about new program facilities and new applications. Accepted the job challenges and kept on developing and improving courses. Built capacity Self-starter who took responsibility for

		own learning
	2. I learnt to use more WebCT tools	Accepted the job challenges and kept on developing and improving courses. Became more and more independent Did WebCT training
	3. I learnt new WebCT applications	Accepted the job challenges and kept on developing and improving courses. Became more and more independent Did WebCT training
13. Do not use WebCT to full capacity	1. Use only for management of marks	
	2. Use only for distribution of course material	
	3. Only developed material, did not used it actively	
	4. I want to talk to ---, one of the Partners to learn more about how to use digital content.	
14. Personal support	1. I need more personal support from the TE team.	Personal contact / support sessions with Instructional designer Needs help with instructional design aspects of WebCT courses.
	2. The TE group are too busy, I would like more support from them.	Personal appointment with ID to discuss problems Alternative support resources utilised
15. Status quo	1. Every thing is going fine	
16. Skills training	1. Use WebCT for skills training	Accepted the job challenges and kept on developing and improving electronic tests Update WebCT course regularly
	2. Use e-testing for skills training	Kept on developing and improving new e-tests in spite of numerous difficulties
	3. Use e-testing for selection of students	
17. Administrative help	1. Trained administrative person to do administrative tasks in WebCT	Trained administrative person to do administrative tasks in WebCT
18. Course development	1. Time consuming Students do not use webCT	
19. Innovations	1. Unexpected surprises	Accepted the job challenges and kept on developing and improving courses.
20. Supplementary video instruction	1 Use video to enhance teaching and learning experience	.
21. Assessment	1. Use e-testing for selection of students	Continue successful application of technology in secure environment

Appendix D4: Responses to open-ended question (Char1)

Answers from TUT e-learning practitioners to open-ended question on consent form

Number	Answers on open-ended question	Number	Answers on open-ended question
1	0	29	0
2	0	30	0
3	Patience	31	0
4	0	32	
5	0	33	Perserverence, Attention to detail, Available time
6	Enthusiasm, patience, original	34	Creative, Visionary, hands-on, Felxibile, Fearless, Open-minded, Desire to uplift others, Determined, Persistant, Willing to stand up after something does not work and try again. Not to be controleed by negative non-elearning type.
7	Patience, Clarity of thought	35	0
8	0	36	0
9	"Vermoe om te kan oordeel of die studente genoeg weet om sukses in die eksamen te behaal	37	0
10	0	38	0
11	0	39	Must enjoy doing it and be excoted about new technologies. His excitement must grow into his students, He must also participate in further reading and research regarding eL
12	Dedication	40	Persistence, creativity, self-discipine
13	0	41	Planner, time manager
14	0	42	Ondernemend, Doelgerig, Volhardend, Geduldig
15	Enthusiasm, Passion to improve skills, Creativity	43	Patience, Accommodating, Organised
16	Innovative, "Oordeelkundigheid"	44	A person without a family-life who to work is his/her life.
17	0	45	0
18	0	46	
19	Uses multiple instructional methods to teach and transfer knowledge.	47	
20	Love if teaching, Innovativeness, Wanting to make life easier and less work for bettter results	48	CD produced for Electronics 1, not using WebCT
21	0	49	0
22	0	50	0

23	Inovativeness, Creative	51	0
24	Iemand wat 'n uitdaging raaksien in oets wat hy/sy niks of bitter min van weet en dit ontwikkel	52	0
25	Effective communication and language to provide feedback. Patience and listening skills in order to know what the real problems are.	53	Openmindedness, Creativity, Disciplined
26	0	54	Innovative, Working smarter, Creative
27	Creativity	55	Curiosity, Time management
28	0	56	As admin assistant I feel that you should have outstanding organisational skills. Patience is also required

Appendix D5: Summary of descriptive words

Summary of descriptive words of the behavioural characteristics of the e-learning practitioners at TUT extracted from their PPA reports

Partners	(n)	TUT	(n)	Population	(n)
independent	6	precise	37	precise	42
accurate	5	logical	27	logical	32
logical	5	accurate	22	accurate	27
precise	5	systematic	18	thorough	22
sceptical	5	thorough	18	dependable	18
thorough	5	dependable	16	systematic	18
adaptable	4	detailed	15	detailed	17
sincere	4	serious	14	probing	17
amiable	3	cautious	13	amiable	15
direct	3	friendly	13	inquisitive	15
firm	3	inquisitive	13	serious	15
patient	3	mobile	13	assertive	14
probing	3	amiable	12	cautious	14
reflective	3	assertive	12	friendly	14
active	2	careful	12	persistent	14
analytical	2	persistent	12	careful	13
assertive	2	probing	12	mobile	13
deliberate	2	quiet	11	quiet	13
dependable	2	nonaggressive	10	sceptical	13
detailed	2	sceptical	10	direct	12
fair	2	active	9	independent	12
inquisitive	2	direct	9	nonaggressive	12
kind	2	perfectionist	9	reflective	12
non-aggressive	2	positive	9	active	11
non-antagonistic	2	reflective	9	adaptable	11
outgoing	2	restless	9	patient	11
painstaking	2	sincere	9	sincere	11
persistent	2	alert	8	analytical	10
quiet	2	patient	8	perfectionist	10
self-confident	2	specific	8	positive	10
serious	2	adaptable	7	restless	10
strong-willed	2	analytical	7	alert	9
suspicious	2	deliberate	7	deliberate	9
systematic	2	disciplined	7	kind	9
verbally influential	2	factual	7	outgoing	9
versatile	2	kind	7	tenacious	9
probing	2	loyal	7	loyal	8
accommodating	1	outgoing	7	reserved	8
alert	1	reserved	7	steady	8

articulate	1	anxious	6	stubborn	8
calm	1	eager	6	suspicious	8
careful	1	energetic	6	disciplined	7
cautious	1	forceful	6	eager	7
communicative	1	hard working	6	factual	7
competitive	1	independent	6	forceful	7
concerned	1	persuasive	6	hard working	7
confident	1	strong	6	non-demanding	7
decisive	1	stubborn	6	persuasive	7
determined	1	competitive	5	withdrawn	7
driving	1	conventional	5	anxious	6
eager	1	good listener	5	competitive	6
forceful	1	modest and peaceful.	5	energetic	6
friendly	1	non-demanding	5	strong-willed	6
gregarious	1	self starter	5	concerned	5
hardworking	1	talkative	5	conventional	5
innovative	1	concerned	4	good listener	5
investigative	1	critical	4	modest and peaceful.	5
just	1	demonstrative	4	organised	5
lenient	1	non-antagonistic	4	peaceful	5
loyal	1	organised	4	self assured.	5
methodical	1	peaceful	4	self-confident	5
objective	1	predictable	4	specialist	5
opinionated	1	specialist	4	thoughtful	5
organised	1	steady	4	confident	4
peaceful	1	tenacious	4	critical	4
perfectionist	1	confident	3	demonstrative	4
persuasive	1	diplomatic	3	lenient	4
positive	1	drive	3	non-antagonistic	4
practical	1	hesitant	3	objective	4
relaxed	1	lenient	3	predictable	4
reserved	1	objective	3	sociable	4
restless	1	results oriented	3	strong	4
self-starter	1	rule orientated	3	articulate	3
specialist	1	sociable	3	communicative	3
stubborn	1	suspicious	3	diplomatic	3
sympathetic	1	tense	3	drive	3
tenacious	1	achiever	2	fair	3
worrier	1	aloof	2	firm	3
analytical	1	articulate and communicative	2	hesitant	3
		authoritative	2	investigative	3
		communicative	2	methodical	3
		compliant	2	painstaking	3
		conservative	2	relaxed	3
		cordial	2	rule orientated	3
		demanding	2	self starter	3
		flexible	2	specialised authority	3

helpful	2	achiever	2
humble	2	aloof	2
indecisive	2	authoritative	2
influential	2	compliant	2
internally modest and peaceful	2	conservative	2
investigative	2	cordial	2
methodical	2	demanding	2
non-demonstrative	2	flexible	2
relaxed	2	gregarious	2
reliable	2	helpful	2
self-controlled	2	humble	2
suspicious	2	indecisive	2
thoughtful	2	influential	2
tough	2	internally modest and peaceful	2
blunt	1	non-antagonistic	2
considerate	1	practical	2
consistent	1	reliable	2
correct	1	self-conscious	2
domineering	1	sympathetic	2
easy going	1	talkative	2
empathetic	1	tolerant	2
enforcing	1	verbally influential	2
enthusiastic	1	versatile	2
exact	1	accommodating	1
fair	1	blunt	1
fault finding	1	calm	1
finisher	1	considerate	1
gently persuasive	1	consistent	1
genuine	1	correct	1
gregarious	1	decisive	1
impatient	1	determined	1
individualistic	1	domineering	1
initiates	1	driving	1
intolerant	1	easy going	1
introspective	1	empathetic	1
meticulous	1	enforcing	1
non-communicative	1	enthusiastic	1
non-social	1	exact	1
non-trusting	1	fault finding	1
outwardly confident	1	finisher	1
painstaking	1	gently persuasive	1
participative	1	genuine	1
practical	1	impatient	1
quick-paced	1	individualistic	1
self assured.	1	inflexible	1
self-conscious	1	initiates	1

sensitive	1	innovative	1
inflexible	1	intolerant	1
specialised authority	1	introspective	1
suspicious	1	just	1
sympathetic	1	meticulous	1
tolerant	1	non-communicative	1
withdrawn	1	non-social	1
		non-trusting	1
		opinionated	1
		outwardly confident	1
		participative	1
		quick-paced	1
		results oriented	1
		self-controlled	1
		sensitive	1
		specific	1
		tense	1
		tough	1
		worrier	1

Appendix D6: Descriptive words of the star performers

Descriptive words of the behavioural characteristics of the star performers at TUT extracted from their PPA reports

Descriptive words for "Star performers" at TUT					
active	6	authoritative	2	concerned	1
direct	6	critical	2	confident	1
precise	6	deliberate	2	demanding	1
independent	5	forceful	2	diplomatic	1
mobile	5	hesitant	2	drive	1
alert	4	impatient	2	enforcing	1
dependable	4	kind	2	humble	1
factual	4	lenient	2	individualistic	1
logical	4	loyal	2	introspective	1
reflective	4	modest	2	non-demonstrative	1
reserved	4	participative	2	non-trusting	1
self-starter	4	patient	2	outgoing	1
systematic	4	perfectionist	2	practical	1
anxious	3	persuasive	2	promoter	1
assertive	3	predictable	2	reliable	1
cautious	3	probing	2	restless	1
detailed	3	rule-orientated	2	results-orientated	1
eager	3	sceptical	2	self-assured.	1
energetic	3	specialist	2	self-controlled	1
friendly	3	specific	2	self-critical	1
gregarious	3	strongwilled	2	serious	1
non-demanding.	3	suspicious	2	sincere	1
peaceful	3	talkative	2	steady	1
persistent	3	tense	2	tenacious	1
positive	3	accurate	1	tough	1
stubborn	3	amiable	1	sincere	1
thorough	3	careful	1	steady	1
aloof	2	communicative	1	tenacious	1
analytical	2	compliant	1	tough	1

Appendix D7: VG discussion on e-learning practitioner activities

Excerpt 4.5: Example of Virtual Group discussion on e-learning practitioner activities

From: --
To: Hermien Johannes
Date: 08 July 2005 11:22:04 AM
Subject: Re: support

>>> Hermien Johannes 2005/07/07 12:23 PM >>>

Dear Colleagues, IF possible 3. Is this job essentially pro-active or re-active? Both, depending on the model that is followed by the unit that delivers this service. In the case of the Partners, we act pro-actively, in the case of all the other ad-hoc projects, it is mostly re-active. 4. What are the most critical characteristics which are non-negotiable? Dynamic personality, Leadership, Managerial ability, Ability to work well with others as part of a team, Creativity, Problem-solving nature. Knowledge, Skill and Attitude is also critical.....

1. How would you describe a "star performer" in the field of e-learning practice at TUT? A self-starter, with a dynamic, unyielding will to make this work. Someone who already believes in the benefits that technology brings, and who is willing to take a knock here and there based on the firm belief that things can be improved by means of technology. Willing to experiment, willing to change the way they teach, someone with strong planning and management abilities, and someone with heaps of innovative ideas.

Example of e-learning practitioner activity sheet compiled by a participant in the Virtual Group discussion

From: --
To: Hermien Johannes
Date: 04 July 2005 09:53:04 AM
Subject: Jou navraag (Your enquiry)

e-Learning practice at TUT				
Name	1	2	3	4
Faculty				
Roles	*		*	
1. Online Teaching/facilitating/e-moderating				X
2. Instructional design		X		
3. Research		X		
4. Management				
5. Life long learner/Student				
Applications/technologies				
WebCT:				
1. Course material distribution		X		X
2. Online Communication				X
3. E-Testing		X		X
4. Multimedia: -PowerPoint, audio, animations, video clips		X		
5. Management: student marks, assignments, tests				
Perception: e-tests for subjects				
Perception: e-tests for selection				
Video Conferencing				
DVD/Video production for tutorials, testing		X		
Other				
Difficulties in e-learning practitioner job				
Interventions to solve difficulties				

Appendix D8: Preliminary Taxonomy survey results

Preliminary taxonomy survey results

Question	Choices	Frequency (n)
Which title most closely matches your current job?	Higher Education - Instructional designer	1
	Higher Education - Lecturer	12
	Higher Education - Student	
	Higher Education - Support Staff	2
	Higher Education - Administration	
	Higher Education - Curriculum specialist	1
	Higher Education - Online facilitator	1
	Higher Education - Courseware developer	2
	Higher Education - Technical Staff	1
	Primary School - Teacher	
	Secondary School - Teacher	
	Self-Employed	11
	Not applicable/Prefer not to say	1
	Do you make use of a learning management system?	Yes
No		3
Prefer not to say		0
question 1		
Select the learning management system that you use currently?	Blackboard	2
	WebCT	14
	eCollege	
	Other	
question 2		
In what capacity are you using this Learning Management System?	Designer	14
	Student	
	Teaching assistant	1
	Other	
question 3		
Rate your experience as a Learning Management Systems user	Power user	2
	Advanced	6
	Intermediate	5
	Novice	2
	Prefer not to say	
question 4		

Select all the indices (character properties) of the character profile of an e-learning practitioner that you feel are important. Please add more possibilities to the existing list in the block below.	Professional knowledge and skills	15
	Technical skills	12
	Curriculum skills	12
	Management style	2
	Teaching skills	12
	Personal / affective traits	2
	Communication style	8
	Teaching style	8
	Brain preference	
	Personality traits	4
	Learning style	8
question 5		
Select all the technical skills that you feel are important for the e-learning practitioner . Please add more possibilities to the existing list in the block below.	Understanding site design	12
	Using a discussion board	12
	Instructional design skills	15
	Program development in the LMS	8
	Email skills	11
	Coping with new programs and packages	4
	Keyboard/mouse skills	5
	Authoring skills	2
	Extra: Webpage development	1
question 6		
Select all the curriculum skills that you feel are important for the e-learning practitioner . Please add more possibilities to the existing list in the block below.	Program development	9
	Development of course material	18
	Assessment competencies	17
question 7		
Select all the management skills that you feel are important for the e-learning practitioner. Please add more possibilities to the existing list in the block below.	Time management	15
	Planning skills	15
	Organisational skills	15
question 8		
Select all the teaching skills that you feel are important for the e-learning practitioner. Please add more possibilities to the existing list in the block below.	Motivating	14
	Listening	10
	Mentoring	14
	Mediating chat	4
	Active participation	14
	Creative	14
	Reflective	7
question 9		

Select all the personal/affective skills that you feel are important for the e-learning practitioner. Please add more possibilities to the existing list in the block below.	Patience	14
	Persistence	9
	Coping with frustration	9
	Flexibility e. Problem solving	15
	Problem solving	15
	Coping with time demands	11
	Compassionate	5
question 10		
Select all the communication skills that you feel are important for the e-learning practitioner. Please add more possibilities to the existing list in the block below.	Student support	14
	Counseling skills	1
	Constant feedback	14
	Understanding language needs	9
	Focus on one-to-one communication	3
	Active approach g. Interpersonal skills	5
	Interpersonal skills	6
	Responsiveness	6
	Flexibility	9
question 11		
Select all the teaching styles that you feel are important for the e-learning practitioner. Please add more possibilities to the existing list in the block below.	Delegator: Concerned with developing students' capacity to function in an autonomous fashion	10
	Formal authority: Possesses status among students	3
	Facilitator: Emphasizes the personal nature of teacher-student interactions	13
	Personal model: Believes in "teaching by personal example"	4
	Expert: Possesses knowledge and expertise that students need	11
question 12		
Select all the personality attributes that you feel are important for the e-learning practitioner. Please add more possibilities to the existing list in the block below.	Take chances	6
	Prompt	11
	Does not need a lot of sleep	
	Good sense of humour	7
	Perceptive	3
	Collaborative	10
	Adventurous	10
	Creative	13
	Motivated	17
	Adaptable	13

question 13		
Select all the learning styles that you feel are important for the e-learning practitioner. Please add more possibilities to the existing list in the block below.	Likes to: read, write and tell stories.	4
	Likes to: do experiments and figure things out.	12
	Likes to: draw, build, design and create things, daydream, and to look at pictures/slides.	5
	Learns best by: rhythm, melody and music.	
	Learns best by: touching, moving, interacting with space and processing knowledge through bodily sensations.	4
	Learns best by: studying natural phenomenon, in a natural setting, learning about how things work.	1
	Learns best by: sharing, comparing, relating, cooperating and interviewing.	14
	Learns best by working alone, individualized projects, self-paced instruction and having own space.	6

Appendix D9: Excerpts from PPA reports

Appendices are not available online.

Appendix D10: Examples from PPA and HJA fit results

Appendices are not available online.

Appendix D11: P-J fit detail

Detail for section 4.5.2.1.2

P-job fit of the TUT e-learning practitioner group and HJA (CD/SI) report for unstructured environment

Behavioural characteristics of the e-learning practitioner as lined out in the literature review were mapped and an HJA for an unstructured environment was set up and graphed by the analyst from Thomas International (discussed in section 4.4 of this study). The TUT e-learning practitioner group assessed in terms of the four DISC factors displayed 22 behavioural style combinations. The highest frequency of style combinations was in the Compliance (36.4%) factor, followed by the Dominance (27.3%), Influence (22.7%) and Steadiness (13.6%) factors (see table 4.47).

Table 4.47: Frequency of style combinations of the TUT e-learning practitioner group

Style combinations	Frequency (%) of Style combinations in each DISC factor	DISC personal profiles (reference Table 4.2)
D		
DC		
DI	6 (27.3%)	
DIC		
DIS		
DS		
IC		
ICD		
ID	5 (22.7%)	
IS		
ISC		
S		<p>CD/SI profile (reference Figure 4.27)</p>
SC	3 (13.6%)	
SCD		
SD		
C		
CD		
CDI		
CI	8 (36.4%)	
CIS		
CS		
CSD		
CSI		
Total	23 (100%)	

Table 4.48: P-J fit for the TUT e-learning practitioner group : HJA (CD/SI)

Styles	Frequency (%) of fit scores per style combination from e-learning practitioner group including star performers						
	6	5	4	3	2	1	0
CD	4.5	4.5					
DC		2.3					
C		2.3	2.3				
CSD		4.5					
D			2.3	2.3			
SCD			6.8				
CDI			2.3				
CS			2.3	4.5			
DS				2.3			
DIC				2.3			
IC				2.3	2.3		
ICD				6.8			
CI				2.3			
DI					2.3		
ID					4.5		
SD					2.3		
SC					13.6		
CIS					4.5		
CSI					6.8		
DIS						2.3	
ISC						2.3	
IS							2.3
Total	4.5	13.6	16	22.8	36.3	4.6	2.3
	34.1						66
Styles	Frequency (%) of fit scores per style combination from e-learning practitioner group excluding the star performers						
	6	5	4	3	2	1	0
CD	6.5	3.2					
C		3.2	3.2				
CSD		6.5	3.2				
SCD			6.5				
CS			3.2	6.5			
DIC				3.2			
IC				3.2			
ICD				9.7			
CI				3.2			
DI					3.2		
SD					3.2		
SC					12.9		
CIS					6.5		
CSI					3.2		
DIS						3.2	
ISC						3.2	
IS							3.2
Total	6.5	12.9	16.1	25.8	29	6.4	3.2
	35.5						64.4

Figure A1

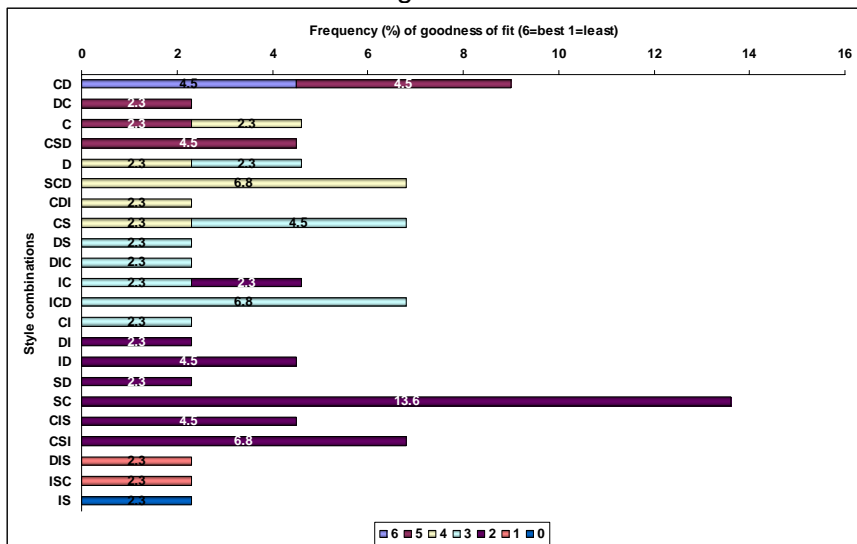


Figure A2

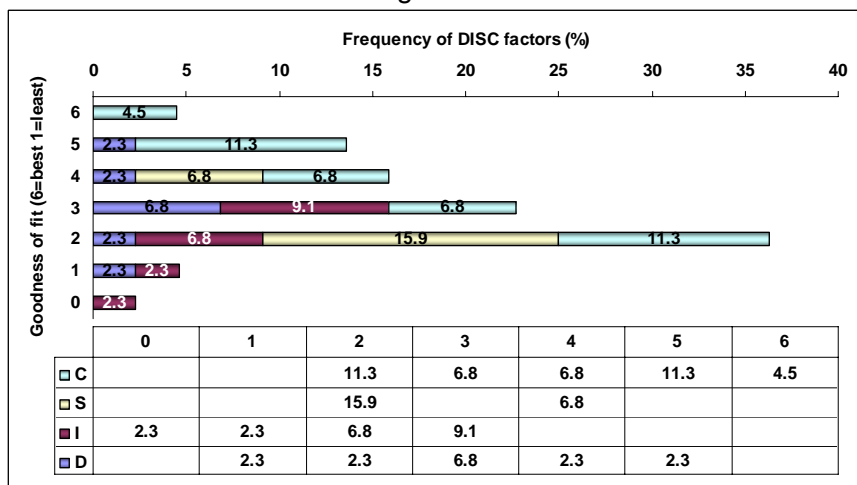


Figure B1

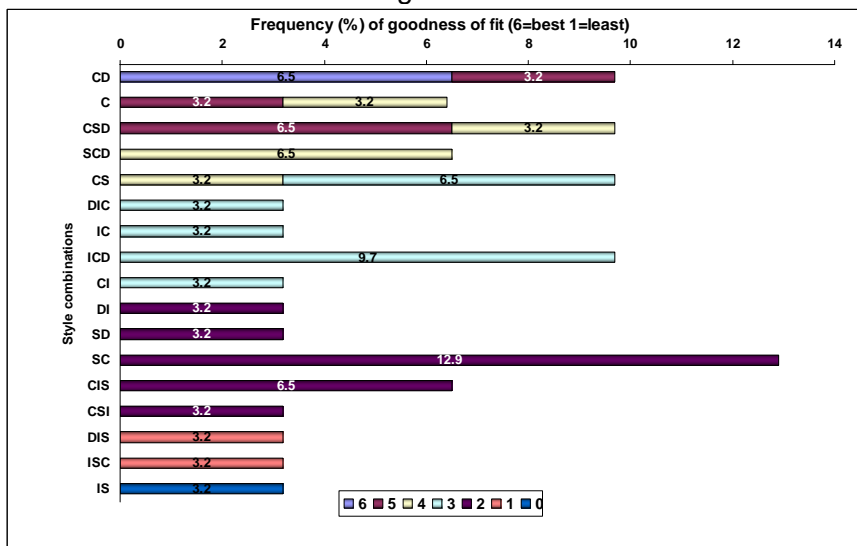
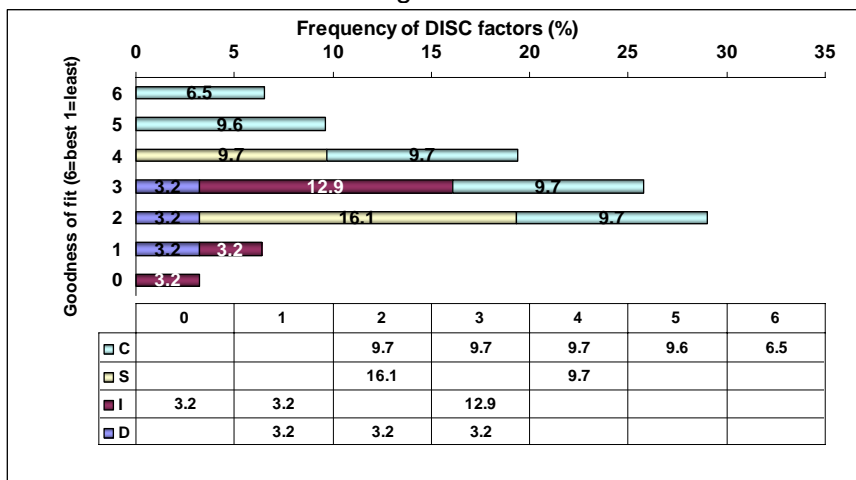


Figure B2



It is evident from the graphs in table 4.47 that the Compliance factor has the greatest strength in both the TUT e-learning practitioner group and the human job requirements for an e-learning practitioner in an unstructured environment. The TUT e-learning practitioner group shows the least strength in the Dominance factor, whereas the job under discussion calls for a stronger Dominance factor. Table 4.48 shows small variances between the fit patterns from the inclusive and exclusive e-learning practitioner groups.

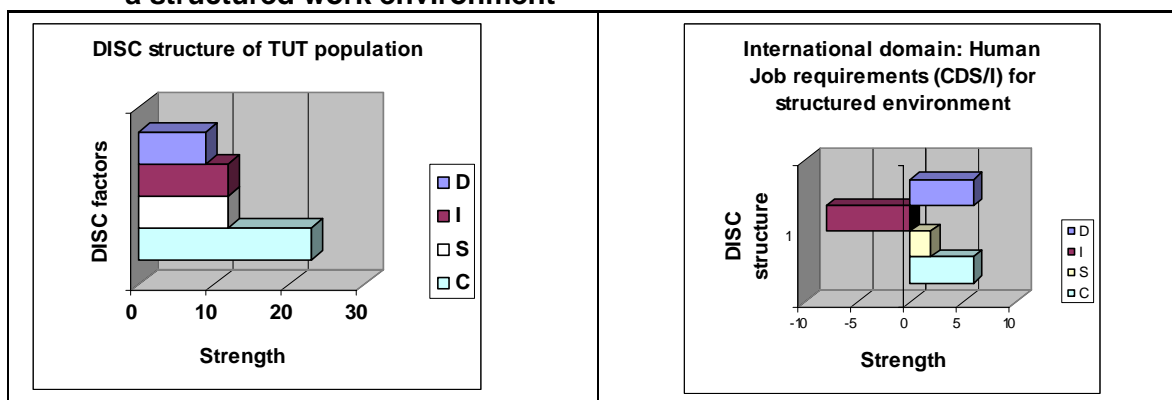
Table 4.48 shows that the Compliance factor is absent from the 0-1 score range and the only factor present in the best fit score range, which implies that profile styles in this factor tend to be more positively related to the job requirements for the CD/SI structure. The Dominance factor is distributed towards the mid range scores slightly higher than the Steadiness factor, with no extreme high or low score. The Influence factor is distributed towards the lower score ranges, which implies that profile styles for this factor tend to be more negatively related to the job requirements for the CD/SI structure. Only a percentage of 4.5% of the profiles of the TUT e-learning practitioner group display a job fit of 6/6. These findings suggest that only 34 percent of the TUT e-learning practitioner group fall into an acceptable range for goodness of fit. Although the Compliance factor is the most prominent factor in the TUT e-learning practitioner group the Dominance factor is the least represented and also weaker than in the total population group, which means that if the job requirements call for a stronger Dominance factor presence, the majority of the TUT e-learning practitioners' behavioural characteristics do not seem to match the requirements of the HJA and will not be a natural fit for the job.

Detail for section 4.5.2.2.1

Person-job fit of the e-learning practitioner population and the HJA (CDS/I) report for a structured environment

Behavioural characteristics of the e-learning practitioner as outlined in the literature review were mapped and an HJA for a structured environment was set up and graphed by the analyst from Thomas International (discussed in section 4.4 of this chapter). To adapt the original CD/SI profile to a profile applicable in a structured environment, the Compliance factor was adapted to a slightly lower value and the Steadiness factor to a positive value. This resulted in a CDS/I HJA graph (see section 4.4.1.2.1). Measured against the CDS/I profile the behavioural characteristics of the TUT population as captured in the DISC personal profiles (see figure 4.39) were assessed to determine goodness of fit. The scores for the TUT population are tabulated in table 4.53.

Figure 4.39: DISC factor distribution for TUT population vs. DISC structure for HJA (CDS/I) for a structured work environment



It is evident from figure 4.39 that the Compliance factor has the greatest strength in both the TUT population group and the human job requirements for an e-learning practitioner in a structured environment. The Steadiness factor in the TUT profile is more prominent than the one for the CDS/I HJA and the TUT population shows the least strength in the Dominance factor, whereas the job under discussion calls for a stronger Dominance factor. Table 4.53 shows a refined fit score between the TUT population and the job.

Table 4.53: Person-job fit for the TUT e-learning practitioner population and the HJA (CDS/I) for a structured environment

Styles	Frequency (%) of fit scores per style combination						
	6	5	4	3	2	1	0
CSD	5.3						
CD		3.6	3.6				
CS		3.6	7.1				
SCD		5.3					
C			1.8	3.6			
DC			3.6				
DS			1.8				
CDI				1.8			
CIS				3.6			
CSI				5.3			
D				1.8	1.8		
SC				10.7			
SD				3.6			
CI					1.8		
DIC					1.8		
ISC					1.8		
IC					1.8	1.8	
ICD					5.3		
S					1.8		
DI						3.6	
DIS						1.8	
ID						7.1	
IS						3.6	
Total	5.3	12.5	17.9	30.4	16.1	17.9	0
			35.7				64.4

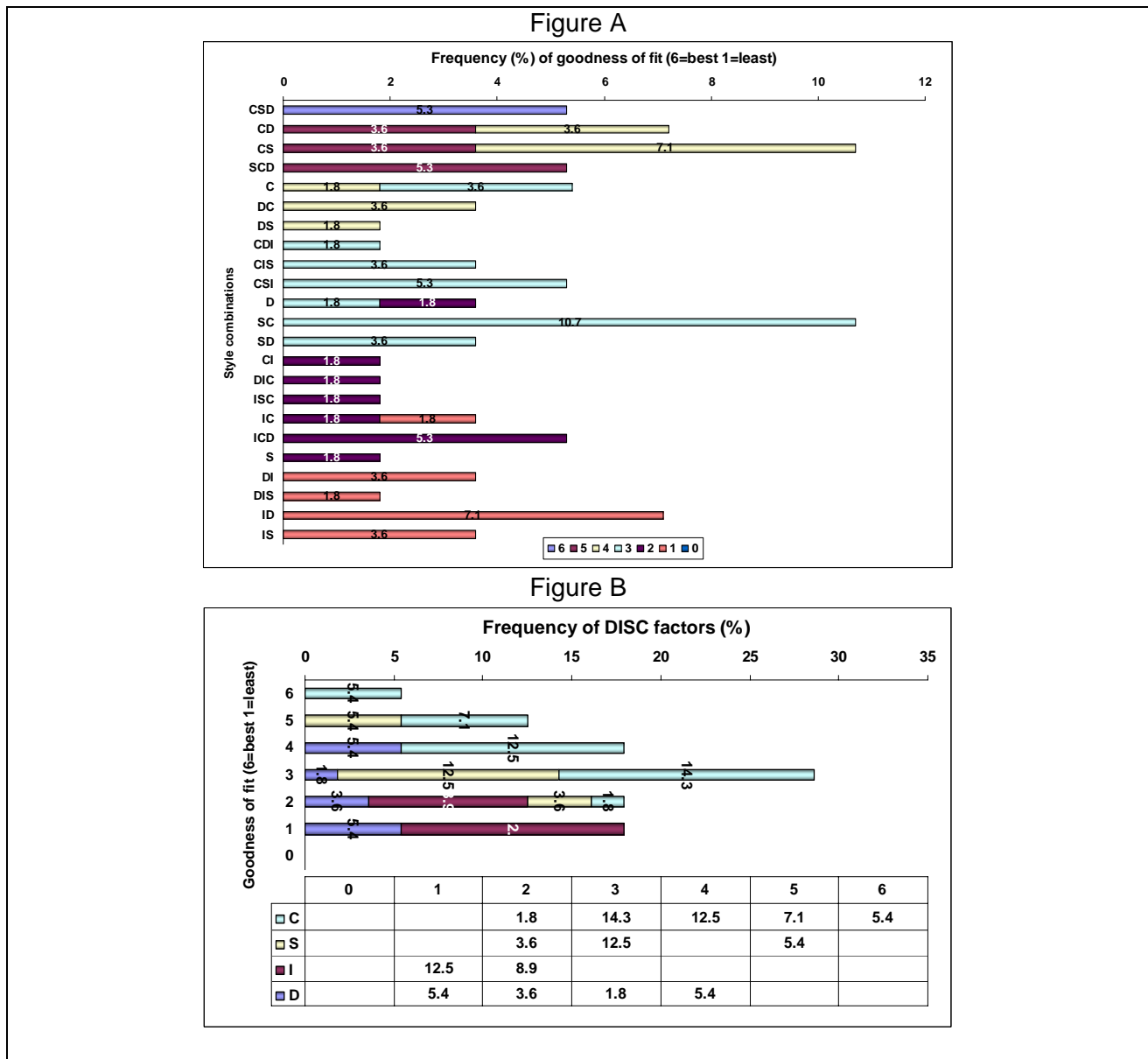


Table 4.53 shows that the best fit for the job is the high Compliance factor (style combination percentage of 5.4%), whilst other patterns of style combinations between the Compliance and Dominance and to a lesser extent the Steadiness factors show scores between five (style combination percentage of 12.5 percent) and four (style combination percentage of 17.9%) for goodness of fit. The other combinations (64.4%) do not seem to be in line with the requirements of the HJA. DISC factor **structure** and frequency of style combination **patterns** in terms of goodness of fit are graphically presented in figures A and B in Table 4.53.

Approximately four percent from the group in the high CD and high CS and 5.3% from the group in the high SCD style combinations scored five. Percentages of 1.8% of the group in each of the high C and high DS profile groups scored in the 2-3 range, 3.6% of the group in the high CD combination and 7

percent of the group from the CS profile groups scored four. None scored in the zero range and in the 1-2 score range a variety of high D and high I style combinations represent 32 percent of the group.

Table 4.53 shows the Compliance factor is absent from the 0-1 score range and is the only factor present in the best fit score range, which implies that profile styles in this factor tend to be more positively related to the job requirements for the CDS/I structure. The Dominance factor is distributed towards the mid to low range scores, slightly lower than the Steadiness factor, with no extreme high score but present in the one low score range. The Steadiness factor is distributed towards the mid range scores, showing no extreme scores. The Influence factor is distributed towards the lower score ranges, which implies that profile styles for this factor tend to be more negatively related to the job requirements for the CD/SI structure. Only 5 percent of the profiles of the TUT population display a job fit of 6/6. These findings suggest that only 37 percent of the TUT population fall into an acceptable range for goodness of fit. Although the Compliance factors are the most prominent and the Steadiness factors are moderately present in the TUT population, the Dominance factor is the least represented which means that if the job requirements call for a stronger Dominance factor presence the majority of the TUT population's behavioural characteristics do not seem to match the requirements of the HJA and will not be a natural fit for the job.

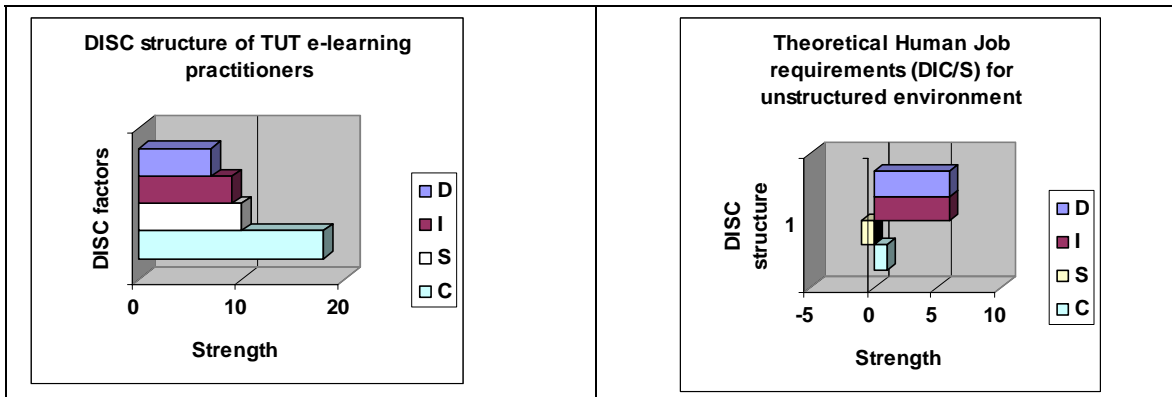
The highest frequency of best fit style combinations in the structure of the P-J fit between the TUT population and the CDS/I human job requirements is displayed in the high Compliance Dominance Steadiness style combinations. The highest frequency of least fit style combinations in the structure of the P-J fit between the TUT population and the CDS/I Human Job requirements is displayed in the high Influence style combinations.

Detail for section 4.5.2.5.2

Person-job fit of the e-learning practitioner group and the HJA (DIC/S) report for an unstructured environment

Behavioural characteristics of the TUT e-learning practitioner group captured in the PPAs were graphed and measured against the DIC/S profile to determine goodness of fit. Goodness of fit is measured on a 1-6 point scale, where six is best fit and one indicates that the person's characteristics do not seem to be in line with the requirements of the HJA. The scores for the TUT e-learning practitioner group are presented in table 4.66.

Figure 4.55: DISC factor distribution for groups at TUT vs. DISC structure for HJA (DIC/S) for an unstructured work environment



It is evident from figure 4.55 that the Dominance and Influence factors have the greatest strength in the human job requirements for an e-learning practitioner in an unstructured environment and a moderate strength in the TUT e-learning practitioner group. The Steadiness factor in the human job requirements shows the least strength but displays moderate strength in the TUT profile. The Compliance factor shows low strength in the human job requirements but the greatest strength in the TUT e-learning practitioner group. Table 4.66 shows a refined fit score between the TUT population and the job.

Table 4.66: P-J fit for the e-learning practitioner group: HJA (DIC/S)

Styles	Frequency (%) of fit scores per style combination from e-learning practitioner group including star performers						
	6	5	4	3	2	1	0
DIC	2.3						
CDI		2.3					
DC		2.3					
DI		2.3					
IC		2.3	2.3				
ICD		6.8					
CD			4.5	4.5			
CI			2.3				
ID			4.5				
C				2.3	2.3		
D				4.5			
DIS				2.3			
CIS					4.5		
CSD					4.5		
CSI					6.8		
DS					2.3		
ISC					2.3		
SCD					6.8		
CS						6.8	
IS						2.3	
SC						13.6	
SD						2.3	
Total	2.3	16	13.6	13.6	29.5	25	0
			31.9				68.1

Table 4.66: P-J fit for the e-learning practitioner group: HJA (DIC/S) (continued)

Styles	Frequency (%) of fit scores per style combination from e-learning practitioner group excluding star performers						
	6	5	4	3	2	1	0
DIC	3.2						
CDI		3.2					
DI		3.2					
IC		3.2					
ICD		9.7					
CD			3.2	6.5			
CI			3.2				
C				3.2	3.2		
DIS				3.2			
CIS					6.5		
CSD					6.5		
CSI					3.2		
ISC					3.2		
SCD					6.5		
CS						9.7	
IS						3.2	
SC						12.9	
SD						3.2	
Total	3.2	19.3	6.4	12.9	29.1	29	0
			28.9				71

Figure A

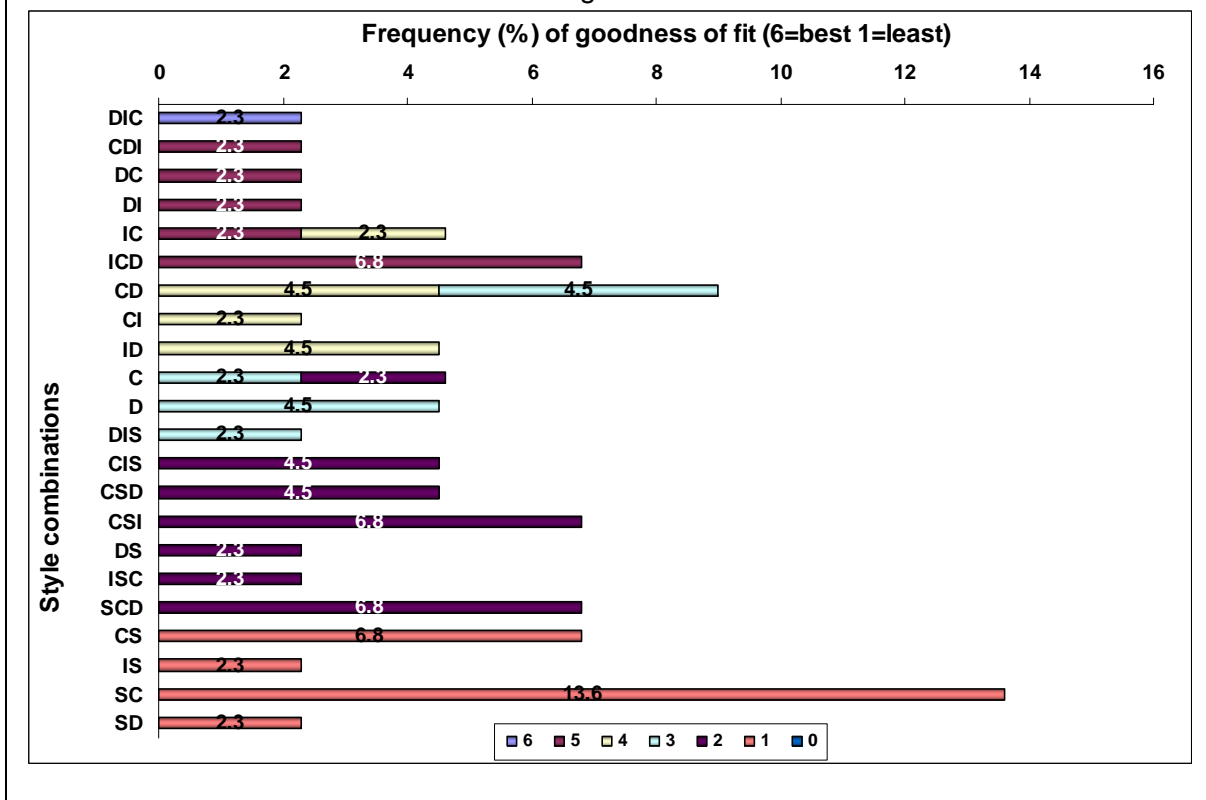


Table 4.66: P-J fit for the e-learning practitioner group: HJA (DIC/S) (continued)

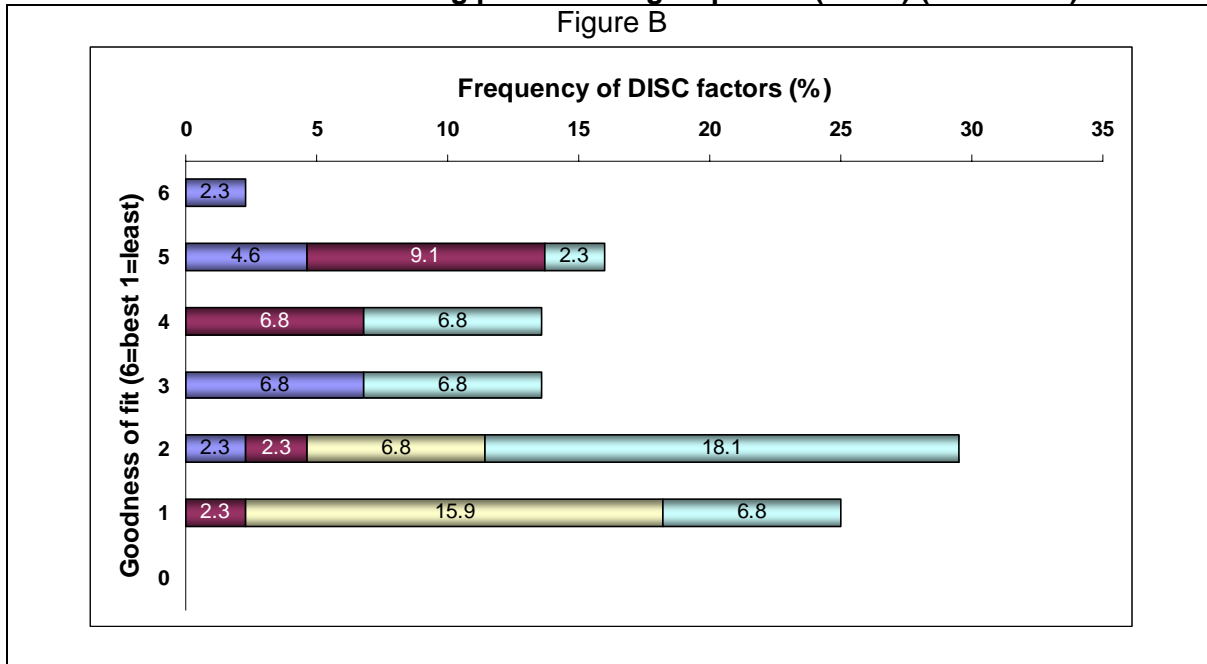


Table 4.66 shows that the best fit for the job is the high Dominance factor (style combination percentage of 2.3%), whilst other patterns of style combinations between mainly the Dominance, Influence and Compliance factors show scores between five (style combination percentage of 16%) and four (style combination percentage of 13.6%) for goodness of fit. The other combinations (68.1%) do not seem to be in line with the requirements of the HJA. DISC factor **structure** and frequency of style combination **patterns** in terms of goodness of fit are graphically presented in figures A and B in table 4.66.

The best fit for the job is from the high DIC style combination, which represents only 2 percent of the group. A number (14% of the group) of Dominance Influence and Compliance style combinations displayed a fit score of five and 68 percent of the group scored between 3-1.

The Dominance factor is absent from the 0-1 score range and is the only factor present in the best fit score range, which implies that profile styles for this factor tend to be more positively related to the job requirements for the DIC/S structure. The Influence and Compliance factors are distributed towards the mid range scores. The Steadiness factor is very significantly distributed towards the lower score ranges, which implies that profile styles for this factor tend to be more negatively related to the job requirements for the DIC/S structure. The Steadiness factor is the only factor in the zero score range of fit. Table 4.66 shows that only 2 percent of the profiles of the TUT e-learning practitioner group displays a job fit of 6/6. These findings suggest that only 32 percent of the TUT e-learning practitioner group falls within an acceptable range for goodness of fit. The high Compliance requirements from the

HJA is complemented by the high Compliance factor present in the TUT e-learning practitioner group. Although the Dominance and Influence factors are the most significant for goodness of job fit, the Dominance factors are the least present and the Influence factors only moderately present in the TUT e-learning practitioner group. This means that if the job requirements call for a stronger Dominance and Influence factor presence and a lower Compliance factor presence, the majority of the TUT e-learning practitioner group's behavioural characteristics do not seem to match the requirements of the HJA and will not be a natural fit for the job.

The highest frequency of **best** fit style combinations in the structure of the P-J fit between the TUT e-learning practitioner group and the DIC/S Human Job requirements are displayed in the high Dominance, Influence Compliance style combinations. The highest frequency of **least** fit style combinations in the structure of the P-J fit between the TUT population and the DIC/S Human Job requirements are displayed in the high Steadiness style combinations.

Appendix E

Appendix E: List of Excerpts

Excerpt E1: Thank you letter to participants

Excerpt E1: Thank you letter to participants

From: Hermien Johannes
To: --- -- -- -- -- --
Date: 13 June 2005 09:42:31 AM
Subject: Thank you

Dear Colleagues,
Sincere thanks for your participation in my e-learning practitioner project. We will send you the PPA results as soon as available.
Regards
Hermien

Excerpt E1: Participation in e-Moderating course

Excerpt E2 Participation in e-Moderating course

Compiled Messages:

Message no. 40
Posted by E- Convenor (Emod) on Tuesday, October 5, 2004 09:47
Subject: Check in here regularly please!
Hi everyone,

I just wanted to suggest that this is a good discussion area to check regularly as I will be posting any general news or items here.

cheers
Econvenor

Excerpt 4.1: Correspondence to Thomas International

Excerpt 4.1: Correspondence between researcher and analyst from Thomas International: Questions

From: Hermien Johannes
To: -@thomas.co.za
Date: 17 June 2005 10:32:24 AM
Subject: TUT PPA

Hallo --

-- and myself had a discussion on PPA profiles from "e-learning practitioners" at TUT and she suggested that I contact you to arrange, if possible, for a meeting between me and you. Would it be possible for us to meet before 24 June 2005 as I will be out of town from that date.

I have played around with the scores of a specific group of "e-learning practitioners" (attached) and have a few questions to you.

1. Is it possible/advisable to get a group profile on the PPA and the HJA.
2. Is it worth anything to draw up a group profile?
3. Can one make valid conclusions from a frequency list of the descriptive words assigned to each individual profile, by adding all the descriptive words from the group into one spreadsheet? By sorting the frequency of each descriptive word can one deduct that a certain factor is more dominant than the others.

I attached the spreadsheet.

If possible I would like to discuss personally different conclusions that one can draw from the PPA and HJA.

Friendly regards
Hermien

Excerpt 4.2: Feedback from HJA from Thomas International

Excerpt 4.2: Feedback on HJA from Thomas International

From: --
To: Hermien Johannes
Date: 12 April 2005 12:26:12 PM
Subject: Fwd: Validation documents & job profiles

>>> @thomas.co.za> 04/12/05 12:14 PM >>>

Hi -,

attached are the documents as discussed telephonically.

Please do not hesitate to contact me with regards to any queries that you may have and/or additional information that you may require.

<<PPA in SA context.pdf>> <<Summary.pdf>> <<E-Learning Practitioner (TUT) (1).pdf>> <<E-Learning Practitioner (TUT) (2).pdf>>

Regards,

Excerpt 4.3: Feedback from ECG on HJA

Excerpt 4.3: Feedback to expert consensus group on HJA

From: Hermien Johannes
To: A, B, C, D, and E
Date: 29 June 2005 12:37:40 AM
Subject: Terugvoer oor HJA

Beste Kollegas,

Weereens baie dankie vir julle insette met die "Human Job Analysis" Vrydag. Ek stuur vir julle 'n afskrif van die HJA soos ons dit bespreek het.

Hierdie grafiek is slegs n teoretiese "benchmark" en om geldigheid hiervan te verhoog word dit vergelyk met "star performers" in die beroep – "actual benchmarks".

Die proses gaan egter nog verder, indien julle belangstel kan julle verder deelneem:

LEES DIE ONDERSTAANDE LYS VAN EIENSKAPPE en dui aan of julle saamstem dat dit n aanvaarbare weergawe is van hoe julle die persoon wat hierdie beroep beklee sien.

Excerpt 4.3b: Response from ECG member on HJA benchmark

Excerpt 4.3b: Response from expert consensus group member on HJA benchmark

Die volgende kleurkode word gebruik om my mening aan te dui: **Groen** – stem saam; **Blou** – neutrale mening; **Rooi** – stem nie saam nie

Beskrywende woorde: **Self-Starter (selfbeginner)**; **Daring (Onverskrokke)**; **Assertive (selfgeldend)**; **Decisive (Beslis)**; **Inquisitive (nuuskierig)**; **Influential (invloedryk)**; **Persuasive (oorredend)**; **Positive (positief)**; **Participating (deelnemend)** **Communicative (kommunikerend)**, and **Independent (Onafhanklik)**; **Persistent (Volhardend)**; **Strong-willed (Wilskragtig)**; **Firm (Ferm)**. **Directing and Leading**; **Individuality** – (Antagonistic situations require taking direct and positive action where there may be little or no precedent to go on. The job carries freedom to act and the authority to make decisions even when they may be unpopular), and **Self-confidence** – (Contact situations require motivating and influencing people where there is little protocol or precedent available to serve as guide. He/she may be required to commit himself/herself by taking a position or "stand" which is controversial).

Excerpt 4.4: Request to Thomas International

Excerpt 4.4: Request sent to the analyst from Thomas International

From: Hermien Johannes
To: @thomas.co.za
Date: 22 July 2005 11:28:09 AM
Subject: HJA

Dear ---

Mrs - , from the Centre for Continuing Professional Development at TUT, asked me to send you information regarding the HJA and to request for a HJA to be done, please.

Would you be so kind to process this information in your system to compile a HJA profile for the position of e-learning practitioner at TUT.

As no job description for this position is available an expert consensus group tried to set down some guidelines.

We have completed a HJA and then we followed the instructions in the manual to enrich the process. (See attached documents for details).

Excerpt 4.5: Information request to colleagues

Excerpt 4.5: Information request to colleagues

From: Hermien Johannes

To: A,B,C,D,E,F,G,H

Date: 07 July 2005 12:23:56 PM

Subject: support

Dear Colleagues,

If possible, could you please help me with answers to the following questions? I need this information for the completion of the e-learning practitioner job analysis.

The following questions pertain to: "Star performer" as perceived by practitioners from the Department of Telematic Education.

1. How would you describe a "star performer" in the field of e-learning practice at TUT?
2. Can you name any "star performers" in your faculty? I am very dependent on your support and want to thank you sincerely for everything that you have done to help so far.

Excerpt 4.6: Response from Thomas International

Excerpt 4.6: E-mail response from the analyst from Thomas International on environment structuredness

From: @thomas.co.za
To: Hermien Johannes
Date: 26 July 2005 09:56:52 AM
Subject: RE: HJA

Hi Hermien,

please find my answers in blue.

Regards,

1. Does TI have specific definitions or descriptions for these two concepts? **TI doesn't really have specific definitions for these two concepts. An unstructured environment is usually more "chaotic" and experiences more change and thus is more demanding in the sense that it doesn't offer stability. People with a "low S" usually perform better in this kind of an environment, as they are more flexible and don't get stressed so easily (they can juggle more than one ball at once). A person with a "low S" also doesn't like routine and thus prefers change. A person with a "high D" is more likely to take on a challenge than someone with a "low D".**

People with a "high S" usually prefer a structured environment, one that is set and established and doesn't experience too much change. They prefer the routine etc.

2. If the job of the e-learning practitioner moves towards a more structured environment, with more prescriptions on how to structure an online course, or how to design for effective online communication etc. how will that affect the job description and the HJA in terms of the graph? Most of our lecturers are CS or SC combinations and do you think it might be possible to impose different interventions in terms of training or different specialisation roles to accommodate these lecturers in the e-learning field? **If the environment becomes more structured, e.g. more prescriptions etc., then the HJA would probably change from a "low S" to a "high S" and perhaps also a "high C". The "CS" or "SC" lecturers would probably feel more comfortable to operate in a more structured environment. **The "SC" or "CS" lecturers would be the specialists in terms of content and evaluation of the course, whereas the "D" lecturers with a "low S" would probably be responsible for initiating new interventions and ideas.****

Excerpt 4.7: Response from Thomas International

Excerpt 4.7: E-mail response from analyst from Thomas International: HJA for Partners

From: @thomas.co.za
To: Hermien Johannes
Date: 29 July 2005 02:32:11 PM
Subject: HJA



Hi Hermien,

attached is the HJA for the e-learning trainees. I took the one that you gave me and I stretched it a bit.

Regards,

Excerpt 4.8: Response from Thomas International

Excerpt 4.8: E-mail response from analyst from Thomas International: P-J fit calculations

From:	__@actechnologies.co.za>  View Contact Details  Add Mobile Alert
To:	"hermeinjohannes@yahoo.com" <hermeinjohannes@yahoo.com>
Subject:	Studie mbv PPA
Date:	Thu, 15 Sep 2005 16:58:19 +0200

Hi Hermien

With regard to our telephone conversation:

It would be better to mark the PPA/HJA by hand because the computer does not mark in the same way and the results would therefore differ. It is also important to use one mark count and I recommend the 6-point count as there will be fewer arguments and thus will give fewer mistakes.

Let me know if I can help you further.

Regards

[Dit sal beter wees om die PPA/HJA met die hand te merk aangesien die rekenaar dit nie op dieselfde wyse merk nie en die resultate dus sal verskil. Verder is dit ook belangrik om een merktelling te gebruik en ek beveel aan om die 6-punt telling te gebruik aangesien dit minder beredenerings sal wees en dus minder foute sal gee.

Laat weet asb as ek jou met nog kan help.

Groete]