Chapter 4: Research findings

The previous chapter described the research design, linking the research questions and the methodology. This chapter reports on the research findings with a view to uncovering the latent structure of the e-learning practitioner construct. Implementation of the research design as outlined in Chapter 3 resulted in a bricolage of research data which was organised and analysed according to the set research goals to provide answers to the research questions.

Three main sections focusing on the person attributes of e-learning practitioners (section 4.3), the characteristics of the e-learning work environment (section 4.4) and their P-J fit relationship (section 4.5) form **the body** of this chapter. These sections focus on the **international, the TUT and the P@W e-learning domains** to answer questions about the **profile, patterns and structure** of the **person attributes** of the e-learning practitioner and the **e-learning job** and their **match** in the e-learning environment. Findings from the quantitative analysis of research data are **enriched** by a qualitative analysis of communications from the participants in this study. Figure 4.1 presents an overview of the focus of the data analysis process.

Figure 4.1: Focus of the data analysis process

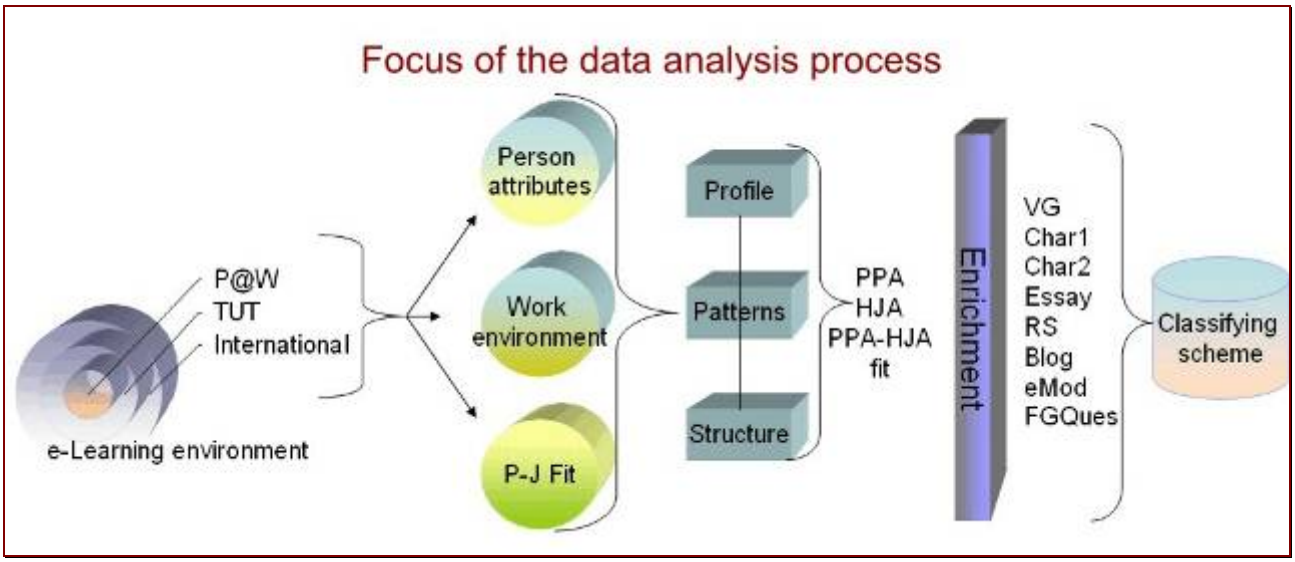
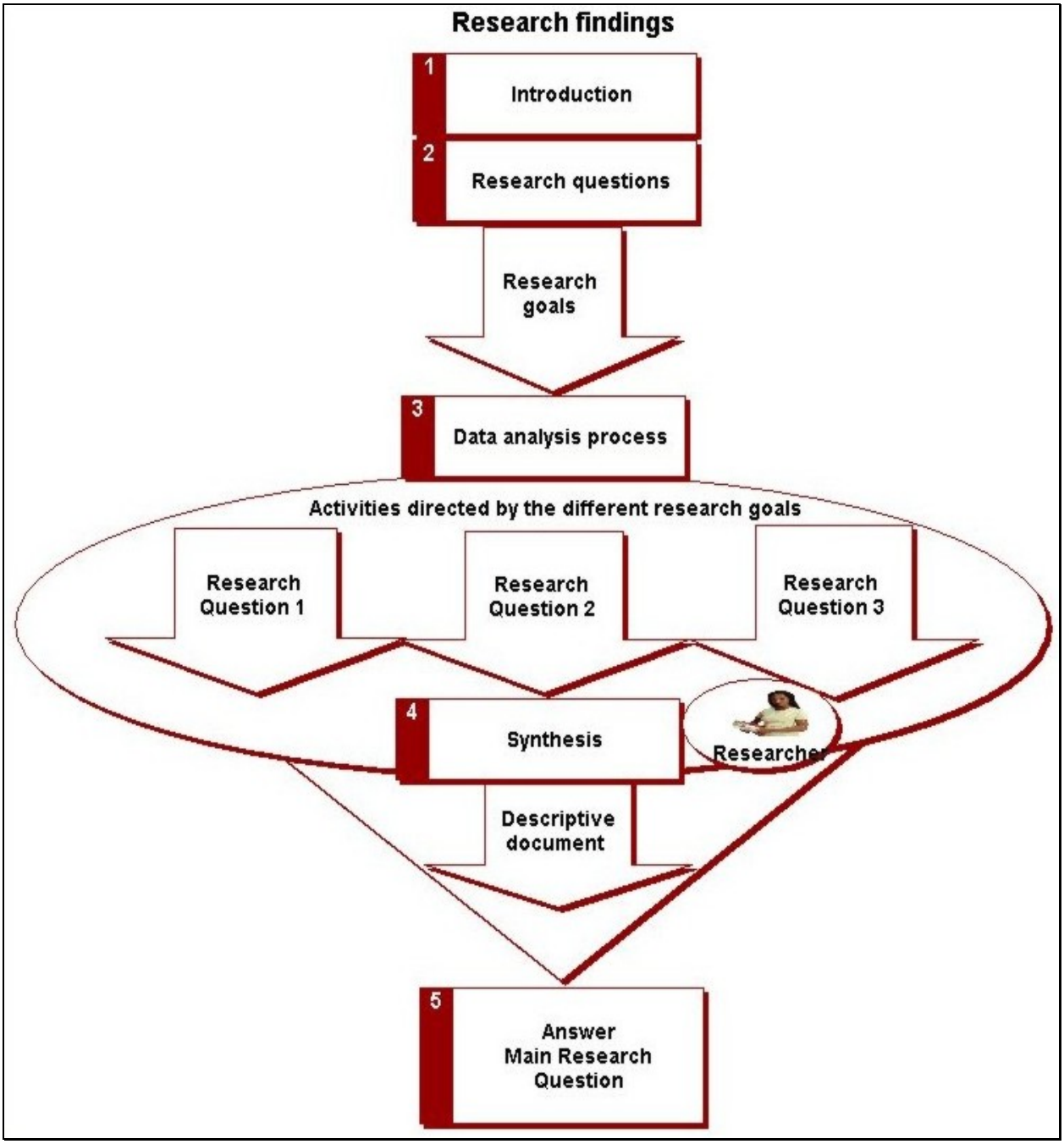


Figure 4.2 provides a synopsis of the **layout structure** of Chapter 4. The activities outlined in this figure are aimed at answering the main research question: 'What is the latent structure of the e-learning practitioner construct?' The chapter is divided into three main sections, each dealing with a specific research subquestion. To make sense of the research evidence, each section will address a number of research goals to answer the relevant subsidiary research questions and to report of research findings, which collectively contribute to answering the main research question. The chapter concludes with a synthesis of the research findings, which will contribute to a holistic description of a classifying scheme that addresses the question of the latent structure of the e-learning practitioner construct (section 4.6).

Figure 4.2: Synopsis of the layout structure of Chapter 4



4.1 Introduction

You cannot create experience. You must undergo it (Camus, n.d.).

Camus's words underline the essence of my role in the process of analysing the data, and interpreting and communicating the research findings. It is possible to present evidence that supports the findings but, as noted by Phillips (1990:42), "we can get these matters right or wrong – we can describe these beliefs correctly or incorrectly, or we can be right or make mistakes about their origins or their effects". However, for this study, it was my intention to maintain quality, to adhere to credibility standards and to conduct an ethical inquiry, as

described in sections 3.10 and 3.11 in the previous chapter. Applying quality standards as proposed by researchers such as Silverman (2005) and Miles and Huberman (1994) guided me towards what I believe are valid conclusions in this enquiry.

4.2 The research goals and questions

A detailed tabulation of the research goals and subsidiary questions was presented in Tables 1.1 and 1.2 in Chapter 1. The way in which each set of research goals was addressed to answer the research questions is described in the following sections of this chapter.

4.3 Research question 1

What is the latent structure of the e-learning practitioner construct in terms of person attributes?

The following subsidiary questions are complimentary to research question 1:

1. What are the characteristics of e-learning practitioners?
2. What are the characteristics of e-learning practitioners at TUT?
3. What are the personal profiles of e-learning practitioners at TUT?
4. What are the profile patterns of e-learning practitioners at TUT?
5. Who are the star performers at TUT?
6. How did the e-learning practitioners at TUT react to the motivators and demotivators presented by their e-learning practice?
7. What are the characteristics of the Partners in the P@W Programme?
8. What are the personal profiles of the Partners in the P@W Programme?
9. What are the profile patterns of the Partners in the P@W Programme?
10. How did the Partners in the P@W Programme perceive themselves as e-learning practitioners?

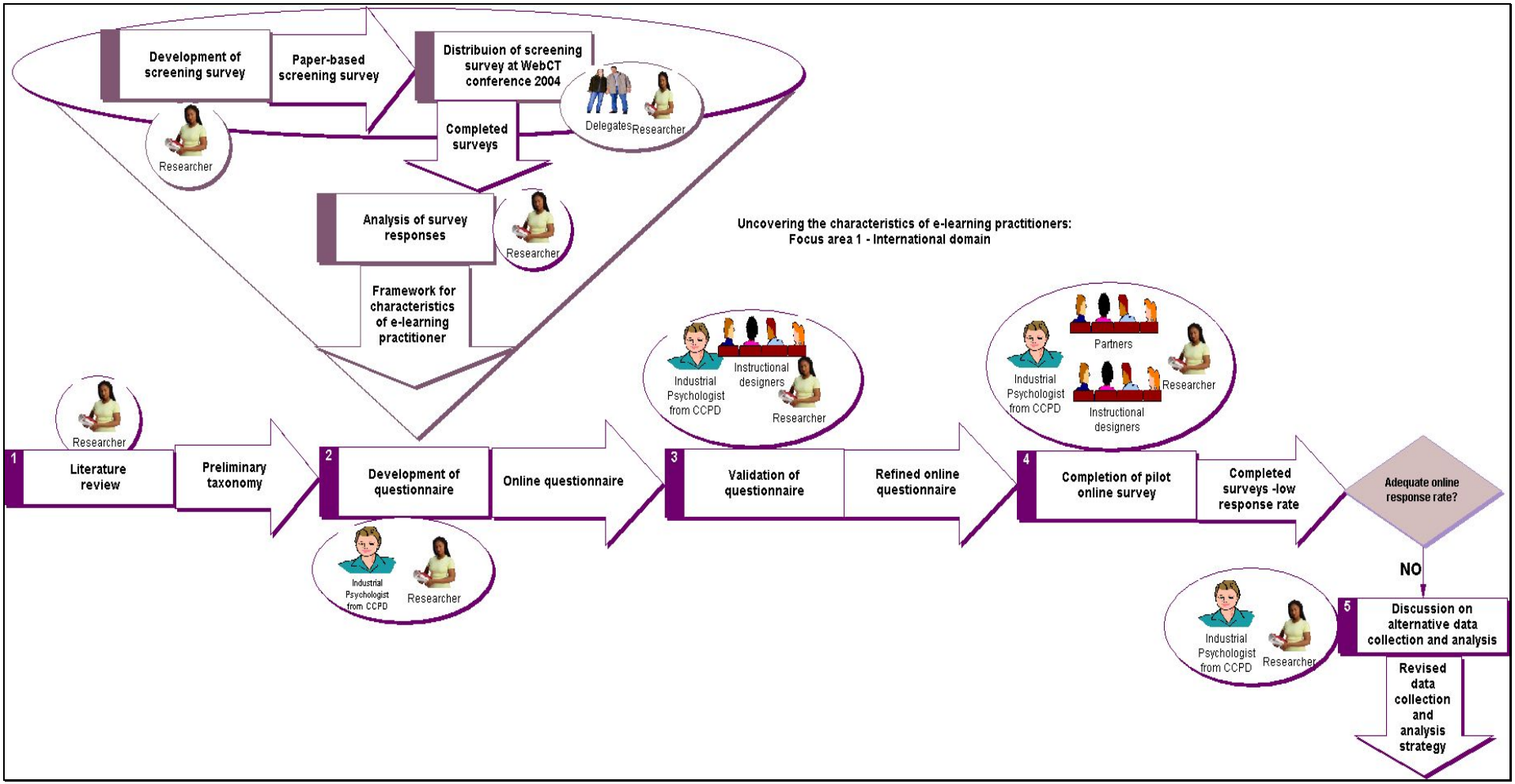
A discussion on the personal attributes of the e-learning practitioner from the international domain, as well as two levels of the Personal Profile Analysis (PPA) of the e-learning practitioner at TUT that were investigated in this study, will follow in the next section. The focus areas were the following:

- Uncovering the characteristics of e-learning practitioners from the international domain – addressing subsidiary question 1 (see Figure 4.3).
- PPA of the e-learning practitioner at TUT – addressing subsidiary questions 2-6 (see Figure 4.4).
- PPA of the Partners in the Partners@Work Programme at TUT – addressing subsidiary questions 7-10 (see Figure 4.12).

4.3.1 Uncovering the characteristics of e-learning practitioners - international domain

The first focus area presents findings for the characteristics of e-learning practitioners in the international higher education e-learning domain. The methods and procedures applied in this regard were discussed in section 3.6.1. With the focus on the first research goal, a number of research activities, for example the development of a preliminary taxonomy, conducting a screening survey and developing an online questionnaire, were carried out to collect and analyse data (see Figure 4.3). The following sections report on subsequent findings.

Figure 4.3: Uncovering the characteristics of e-learning practitioners from the international domain



4.3.1.1 Preliminary taxonomy

Research goal 1:

To identify indices, categories, dimensions and person attributes of e-learning practitioners.

A meta-analysis of the characteristics of e-learning practitioners as described in the literature produced the taxonomy summarised in section 2.6.5.4. Nine main themes were identified and represent the following categories: technical, curriculum, management, teaching skills, personal/affective traits, communication styles, teaching styles, personality traits and learning styles. The characteristics of each theme were categorised in a preliminary taxonomy of e-learning practitioner characteristics (see referenced tables 2.7 – 2.15). Table 4.1 summarises the characteristics of e-learning practitioners.

Table 4.1: Preliminary taxonomy of the characteristics of e-learning practitioners

Categories	Indices
Technical skills	Basic computer skills Techno-literate, e.g. using a discussion board, email skills, website design, Internet skills. Coping with new hardware and software applications Instructional design skills for online environments Program development
Curriculum skills	Programme development Development of course material Assessment competencies Ability to review the teaching and learning process to identify need changes and improvements
Management style	Time management Planning skills Organisational skills
Teaching skills	Motivating Listening Mentoring Mediating chat Active participation Creative Reflective Understanding
Personal/affective traits	Patience Persistence Coping with frustration Flexibility Problem solving Coping with time demands Compassionate

Table 4.1: Preliminary taxonomy of the characteristics of e-learning practitioners (continued)

Categories	Indices
Communication style	Student support Counselling skills Constant feedback Understanding language needs Focus on one-to-one communication Active approach Interpersonal skills Responsiveness Flexibility
Teaching style	Delegator: concerned with developing students' capacity to function in an autonomous fashion Facilitator: emphasises the personal nature of teacher-student interactions Personal model: believes in "teaching by personal example"
Personality traits	Takes chances Prompts Does not need sleep Good sense of humour Perceptive Collaborative Adventurous Creative Motivated Adaptable
Learning style	Likes to read, write stories Likes to do experiments and figure things out Likes to draw, design and create Likes to share, cooperate and discuss

4.3.1.2 Screening survey

Based on the identified categories and indices, a screening survey was developed aimed at refining the existing preliminary taxonomy. The development of the screening survey was discussed in section 3.6.2. Survey results were analysed in a table in MS Excel (see Appendix D8 for a data spreadsheet) to answer the first subsidiary question:

Subsidiary question 1

What are the characteristics of e-learning practitioners?

Findings indicated that professional knowledge and technical, curriculum and teaching skills were important for the e-learning practitioner. Other specific skills and characteristics that were selected as important were instructional design and the development of course material; using

the bulletin board; assessment competencies; teaching skills such as motivating, mentoring, active participation and creativity; personal/affective skills such as patience, flexibility and problem solving; communication skills such as continuous feedback and support to students; a facilitative teaching style; and a preferred learning style for the practitioner as being one of sharing and experimentation. Management and personal affective indices were not regarded as very important. Although this group did not select management skills as an important index of the characteristic e-learning practitioner, the majority of the participants selected time management, planning and organisational skills as important management skills. According to the participants *listening skills* were only moderately important, which is an interesting observation seeing that they felt that student support and continuous feedback were very important.

The most frequently selected personality attributes indicated a practitioner who **is motivated, creative and adaptable**.

4.3.1.3 Development of questionnaire: What is an e-learning practitioner?

From these results it became clear to me that the focus of the first research goal was very broad, aiming at uncovering general characteristics of e-learning practitioners. Therefore, in order to refine the focus, the results from the screening survey were used as input for the development of a more focused pilot survey. See section 3.6.3 for a description of the development method of the pilot survey. Because of the very low response rate to the online pilot survey, the results and the survey were discarded.

After lengthy in-depth discussions with various experts in the field, the survey focus and its application were narrowed down to work behavioural styles of e-learning practitioners at TUT (see section 3.6.3.7).

4.3.2 Personal Profile Analysis for e-learning practitioners at TUT

Data capturing and analysis of the characteristics of the e-learning practitioner were conducted on two levels, namely the organisational level, including all e-learning practitioners at TUT, and the programme level, including all the Partners in the P@W Programme. These actions are briefly recapped in the paragraphs below. The PPA for e-learning practitioners at TUT aims to attain the following research goals:

Research goals 2-5:

To identify work behavioural characteristics of the e-learning practitioners at TUT.

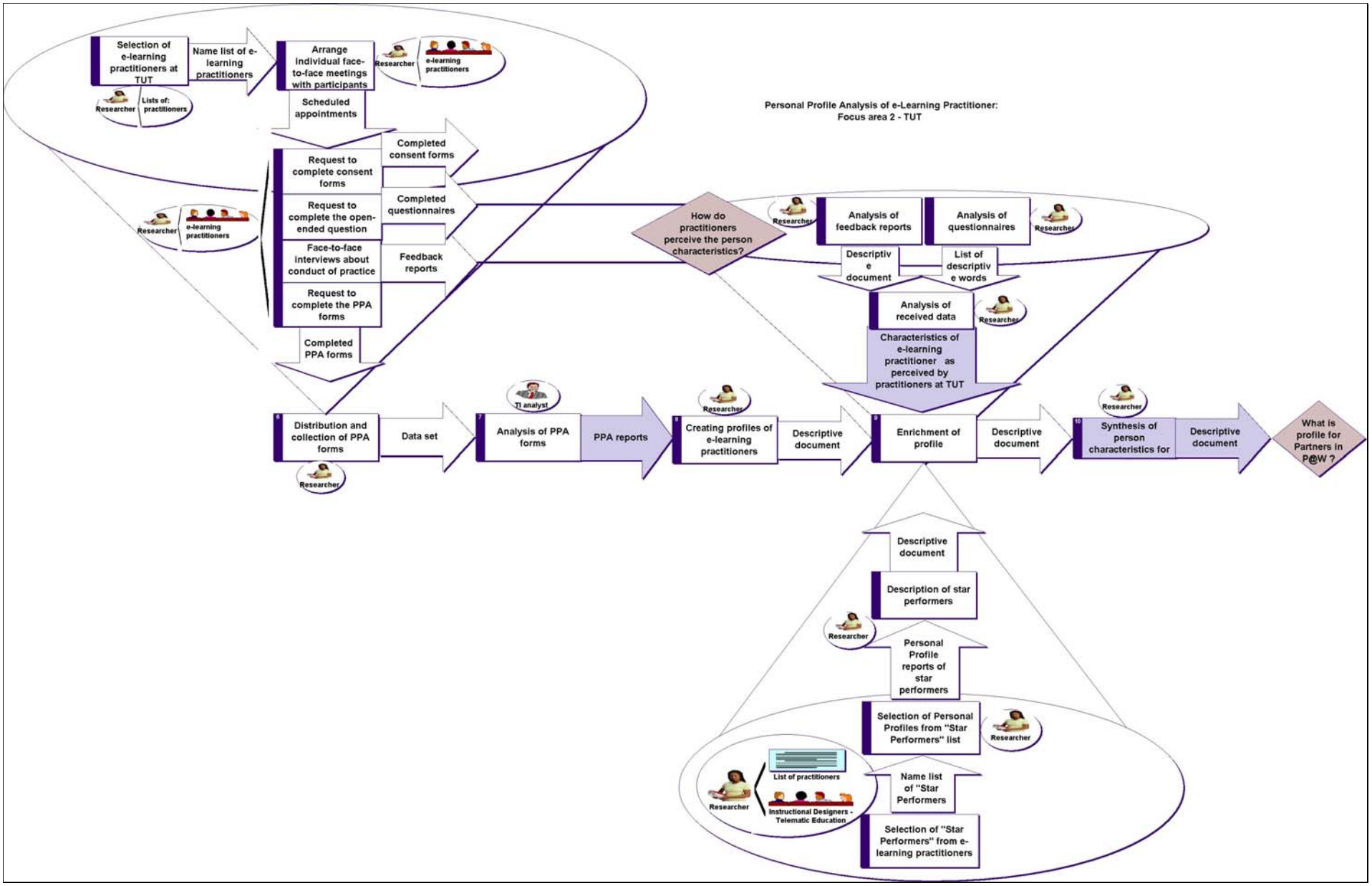
To identify the personal profiles of the e-learning practitioners at TUT.

To identify the profile patterns of the e-learning practitioners at TUT.

To enrich the PPA of the e-learning practitioners at TUT.

Figure 4.4 illustrates the process that was followed in collecting and analysing the relevant data for the second focus area. This illustration positions the various quantitative and qualitative research activities aimed at attaining the research goals. Methods and procedures applied in this regard were discussed in section 3.8.1.6 and the following sections report on subsequent findings.

Figure 4.4: Personal Profile Analysis of the e-learning practitioner at TUT



4.3.2.1 Behavioural characteristics of e-learning practitioners

Research goal 2

To identify work behavioural characteristics of the e-learning practitioners at TUT.

Data obtained from the descriptive word lists of the PPA reports were combined in a frequency table showing the percentage usage of each word to describe the behavioural characteristics of the e-learning practitioner group at TUT. Appendix D5 tabulates these words.

Subsidiary question 2:

What are the characteristics of e-learning practitioners at TUT?

Based on the above description, the prominent characteristics of e-learning practitioners at TUT were identified as precise, logical, accurate, thorough, systematic, dependable, amiable, assertive, detailed, persistent, active, friendly and mobile.

Apart from the essential personal characteristics identified by the PPA, the feedback reports also reflected the configuration of relationships of the essential elements in terms of a specific pattern or profile for each respondent. The particular pattern can be defined as exemplifying a behaviour characteristic. According to literature provided by Thomas International an individual will display one or more of these basic characteristics consistently in the working environment, because each person develops a style of life for himself/herself which places particular emphasis on certain postures and less emphasis on others.

4.3.2.2 Creating profiles of the e-learning practitioners

Research goal 3:

To identify the personal profiles of the e-learning practitioners at TUT.

Using the high DISC factors in each of the PPA reports, the following typical behaviour patterns emerged from these reports from the TUT e-learning practitioner group:

- In the Dominance factor seven style combinations, namely D (2), DC, DI, DIC DIS and DS, were reported.
- The Influence factor had a frequency of nine style combinations distributed as IC (2), ICD (3), ID (2), IS, ISC.
- The Steadiness factor had the second largest frequency (10) of style combinations with a cluster of six in the SC category. The other style combinations reported were SCD (3), and SD.

- The most prominent factor was the Compliance factor. A frequency of 18 style combinations, with a cluster around the CS (3) and CD (4) combinations, were reported. The rest of the style distribution was C (2), CDI (1), CI (1), CIS (2), CSD (2), and CSI (3).

A summary of the DISC factor, style combination and personal profile pattern distribution is presented in Table 4.2.

Table 4.2: Personal profile patterns of the TUT e-learning practitioner group

Personal profile DISC factor and style combination distribution of the TUT e-learning practitioner group					
Styles	**Frequency of factors**		**Styles**	**Frequency of factors**	
	D	**I**		**S**	**C**
D	2 (4.5%)		SC	6 (13.6%)	
DC	1 (2.3%)		SCD	3 (4.5%)	
DI	1 (2.3%)		SD	1 (2.3%)	
DIC	1 (2.3%)		C		2 (4.5%)
DIS	1 (2.3%)		CD		4 (9.1%)
DS	1 (2.3%)		CDI		1 (2.3%)
IC		2 (4.5%)	CI		1 (2.3%)
ICD		3 (6.8%)	CIS		2 (4.5%)
ID		2 (4.5%)	CS		3 (9.1%)
IS		1 (2.3%)	CSD		2 (2.3%)
ISC		1 (2.3%)	CSI		3 (6.8%)
Total each factor	**7 (15.9%)**	**9 (20.4%)**		**10 (22.7%)**	**18 (40.9%)**

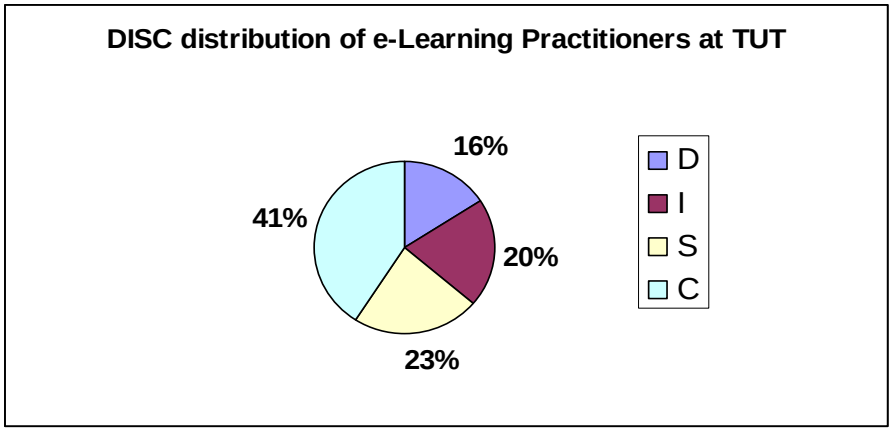
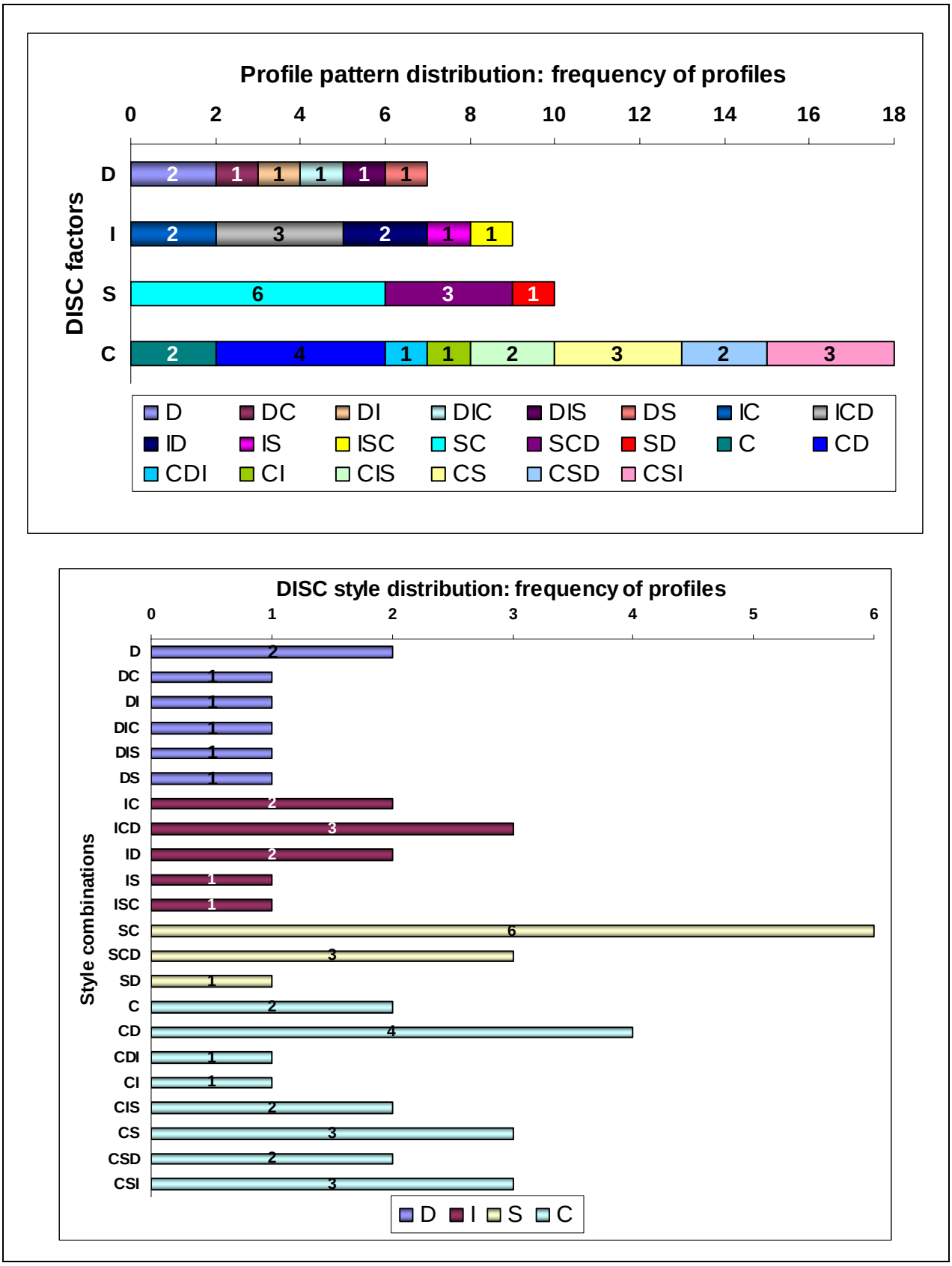


Table 4.2: Personal profile patterns of the TUT e-learning practitioner group (continued)



4.3.2.3 Description of DISC behaviour styles in each factor

Computer-generated, detailed reports on the behavioural style of each participant were provided by the analyst from the Centre for Continuing Professional Development at TUT. I analysed and studied the reports in detail to truly understand the meaning and importance of the personal characteristics mentioned. I also received formal training from Thomas International to register as an PPA and HJA analyst in order to understand the DISC language, analyse the reports and interpret the reports, data and results. PPA reports were analysed and results captured in a table in MS Excel (see Appendix D1 for the data spreadsheet).

Short summaries of the TUT e-learning practitioner group profiles are provided below to highlight some unique characteristics of these profiles.

4.3.2.3.1 High Dominance behaviour types

Seven participants' profiles related to the Dominance factor, two of these had no style combinations but only one factor, namely the Dominance factor. Of the other four, another three displayed high Influence factor combinations and only one high Compliance combination. The main characteristic of the high Dominance factor is positive behaviour and a drive to accomplish results in spite of opposition or antagonistic circumstances. Getting results, expediting action, accepting challenges, venturing into the unknown, solving problems and goal orientation are some of the values that people displaying a high Dominance factor may bring to their organisations. Because of their multiple interests they prefer an ever-changing environment. These individuals can all be described as independent self-starters, who want to 'get on with the job', seeking challenging assignments, straightforward communication and acting on inner drive seeking authority from power.

Only 16 percent of the TUT e-learning practitioners displayed a high dominance behavioural style. Typical high Dominance characteristics such as 'independent self-starters', 'seeking challenging assignments' and 'driven by positive drive' show similarities with the characteristics of the 16 percent distribution of the 'innovator', 'early adopter' categories as proposed by Rogers (1995) discussed in section 2.6.3.7.1.

4.3.2.3.2 High Influence behaviour types

Nine participants' profiles related to the Influence factor. All of these had style combinations: two displaying IC/DS and two displaying ID/CS styles respectively, three ICD/S styles, one IS/CD and one ISC/D style.

These individuals may be described as people orientated, natural leaders who use influence and persuasion to lead others and follow an emphatic approach to others. Networking,

conversation, working with others, and usually joining the organisations for social activity are some of the relevant characteristics here. They like people and want to be liked; are charming, optimistic and outgoing. The main characteristic of these profiles is positive behaviour in favourable or friendly situations, influencing others to react positively or favourably. Some of the values that they might bring to their organisations are generating enthusiasm, radiating optimism and a positive approach, easy communication and motivating other people to act. Salmon (2003:56) lists self-awareness, interpersonal sensitivity and the ability to influence as important characteristics of the e-moderator. As 20 percent of the e-learning practitioners at TUT displayed high Influence profiles, the importance of these characteristics will become evident in the discussions on e-learning "star performers" (see section 4.3.2.4.1).

4.3.2.3.3 High Steadiness behaviour types

Ten participants' (23%) profiles related to the Steadiness factor. A cluster of six SC style combinations were reported and five of these were from the SC/ID style combination. In addition, another three added a high D to the profile displaying a style combination of SCD/I, while only one style combination of each of the SD/IC and SC/DI styles were reported. These individuals may be described as thorough, dependable, hard-working and persistent. They will need time to assess tasks and problems thoroughly before acting, and will sometimes resist change. Hard work, creating a stable environment and the team are high on the "S" list. They are concerned about relations, are sympathetic, friendly, good listeners, and "finisher completers".

These individuals are the staying power of an organisation bringing some human values like loyalty, patience, reliability and predictability to their organisation. The main characteristic relating to this factor is passive behaviour in a favourable situation (environment). They are comfortable with systems and respectful of tradition, behaving in a calm, consistent and steady manner when pressurised. Twenty-three percent of the TUT e-learning practitioners display high Steadiness behaviour types, which may show similarities with the 'late majority' adopter categories as proposed by Rogers (1995) discussed in section 2.6.3.7.1.

4.3.2.3.4 High Compliance behaviour types

Eighteen participants' profiles related to the Compliance factor. Two clusters of style combinations were reported, namely in the high CS (3) and CD (4) categories. The most prominent style combination groups in the Compliance factor were CD/IS (2), CD/SI (2), CIS/D (2), CS/DI (2) and CSI/D (3). These individuals may be described as having high standards, especially for themselves and they may be perfectionists, they are also concerned about accuracy and they research every aspect of a situation, considering every possibility before making a decision. Usually they are peaceful, sensitive, loyal and non-aggressive individuals,

doing to the best of their ability whatever is expected. They are capable of moulding themselves to the image that is expected of them, going to great lengths to avoid conflict. The main characteristic relating to this factor is passive behaviour in an antagonistic situation. Following directions or meeting standards, operating under controlled circumstances, adapting to situations and adhering to procedure to avoid error, trouble or danger are descriptive features of these behavioural styles.

The majority, namely 41 percent, of the TUT e-learning practitioners display a high Compliance behaviour style, which implies that a large percentage of this population will be task oriented and hard-working (see Table 4.2).

Subsidiary question 3:

What are the personal profiles of e-learning practitioners at TUT?

Based on the above description, the personal profiles of the e-learning practitioners at TUT were identified as being predominantly of the Compliance factor, both in frequency and style variation. Although the Dominance factor was the least represented, personal profiles in this dimension showed the second largest style variation, which implies a passive majority and a small driving force in the TUT e-learning practitioner group. As will become evident later in this discussion, this is in contrast to the general perception of participants (see Table 4.27) that the most important characteristics of e-learning practitioners should be their ability to be creative go-getters who enjoy challenging environments.

Research goal 4:

To identify the pattern structure type of the e-learning practitioners at TUT.

A way to describe personal attributes is in terms of the themes of each type of pattern and how they are organised or structured. Each type is a pattern of related themes. Themes describe processes that fulfil a unique role for each of the four DISC types. The style patterns form the building blocks for the structures of the different personal profiles. Further analysis of the DISC factor distribution revealed the patterns and structures of the e-learning practitioners' profiles at TUT (see Table 4.2) and addresses the fourth research goal.

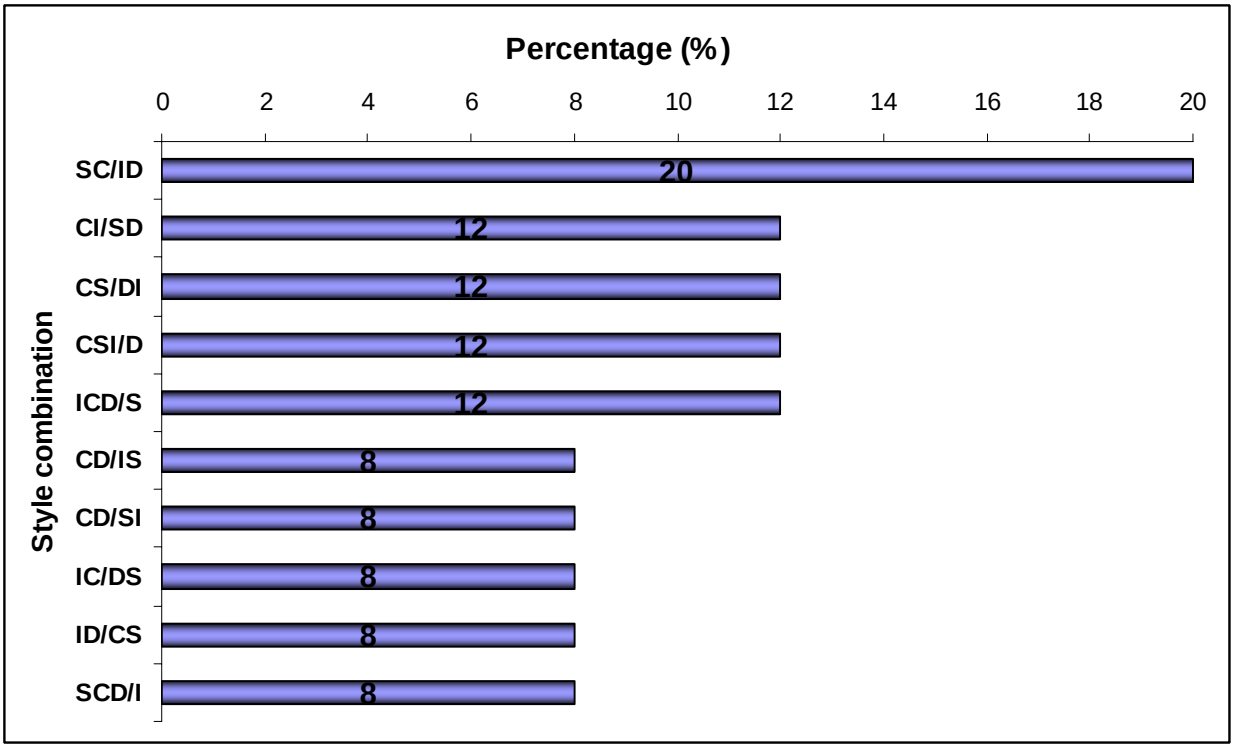
An analysis of each DISC factor revealed a variety of patterns, namely clusters of style combinations in the high Steadiness Compliance (SC), high Compliance Dominance (CD) and high Compliance Steadiness (CS) factors. Smaller clusters were found in the high Influence

Compliance Dominance (ICD) and high Steadiness Compliance Dominance factors. The relevance of these patterns to each DISC factor is illustrated in Table 4.2.

The structure of the DISC factors displayed a CSID order of strength, showing the Compliance factor as the most prominent and the Dominance factor the least represented. The Steadiness factor displayed the lowest frequency of style patterns, but the highest frequency of a high factor combination, namely six in the high Steadiness Compliance (SC) combination.

Further refinement using a five percent frequency as cut-off point, revealed a fairly even distribution of the style combination patterns, except for the SC/ID combination with a frequency of 20 percent, and an absence of any high Dominance style combinations (see Figure 4.5).

Figure 4.5: Profile of highest style combination patterns of the TUT e-learning practitioner group



Subsidiary question 4:

What are the profile patterns of e-learning practitioners at TUT?

Based on the above description the profile patterns of the e-learning practitioners at TUT were identified as dominantly from the Compliance factor (see Figure 4.5), displaying a theme of "having a course of action to follow" (Berens, 2001). The high "C" person focuses on "knowing what to do and keeping themselves, the group, or the project on track. Their informed and

deliberate decisions are based on analyzing, outlining, conceptualizing or foreseeing what needs to be done" (Berens, 2001).

An outstanding cluster is the SC/ID style combination displaying a theme of "getting the best result possible", and focusing on the process of creating a positive outcome (Berens, 2001). People displaying behavioural pattern structures of "having a course of action to follow" and "getting the best result possible" are linked in terms of their sensitivity to environmental structuredness. They prefer structured work environments with few unexpected changes.

The strength of the high SC style combination implies that a core of the e-learning practitioner group consists of hard-working individuals who apply their specialist skills and knowledge to support or service their students. However, unwillingness to change may influence their interaction with a fast changing e-learning environment (discussed in section 2.6.3.7.1). The high percentage of SC and CS style combinations displayed by these practitioners may be one of the contributing factors to the relatively slow pace of technology adoption at TUT. The concern raised by Nichols and Anderson (2005) that e-learning environments at many institutions are ad hoc (see discussion in section 2.6.4.3), in the sense that a small percentage of e-learning practitioners may fully utilise e-learning applications, whilst the majority of academic staff may lag behind, is also applicable at TUT. The discussion on the application of the different technologies by the e-learning practitioners in section 4.3.2.4 illustrates that only a small percentage of e-learning practitioners utilise a full range of e-learning applications in their practice.

4.3.2.4 Enrichment of personal profiles of e-learning practitioners at TUT

Although the PPA is a work-orientated inventory, the report is only a guide and should never be used in isolation. Information about a person's experience, education, qualifications, competencies and trainability can enrich a person's personal profile especially if the profile is used to assist in selection, appraisal, development or coaching and counselling processes. However, the aim of this study is not to focus on individual profiles but to understand the bigger picture in terms of patterns and structure. Thus enrichment elements were captured firstly from additional self-reported feedback from the practitioners and secondly by identifying and profiling "star performers" among the practitioners. Profiling the star performers yielded very interesting results which will be described in the following paragraphs. Self-reported feedback on their perceptions of their e-learning practice was obtained during face-to-face personal interviews (F2F) with the e-learning practitioners, and from their responses to the question on the characteristics of the e-learning practitioner as posed on the consent form (Char1). These results will be discussed in a following section, and this addresses the fifth research goal:

Research goal 5:
To enrich the PPA of the e-learning practitioners at TUT.

(The fifth research goal inspired two subsidiary questions namely: Who are the 'star performers'? and How did the e-learning practitioners at TUT react to the motivators and demotivators presented in their e-learning practice?)

4.3.2.4.1 Star performers at TUT

'Star performers' may be described as the people whose job performance can be rated as an exemplary performance. To define star performers, colleagues (instructional designers) from the department of Telematic Education were asked for their opinions (VG, 07 July 2005 12:23:56 PM). An email request for participation in the virtual group discussion on star performers was sent out on 7 July 2005. Participants were asked to describe a star performer in the field of e-learning practice at TUT and to identify star performers in their faculties (see Appendix E, Excerpt 4.5 and Appendix D7).

Feedback on these questions listed qualifying criteria for an e-learning practitioner star performer as the following:

- Being in practice for at least 18 months;
- Someone who facilitates in a way that allows learners to achieve outcomes consistently. Defining outcomes lies in the field of Curriculum design, not e-learning;
- Encouraging communication/discussion;
- Using more than two different e-learning applications (see Table 4.3 for selection criteria), and
- A person who is dedicated to performing a task according to his/her abilities and to the benefit of the learners and institution (it may be allocated to a single aspect and not necessarily to a broad scope).

Table 4.3: Selection criteria for star performers

Activity profile for "star performers" at TUT													
Activity	**Behavioural style**												
	DS	**D**	**D**	**DC**	**ID**	**ID**	**IC**	**SC**	**SC**	**SCD**	**CD**	**CSI**	**CSI**
Roles													
Online teaching/ facilitating / e-moderating	x	x	x	x	x	x	x	x	x	x	x	x	x
Instructional design	x				x		x	x			x	x	x
Research		x		x	x						x	x	x
Management		x		x	x						x	x	
Life-long learner/ student	x				x							x	
Trainer													
Administrator													
Applications/ technologies													
WebCT:													
Course material distribution	x	x	x	x	x	x	x	x	x	x	x	x	x
Online Communication	x	x	x	x	x	x	x		x	x	x	x	x
E-testing	x	x	x	x	x			x	x			x	x
Multimedia: - PowerPoint, audio, animations, video clips	x			x	x	x	x			x		x	x
Video conferencing		x			x	x				x		x	
DVD/Video production for tutorials, testing	x				x							x	
Management: student marks, assignments, tests	x	x	x	x	x		x			x	x	x	x
Perception: e-tests for subjects				x	x				x				
Perception: e-tests for selection					x			x					
Training courses	x												
Practice timeframe	**36+**	**36+**	**36+**	**36+**	**36+**	**13-18**	**24-36**	**36+**	**36+**	**24**	**36+**	**36+**	**24-36**

4.3.2.4.1.1 Selection of star performers

Using the indicators as identified by the instructional design team from the department of Telematic Education at TUT (VG), thirteen star performers, excluding the Partners, were identified. Some of the star performers selected were not included in the study because they did not complete a PPA form and thus no profiles were available for these people. Partners were not included in the star performers and were studied as a separate group.

4.3.2.4.1.2 Selection of personal profiles of star performers

The personal profile forms of the identified star performers were selected and the reports on these profiles were retrieved. Each PPA report lists a number of descriptive words that best

describe the personal characteristics of the respondent. Data obtained from the descriptive word lists of the PPA reports were combined in a frequency Table showing the percentage usage of each word to describe the personal characteristics of the star performers at TUT. Appendix D6 tabulates these words. Star performers at TUT were described as being active, direct, independent, mobile, precise, dependable, factual, logical, reflective, reserved and self-starters. Descriptive words that were unique to this group refer to them as being tense, participative, impatient, aloof, self-critical, self-assured, non-trusting, introspective, enforcing and demanding.

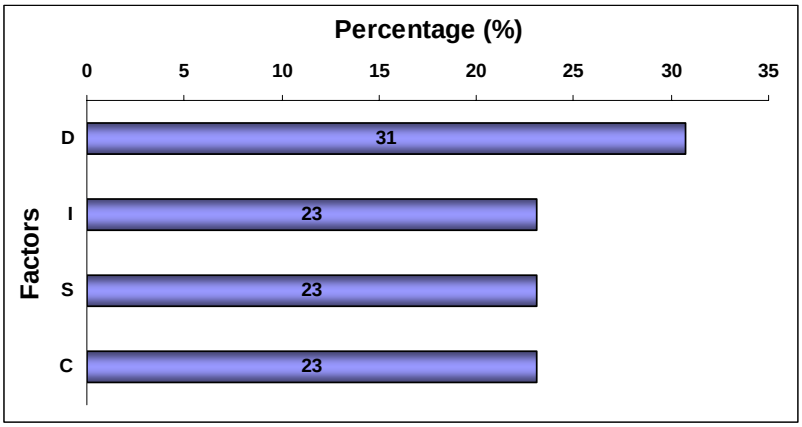
4.3.2.4.1.3 Description of star performers in terms of the DISC language

Apart from the essential personal characteristics identified by the PPA, the feedback reports also reflect the configuration of relationships of the essential elements in terms of a specific pattern or profile for each respondent. Using the high DISC factors in each of the PPA reports, the following typical behaviour patterns emerged from these reports on the star performers at TUT. The DISC factor and style combination profiles and frequency distributions of the star performer group are presented in Table 4.4 and Figure 4.6.

Table 4.4: Profile distribution of the star performers in the TUT e-learning practitioner group

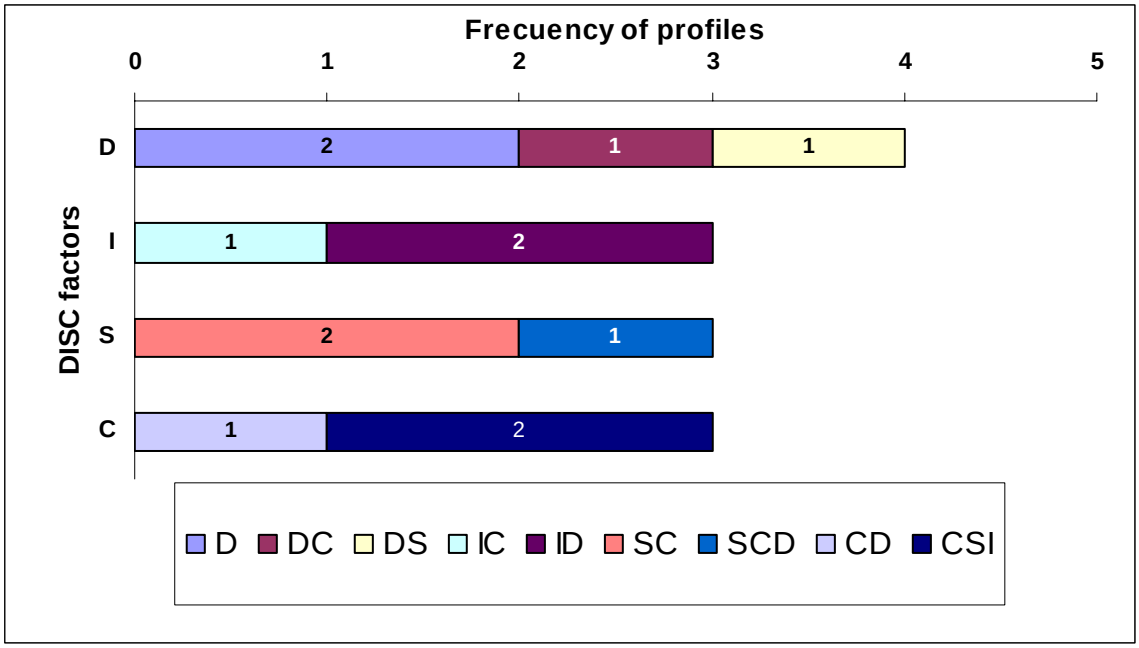
Style combinations	Frequency (n)	(%)	High factors combinations	Frequency (n)	(%)	Low factors combinations	Frequency (n)	(%)
D/CSI	1	10	D	2	25	D	2	22
D/ISC	1	10	DC	1	13	DS	1	11
DS/CI	1	10	DS	1	13	I	1	11
DC/IS	1	10	IC	1	13	ID	2	22
IC/DS	1	10	ID	2	25	IS	2	22
ID/CS	2	20	SC	2	25	ISC	1	11
SC/ID	2	20	SCD	1	13	SC	1	11
SCD/I	1	10	CD	1	13	CS	2	22
CSI/D	2	20	CSI	2	25	CSI	1	11
CD/IS	1	10						

Figure 4.6: DISC factor distribution of star performer group



The DISC factor distribution for the star performers reveals thought-provoking results. As can be seen in Figure 4.6 for this group, the Dominance factor (31%) is the most prominent factor with an even distribution (23%, each) of all the other factors. In comparison with the factor distribution pattern for the Partners in the P@W Programme (see Table 4.28), as well as for the e-learning practitioners at TUT (see Table 4.2), this pattern structure is unique to the star performer group.

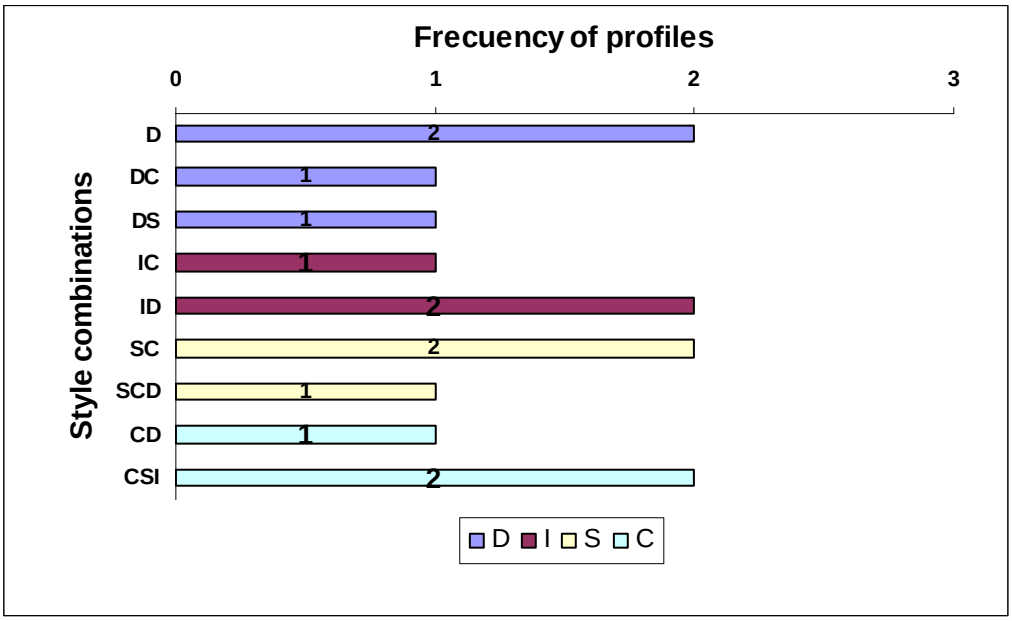
Figure 4.7: Personal profile pattern distribution of the star performer group



Furthermore, the single high Dominance (D) style as well as the high Dominance style (DC/IS) are present only in the group of star performers (see Figure 4.7). This is a significant observation in terms of the implications for e-learning practice. The current contextual situation at TUT varies from unstructured at the one end to structured (P@W Programme) at the other end of the continuum. Thus, by placing these practitioners on this continuum it becomes clear that the high Dominance profile practitioner would flourish in the challenging, fast changing and unstructured environment. The driving force behind the action process comes from active behaviour from within the practitioner in terms of power or character to control the situation. This behaviour style will become clearer in the course of this discussion.

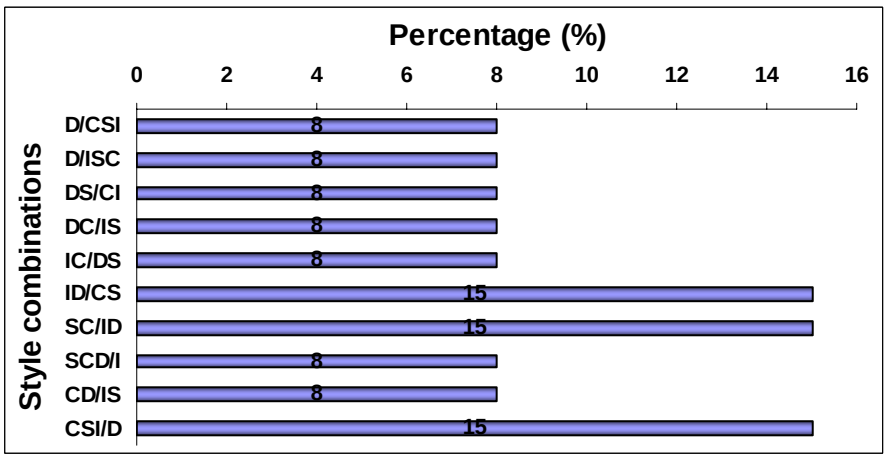
The relevance of these patterns to each DISC factor is illustrated in Figure 4.8. The structure of the DISC factors displays a prominent Dominance factor, whilst all the other factors are distributed evenly with an even distribution of style patterns throughout.

Figure 4.8: Personal profile structure distribution of the star performer group



Another interesting occurrence (Figure 4.9) is the style combination patterns of the star performers. A variety of style combination patterns were present, with small clusters in the ID/CS, SC/ID and CSI/D combinations (see Figure 4.9). The ID/CS combination is also unique to the star performer group. A high cluster of the SC/ID combination was also present on the e-learning practitioner group at TUT but not in the Partners group. The driving force of the SC/ID behaviour style is passive action in response to a pulling force from a friendly structured environment from outside the person. Interventions in the form of personal support and guidance from the department of Telematic Education, seed money for projects and contracted project plans would contribute to structuring the environment for these practitioners. A detailed discussion on the interaction between the different practitioner groups and their work environments will follow in section 4.5.2.

Figure 4.9: Profile of style combination patterns of star performers



A profile of the style combination patterns of star performers was created using a cut-off point of 10 percent. The star performer group showed an even distribution of the “HIGH” style combinations (see Figure 4.10). The profile for the “LOW” factors also revealed an even distribution among all the “LOW” factors (see Figure 4.11).

Figure 4.10: Profile of “HIGH” factors in the combination patterns of star performer group

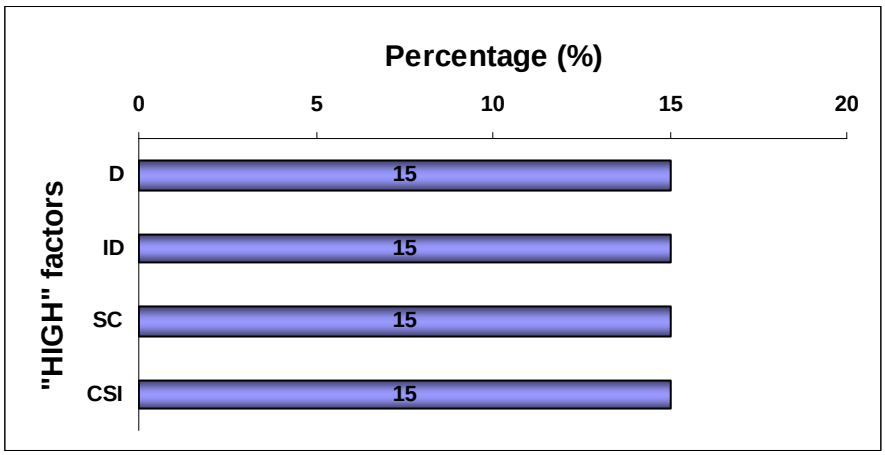
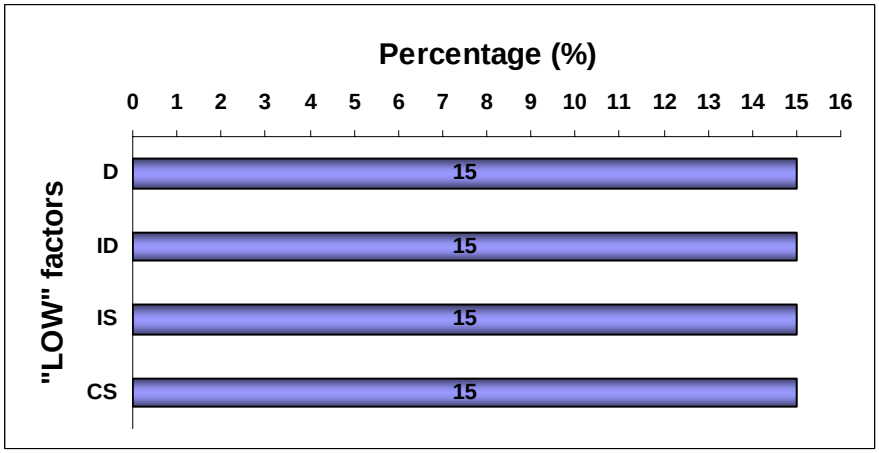


Figure 4.11: Profile of “LOW” factors in combination patterns of star performer group



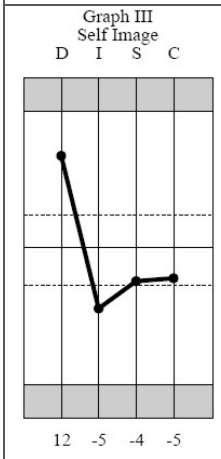
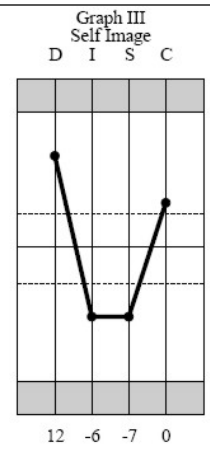
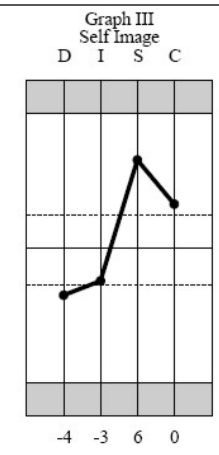
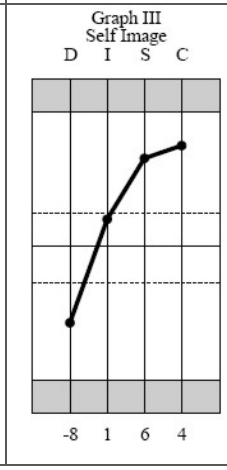
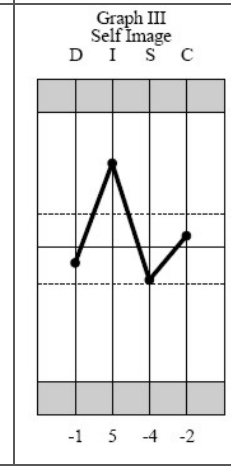
Taking cognisance of the “HIGH” and “LOW” DISC factors is revealing in terms of pattern and structure, but should always be studied in a relational context to ensure holistic profiles. In an attempt to make these profiles explicit in the reality of the work context, snapshots of their “stories” are given in the following paragraphs.

A kaleidoscope of activities characterises the e-learning practice of star performers. Mapping these activities (Table 4.3) to the illustrative profiles (Table 4.5) suggests complex relationships between the practitioner and job practice. For example, some of the people from the Dominance group frequently trained assistants to do some of the administrative tasks so that they could “go

on with the job". A more in-depth discussion of these relationships will be highlighted in section 4.5.2.

Excerpts from relevant personal profiles illustrate some of the behavioural styles of five star performers and are tabulated in Table 4.5.

Table 4.5: Illustration of behavioural styles of some star performers

High D	High DC	High SC	High CSI	High ID
Behavioural style	**Behavioural style**	**Behavioural style**	**Behavioural style**	**Behavioural style**
Striving for results, accepting a challenge as being part of the job, is willing to bypass convention and being a strong individualist, has a high determination to succeed. Has a creative tendency and experiment with possibilities. Self motivators Seeks independence within the structure, challenge and tangible goals against which to measure achievement. Needs room to move, act independently and have freedom from constraints Authority power and security are both important to this self reliant individual.	Is a direct and forceful individual who is driven to achieve, wherever possible, the perfect solution. Is a self-starter and enjoys a variety of tasks which are both challenging and demanding. Self motivators Needs room to operate independently of others once he/she knows what is required of him/her. Seek authority within own area of expertise. Prefers well defined job parameters and will look for laid-down standards of achievement.	Patience, control and deliberation characterise the usual behavioural style of this amiable and easy going person who plans work carefully and operates within proven and well defined parameters. Is a considerate, modest person who relates well to most people. Find available recourses and support. Self motivators Motivated by stability, sincerity and deserved appreciation. Recognition for service and identification with the company are also key motivators.	This logical and systematic person works hard, acts in a highly tactful manner and rarely antagonises others intentionally. Builds up friendships on trust and sincerity, works in an orderly manner, is accurate and likes to get the detail right. Built excellent courses over time period. Self motivators Standard operating procedures, sincerity, limited exposure, security and no sudden or abrupt changes are important self motivators	Is gregarious and very optimistic. A natural leader who uses influence and persuasion to win his/her way. Is a positive person, optimism, enthusiasm and an easygoing attitude are key factors in this person's characteristics. Utilise all possibilities. Self motivators Requires a variety of tasks and people involvement. Needs to be able to influence others in a variety of situations with freedom from routine, detail and administrative work.
Descriptive words Drive, *independence*, individualistic, direct, critical, logical, *energetic*, *self-starter*, authoritative, restless, eager, alert, active, strong willed, self assured.	Descriptive words Direct, perfectionist, reserved, *self-starter*, *energetic*, mobile, rule-orientated, analytical, precise, suspicious, aloof, reflective, logical, asks "what" and "how".	Descriptive words Dependable, non-demonstrative, predictable, patient, persistent, kind, lenient, systematic, precise, cautious, reserved, reflective, factual, hesitant, peaceful, humble, non-demanding.	Descriptive words Systematic, precise, logical, persistent, deliberate, talkative, friendly, confident, cautious, modest and peaceful.	Descriptive words Persuasive, gregarious, participative, positive, assertive, active, mobile, impatient, tense, anxious, *independent*, alert, eager, *self-starter*, asks "who" and "what".
				

The star performers were selected according to specified criteria and they demonstrated excellent job performance; however as can be seen in the descriptions and accompanying graphs of self-image (illustrated in Table 4.5), the profiles of some of the star performers are exactly the opposite of each other. Reasons for these anomalies will become more evident in the discussion on P-J fit in section 4.5.

Subsidiary question 5:

Who are the star performers at TUT?

Based on the description above, the star performers were identified as being predominantly from the Dominance work behavioural style group: a unique grouping for e-learning practitioners at TUT.

4.3.2.4.2 Analysis of self-reported feedback from e-learning practitioners at TUT

Analysis of responses to the question: 'Please tell me how you use e-learning in your environment?' (F2F) was done by using a coding scheme to identify themes, motivators and demotivators in e-learning practice as reported by the practitioners at TUT. The following paragraphs will highlight some of these responses as voiced by the prominent style combinations in each of the different DISC factor groups set against the e-learning practice milieu, and this then addresses the fifth research goal:

Research goal 5:

To enrich the PPA of e-learning practitioners at TUT.

4.3.2.4.2.1 High Dominance group

Variety and acting on challenges and changes encapsulate the typical behavioural style of this group. All four star performers in the high Dominance group experimented with and applied a variety of technologies by taking on different roles their e-learning practice (see Table 4.6 for details). Repetitive, routine tasks might be boring to these rather restless individuals and for that reason three of the four practitioners involved an administrative aid in the implementation process of WebCT courses to handle the administration side of the courses.

Table 4.6: Applications in the e-learning environment by Dominance behavioural styles

Activity	Style			
	DS1	D2	D3	DC4
Roles				
Online teaching/facilitating/e-moderating	X		X	X
Instructional design	X	X	X	X
Research	X	X		X
Management	X		X	X
Life long learner/student	X	X		x
Trainer				
Administrator				
Applications/technologies				
WebCT:				
Course material distribution	X	X	X	X
Online communication	X		X	X
E-Testing	X		X	X
Multimedia: PowerPoint, audio, animations, video clips				X
Management: student marks, assignments, tests	X		X	X
Video Conferencing	X			
DVD/Video production for tutorials, testing		X		X
Perception: e-testing		x		X
Training				
Practice timescale (months)	36+	36+	36+	36+

A number of work-related frustrations and demotivators were mentioned, namely time restraints and difficulty in time management, technical computer problems and the unavailability of technical and software support. Motivators such as job challenges, learning to master new skills and technologies and administrative support were mentioned (see Table 4.7 for details).
The e-learning practitioner's reaction to/interventions for the motivators and demotivators mentioned are important indicators of behavioural style (Entries in Table 4.7 are number coded for reference in Appendix D3).

Table 4.7: Self-reported feedback from high Dominance group

Conversational question asked before participants completed the PPA: "Please tell me how you use e-learning in your environment?"				
Styles	**Feedback reference**	**Category**	**e-Learning practice motivators/demotivators**	**Reactions/interventions from e-learning practitioner**
DS1	6.1	6. Multimode teaching and learning	1. Use WebCT extensively	Accepted the job challenges and kept on developing and improving courses
	8.1	8. Video conferencing	1. Used electronic communication for example video conferencing to enrich the teaching and learning experience for learners. Used the medium to communicate academic work to peers in other locations	Had several video conferencing sessions with peers internationally
	12.1	12. Personal growth	1. Learnt new skills	Personal appointment with ID to learn new skills

Table 4.7: Self-reported feedback from high Dominance group (continued)

Styles	Feedback reference	Category	e-Learning practice motivators/demotivators	Reactions/interventions from e-learning practitioner
	14.2	14. Personal support	2. The TE group are too busy, I would like more support from them	Personal appointment with ID to discuss problems
	17.1	17. Administrative help	1. Trained administrative person to do administrative tasks in WebCT	Trained administrative person to do administrative tasks in WebCT
D2	16.2	16. Skills training	2. Uses e-testing for skills training	Kept on developing and improving new e-tests in spite of numerous difficulties
	12.1	12. Personal growth	1. Learnt new skills	Eager to explore and learn more about new program facilities and new applications
D3	9.1	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
	17.1	17. Administrative help	1 Need help to do the job properly	Trained administrative person to do administrative tasks in WebCT
DC4	6.1, 12.1, 12.2, 12.3	6. Multimode teaching and learning	1. Use WebCT integrated in face-to-face class presentation. Use e-tests as pre and post tests. Make use of digital content, mastery learning, multimedia	Accepted the job challenges and kept on developing and improving courses
		12. Personal growth	1. Learnt new skills	Built capacity
			2. I learnt to use more WebCT tools	Became more and more independent
			3. I learnt new WebCT applications	Became more and more independent

- **High Dominance Influence profile (DI5)**

An interesting exception in the high Dominance group is the high DI profile. Only one profile in the e-learning practitioner group at TUT shows a perfect match with the job profile required by the HJA (see section 4.4 for details), but this individual unfortunately does not currently practice e-learning (see Table 4.8 and Table 4.9 for more detail on the roles played and applications used in practice). Being of a competitive nature, this person prefers situations where freedom of action is possible. This person is decisive and forceful and a self-starter who was one of the first lecturers at TUT to participate in a Telematic Education project. In accordance with their inquisitive, energetic and restless nature, this person may at times take on too many tasks and sometimes does not follow through and finish a job. Although this person shows the perfect fit for the job of e-learning practitioner at TUT, the lack of infrastructure, namely limited computer access for students, has demotivated this person to from continuing as an e-learning practitioner (F2F, 19 May 2005). This individual is motivated by power, authority and an opportunity for advancement and therefore being in a situation where they had no power to

change the environment they decided rather to move away than to face failure. Being a good communicator who influences others (colleagues and students) by force of character, it is important for this person to clearly define targets and goals against which progress can be measured and profitable results achieved, and if the results are endangered rather change direction than deal with failure.

Table 4.8: Applications in the e-learning environment by DI behavioural styles

Activity	Style
	DI5
Roles	
Online teaching/facilitating/e-moderating	
Instructional design	x
Research	
Management	
Life-long learner/student	
Trainer	
Administrator	
Applications/technologies	
WebCT:	
Course material distribution	X
Online Communication	
E-Testing	
Multimedia: PowerPoint, audio, animations, video clips	
Management: student marks, assignments, tests	
Video conferencing	
DVD/Video production for tutorials, testing	X
Perception: e-testing	
Training	
Practice timescale (months)	7-12

Initial enthusiasm and driving force faded as fear of failure demotivated this person from continuing practice. The job-related frustrations listed in Table 4.9 (F2F, 19 May 2005) occurred in 2001 and since then, despite changing for the better, this person has not been motivated to try again.

Table 4.9: Self-reported feedback from DI style combination

Conversational question asked before participants completed the PPA: "Please tell me how you use e-learning in your environment?"				
Styles	**Feedback reference**	**Category**	**e-Learning practice motivators/demotivators at TUT**	**Reaction/interventions from e-learning practitioner**
DI5	1.1, 1.2	1. Lack of infrastructure:	1. Not enough computer labs for number of students	Stopped using WebCT
			2. Not enough computers available for number of students	

To conclude this discussion on the behavioural styles of the high Dominance group of e-learning practitioners at TUT, the participants from this group listed the following **characteristics** as very important for the e-learning practitioner:

Creative, Visionary, Hands-on, Flexible, Fearless, Open-minded, Desire to uplift others, Determined, Persistent, Willing to stand up after something does not work and try again. Not to be controlled by negative non e-learning type. Perseverance, Attention to detail, Must have available time (answers to open-ended question on consent form – Char1, see Appendix D4).

4.3.2.4.2.2 High Influence group

These individuals can be described as: people orientated; natural leaders who use influence and persuasion to lead others and follow an emphatic approach towards others. Three persons, two with high Influence and High Dominance (ID) and one with high Influence, high Compliance (IC) style combinations from this group were identified as star performers. Small style combination clusters were reported in three groups, namely the high Influence, high Compliance, high Dominance (ICD) group, the high Influence high Compliance (IC) group and the high Influence, high Dominance (ID) group. The latter group is a significant combination because only star performers are reflected by this combination. Their reaction to motivators and demotivators in their e-learning practice will be discussed very briefly below.

- **High Influence Dominance profiles**

This profile indicates a gregarious and positive individual. Optimism, enthusiasm and an easygoing attitude are key factors in this person's characteristics. A variety of tasks and people involvement are essential for this person. As can be seen in Table 4.10, one of the star performers (ID1) played every role possible and used all available applications in the e-learning practice with enthusiasm (see tables 4.10 and 4.11 for details). Because of a tendency to be impatient for results and to look for ways to make things happen quickly, this person is at the forefront of the Telematic Education drive at TUT. As an early adopter and self-starter this person was one of the first participants in Telematic Education projects at TUT. The tendency to be unconventional and willing experiment and "play" with technologies, has led to the development of excellent, dynamic and well-rounded courses.

Table 4.10: Applications in the e-learning environment by ID behavioural styles

Activity	Styles	
	ID1	ID2
Roles		
Online teaching/facilitating/e-moderating	X	X
Instructional design	X	
Research	X	
Management	X	
Life-long learner/student	X	
Trainer		
Administrator		
Applications/technologies		
WebCT:		
Course material distribution	X	X
Online communication	X	X
E-Testing	X	
Multimedia: PowerPoint, audio, animations, video clips	X	X
Management: student marks, assignments, tests	X	
Video Conferencing	X	X
DVD/Video production for tutorials, testing	X	
Perception: e-testing	X	
Training		
Practice timeframe (months)	36+	13-18

A few work-related frustrations were mentioned (F2F, 27 May 2005), namely unreliability of Internet access and sometimes a baffling surprise element in unconventional circumstances. As this person enjoys challenges, these surprises are more often seen as opportunities for advancements than frustrations (see Table 4.11 for details).

Table 4.11: Self-reported feedback from Influence Dominance group

Conversational question asked before participants completed the PPA: "Please tell me how you use e-learning in your environment?"				
Styles	**Feedback reference**	**Category**	**e-Learning practice motivators/demotivators at TUT**	**Reaction/interventions from e-learning practitioner**
ID1	19.1	19. Innovations	1. Unexpected surprises	Accepted the job challenges and kept on developing and improving courses
ID2	10.2 -10.4	10. Personal feelings	2. I am disillusioned with WebCT	Wanted to stop using WebCT
			3. I don't want to use WebCT any more, too much hassles	
			4. I can not guarantee quality service to the students, so I am not going to use WebCT in the next semester	

The other star performer (ID2) in this group had a more modest approach to the available roles and technologies and also became demotivated and disillusioned with WebCT (see tables 4.10 and 4.11):

> I cannot guarantee quality service to the students, so I am not going to use WebCT in the next semester (F2F, 10 June 2005).

For this practitioner, who is primarily interested in people, their problems and their activities, using influence of character to motivate people to act, feelings that he/she as person cannot guarantee “quality service” might provoke fears of rejection and lack of social recognition by colleagues and students. These fears may have contributed to this person’s decision to stop using WebCT as an e-learning application.

- **High Influence, Compliance and Dominance profiles (ICD)**

A small cluster of profiles were reported in this style combination (see Table 4.12 for details). None of these were associated with star performers. Commonalities between the profiles of these style combinations and the profiles of the IC combination in terms of the explanation of the self-image existed. These persons are leaders by nature, who use good communication skills and their influence and persuasion coupled with logic and a systematic approach. Being attentive to detail these persons will rely on facts and have an innate desire for things to be correct and may have a tendency to vacillate in decision making until there is absolute certainty that the decision is the correct one. One of the key motivators for these persons is to have situations which allow them to have the power, authority and recognition for the work that they are doing. To do things in a systematic, logical manner and as such have security and clear objectives are also important motivators. Uncertainties about the availability of computer laboratories and enough computers may be uncomfortable situations for these persons. Seeing that these persons are motivated by personal attention this might be an approach to follow in individualised staff development plans for these practitioners.

One star performer (IC3) was identified in the IC style combination group. This profile differs from the ICD styles in terms of a lesser need for power. This person is mainly motivated by popularity, favourable working conditions, standard operating procedures, personal attention and public recognition, challenging situations and the opportunity to achieve good results.

Table 4.12: Applications in the e-learning environment by ICD behavioural styles

Activity	Style				
	ICD5	ICD6	ICD7	ICD8	IC3
Roles					
Online teaching/facilitating/e-moderating		X	X	X	X
Instructional design	X				X
Research					
Management					
Life-long learner/student					
Trainer					
Administrator					
Applications/technologies					
WebCT:					
Course material distribution		X	X		X
Online communication					X
E-testing					
Multimedia: PowerPoint, audio, animations, video clips		X			X
Management: student marks, assignments, tests				X	X
Video conferencing	X				
DVD/video production for tutorials, testing					
Perception: e-testing					
Training					
Practice timescale (months)	36+	36+	12	7-12	24-36

Motivators and demotivators mentioned by these groups are listed in Table 4.13.

Table 4.13: Self-reported feedback from ICD group

Conversational question asked before participants completed the PPA: "Please tell me how you use e-learning in your environment?"				
Styles	**Feedback reference**	**Category**	**e-Learning practice motivators/demotivators at TUT**	**Reaction/interventions from e-learning practitioner**
ICD5	8.1	8. Video conferencing	1. Used electronic communication for example video conferencing to enrich the teaching and learning experience for learners. Used the medium to communicate academic work to peers in other locations	This was a highly successful application and will be repeated in the near future
ICD6	1.1, 1.2 , 7.1	1. Lack of infrastructure:	1. Not enough computer labs for number of students	Stopped using WebCT in 2001 and since then this person became re-interested only recently
			2. Not enough computers available for number of students	Due to improvements in the infrastructure, e-learning activities may be taken up again
	7.1	7. Practical subject	1. Used visual material to stimulate process and procedural thinking skills	Successful application of multimedia. Will repeat in the future
IC3	6.1	6. Multimode teaching and learning	1. Use WebCT integrated in face-to-face class presentations	Used communication tools to provide feedback and to identify problems

- **High Influence Steadiness profiles**

Two persons displayed high Influence Steadiness (IS) behavioural styles but the one profile also displayed a high Compliance (C) style (see Table 4.14 for details).. These profiles indicated individuals who are outgoing with a genuine interest in others, work well as team members and prefer secure structured working environments which also allow for a certain amount of independent input. Owing to an assertive and enthusiastic manner, together with self-confidence, this person is able to convince others to readily accept his/her ideas and to impress with warmth, sympathy and understanding. These characteristics combined with a work ethic as very hard workers who are thorough, dependable and reliable may explain why one of these persons (IS1) are not keen to keep on practising in an e-learning environment. This person started very enthusiastically, working long hours to develop online courses, but became disillusioned when very few of the students actually visited the WebCT course or reacted to all the hard work (F2F, 7 June 2005). This person, who is likely to give students a second chance, failed to understand the dynamics of online communication and the absolute necessity of driving an online course. One of the key motivators for this person is to feel wanted and to have a sense of belonging and involvement. Two other important motivators are recognition and appreciation for work well done. Clearly these motivators were not present in this e-learning environment. This might be the result of misunderstanding the role of the e-moderator and definitely has implications for future staff training and development in this regard.

Table 4.14: Applications in the e-learning environment by the IS behavioural style

Activity	Style	
	IS1	**ISC2**
Roles		
Online teaching/facilitating/e-moderating	X	X
Instructional design	X	X
Research		
Management		
Life-long learner/student		
Trainer		
Administrator		
Applications/technologies		
WebCT:		
Course material distribution	X	
Online communication	X	
E-Testing		X
Multimedia: PowerPoint, audio, animations, video clips		
Management: student marks, assignments, tests		
Video Conferencing		
DVD/video production for tutorials, testing		
Perception: e-testing		
Training		
Practice timescale		

To conclude this discussion on the behavioural styles of the **high Influence group** of e-learning practitioners at TUT, the participants from this group listed the following characteristics as very important for the e-learning practitioner:

Three persons indicated “Innovativeness” as very important; two mentioned creativity and others listed were: ‘Love of teaching’; ‘Wanting to make life easier and less work for better results’, Oordeelkundigheid [Discretion] Enthusiasm ‘Passion to improve skills’, ‘Iemand wat 'n uitdaging raaksien in iets wat hy/sy niks of bitter min van weet en dit ontwikkel’ [Someone who sees a challenge in something that he/she knows very little about and develops it.] (answers to open-ended question on consent form – Char1, see Appendix D4).

4.3.2.4.2.3 High Steadiness group

Ten participants’ profiles related to the Steadiness factor. Nine of these displayed high Steadiness and high Compliance combinations (see Table 4.15 for details). A cluster of six profiles was reported for a high SC combination of which five displayed a SC/ID style combination. Individuals with high Steadiness Compliance (SC) behavioural style combinations can be described as thorough, dependable, hard-working, persistent and creating a stable environment. They will need time to assess tasks and problems thoroughly before acting, and will sometimes resist change. They are concerned about relationships, they are good team players, are sympathetic, friendly, good listeners and “finisher completers”. Two of these individuals (SD1 and SC2) had practised in the e-learning domain for more than three years and may be classified as “veterans”. They do not really qualify as star performers because of their one-sided approach to the e-learning practice, but being thorough and persistent by nature they have succeeded and have stayed involved in the field of electronic testing in spite of numerous obstacles.

Table 4.15: Applications in the e-learning environment by SD behavioural styles

Activity	Styles	
	SD1	SC2
Roles		
Online teaching/facilitating/e-moderating		
Instructional design	X	
Research		
Management	X	X
Life-long learner/student		
Trainer		
Administrator		
Applications/technologies		
WebCT:		
Course material distribution		
Online communication		
E-Testing	X	
Multimedia: PowerPoint, audio, animations, video clips		
Management: student marks, assignments, tests	X	
Video conferencing		
DVD/video production for tutorials, testing		
Perception: e-testing	X	X
Training courses	X	
Practice timescale (months)	72+	48+

It is clear that motivators such as security and support, appreciation, hard work, challenge, and recognition for long service enabled these persons to perfect their practice over a time period of more than four years (see Table 4.16).

Table 4.16: Self-reported feedback from SD group

Conversational question asked before participants completed the PPA: "Please tell me how you use e-learning in your environment?"				
Styles	**Feedback reference**	**Category**	**e-Learning practice motivators/demotivators at TUT**	**Reaction/interventions from e-learning practitioner**
SD1	16.1	16. Skills training	1. Use WebCT for skills training and assessment	Accepted the job challenges and kept on developing and improving electronic tests

- **High Steadiness Compliance profiles (SC)**

Although the Compliance factor is the most prominent factor displayed in the behavioural styles of the e-learning practitioners at TUT, the highest cluster of style combinations were reported as combinations of high Steadiness and high Compliance styles (see Table 4.17 for details). These persons are by nature thorough, persistent and patient and may have a strong leaning towards perfectionism. They are good listeners but not particularly demonstrative and hence may be considered by colleagues to be rather cool and aloof. They are rule orientated and may be more interested in things, planning and organisational problems than in people. Being motivated by structure, sincerity, deserved appreciation and a well-defined task specification, problems with organisational infrastructure, slow Internet connections, bandwidth problems and unreliable Internet access are devastating to these individuals. They are not prepared to compromise and adhere to high standards under all circumstances.

Three star performers were identified in this group, namely two from the high SC (SC4, SC6) and one from the high SCD (SCD2) style combinations. They work closely with their supportive instructional designers from the department of Telematic Education and are content with things as they are, striving to maintain the status quo and perform work in a consistent and predictable manner. One of them found infrastructural deficiencies too stressful to manage and decided not to continue with the use of e-testing. Although this person received support in this regard, the insecure situation was not acceptable. One of the main characteristics of this behavioural style is to behave passively in a favourable situation and to react to cues from the environment rather than to be proactive in a self-starting manner.

See Appendix D9_SC for a short generic report, generated from the resources of Thomas International, which highlights the important characteristics of this profile cluster. To protect the identities of the e-learning practitioners, only an exemplary report is used which is not specific

for any given participant. The accompanying graph is an illustration of the profile and is not mapped according to the specific profile described.

Table4.17 contextualises the profile of the high SC style combination in the e-learning practice at TUT.

Table 4.17: Applications in the e-learning environment by SC behavioural styles

Activity	Styles							
	SC11	**SCD3**	**SC4**	**SC5**	**SC6**	**SC7**	**SCD1**	**SCD2**
Roles								
Online teaching/facilitating/e-moderating	X	X	X		X		X	X
Instructional design	X	X			X			
Research					X			
Management				x	X		x	x
Life-long learner/student								
Trainer						X		
Administrator								
Applications/technologies								
WebCT:								
Course material distribution	X	X	X		X		X	X
Online communication	X	X	X		X			X
E-testing		X	X		X			
Multimedia: PowerPoint, audio, animations, video clips							X	X
Management: student marks, assignments, tests	X			X				X
Video conferencing								X
DVD/video production for tutorials, testing								
Perception: e-testing			X		X			
Training						X		
Practice timescale	36+	24-36	36+	13-18	36+	24	13-18	24

One of the main characteristics of this behavioural style is to behave passively in a favourable situation and to react to cues from the environment rather than to be proactive in a self-starting manner. Reactions and interventions from practitioners to job motivators and demotivators are listed in Table 4.18.

Table 4.18: Self-reported feedback from SC group

Conversational question asked before participants completed the PPA: "Please tell me how you use e-learning in your environment?"				
Styles	**Feedback reference**	**Category**	**e-Learning practice motivators/demotivators at TUT**	**Reaction/interventions from e-learning practitioner**
SC2	11.1,11.2	11. Computer related problems	1. Technical problems	Support from TE
			2. Software problems	Support from TE
SC4, SC7	1.1, 2.1	1. Lack of infrastructure:	1. Not enough computer labs for number of students	Does not present multimode classes anymore
		2. Accessibility	1. Very slow internet connections	Stopped using electronic tests
			2. Unreliable internet connections	Stopped using electronic tests
SC6	21.1	21. Assessment	1. Use e-testing for selection of students	Continue successful application of technology in secure environment

To conclude this discussion on the behavioural styles of the high Steadiness group of e-learning practitioners at TUT, the participants from this group listed the following characteristics as very important for the e-learning practitioner:

> Enthusiasm, patience, original, clarity of thought, dedication (answers to open-ended question on consent form – Char1, see Appendix D4).

A number of participants did not comment on important characteristics of e-learning practitioners.

4.3.2.4.2.4 High Compliance group

The highest distribution (18) of behavioural profiles related to the Compliance factor. Style clusters occurred in the high CS, CD and CSI combinations. These individuals may be described as cautious and conservative, slow to make decisions until all available information has been checked. They are systematic thinkers and workers who are at ease with systems, processes, procedures and predictable and consistent outcomes. They display passive behaviour in antagonistic situations and comply with high work standards to avoid trouble or error.

Four of these individuals (C3, CD5, CS7 and CSI12) had practised in the e-learning domain for more than three years and can be classified as "veterans". Two of these practitioners were additionally selected as star performers but the other two did not qualify because of their one-sided approach to e-learning practice. Being systematic, precise and accurate by nature,

however, they made a valuable contribution to the field of electronic testing and as administrative assistant handling all non-subject related aspects of a WebCT course.

As can be seen in Table 4.19 below, these individuals (C1 and C3) prefer to specialise in one application area, namely skills training, with a main function of applying specialised skills to ensure the maintenance of standards and quality.

Table 4.19: Applications in the e-learning environment by C behavioural styles

Activity	Style	
	C1	C3
Roles		
Online teaching/facilitating/e-moderating		
Instructional design		
Research		
Management		
Life long learner/student		
Trainer	X	X
Administrator		X
Applications/technologies		
WebCT:		
Course material distribution	X	
Online Communication		
E-testing		
Multimedia: PowerPoint, audio, animations, video clips		
Management: student marks, assignments, tests		
Video Conferencing		
DVD/video production for tutorials, testing		
Perception: e-testing		
Training courses	X	X
Practice timescale	7-12	36+

Job demotivators are listed in Table 4.20.

Table 4.20: Self-reported feedback from C group

Conversational question asked before participants completed the PPA: "Please tell me how you use e-learning in your environment?"				
Styles	**Feedback reference**	**Category**	**e-Learning practice motivators/demotivators at TUT**	**Reaction/interventions from e-learning practitioner**
C3	14.1,14.2	14. Personal support	1. I need more personal support from the TE team	Personal contact / support sessions with Instructional designer
			2. The TE group are too busy, I would like more support from them	Alternative support resources utilised

- **High Compliance Dominance profiles**

Another cluster (4) of styles was displayed in the high Compliance Dominance (CD) group. One star performer (CD7) was selected in the CD style combination. These profiles indicate individuals who apply logic and analysis to most situations and are active, alert and unlikely to antagonise others knowingly. The high D factor adds the dimension of assertiveness, and a need for continual challenges. Authority should be vested in the person's area of expertise. Key

motivators are accomplishments, results and the need to know “why”, reassurance and an environment free of sudden changes.

These characteristics combined with being a hard worker, self-starter, results orientated and an achiever may explain why one of the individuals (CD6) is not currently practising as an e-learning practitioner. This person is naturally driving and forceful but emphasises these characteristics only when the pressure is really on. This suggests therefore that results and authority become more important to this person. As indicated in tables 4.21 and 4.22, this person started off very enthusiastically with creative course development, but became disillusioned when very few of the students actually visited the WebCT course or reacted to all his hard work. This person decided to stop using WebCT for course presentations.

The other two persons used WebCT as a vehicle for course material distribution and did not proceed to a higher level of active online communication and e-tivities for students.

These are all pointers to the crucial importance of specialised training in online communication and interaction for practitioners as well as students. Although the department of Telematic Education offers services, support and training to e-learning practitioners at TUT, it seems that especially practitioners in the high Steadiness and high Compliance factor groups experience a greater need for individualised structured support and training. Through the P@W Programme most of these needs may be addressed.

Table 4.21: Applications in the e-learning environment by the CD behavioural style

Activity	Styles			
	CD4	CD5	CD6	CD7
Roles				
Online teaching/facilitating/e-moderating			X	X
Instructional design		X	X	X
Research				X
Management				X
Life-long learner/student				
Trainer	X			
Administrator				
Applications/technologies				
WebCT:				
Course material distribution	X	x	X	Xx
Online communication				X
E-Testing				
Multimedia: PowerPoint, audio, animations, video clips				
Management: student marks, assignments, tests				X
Video conferencing				
DVD/video production for tutorials, testing				
Perception: e-testing				
Training courses	X			X
Practice timescale	7-12	7-12	1-6	36+

In the face-to-face situation “too much to do in too little time” was mentioned as a reason for the lack of activity on WebCT. The ’stress graph’ for this person indicates that this person loses drive under pressure in situations, becoming less direct and demanding and more accommodating. This could undoubtedly lead to frustrations and a fall off in work performance (see Table 4.22 for details).

Table 4.22: Self-reported feedback from CD group

Conversational question asked before participants completed the PPA: “Please tell me how you use e-learning in your environment?”				
Styles	**Feedback reference**	**Category**	**e-Learning practice motivators/demotivators at TUT**	**Reaction/interventions from e-learning practitioner**
CD6	3.1	3. Static courses	1 Little student participation. 2. Low level online communication	Need for staff training
CD4	16.1	16. Skills training	1. Use WebCT for skills training	Update WebCT course regularly
CD5	9.1	9. Time constrains	1. Too much to do in too little time	Diminish pressure on person, provide extra support from TE

- **High Compliance Steadiness profiles**

Corresponding with the highest style frequency (six) in the Steadiness factor (see Table 4.17), the high CS style combination showed a high frequency in the Compliance factor. These persons are by nature precise, sincere and rarely antagonise others intentionally. They are persistent, hard-working individuals who investigate facts and may follow a perfectionist approach where systems, procedures, policies and rules are concerned. They prefer a structured working environment where logic and accuracy are paramount. Two of these practitioners had been engaged in e-learning for more than thee years, one (CS9) is a steady user of WebCT and the other is a self-starter who uses electronic testing intensively. Neither of them can be described as a star performer because of the limited scope of practice (see Table 4.23 for details).

Table 4.23: Applications in the e-learning environment by the CS behavioural style

Activity	Styles			
	CS7	CS8	CS9	CS10
Roles				
Online teaching/facilitating/e-moderating		X	X	X
Instructional design		X		
Research				
Management	X			
Life-long learner/student				
Trainer				
Administrator				
Applications/technologies				
WebCT:				
Course material distribution		X	X	X
Online Communication		X	X	X
E-testing				
Multimedia: PowerPoint, audio, animations, video clips				
Management: student marks, assignments, tests		X		
Video conferencing				
DVD/video production for tutorials, testing				
Perception: e-testing	X			
Training courses				
Practice timescale				

Job motivators and demotivators are listed in Table 4.24.

Table 4.24: Self-reported feedback from CS group

Conversational question asked before participants completed the PPA: "Please tell me how you use e-learning in your environment?"				
Styles	**Feedback reference**	**Category**	**e-Learning practice motivators/demotivators at TUT**	**Reaction/interventions from e-learning practitioner**
CS7	1.4	1. Lack of infrastructure	3. Computer labs need equipment	Utilised ad hoc funds
CS8	9.1, 9.2	9. Time constrains	1. Too much to do in too little time	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 courses
CS10	12.1, 12.2, 12.3	12. Personal growth	1. Learnt new skills	Self-starter who took responsibility for own learning
			2. I learnt to use more WebCT tools	Did WebCT training
			3. I learnt new WebCT applications	Did WebCT training
CS9, CS10	14.1	14. Personal support	1. I need more personal support from the TE team	Needs help with instructional design aspects of WebCT courses

- **High Compliance, Steadiness Influence profiles**

The thorough, accurate and precise nature of the high CS style combination will be complimented by friendly, amiable and talkative behavioural styles as characteristics of the high Influence factor in these profiles. These persons need to be liked and are driven to avoid trouble and antagonism. They prefer the status quo, are security conscious and like to know what is required and why. Although the two persons (CSI11 and CSI12) do not like sudden or abrupt changes, they were selected as star performers having practised for more than two years and utilising a variety of possible roles and applications in the e-learning teaching and learning environment (see Table 4.25 for more details). Supported by Telematic Education and by following a systematic and persistent approach over the years, these persons have developed as star performers.

Table 4.25: Applications in the e-learning environment by the CSI behavioural style

Activity	Styles		
	CSI11	CSI12	CSI13
Roles			
Online teaching/facilitating/e-moderating	X	X	x
Instructional design	X	X	
Research	X	X	
Management	X	X	
Life-long learner/student	X	X	
Trainer			
Administrator			
Applications/technologies			
WebCT:			
Course material distribution	X	X	x
Online communication	X	X	
E-testing	X	X	
Multimedia: PowerPoint, audio, animations, video clips	X	X	x
Management: student marks, assignments, tests	X	X	
Video conferencing			
DVD/video production for tutorials, testing			
Perception: e-testing			
Training courses			
Practice timescale	24-36	36+	1-6

During face-to-face communication, job-related frustrations and motivators were mentioned and are listed in Table 4.26 (F2F).

Table 4.26: Self-reported feedback from CSI group

Conversational question asked before participants completed the PPA: "Please tell me how you use e-learning in your environment?"				
Styles	**Feedback reference**	**Category**	**e-Learning practice motivators/demotivators at TUT**	**Reaction/interventions from e-learning practitioner**
CSI12	1.3	1. Lack of infrastructure	3. Computer labs need equipment for class presentations	Utilised additional resources
	9.1, 9.2	6. Multimode teaching and learning	1. Use WebCT integrated in face-to-face class presentation. Use electronic testing extensively	Utilised available resources

To conclude this discussion on the behavioural styles of the high Compliance group of e-learning practitioners at TUT, the participants from this group listed the following characteristics as very important for the e-learning practitioner:

> Open-mindedness; Creativity (2); Disciplined; As admin assistant I feel that you should have outstanding organisational skills. Patience is also required; Planner; Time manager; Ondernemend, [Enterprising] Doelgerig, [Purposeful]; Volhardend, [Persistent]; Geduldig, [Patient]; A person without a family-life who to work is his/her life; Patience, Accommodating, Organised; Persistence; Self-discipline, Must enjoy doing it and be excited about new technologies. His excitement must grow into his students, He must also participate in further reading and research regarding e-Learning (answers to open-ended question on consent form - Char1, see Appendix D4).

4.3.2.5 Analysis of questionnaires

Analysis of the responses to the open-ended question "In your opinion, what are the outstanding **personal attributes (characteristics)** of an e-learning practitioner?" put to the e-learning practitioners as well as the Partners resulted in a list of descriptive phrases. These phrases were further analysed and colour coded according to their relevance to the different DISC factors (see Table 4.27).

The most important characteristics of the e-learning practitioner as perceived by the practitioners from TUT were creativity and innovativeness, patience and persistence and enthusiasm:

> Persistent, willing to stand up after something does not work and try again. Not to be controlled by negative non-e-learning type (D2, Char1, 1 June 2005).

The practitioner should be organised, punctual, disciplined, and able to manage time. Effective communication, regular feedback to students, and a love for teaching are important characteristics of the 'online teacher':

> Effective communication and language to provide feedback. Patience and listening skills in order to know what the real problems are (IC9, Char1, I June 2005).

> Love of teaching; Innovativeness; Wanting to make life easier and less work for better results (ID1, Char1, 27 May 2005).

Dedication and hard work, working smarter, embracing new technologies, and accepting the challenges are some of the indispensable characteristics mentioned:

> Must enjoy doing it and be excited about new technologies. His excitement must grow into his students. He must also participate in further reading and research regarding e-learning (CSI12, Char1, 23 May 2005).

Putting these words into DISC language revealed a high cluster in the Dominance factor and another small cluster in the Steadiness factor. A variety of characteristics were identified in the Compliance factor, followed by the Influence factor (see Table 4.27 for details). These characteristics describe a person who is both creative and results orientated, concerned with quality and standards. This person is an organised self-starter with an open mind and a desire to get things done quickly and accurately.

Table 4.27: Descriptive words from e-learning practitioners from TUT group

Analysis of words describing the characteristics of the e-learning practitioner as perceived by the TUT group														
Descriptive word	**Fre-quency**	**Factor**	**Descriptive word**	**Fre-quency**	**Factor**	**Descriptive word**	**Fre-quency**	**Factor**	**Descriptive word**	**Fre-quency**	**Factor**	**Descriptive word**	**Fre-quency**	**Factor**
Organised	3	High C	Creative	7	High D	Enthusiasm	3	High I	Patience	7	High S	Perseverance	1	Low C
Time manager	3	High C	Innovative / New ideas	4	High D	Communication	2	High I	Persistent	3	High S	Independent	1	Low C
Knowledge	2	High C	Working smarter	2	High D	Teacher	2	High I	Dedicated	2	High S			
Skills	2	High C	Accepting challenge	2	High D	Supportive	2	High I	Hard working	2	High S			
Punctual /Disciplined	2	High C	Interested	1	High D				Listening skills	1	High S			
Open-minded	2	High C	Fearless	1	High D									
Adaptability	1	High C	Goal oriented / Motivated	1	High D									
Technology	1	High C												
Flexible	1	High C												
Diplomatic	1	High C												
Clarity of thought	1	High C												
Detail	1	High C												

Subsidiary question 6:

How did the e-learning practitioners at TUT react to the motivators and demotivators presented by their e-learning practice?

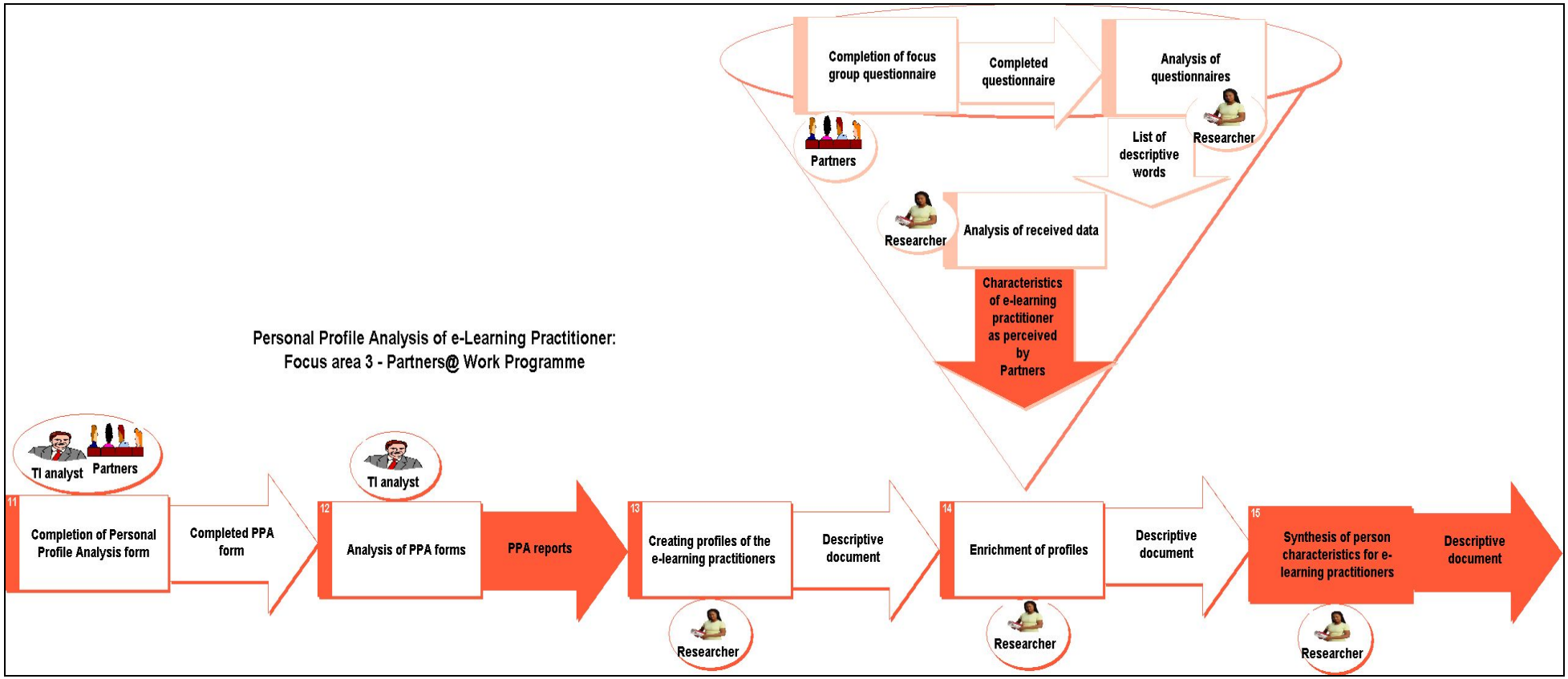
Based on the above discussion, the e-learning practitioners perceived the most important characteristics of e-learning practitioners as creativity and innovativeness, patience and persistence and enthusiasm. They view their e-learning practice as challenging; presenting both motivational and demotivational cues for a variety of reactions. Their reactions to these challenges illustrated some of their work behavioural styles.

4.3.3 Personal Profile Analysis for Partners in the P@W Programme

Data capturing at the Centre for Continuing Professional Development at TUT.

The third focus area presents findings on the characteristics of Partners in the P@W Programme domain. Figure 4.12 illustrates the process that was followed to collect and analyse the relevant data. Methods and procedures applied in this regard were discussed in section 3.6.1 and the following sections report on subsequent findings.

Figure 4.12: Personal Profile Analysis of the Partners in the Partners@Work Programme at TUT



4.3.3.1 Completion of the PPA form

A total of 14 Partners completed the PPA form on 3 August 2004 during a session facilitated by the analyst from Thomas International at the Centre for Continuing Professional Development at TUT. During this session the aim of the PPA was explained and participation requested. On completion, the forms were collected by the analyst and the data was analysed and reports printed on 24 August 2004. Thirteen of fourteen forms were valid and personal feedback by the analyst was given on 26 October 2004. For the purpose of this study only twelve of the forms were used as one person in the group had commitments that changed his/her position in the Partner group and the other form was invalid.

4.3.3.2 Analysis of PPA forms

A computer-generated report for each individually completed PPA form provides the person with a printed feedback report and a set of three graphs reporting on self-image, behaviour under stressful work conditions and work mask (see Appendix D9_SC).

According to the Thomas International resources, the self-image is not necessarily how others see the participant. However in this study, the researcher was astounded by the accuracy of the PPA to match the actual behaviour patterns displayed by the Partners, as observed by the researcher and the other group members.

Discussion on profile details follows in the paragraphs below and addresses the sixth research goal:

Research goal 7 To identify work behavioural characteristics of the Partners in the P@W Programme.

4.3.3.3 Creating a profile of the Partners

Each PPA report lists a number of descriptive words which best describe the personal characteristics of the respondent. Data obtained from the descriptive word lists from the PPA reports were combined in a frequency table showing the percentage usage of each word to describe the personal characteristics of the Partners. Appendix D4 tabulates these words. Characteristics of the Partners group are summarised as them being independent, accurate, logical, precise, sceptical, thorough, adaptable, sincere, amiable, direct, firm, patient, probing and reflective.

Descriptive words which are unique to this group refer to them as being calm, decisive, fair, firm, investigative, non-antagonistic, objective, opinionated, self-confident, suspicious, sympathetic, verbally influential and versatile.

Subsidiary question 7:

What are the characteristics of the Partners in the P@W Programme?

Based on the description above the main work behavioural characteristics of the Partners were identified as independent, accurate, logical, precise, sceptical, thorough, adaptable, sincere, amiable, direct, firm, patient, probing and reflective.

Apart from the essential personal characteristics identified by the Personal Profile Analysis, the feedback reports also reflect the configuration of relationships of the essential elements in terms of a specific pattern or profile for each respondent. Using the high DISC factors in each of the PPA reports, the following typical behaviour patterns emerged from these reports from the Partners at TUT:

- In the Dominance factor two styles namely DI and DS were reported.
- The Influence factor had the second largest frequency of styles (3), namely ID (2) and IS.
- The Steadiness factor had the same style frequency as the Dominance factor namely S and SD.
- The most prominent factor was the Compliance factor with a cluster of styles around the CS combination. The style distribution was C, CS (3), and CSD.

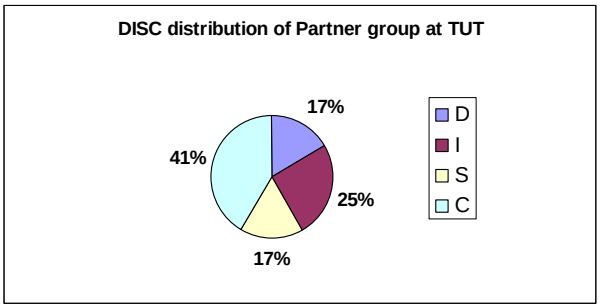
A summary of the personal profile DISC factor and style distribution is listed in Table 4.28 and addresses the eight research goal:

Research goal 8:

To identify the personal profiles of the Partners in the P@W Programme.

Table 4.28: Personal profile DISC factor and style distribution of the Partner group

Personal Profile DISC factor and style distribution of the Partner group				
Styles	**Frequency of Factors**			
	D	**I**	**S**	**C**
DI	1 (8.3%)			
DS	1 (8.3%)			
ID		2 (16.7%)		
IS		1 (8.3%)		
S			1 (8.3%)	
SD			1 (8.3%)	
C				1 (8.3%)
CS				3 (25%)
CSD				1 (8.3%)
Total	**2 (16.6%)**	**3 (25%)**	**2 (16.6%)**	**5 (41.6%)**



4.3.3.3.1 Report on PPA of the Partners@Work group – results from the PPA reports

Concise reports on the results for the different behavioural styles from the Partners are cited below to highlight some characteristics and patterns of these profiles. Generic reports and graphs, generated by Thomas International, were used to protect the identity of the Partners. Exemplary reports and graphs for profiles in the different groups were presented. To enhance anonymity the graphs and reports should be read separately as illustrations of the relevant style and the graphs do not necessarily fit the report description exactly.

The preceding discussions on star performers and the perceptions of the e-learning practitioners regarding the characteristics of the e-learning practitioner necessitate further focus on the Dominance factor in the Partner group. Two other clusters of style combinations, namely ID and CS, will also be investigated and described.

4.3.3.3.1.1 High Dominance group

Two Partners' profiles related to the Dominance factor, but each has distinct combinations, namely, the first high Dominance combined with a high Influence factor, and the second a high Dominance combined with a high Steadiness factor. Although these individuals can be described as independent self-starters, they differ substantially on the rest of their profiles. Each will be discussed separately in the paragraphs below:

- **High Dominance Influence profile (DI)**

This profile indicates a self-starter to whom independence of action is important together with continuous challenge which will afford opportunity for career progression. This person likes to be able to negotiate commitments on an equal basis, with the freedom to work creatively and independently in a relatively unstructured environment. **This was the only one in the whole group that preferred an unstructured working environment.** See Appendix D9_DI for a generic feedback report for the DI profile as described by resources from Thomas International.

This person combines an assertive and persuasive nature in order to get things done. The focus is on a drive for results, but differs from the purely Dominance type because the person possesses the ability to be considerate towards others. As illustrated by the high "I" in this profile, communication, negotiation and personal influence are also important characteristics.

The low Steadiness and Compliance factors suggest that this person likes a fast pace, is eager, alert and restless, and can be impatient if things do not happen fast enough.

Descriptive words for this profile include words such as innovative, self-starter, assertive, decisive, confident, positive, gregarious, eager, restless, independent, strong-willed, alert and competitive (Thomas International PPA report, 24 August 2004).

- **High Dominance Steadiness (DS)**

The high Dominance Steadiness (DS) profile differs from the DI profile in that the person does not necessarily see the need for constant praise and persuasion as is the case with the high I profiles. These individuals are very practical, like to get on with the job and have an innate drive to achieve goals independently from others. They are self-starters who need time to reflect on the approach before commencing tasks. The high S suggests a need for a slower pace, however these individuals are able to deal with several tasks as long as they are given time to plan or schedule the workload. They are also by nature thorough, analytical, hard-working and independent in approach. They are good investigators of facts and information who tend to make decisions devoid of personal/emotional involvement, based on a thorough assessment of the information available. Once a decision has been made it is difficult to shift the person and if pressured he/she is likely to become exceedingly stubborn (see Appendix D9_DS for more details on motivational aspects). An important job requirement is that the job should provide sufficient authority for the person to direct others or investigate independently, combined with practical approaches for the achievement of profitable goals.

Descriptive words for this profile include words such as driving, forceful, investigative, logical, sceptical, serious, thorough, reserved, independent, stubborn, determined (Thomas International PPA report, 24 August 2004).

4.3.3.3.1.2 High Influence group

Three partners' profiles related to the Influence factor, namely two with the combination high **Influence, Dominance (ID)** factors and one combination of high Influence and high Steadiness (IS) factors. Whilst their individual profiles differ according to the unique relationship between the factors in each profile, common denominators are that they are concerned with communication, extroverted, friendly, charming, people's people. See Appendix D9_ID for a brief generic feedback report for the ID profile as described by resources from Thomas International.

Descriptive words for this profile include words such as verbally influential, self-confident, outgoing, direct, active, versatile, firm, independent, and persistent (Thomas International PPA report, 24 August 2004).

- **High Influence Steadiness (IS)**

The high Influence Steadiness profile differs from the ID profile in that the person is internally cautious and indirect, and may not be a self-starter, but once requirements are known the person will work hard to achieve successful end results. The person has a genuine interest in people and has the ability to gain the respect and confidence of a variety of individuals; is a good communicator, who is willing to delegate but sometimes has a tendency to be over friendly as well as to over-praise and to favour certain people. The high S suggests the person as being persistent, thorough and dependable in most situations. For the best results, this person needs time to consider any new situation and will need thorough explanation before starting a project. Can be firm when pushed, and may show signs of stubbornness and independence. The person with a high IS profile will continually seek security in trying to maintain the status quo in a non-antagonistic, structured working environment which allows contact with others on a regular basis.

Descriptive words for this profile include words such as friendly, persuasive, relaxed, independent, strong willed, accommodating, communicative, sympathetic, sincere, thorough, peaceful, and calm (Thomas International PPA report, 24 August 2004).

4.3.3.3.1.3 High Steadiness group

Two partners' profiles related to the Steadiness factor, one display only a Steadiness factor, whilst the other has a high Dominance combination. Although these individuals can be described as thorough and kind, they differ substantially on the rest of their profiles.

- **High Steadiness profi**le (S)

Individuals with this profile tend to avoid pressure and prefer a relaxed, fairly structured work environment.

Descriptive words for this profile include words such as patient, lenient, sincere, just, hardworking, firm, amiable, fair and dependable (Thomas International PPA report, 24 August 2004).

- **High Steadiness Dominance profile (SD)**

Individuals with this profile like to be self-organised with a preference for both structure and security.

Descriptive words for this profile include words such as tenacious, independent, opinionated, direct, assertive, amiable, patient and sincere (Thomas International PPA report, 24 August 2004).

4.3.3.3.1.4 High Compliance group

The majority, namely five, of the partners' profiles related to the high Compliance factor. Furthermore the highest concentration of one factor combination is clustered in the high Compliance Steadiness (CS) factors – the distribution is illustrated in Figure 4.13. Individuals with high Compliance characteristics can be described as concerned about accuracy, wanting to do things right, tending to be quiet, indirect and formal, appearing cautious and neat, and liking systems and procedures that produce predictable and consistent outcomes.

The first profile displayed only one high factor, namely Compliance, whilst the next group consisting of three profiles adds Steadiness characteristics, for example persistence, amiability, dependability, being kind, friendly and good listeners. The last two profiles in the Compliance factor group added a high Dominance and a high Influence factor respectively to their profiles. Adding a high Dominance factor to a high Compliance and high Steadiness factor may add a focus on task rather than people. On the other hand if a high Influence factor is present, the profile will shift to a more "people" focus. Each profile will be discussed in the paragraphs below:

- **High Compliance profile (C)**

This person is striving to maintain high standards, is accurate, precise and detailed by nature, and is driven to avoid hassle. See Appendix D9_C for a generic feedback report for the C profile as described by resources from Thomas International (Thomas International PPA report, 24 August 2004).

Descriptive words for this profile include words such as precise, quiet, careful, accurate, specialist, non-aggressive, adaptable and objective (Thomas International PPA report, 24 August 2004).

- **High Compliance Steadiness profiles (CS)**

A cluster of three profiles related to the Compliance factor are from the high Compliance Steadiness factors combination. These individuals can be described as concerned with accuracy, precise, analytical and hard working. But they are also team players who are concerned about relationships. See Appendix D9_CS for a generic feedback report for the CS profile as described by resources from Thomas International.

Descriptive words for this profile include words such as precise, accurate, adaptable, detailed, sceptical, inquisitive, non-antagonistic, logical, analytical and reflective (Thomas International PPA report, 24 August 2004). One of the profiles also included words such as cautious, perfectionist and serious.

- **High Compliance, Steadiness and Dominance profiles (CSD)**

The last profile in the Compliance factor showed a high Compliance, Steadiness and Dominance factor combination. This profile exhibits characteristics such as those described for the high CS profile in combination with an underlying need for both security and self-organisation, directing effort to acquiring of a specialised skill. This person is a "reason whyer" who not only wants to know "why" but also "how", being reflective and somewhat doubtful by nature, and dislikes conflict. For this person authority should be vested in expertise and is motivated by standard operating procedures, reassurance, security of situation and personal attention.

Descriptive words for this profile include words such as precise, quiet, dependable, painstaking, sincere, loyal, reflective, non-aggressive, adaptable and sceptical (Thomas International PPA report, 24 August 2004).

It is evident from the above reports that the profile patterns of the group of Partners illuminate the fact that the majority of the group prefer a structured work environment, with definite guidelines for conducting practice. The following paragraphs will expand the focus on the characteristics of the Partners as e-learning practitioners by enriching the data with rich descriptions of the patterns and structure of the Partners' profiles.

Subsidiary question 8:

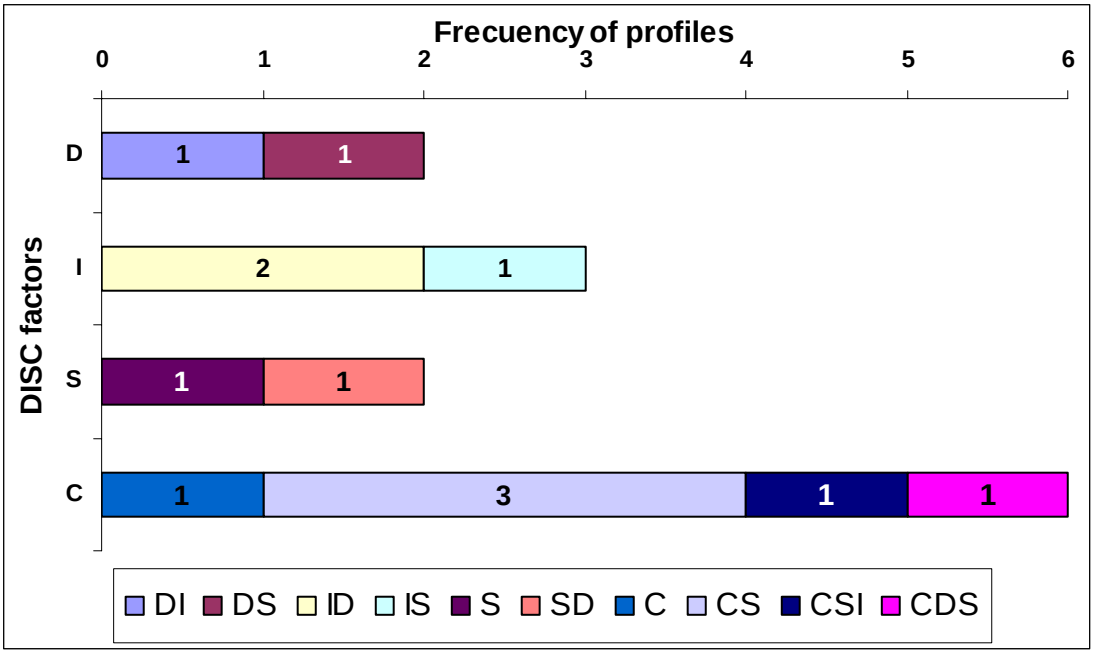
What are the personal profiles of the Partners in the P@W Programme?

Based on the above description, the personal profiles of the Partners were identified as dominantly from the Compliance factor, both in frequency and style variation.

Further analysis of the DISC factor distribution revealed the pattern and structure of the personal profiles of the Partners in the P@W Programme.

The DISC factor distribution for the Partner group has two distinct features namely a high Compliance factor and an equal distribution for the Dominance and Steadiness factors (see Figure 4.13). Each DISC factor displayed a variety of style combinations with clusters in the high Influence Dominance (ID) and the high Compliance Steadiness (CS) factors (see Figure 4.13).

Figure 4.13: Personal profile pattern distribution of the Partner group

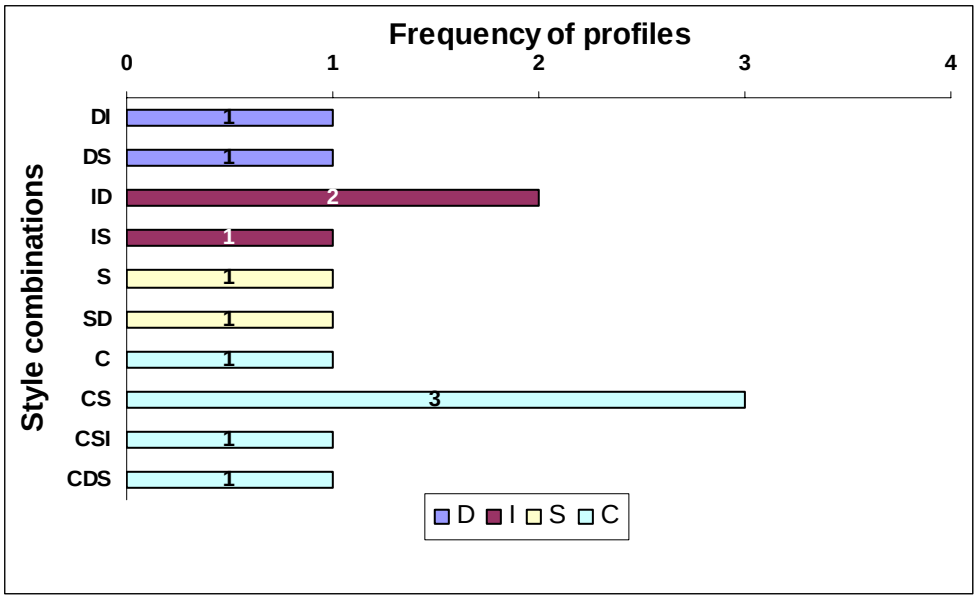


The structure of the DISC factors displayed a CIDS order of strength, showing the Compliance factor as the most prominent followed by the Influence factor. The highest cluster of three style patterns is present in the Compliance factor (see Figure 4.14) and addresses the ninth research goal.

Research goal 9:

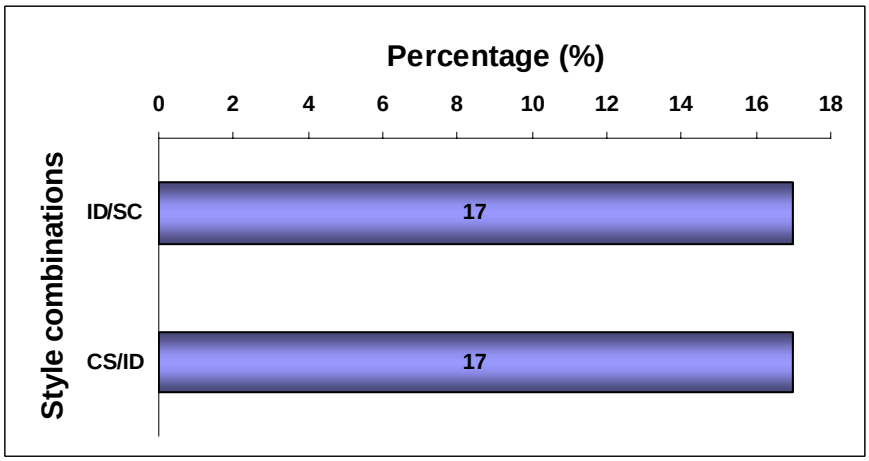
To identify the profile patterns of the Partners in the P@W Programme.

Figure 4.14: Personal profile structure distribution of the Partner group



Further refinement revealed a distribution of style combination patterns in the ID/SC and CS/ID combinations with a frequency of 17 percent each (see Figure 4.15).

Figure 4.15: Profile of highest style combination patterns of the Partner group



Two “HIGH” factors in the style combination patterns were identified, namely a high CS (25%) and a high ID (17%) combination (see Figure 4.16). The profile for the “LOW” factors displayed an even distribution of three patterns, namely, IC, ID and SC with a frequency of 17 percent each (see Figure 4.17).

Figure 4.16: Profile of "HIGH" factors in the combination patterns of the Partner group

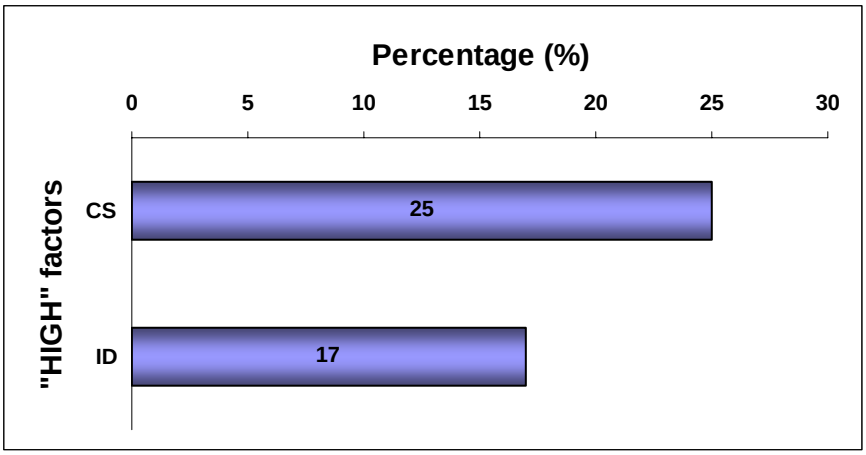
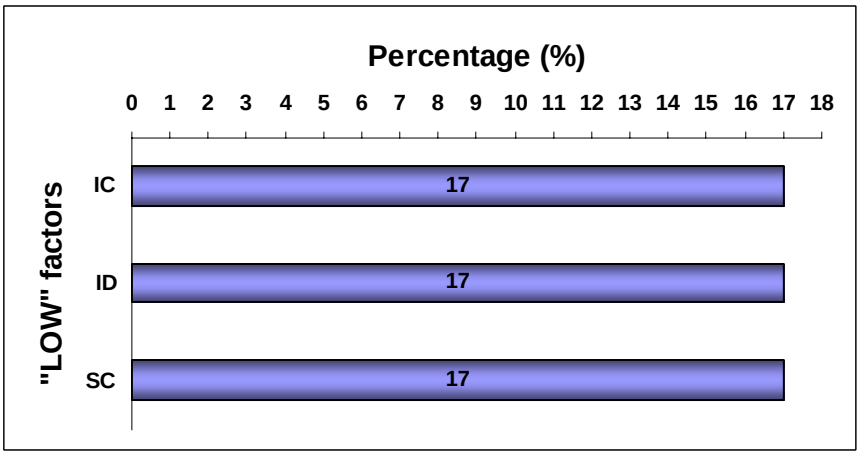


Figure 4.17: Profile of "LOW" factors in the combination patterns of the Partner group



Two important focus areas, namely the high CS and high ID style combinations, became evident from the analysis of the structure and style patterns of the Partners' personal profiles. It is interesting to note that the e-learning practitioner group from TUT also displayed a high frequency of the CS style combination with the Compliance factor as the strongest factor. The high ID combination corresponds more with the findings in the star performer group. A more in-depth comparison of the patterns and structures of the different groups will be presented in the final section of this focus area. Because of their prominence in the Partners group, the following elaboration on the personal profile report results will direct focus on the high CS and high ID style combinations.

Subsidiary question 9:

What are the profile patterns of the Partners in the P@W Programme?

Based on the above description, the profile patterns of the e-learning practitioners at TUT were identified as predominantly from the Compliance factor, both in frequency and style variation.

The most prominent pattern types were two opposites, namely the CS/ID and ID/SC. Low factor combinations came from the Influence factor, namely the IC and ID patterns and an opposite pattern type of an SC combination.

4.3.3.4 Enrichment of personal profiles of the Partners from the P@W Programme

Enrichment elements were captured by an analysis of a focus group questionnaire as well as an essay completed by the Partners during a focus group session at the department of Telematic Education on 17 May 2005. This session was conducted by an independent consultant and the Partners were requested to complete an **essay** and a **questionnaire** on how they perceive their e-learning practice. They also had to respond to the same question that was posed to the e-learning practitioners on the characteristics of the e-learning practitioner. Their written responses were collected on 17 May 2005. The data was analysed using the same method of theme identification and colour coding as described for the TUT group. These results will be discussed in a following section and address the tenth research goal.

Research goal 10:
To enrich the PPA of the Partners in the P@W Programme.

4.3.3.4.1 Analysis of essays written by the Partners from the P@W Programme

Analysis of essays on the topic “Descriptive notes reflecting on technologies” was done by using the prescribed structure of the essay to identify the main themes and a colour coding scheme to identify motivators and demotivators as reported by the Partners on 17 May 2005. The following paragraphs will highlight some of these responses as voiced by the prominent style combinations in each of the different DISC factor groups.

4.3.3.4.1.1 High Dominance group

Partners in this group stated that at first they felt overwhelmed by the technology but as they moved along and became more familiar with the new environment, “new ideas and innovativeness were created” (high DI) and, once WebCT was mastered, “it became very enjoyable to be part of the group all involved in instructional design” (high DS).

Using words like useful and cost saving with regard to application of technologies (high DI) underlined the fact that this person is motivated by tangible goals. Accepting challenges and driving for achievement were motivators for them. Strategies mentioned to master the technologies were “my own blood, sweat and tears. Struggling the way all computer illiterates

struggle when first learning a program. My instructional designer helped. Partners helped and I even employed a personal friend to help me understand the programs" (Essay, 17 May 2005).

The high DS's reaction on Yahoo messenger underlined the importance of group inclusion and pace for this person. "I apologise to my Partners for not being an active participant in the conversations of the Yahoo Messenger. This was not due to any negative feeling towards them of Yahoo, but rather due to the fact that I needed the time to develop my e-learning programme." This person did not master some of the listed technologies "due to lack of time involved in learning how to use the many technologies" (Essay, 17 May 2005).

A demotivator, reflecting in this person's need to get results and also to be part of the group, was the fact that no Blogger feedback was received, it "creates a feeling that the input has no outcome" (Essay, 17 May 2005)..

As is evident from "Now that I know what I know, I will need very little assistance from the instructional designers in creating the programs", security of situation is also a motivator for the person with a high DS profile.

4.3.3.4.1.2 High Influence group

The Partners in the high Influence group voiced a number of motivators and demotivators in their essays. Persons displaying a high IS profile react to cues from a favourable environment. Thus under pressure they might take a long time to adjust to change, have trouble meeting deadlines and may not change pace easily and have difficulty planning and timing time expenditure. This was evident in the reflection on the use of new technologies from this person who stated repeatedly that "I missed out on it", "Felt out of my depth. Felt lost", "Lost, haven't a clue", "Ignored it", "Just left it behind and did the job with other tools" (Essay, 17 May 2005).

With a high interest in people and a need to communicate, the use of the Blogger and Yahoo Messenger motivated this person. "Felt heard. It was good to let go of frustrations and emotions. Easy worthwhile tool"; "Easy good interactive tool" (Essay, 17 May 2005).

Behavioural styles showing a high ID style combination enjoy power and challenge authority. This is highlighted by the following remarks:

> I did not feel we had enough training and was unsure … once again I search for a manual to explain the different features and had many trials before mastering some of the features (Essay, 17 May 2005).

> At home I experimented with it, recorded, re-recorded 7 times or more until I found a method that worked fro me. This method really impressed my colleagues at work and is really very useful and fun to use. I think of all the programs, this would be number 2 on my list (Yahoo messenger being first) (Essay, 17 May 2005).

These people are motivated by popularity through social recognition as illustrated by "impressed my colleagues at work" and social situations are also motivating to the high ID styles. For example:

> Yahoo messenger was my absolute best and I found it very valuable! It was just great to learn about this feature I didn't know about and be in contact with my friends@work. This must be the technology I mastered the quickest and best! I also found it valuable to exchange information quickly with the Partners (Essay, 17 May 2005).

An enthusiastic approach to challenging situations is evident from "I experimented with it at home and found it very useful" (Essay, 17 May 2005). Being 'people's persons' thriving on gaining respect and trust from other people was refrained in: "It was a challenge to write the script for the video and I had to ask several people's opinion as I was very unsure of myself but received valuable feedback which helped me to improve the script. I felt proud to have my script accepted and would like to use it in future" (Essay, 17 May 2005).

It is interesting to note that although the persons in this group share the high Influence factor in their behaviour styles, their approaches were diversely influenced by their style combinations. For example: *ignoring* vs. *experimenting/searching for a manual* in difficult and challenging situations.

4.3.3.4.1.3 High Steadiness group

Motivators for persons in the high Steadiness group are structure and security of situation. They enjoy the status quo, will need time to adjust to change and enjoy recognition for long service and a job well done. Approaching situations in a practical manner and the need to know reasons and likely consequences of any changes or action taken before implementation were illustrated by the frequent use of the phrase "voel dis nie nodig in my vakgebied nie" [feel it is not necessary in my subject field] (Essay, 17 May 2005).

If the high Steadiness factor is combined with a high Dominance factor, the resultant profile displays traits such as determination and domineering behaviour. Being both stubborn and patient this person uses these traits in order to dominate the situation. This person tried to

“implement as many of WebCT’s elements as possible in my course” (Essay, 17 May 2005). Compare this approach to the “voel dis nie nodig in my vakgebied nie” approach of the pure Steadiness style.

Persons in the high SD group are hard and conscientious workers who like to get on with the job, motivated by challenging tasks. It is evident from the descriptions in the essay that the person with a high SD behaviour style worked very hard to utilise all the prescribed technologies in the available time period, but despite the time constrains mentioned concluded more than once with the phrase “it was easy to master” (Essay, 17 May 2005).

4.3.3.4.1.4 High Compliance group

Motivators for the group with a high Compliance factor are knowledge about how a task should be done and what is expected (standard operating procedures), preferably in a structured environment with well defined job parameters for example:

> I made careful notes on the operating instructions, then when I got home I tried to do it again using the instructions, which I then modified to be more precise. There are a couple of technologies like Camtasia, Perception and Blogger it just did not want to work as described by the instructions. They frustrated me (Essay, 17 May 2005).

> I felt intimidated because the other partners seemed to know a hell of lot more than I (Essay, 17 May 2005).

They are motivated by reassurance, “motivated and inspired by instructional designer” “ek voel gemaklik met die nuwe vaardigheid, maar weet ook dat ek op die “back-up” van my IO kan steun sou ek probleme ervaar” [I feel comfortable with the acquired skill, but know that I can count on the ‘back-up’ of my ID] (Essay, 17 May 2005).

These people are also motivated by personal attention and by being part of a team of professionals or experts. Reflections on how they used new technologies were:

> Excellent explanation of how to use by instructional designer (Essay, 17 May 2005).

> Some was easier than others. I have spent more time on practicing those that I found harder and also sought help from my instructional designer and the other partners (Essay, 17 May 2005).

> I enjoy using this technology (Yahoo Messenger), even to this day. The sense of being with others when you are working long and late hours kind of make it easier (Essay, 17 May 2005).

They will seek opportunities to extend their knowledge in order to specialise: “Learned from stuff that other Partners did in their programme development and which could be used in my own.” Gain unique skills, power and the respect of others “once I have started mastering these skills/technologies it felt like a huge accomplishment and value-added” (Essay, 17 May 2005).

On reflecting on how mastering the listed technologies was experienced, the answers were short and powerful:

> Empowering, boost in self-confidence, efficient (Essay, 17 May 2005).

> Good feelings to know how a former unknown tool is functioning (Essay, 17 May 2005).

> I understood why it was needed. – Very empowering and satisfying (Essay, 17 May 2005).

These people tend to be perfectionists: “Still not clear where it will fit in. Did not really try to implement. Previous attempt failed.” And precise and systematic: “I divided my tasks into chunks. Began with the easiest then proceeded to more challenging tasks” (Essay, 17 May 2005).

There is also a tendency to direct effort towards acquiring a specialised skill. They are de-motivated by sudden changes and uncertain situations, for example response to the utilisation of video conferencing was: “Too terrified to think of one.” Or reaction on failure of technology: “I was very frustrated by not being able to get into Blogger” (Essay, 17 May 2005).

An analysis of the Partners reflection on their experiences on the use of new technologies and applications revealed an enriched picture of their e-learning practice. Combining theory and practice contributes to our understanding of the structure of the e-learning practitioner.

4.3.3.4.2 Analysis of questionnaires completed by the Partners from the P@W Programme

Analysis of the responses to the open-ended question “In your opinion, what are the outstanding **personal attributes (characteristics)** of an e-learning practitioner?” posed to the Partners on 17 May 2005 resulted in a list of descriptive phrases. These phrases were further analysed and colour coded according to their relevance to the different DISC factors.

The most important characteristics of the e-learning practitioner as perceived by the Partners were creativity and innovativeness, “people’s person”, compassion, and perseverance. Phrased by persons in the high Compliance group:

> Flexibility and adaptability to conditions that change quickly. Calmness in stressful/unforeseen circumstances. Creativity – finding new and novel ways of presenting material. Inquisitiveness – keeping up to date with changing and new educational technologies (C, Char2, 17 May 2005).

The practitioner should be organised, punctual, disciplined and able to manage time. Effective communication, regular feedback to students and a love for teaching are important characteristics of the ’online teacher’. These are illustrated in the words of some of the Partners:

> Being prompt in replying to messages that are from students that need your input. Creating an environment that is interesting enough for students to take part (I, Char2, 17 May 2005).

> First and foremost be a teacher who has the desire to train students. He/she should obviously also know the technology that facilitates e-learning. A very important trait is also that the practitioner should have patience not only with regards to the students but with regards to the e-learning system that could be frustrating at times (D, Char2, 17 May 2005).

Dedication and hard work, working smarter, embracing new technologies and accepting the challenges are some of the indispensable characteristics mentioned for example:

> Compassionate, Dedication, Perseverance (C, Char2, 17 May 2005).

> Open to new ideas. Not resisting change. Innovative, Flexible, Adaptive, Critical – within limits (D, Char2, 17 May 2005).

Putting these words into DISC language reveals high clusters in the Dominance and Influence factors and other small clusters in the Compliance and Steadiness factors (see Table 4.29 for details). These characteristics describe a person who is creative and results-orientated, but also inspirational and concerned about communication and people. This person is a competitive, imaginative, organised self-starter with an open-mind and a desire to influence and persuade people.

Table 4.29: Analysis of descriptive words

Analysis of words describing the characteristics of the e-learning practitioner by Partners														
Descriptive word	Fre-quency	Factor	Descriptive word	Fre-quency	Factor	Descriptive word	Fre-quency	Factor	Descriptive word	Fre-quency	Factor	Descriptive word	Fre-quency	Factor
Organised	3	High C	Creative	6	High D	Peoples person	6	High I	Dedicated	3	High S	Perseverance	4	Low C
Knowledge	3	High C	Innovative / new ideas	4	High D	Compassionate	4	High I	Calm	3	High S			
Skills	3	High C	Keep up with change	3	High D	Communication	3	High I	Patience	2	High S			
Adaptability	2	High C	Goal oriented / motivated	2	High D	Enthusiasm	2	High I	Persistent	1	High S			
Technology	2	High C	Interested	2	High D	Teacher	1	High I						
Flexible	2	High C	Accepting challenge	1	High D									
Diplomatic	1	High C	Working smarter	1	High D									
Punctual /disciplined	1	High C	Fearless	1	High D									
Open-minded	1	High C	Ambitious	1	High D									
			Critical	1	High D									
			Multitasking	1	High D									
			Inquisitive	1	High D									

Subsidiary question 10:
How did the Partners in the P@W Programme perceive their e-learning practice?

Based on the above discussion, the e-learning practitioners perceived the most important characteristics of e-learning practitioners as being creativity and innovativeness, being a people's person, and compassion and perseverance. Their reflection on their e-learning practice illustrated some of their work behavioural styles.

4.3.4 Synthesis of research findings on person characteristics

An in-depth investigation pertaining to the characteristics of the e-learning practitioners at TUT and the Partners in the P@W Programme revealed detail about the characteristic personal profiles of these groups, as well as detail about the individual profiles in each group. For example, the profiles of the star performers as a subgroup of the e-learning practitioners of TUT differed substantially from the profiles of the TUT group and markedly from the profiles of the Partners. These findings have a profound consequence for training and career development of the e-learning practitioner at TUT and these implications for training and career development will be discussed in section 4.3 of this chapter. The following discussion will focus on comparisons between the e-learning practitioner group at TUT, the Partner group and the star performer group. The comparison will include:

- Work behavioural characteristics;
- Personal profiles in terms of DISC factor and style combinations;
- Personal profile type pattern distribution;
- Personal Profile structure distribution, and
- Profiles of "HIGH" style combination patterns.

The synthesis of these findings combine the answers to the subsidiary research questions stated in section 4.3 and conclude this discussion on the person attributes of the e-learning practitioner by answering the first research question:

What is the latent structure of the e-learning practitioner construct in terms of person attributes?

Data obtained from the descriptive word lists from the PPA reports on the TUT e-learning practitioner population were combined in a frequency Table (see Table 4.32 and Appendix D5). A cut-off point of 5 percent was used to condense the data somewhat. The Table shows the percentage usage of each word to describe the behavioural characteristics of the e-learning

practitioner groups, combining the TUT and star performer groups as a fourth group. Descriptive words are listed in descending order and a summary of the PPA reports describes the e-learning practitioner group at TUT as being precise, logical, accurate, thorough, systematic, dependable and amiable. Although there is a marked similarity between this group and the Partners, the latter also shows prominent features of independence, sincerity and scepticism. Descriptive words which are unique to the Partner group refer to them as being calm, decisive, fair, firm, investigative, non-antagonistic, objective, opinionated, self-confident, suspicious, sympathetic, verbally influential and versatile.

On the other hand, the descriptions of the star performers show uniqueness in being tense, participative, impatient, aloof, self-critical, self-assured, non-trusting, introspective, enforcing and demanding. Furthermore, they are mostly characterised as being active, direct, independent, mobile, precise, dependable, factual, logical, reflective, reserved, self-starters and systematic. See Table 4.32 for a comparison of the work behavioural characteristics of the e-learning practitioners at TUT.

Descriptive characteristics for the e-learning practitioner population at TUT were mainly identified as precise, logical, accurate, thorough, careful, systematic, amiable, dependable, independent, assertive, detailed and persistent.

4.3.4.1 The Personal Profile DISC factor and style combinations

Comparing the DISC factor and style combinations in each of the groups studied at TUT the following typical behaviour patterns emerged:

- In the Dominance factor nine style combinations, namely D (2), DC, DI (2), DIC, DIS and DS (2), were reported.
- The Influence factor had a frequency of twelve style combinations distributed as IC (2), ICD (3), ID (4), IS (2), ISC.
- The Steadiness factor had the same frequency (12) of style combinations as the Influence factor with a cluster of six in the SC category. The other style combinations reported were S, SCD (3), and SD (2).
- The most prominent factor was the Compliance factor. A frequency of 23 style combinations, with a cluster around the CS (6) and CD (4) combinations, was reported. The rest of the styles distributed were C (3), CDI, CI, CIS (2), CSD (3), and CSI (3).

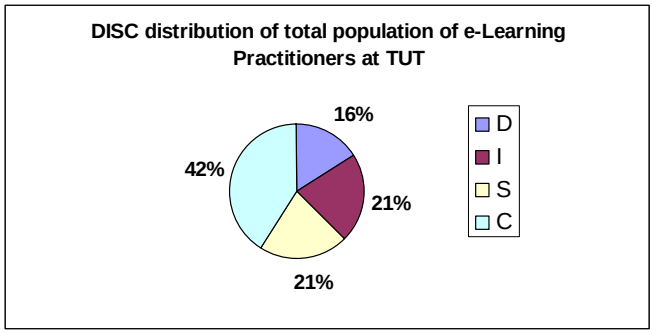
A comparative summary of the personal profile DISC factor and style combinations appears in Table 4.30.

Table 4.30: Comparison of the DISC styles in the different groups

Styles	Frequency of factors											
	D	Dp	D Star	I	Ip	I Star	S	Sp	S Star	C	Cp	C Star
D			2									
DC			1									
DI	1	1										
DIC	1											
DIS	1											
DS		1	1									
IC				1		1						
ICD				3								
ID					2	2						
IS				1	1							
ISC				1								
S								1				
SC							4		2			
SCD							2		1			
SD							1	1				
C										2	1	
CD										3		1
CDI										1		
CI										1		
CIS										2		
CS										3	3	
CSD										2	1	
CSI										1		2
Total for each factor	**3**	**2**	**4**	**6**	**3**	**3**	**7**	**2**	**3**	**15**	**5**	**3**
Total for DISC factors	**9 (16%)**			**12 (21%)**			**12 (21%)**			**23 (42%)**		

The DISC factor distribution for the total population of e-learning practitioners was divided equally between the Influence and Steadiness factors with a frequency of (12) 21 percent each, the lowest frequency in the Dominance (9), 16 percent, and the highest, namely (23) 42 percent, in the Compliance factor (see Figure 4.18).

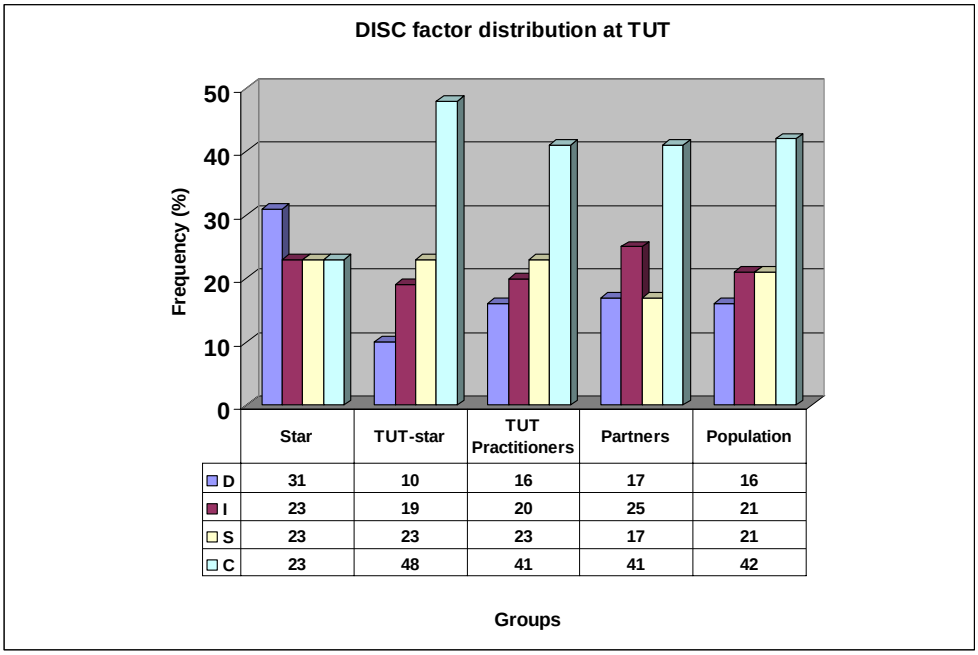
Figure 4.18: DISC distribution of the total population of e-learning practitioners at TUT



It is evident from the graph in Figure 4.19 that the behavioural styles of the star performer group were the most prominent in the Dominance factor but evenly distributed in the other factors. The profiles for the TUT and Partners groups are very similar with slight opposite variances in the Influence and Steadiness factors. The star performer group differed substantially from the other groups in the Compliance factor and displayed a frequency of 23 percent against the 41 percent and 48 percent of the other groups (see Figure 4.19).

A comparison between the three e-learning practitioner groups against the total e-learning practitioner population revealed similar distribution patterns between the TUT group and the total population, which means that this group is representative of the total population. However the star performer group presented a different pattern that differed from the total population and the other groups. The Partner group correlated with the TUT and total population groups and displayed a slight rise in the Influence factor and a slight drop in the Steadiness factor (see Figure 4.19).

Figure 4.19: Comparison of the DISC factor distribution in the different groups



Each DISC factor displayed a variety of style combinations with clusters in the high Steadiness Compliance (SC), the high Compliance Steadiness (CS) and the high Influence Dominance (ID) factors (see Figure 4.20).

Figure 4.20: Personal profile pattern distribution of TUT

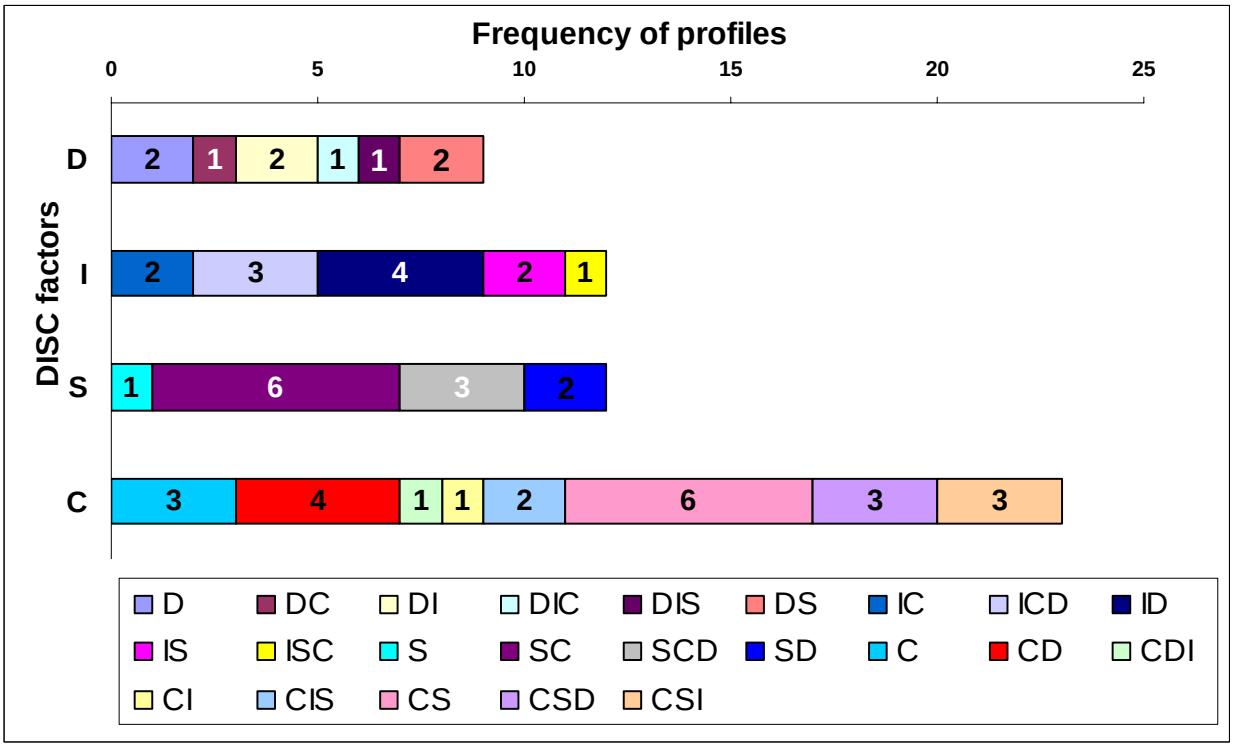
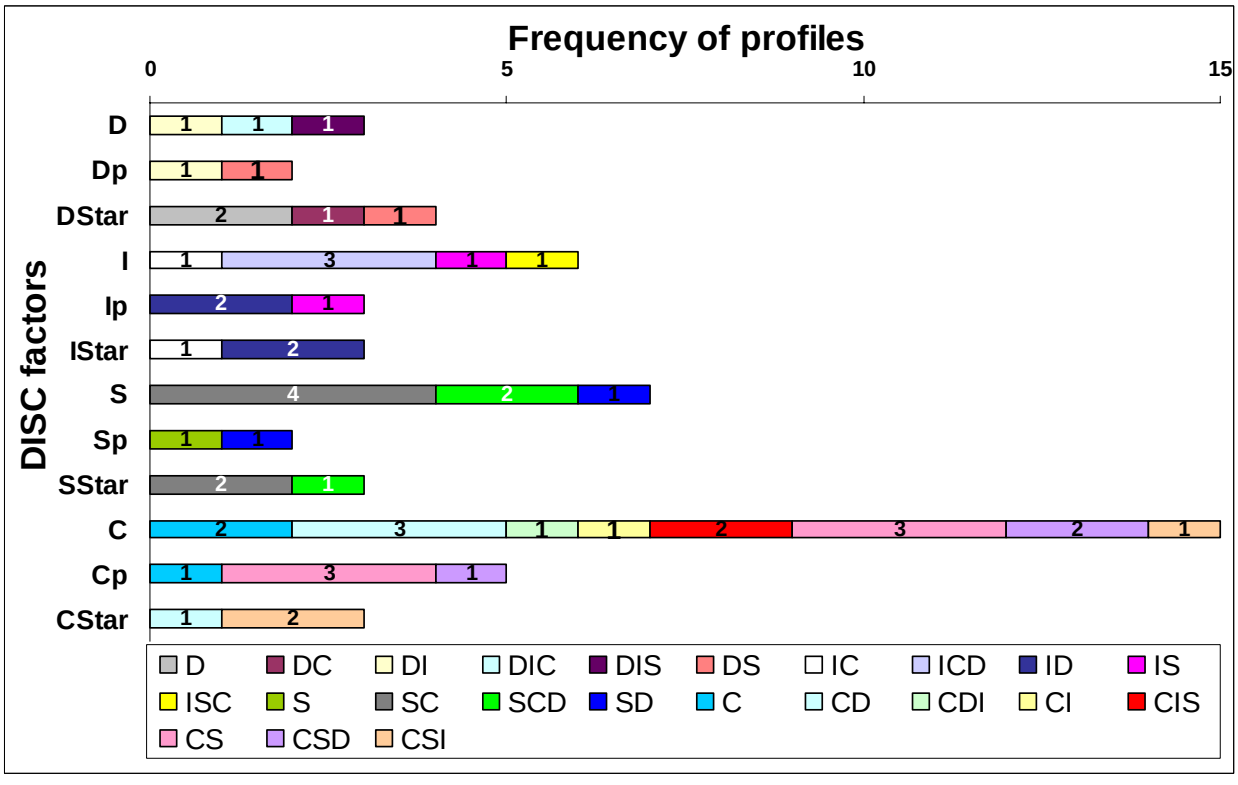


Figure 4.21: Comparison of the profile pattern distribution in the different groups



p = Partner group; Star = star performer

Comparing the style patterns to the different e-learning practitioner groups (see Table 4.21), it is clear that:

- Only two style combinations from the Dominance factor correspond;
- Only one high DI combination in both the TUT and Partner groups match;
- There is one style match between the TUT and the Partner group and no match between the star performer group and the other groups in the Dominance factor;
- The high D and the high DC styles were only present in the star performer group;
- The high Influence factor presented a match (high IS) between the TUT and Partner groups but no match between the high Influence styles of the TUT and the star performer groups;
- The high ID style combination was present in both the Partner and the star performer groups but not in the TUT group;
- Another style combination that was only present in the star performer group was the ID/CS style combination, and
- Corresponding patterns in the Influence factor were the high ID combination present in the Partner and star performer groups and the high IC combination in the TUT and star performer groups.

Persons with behavioural styles with the high Dominance and high Influence factors generally prefer an unstructured work environment with freedom to act independently. It is evident from this finding that the star performer group has a prominent presence in these factors, whilst the weight of the TUT group is more towards the Compliance and Steadiness factors. This implies that there will be a general tendency for these persons to prefer a more structured work environment.

The high SC frequency as well as the SCD style combination in the Steadiness factor is a prominent feature in the TUT group and is also present in the star performer group.

Although the Compliance factor is the most prominent, displaying the highest variety and frequency of styles, the most important feature, namely a high CS, is not present in the star performer group. Keeping in mind that the current e-learning practice at TUT is more favourable towards the high Dominance Influence group, it make sense that the majority of e-learning practitioners will need adaptations in their work environments to change their environment to a more favourable context for their specific behavioural styles. **These issues will be addressed in the next section of this chapter.**

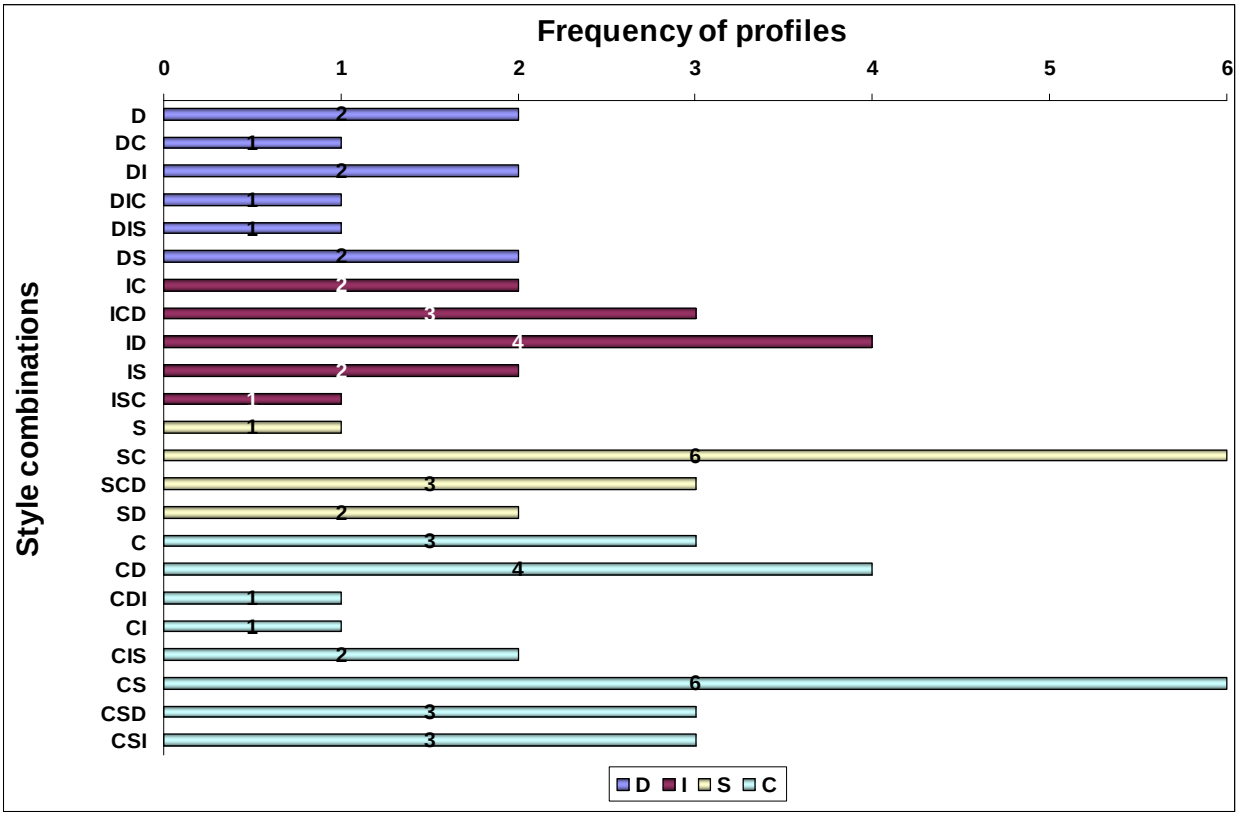
It is interesting to note that both the Compliance style combinations present in the star performer group correspond with the Compliance style combinations in the TUT group, but not with any in the Partners group. However, the TUT group represent all the Compliance style combinations present in the Partner group (see Figure 4.21).

Distinct style combinations only present in the Partner group were C/SID, DS/IC, ID/SC (2) and S/CID. This finding highlights the fact that although the Partners group is weighted heavily in the Compliance factor with a cluster in the CS style combination, the rest of this group has a diverse style distribution. The concentration of the CS style combination is evident in the TUT and the Partner group but absent from the star performer group.

An interesting occurrence is the correlation between the TUT and the star performer group in terms of the Steadiness factor. All the style combinations (SC/ID, SCD/I) displayed by the star performer group for the Steadiness factor were also present in the TUT group and were absent from the Partner group. The implication of this finding is that there is a possibility that opposite profiles will emerge from e-learning practice as star performers.

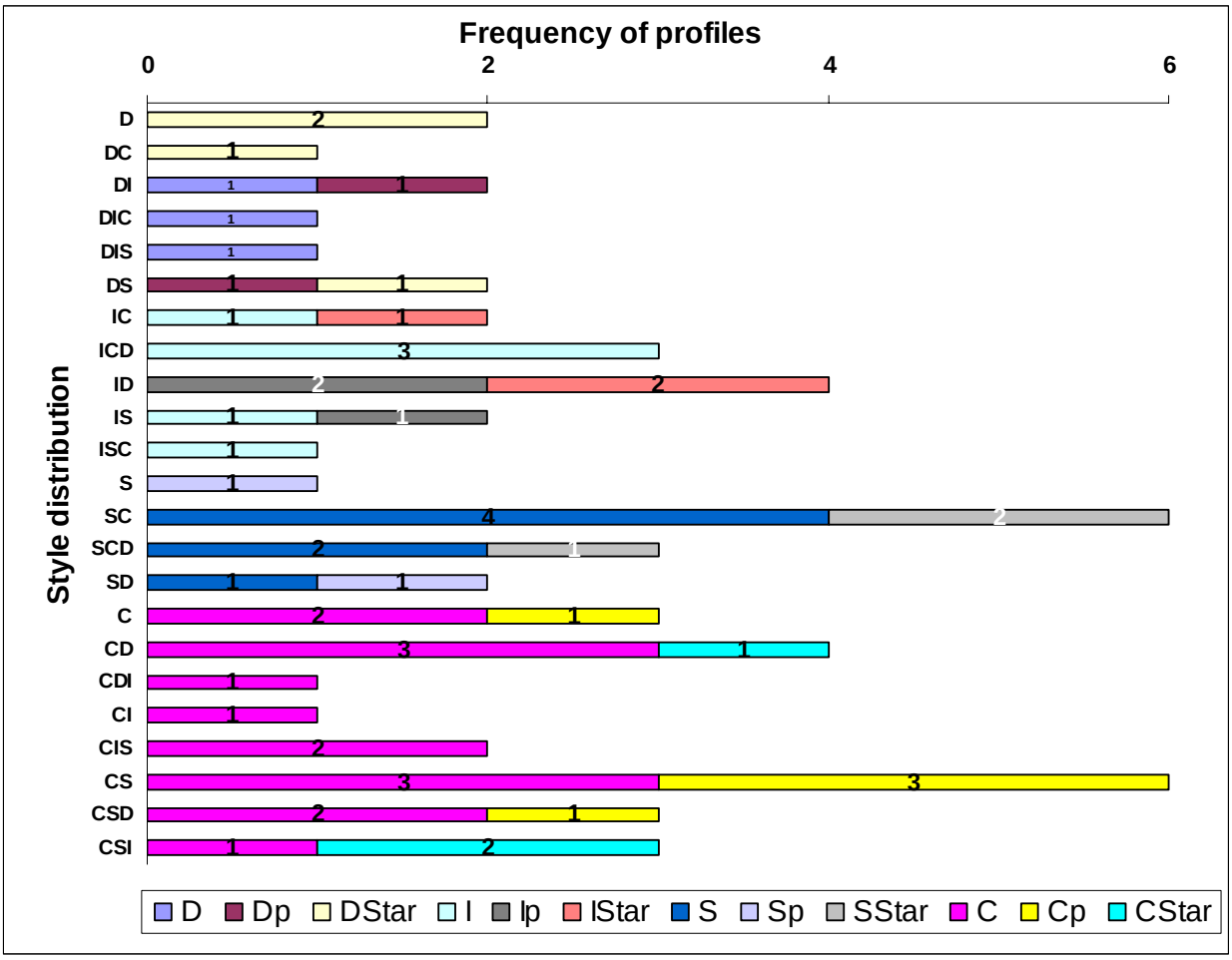
The structure of the DISC factors displayed a CSID order of strength, showing the Compliance factor as the most prominent and the Dominance factor the least represented. The Compliance factor displayed the highest frequency of style combinations, namely eight with clusters in the CS, CD, C and CSI combinations. The Steadiness and Influence factors had the same style frequency displaying clusters in the high SC and high ID style combinations. The relevance of these patterns to each DISC factor is illustrated in Figure 4.22.

Figure 4.22: Personal profile structure distribution of total population at TUT



In comparing the personal profile structure distribution for the different e-learning practitioner groups at TUT, it became evident that the strongest factors were strengthened by the star performers in the Dominance Influence and the Steadiness factors respectively, and the Partner group in the Compliance and Influence factors (see Figure 4.23).

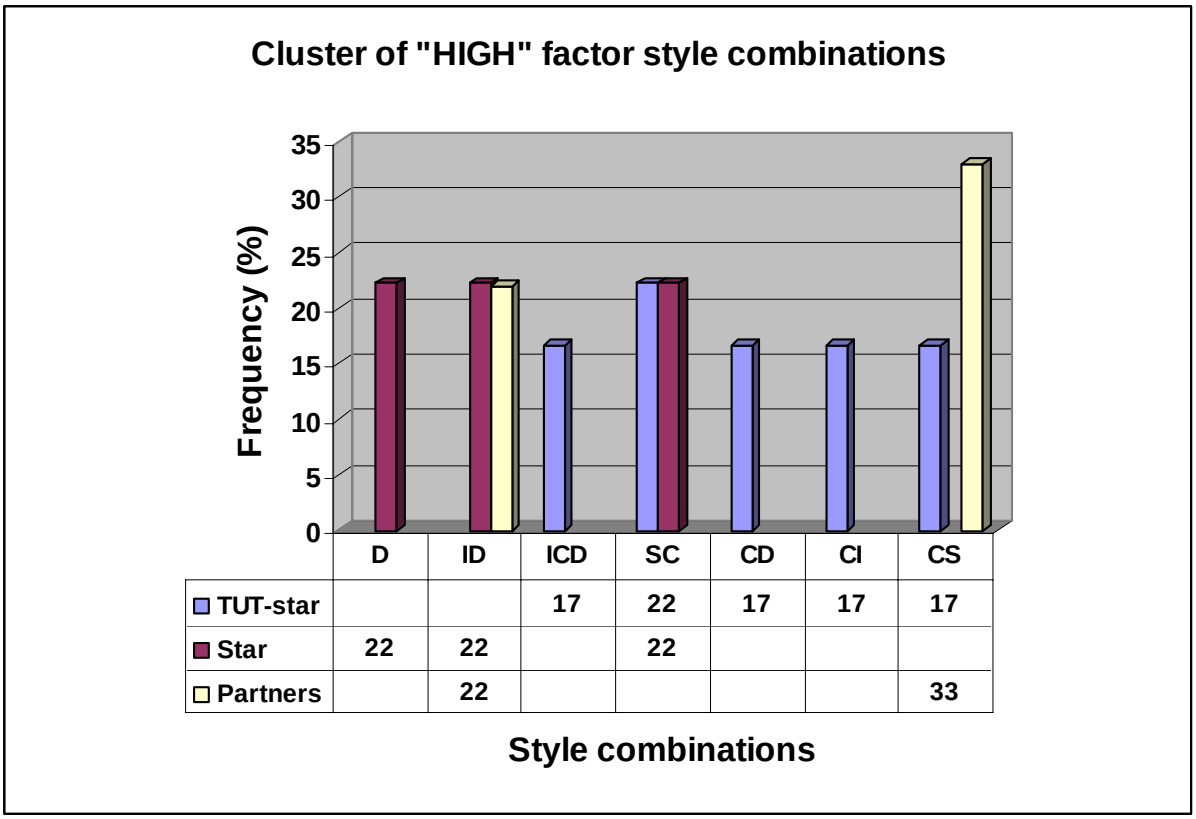
Figure 4.23: Comparison of the profile structure distribution in the different groups



p = Partner group; Star = star performer group

Comparing the different e-learning practitioner groups to the personal profile patterns revealed very interesting distribution patterns. The following paragraphs will comment on the predominant clusters that were reported in the different groups. Using Figure 4.24 as reference it is clear that there are definite clusters of the high factor style combinations for the different groups. The Partner group displayed a high cluster in the CS style, whilst the star performer group displayed a high cluster in the D style. The TUT group did display one pertinent high cluster group in the SC style.

Figure 4.24: Comparison of clusters of style combinations in the different groups



The significance of these findings will be evident from the practical recommendations of this study presented in Chapter 5.

Persons with behavioural styles with the high Dominance factor generally prefer an unstructured work environment with freedom to act independently. It is evident from this finding that the star performer group is prominent in this factor, whilst the weight of the Partner group is more towards the Compliance and Steadiness factors. This implies that there will be a general tendency for these persons to prefer a more structured work environment.

The question may arise as to why the star performer group is different, and the answer may lie in the current organisational context at TUT. At TUT the job of the e-learning practitioner is not defined nor is there a formal job description to guide us in our search for clarification in this matter. However, for the past six years e-learning practitioners who were interested in multimode teaching and learning have participated in Telematic Education projects on a voluntarily basis. Support took various forms such as seed money to finance projects, personal support from the staff of Telematic Education, infrastructure for production of teaching and learning materials, and a variety of available technologies. The organisational environment was unstructured and the onus for choices about which roles to play, approaches to follow and applications to use was on the individual practitioner. Furthermore, a vast number of problems and challenges were presented by the lack of implementation infrastructure, large student

groups, time constraints, and fellow colleagues who were sometimes very sceptical and unsupportive. In such an environment the individual who is active and energetic, competitive, concerned about results, has the drive to reach set goals, and a passion for solving problems and addressing challenges is more likely to succeed and to survive. These individuals can be described as independent self-starters, who want to “get on with the job”.

In contrast to this group, the group profiling in the high Steadiness and high Compliance factors shows a preference for well-structured environments where logic and accuracy are most important. They have a need for a slower pace and variety; routine and repetitive work may frustrate them. They are persistent, hard-working individuals who investigate facts and may follow a perfectionist approach where systems, procedures, policies and rules are concerned. Three of the star performers in this group, apart from being star performers, also specialised in one aspect of e-learning practice and continued over a period for more than three years to pursue excellence in their chosen field. The remaining group found structure in the personalised support that they received from the instructional designers of the department of Telematic Education. The high Steadiness factor group in particular are concerned about relationships, are good listeners, and “finisher completers” who maintain good relationships with their instructional designers and receive recognition for long years of service. These practitioners feel reassured by appreciation, hard work, challenge, and recognition for long service.

4.3.4.2 Enrichment of the personal profiles of the e-learning practitioner

By combining and adding the feedback on the characteristics of the e-learning practitioner from the different participative groups, a list of enrichment elements were identified (see Table 4.31). The most important characteristics of the e-learning practitioner as perceived by the group of participants in order of frequency were creativity, patience, innovativeness/new ideas, people’s person, organised, perseverance, knowledge, effective communication, dedication, skills, enthusiasm, persistence and compassion. Characteristics mentioned as important by the TUT group, and not by the Partner group, were time, supportive, “clarity of though”, detail orientated, hard working, listening skills and independence. With the exception of the selection of time (3) all the other choices occurred only once and therefore can be viewed as not of such high importance to the overall profile of the practitioner. Time was mentioned in the context of time management and also the availability of enough time for the practitioner to complete work. As time is always an important factor for workers in any job, the choice of time management as a characteristics of e-learning practitioners is not unique, but is nevertheless of high importance for the profile of the practitioner.

Choices by the Partner group that were not made by the TUT group were a high frequency of “people’s person”, keep up with change, calmness, ambitious, critical (to a certain extent), multitasking and inquisitiveness. The first three, namely “people’s person”, keep up with change and calmness were frequently mentioned, and the rest were mentioned at a low frequency.

Translating these characteristics into DISC language it is fair to say that this profile points to a person who has a high Dominance/low Compliance factor (creativity, innovativeness, perseverance) combined with a high CI (organised, knowledge, skills, “peoples person” and effective communication). This means that low and high Compliance factor elements are incorporated and will therefore be a moderate high in this profile. Although patience (high Steadiness) is mentioned frequently the meaning of the word might be interpreted as, “A very important trait is also that the practitioner should have patience not only with regards to the students but with regards to the e-learning system that could be frustrating at times” (D, Char2, 17 May 2005), rather than patience in the sense of work pace.

To conclude this discussion on the comparison of the given feedback on the characteristics of an e-learning practitioner from the TUT groups, the following summary emerged:

The e-learning practitioner is a person who is a creative, energetic and driven, who experiments with new technologies, is open-minded, and open to new ideas, innovations and technologies, has compassion for people – students and colleagues alike. He or she loves to communicate and motivate people by influencing them. Can react to challenges and changes in the environment, is organised, goal-orientated and persevering. Has a thorough knowledge of his/her field of specialty and has the ability to function in a team, but also as leader/driver of the students (see Table 4.31).

However, these perceived characteristics differ widely from those chosen by the participants in the screening survey and even more distinctly from the actual characteristics of the e-learning practitioners as reported on the PPA forms. Table 4.32 compares these findings and it is interesting to note that the most frequently mentioned characteristics that are perceived as important, namely creativity and patience, are not present in the lists derived from the PPAs.

The survey analysis showed the most important characteristics as motivation and time management, planning and organisational skills, but lists motivation, creativity and adaptability as the most important personality attributes.

Independence and accuracy show the highest frequency in the Partner group, whilst the combination of independent activity, mobility and directness characterised the star performers.

The most important descriptive characteristics of the e-learning practitioners at TUT show them as logical, precise and accurate individuals.

Table 4.31: Analysis of words describing the characteristics of the e-learning practitioner

Descriptive word	Fre-quency	Factor	Descriptive word	Fre-quency	Factor	Descriptive word	Fre-quency	Factor	Descriptive word	Fre-quency	Factor	Descriptive word	Fre-quency	Factor
Organised	6	High C	Creative	13	High D	Peoples person	6	High I	Patience	9	High S	Perseverance	5	Low C
Knowledge	5	High C	Innovative / New ideas	8	High D	Communication	5	High I	Dedicated	5	High S	Independent	1	Low C
Skills	5	High C	Goal oriented / Motivated	3	High D	Enthusiasm	5	High I	Persistent	4	High S			
Time manager	3	High C	Accepting challenge	3	High D	Compassionate	4	High I	Calm	3	High S			
Punctual /disciplined	3	High C	Interested	3	High D	Teacher	3	High I	Hard working	2	High S			
Open-minded	3	High C	Keep up with change	3	High D	Supportive	2	High I	Listening skills	1	High S			
Adaptability	3	High C	Working smarter	3	High D									
Technology	3	High C	Fearless	2	High D									
Flexible	3	High C	Ambitious	1	High D									
Diplomatic	2	High C	Critical	1	High D									
Clarity of thought	1	High C	Multitasking	1	High D									
Detail	1	High C	Inquisitive	1	High D									

Table 4.32: Comparison of the characteristics of e-learning practitioners at TUT

Descriptive words of the characteristics of e-learning practitioners from different data sources											
Perceived characteristics (open ended question)		Characteristics – Taxonomy (checklist)		Characteristics – Partners (PPAs)		Characteristics –TUT (PPAs)		Characteristics - Star (PPAs)		Characteristics –Population (PPA's)	
Words	(N)	Words	(%)	Words	(%)	Words	(%)	Words	(%)	Words	(%)
creative	13	motivated	85	independent	50.0	precise	77.4	active	46.2	precise	60.7
patience	9	time management	75	accurate	41.7	accurate	54.8	direct	46.2	logical	44.6
innovative / new ideas	8	planning skills	75	logical	41.7	logical	54.8	independent	38.5	accurate	41.1
organised	6	organisational skills	75	precise	41.7	thorough	45.2	mobile	38.5	thorough	39.3
people's person	6	flexibility	75	sceptical	41.7	amiable	41.9	precise	38.5	careful	33.9
knowledge	5	problem solving	75	thorough	41.7	systematic	38.7	dependable	30.8	systematic	32.1
skills	5	motivating	70	adaptable	33.3	dependable	35.5	factual	30.8	amiable	30.4
communication	5	mentoring	70	sincere	33.3	detailed	32.3	logical	30.8	dependable	30.4
enthusiasm	5	participation	70	amiable	25.0	assertive	29.0	reflective	30.8	independent	26.8
dedicated	5	creative	70	direct	25.0	inquisitive	29.0	reserved	30.8	assertive	25.0
perseverance	5	patience	70	firm	25.0	non-aggressive	29.0	self-starter	30.8	detailed	25.0
compassionate	4	student support	70	patient	25.0	persistent	29.0	systematic	30.8	persistent	25.0
persistent	4	constant feedback	70	probing	25.0	quiet	29.0	alert	23.1	active	23.2
time manager	3	adaptable	65	reflective	25.0	sincere	29.0	anxious	23.1	sceptical	23.2
punctual /disciplined	3	prompt	55	active	16.7	careful	25.8	assertive	23.1	direct	21.4
open-minded	3	coping with time demands	55	analytical	16.7	friendly	25.8	cautious	23.1	reflective	21.4
adaptability	3	collaborative	50	assertive	16.7	kind	22.6	eager	23.1	friendly	19.6
technology	3	adventurous	50	deliberate	16.7	perfectionist	22.6	energetic	23.1	inquisitive	19.6
flexible	3	listening	50	dependable	16.7	mobile	19.4	friendly	23.1	mobile	19.6
goal oriented / motivated	3	understanding	45	detailed	16.7	patient	19.4	gregarious	23.1	non-aggressive	19.6
accepting challenge	3	persistence	45	fair	16.7	probing	19.4	loyal	23.1	patient	19.6
interested	3	coping with frustration	45	inquisitive	16.7	sceptical	19.4	non-demanding	23.1	probing	19.6
keep up with change	3	understanding language needs	45	kind	16.7	serious	19.4	persistent	23.1	quiet	19.6
working smarter	3	flexibility	45	non-aggressive	16.7	active	16.1	positive	23.1	adaptable	17.9
teacher	3	good sense of humour	35	non-antagonistic	16.7	adaptable	16.1	stubborn	23.1	kind	17.9
calm	3	reflective	35	outgoing	16.7	cautious	16.1	thorough	23.1	perfectionist	17.9

4.3.5 Summary

In conclusion, the personal profiles of two groups, the TUT e-learning practitioners, including the star performer subgroup and the Partner group, within the e-learning practitioner population of TUT were investigated to illuminate the image of the e-learning practitioner at TUT. Distinct profiles for the different groups identified a number of important characteristics for each group and were discussed accordingly.

Emerging patterns from the analysis expose the **"what is"** and **"what is perceived"** as **different patterns**. It is evident from the preceding paragraphs that the majority of personal profile patterns of the e-learning practitioners at TUT were concentrated in the **Compliance factor around three clusters showing CD, CS and CSI style combinations**, a further **cluster of SC profiles** was found in the Steadiness factor. The **lowest frequency** of profiles was displayed in the **Dominance** factor. Comparing these patterns with the profiles of the star performers revealed a new, **unique pattern for the star performers, namely a cluster in the Dominance factor.** Perceptions from the e-learning practitioners revealed yet another pattern, namely a high Dominance factor with creativity and innovativeness as the most important characteristics of the e-learning practitioner. Creativity / innovativeness / originality / unconventionality are briefly mentioned in only three of the PPA reports, **not a general characteristic at all!** It is also interesting to note that all three of these PPA reports were from star performers. Innovativeness was only once mentioned in the PPA reports from the Partners.

It is fair to argue that the perceptions of the TUT and Partner groups pertaining to the characteristics of the e-learning practitioner are **more relevant to the star performers** than to the existing e-learning practitioner group at TUT. The existing personal profiles of the e-learning practitioners at TUT differ from these of the star performers and furthermore do not display the most important personal characteristic as perceived by the practitioners themselves.

Research question 1

What is the latent structure of the e-learning practitioner construct in terms of person attributes?

Based on the previous discussion, the basic structure of the e-learning practitioner construct in terms of person attributes as presented by the e-learning practitioners at TUT consists of a **CSID configuration**. Although personal attributes stay fairly constant over time, work behavioural styles may show changes and reactions to certain environmental influences. Therefore the structure of the e-learning practitioner construct in terms of person attributes is not a static structure. As discussed previously, it is a living subsystem of the e-learning practitioner system, displaying certain characteristics, patterns and relationships. This construct may emerge differently from its latent position depending on a number of influences, for example environmental structuredness.

In order not to pre-empt the discussion on P-J fit in section 4.5, I simply make the comment that these findings complement findings from the Human Job Analysis discussed in section 4.4 of this chapter. **This section commented on the question "What is…" but will continue with the argument "What should be…" in section 4.5.**

4.4 Research question 2

What is the latent structure of the e-learning practitioner construct in terms of the work environment context?

The following subsidiary questions were complimentary to research question 2:

1. What are the characteristics of the e-learning practitioner job?
2. What are the job structures for the e-learning practice?
3. What are the characteristics of the e-learning job at TUT?
4. What are the job structures for the e-learning practice at TUT?
5. What are the characteristics of the P@W Programme e-learning job?
6. What are the job structures for the P@W Programme e-learning job?
7. What are the job demands, distracters and releasers perceived by the Partners in the P@W Programme?

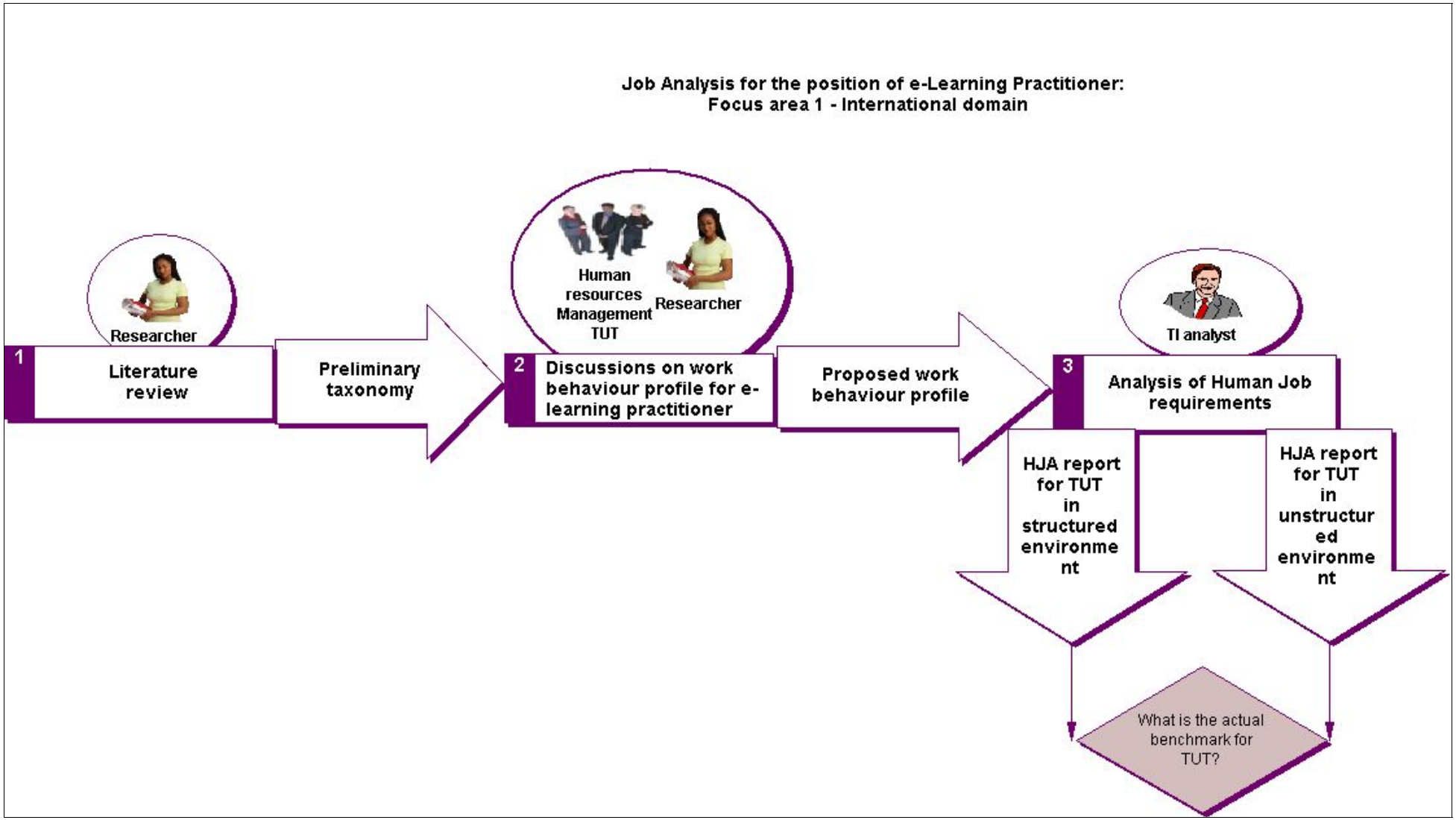
Discussion of three levels of job analysis for the position of e-learning practitioner at TUT that were investigated in this study will follow in the next section The focus areas were:

- literature from the international domain on the characteristics of e-learning practitioners (addressing subsidiary questions 1-2);
- HJA for the e-learning practice at TUT (addressing subsidiary questions 3-4), and
- HJA for the e-learning practice embedded in the Partners@Work Programme at TUT (addressing subsidiary questions 5-7).

4.4.1 Meta-analysis of e-learning practitioner characteristics

The first focus area in this section presents findings for the job analysis for the position of e-learning practitioner in the international higher education e-learning domain. With the aim on the first and second research goals, research activities included an analysis of the e-learning practitioner job based on international requirements. Figure 4.25 illustrates the analysis process.

Figure 4.25: Job analysis process - international domain



As may happen in the fast changing environment of virtual organisations applying multimode teaching and learning approaches, job analysis for a job that does not yet exist may be necessary. It is apparent from the literature (see Chapter 2) that there are a vast number of characteristics and roles listed for e-learning practitioners. However, descriptions of how these character profiles fit into job positions or what the work environment of these practitioners should look like are very limited and not necessarily scientifically verified.

4.4.1.1 Discussions on the work behaviour profiles

Further investigation on this rather fuzzy topic of job analysis pointed in the direction of human resource development. And as the core of the e-learning practitioner job lies embedded in education with specific reference to the job of lecturer, I requested a job analysis document for the job of lecturer at TUT from the Department of Human Resources. This was followed up with an appointment with the Head of Planning and Employment at the Department of Human Resources, discussing possible routes to obtaining a job description for the e-learning practitioner. Building on the synthesis from literature as a point of departure, a possible work behaviour profile was compiled which was sent for analysis to Thomas International to address the first and second research goals for the second research question, namely:

Research goals 1-2
To identify job characteristics of e-learning practice.
To identify job structures for e-learning practice.

4.4.1.2 Analysis of the e-learning practitioner job at TUT

The analyst from Thomas International compiled two profiles for an e-learning practitioner, benchmarked against international requirements. These two job profiles aimed to fit a structured and an unstructured work environment respectively. The results were sent to an industrial psychologist from the Centre for Continuing Professional Development at TUT who is also registered as a Thomas International analyst, who communicated and explained the results to me (see Appendix E, Excerpt 4.2).

Discussion on profile details follows in the paragraphs below.

4.4.1.2.1 HJA reports for the position of e-learning practitioner

The first HJA report for the e-learning practitioner job based on data from a literature study addresses the job definition for the e-learning practitioner in a structured working environment. The following report was compiled by the analyst from Thomas International:

1. Human job requirement in a structured environment provided by Thomas International

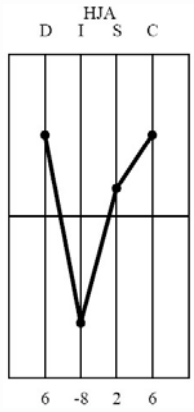
The results of the HJA under consideration suggest that the competences required by the jobholder should include the ability to:

- Focus and push both self and others to achieve targets. Budgets and goals despite any opposition or antagonism encountered.
- Be resolute in focusing on results and, if these are threatened, be prepared to resolve problems or conflicts, dealing with people, despite their feelings or the situation.
- Assert authority in order to meet agreed timescales and deadlines.
- Take decisions in a timely and appropriate manner, whilst at the same time ensuring that others follow similar principles.
- Work within a technical or specialist area of expertise in order to continuously improve the quality of the service and/or product provided.
- Introduce monitoring systems that identify whether individuals or the organisation are achieving their objectives, as well as any variances in terms of goals and timescales. Ensure that corrective action plans are formulated and implemented.
- Develop competence and expertise.
- Remain self-controlled and be prepared to listen to the views and ideas of others.
- Draw conclusions by probing problems and issues and contemplate the consequences of any action that is likely to be taken, testing the reliability of the information available.

The HJA implies that the job requires a person who is forceful, assertive, results orientated and has the ability to work in a steady, thorough, well organised, logical and systematic manner. The job content is likely to include work which is challenging and requires investigation and research in order to resolve technical or specialist problems. There are indications that the incumbent of this position may be called upon to work in areas where knowledge and expertise are important factors. The incumbent should have the persistence to see a job through to conclusion and work within clearly defined parameters. The person occupying the job should be authoritative, inquisitive, self-reliant, methodical, deliberate and precise in approach. The ability to question, concentrate and work within set precedents may also be important aspects within this job.

The HJA graph shows high Compliance, Dominance, and Steadiness factors and a low Influence factor (see Figure 4.26 for a graphical presentation of the job structure).

Figure 4.26: HJA for structured environment



The second HJA report for the e-learning practitioner job based on data from a literature study addresses the job definition for the e-learning practitioner in an unstructured working environment.

2. Human job requirement in an unstructured environment provided by Thomas International

The results of the HJA under consideration suggest that the competences required by the jobholder should include the ability to:

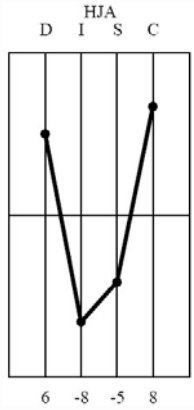
- Develop and comply with the systems, procedures, rules, objectives and timescales set by the organisation and adopt a disciplined approach when undertaking tasks.
- Work within a technical or specialist area of expertise in order to continuously improve the quality of the service and! or product provided.
- Remain rational when dealing with others, work within organisational requirements, be systematic and factual when dealing with colleagues, and handle conflict adopting a logical and unemotional approach until a solution becomes achievable.
- Provide the best possible solution to problem solving or decision making by conscientiously testing, examining facts, trying different alternatives and careful strategic planning.
- Assert authority in order to meet agreed timescales and deadlines. Overcome any problems which may hinder the achievement of same.
- Focus and push both self and others to achieve targets, budgets and goals despite any opposition or antagonism encountered.
- Be a self-starter who demonstrates energy in the work situation, seeking to get things done and at the same time addressing a wide variety of tasks.
- Adopt a serious and questioning manner in order to assess situations and reach

conclusions, thus basing the processes on facts and information gleaned from others.

The HJA indicates that the job holder needs to be a person who is both creative and results-orientated. Concern for the consequences of action and alertness to quality and standards may well be key aspects in this job. The position could involve a variety of activities in which emphasis is placed upon achieving results through a, logical and factual manner. Standard operating procedures, challenging assignments and the adherence to rules and procedure are integral to the function. Ideally the person who is best suited to the role will be systematic, precise, careful, shrewd, probing, objective, reserved, serious, self-starting, inquisitive, mobile, active, alert and with a desire to get things done quickly and accurately. Quality, organisation, self-control and an analytical approach are also likely to be important factors to the success of this job. The HJA graph shows high Compliance and Dominance factors and low Steadiness and Influence factors.

See Figure 4.27 for a graphical presentation of the job structure for e-learning practitioners in an unstructured environment).

Figure 4.27: HJA for unstructured environment



Subsidiary question 1:

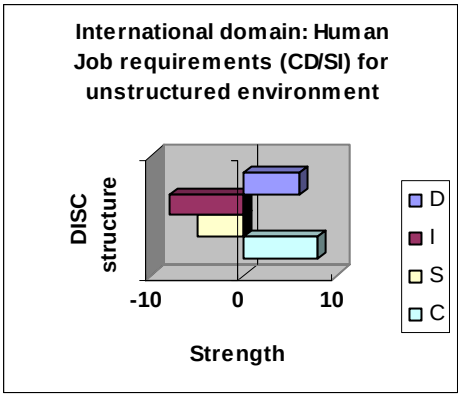
What are the characteristics of the e-learning practitioner job?

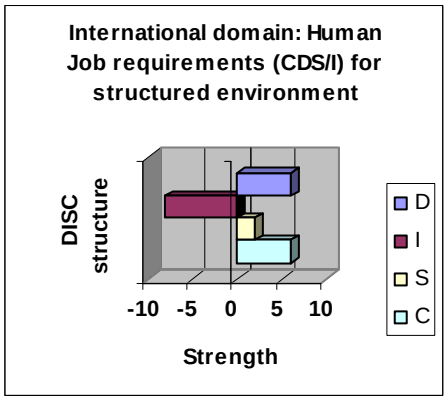
Based on the above description, job characteristics of the e-learning practitioner job may vary according to the structuredness of the environment. The main job characteristics are a variety of challenging activities in which emphasis is placed on achieving results in a logical, factual manner. Ideally the person who is best suited to the role will be systematic, precise, careful, shrewd, probing, objective, reserved, serious, self-starting, inquisitive, mobile, active, alert and with a desire to get things done quickly and accurately. Quality, organisation, self-control and an analytical approach are also likely to be important factors to the success of this job.

Subsidiary question 2:

What are the job structures for the e-learning practice?

Based on the job requirements for an unstructured environment the job structure displays a CD/SI configuration and for a structured environment the job structure displays a CDS/I configuration (see illustrations below):





These international benchmarks provoked questions about the **actual benchmarks** at TUT and for the P@W Programme and inspired investigation into the job characteristics of the e-learning practice at TUT to address the third and fourth research goals for the second research question, namely.

Research goals 3-4

To identify job characteristics of e-learning practice at TUT.

To identify job structures for e-learning practice at TUT.

4.4.2 HJA for the e-learning practice at TUT

The second focus area in this section presents findings for the job analysis for the position of the e-learning practitioner at TUT. Focusing on the third and fourth research goals, research activities included an analysis of the e-learning practitioner job based on requirements identified by the expert consensus group for TUT. As described in section 3.8.1.8 benchmarking the e-learning job at TUT was done by the expert consensus group, supported by the researcher and the consultants of Thomas International. Figure 4.28 illustrates the analysis process.

Figure 4.28: Job analysis process for the position of the e-learning practitioner at TUT

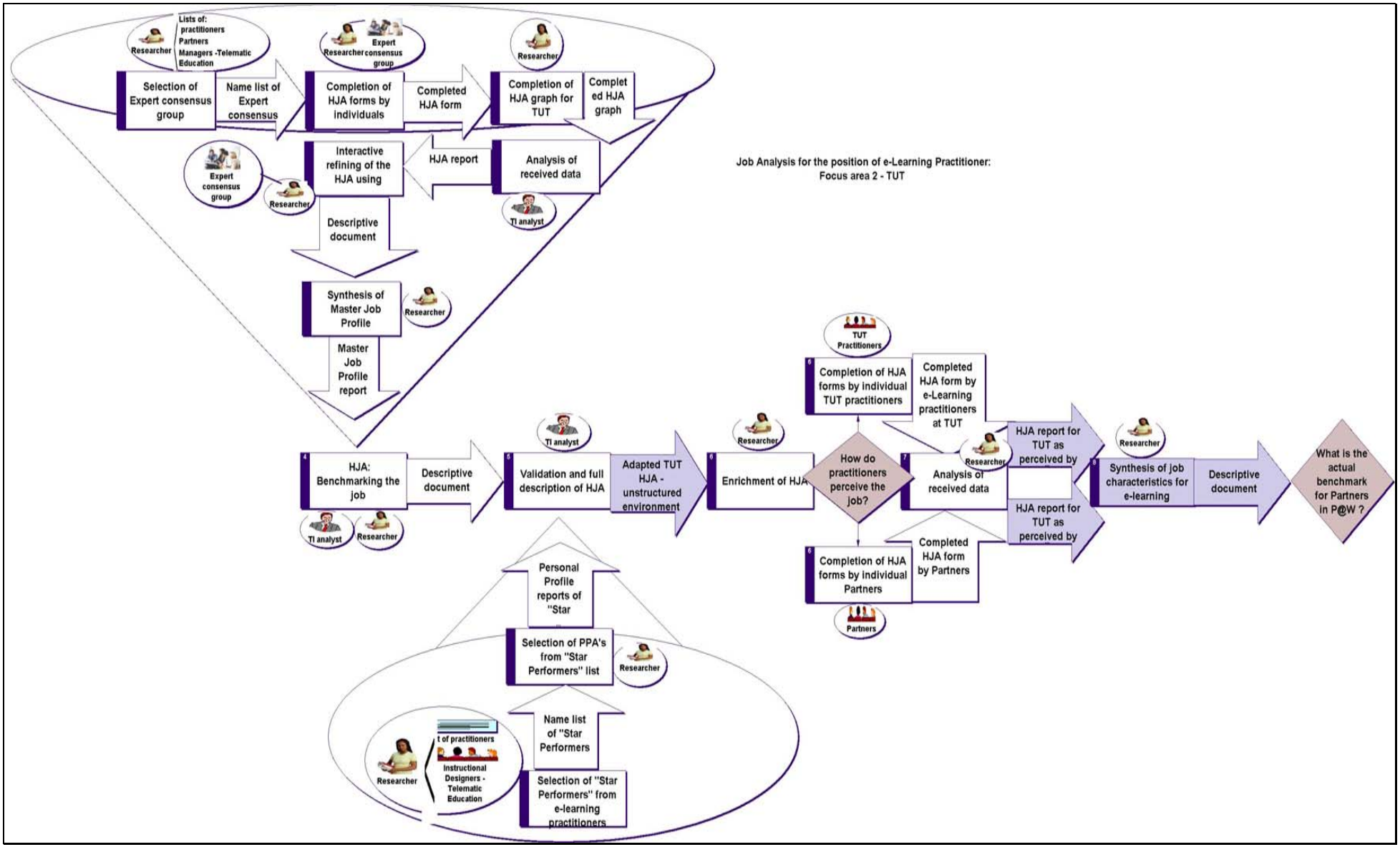


Table 4.33 summarises the original individual choices of each member of the expert consensus group on the different statements on the HJA form. The forms were completed before the expert consensus group started their discussions on the HJA. Only answers to three statements, namely numbers four, 20 and 21 (marked in grey), were unanimously selected. General agreement on the importance/unimportance of most of the other statements (marked in blue) was evident and fourteen answers were closely related. Seven of the answers to the 24 statements displayed a wide variation (marked in pink).

Table 4.33: Frequency of choices on the individual HJA forms

Statement Number	Frequency and distribution of individual choices					Group consensus
	Very low	Low	Significant	High	Very high	Group choices
1				3	2	High
2		2	1	1	1	Significant
3	1	1	1	1	1	Significant
4				5		High
5		2		2	1	Low
6				3	2	High
7				2	3	High
8			1	4		High
9	1		2	2		Low
10	3	2				Low
11				3	2	High
12	1	2		1	1	Low
13	2	1		2		Significant
14	1	3	1			Low
15	1	1		3		High
16				3	2	Very high
17		2	1	2		Low
18				3	2	Very high
19				4	1	High
20				5		High
21				5		High
22		1		2	2	High
23				4	1	High
24	1	4				Low

The interpretation of the scale on the HJA form is as follows:

Very High = Critical for the job; High = Important; Significant = Part of the job; Low = Unimportant; Very Low = Irrelevant.

Table 4.34: Selected HJA statements

Statements that were *unanimously* selected as **important** for the job were:

4. "Must have ability to organise various types of people."
20. "Must have vision to plan ahead on a large scale."
21. "Must have skill to persuade others to his/her point of view."

Other statements *generally agreed* on as **important** for the job were:

1. "Must concentrate on detailed work easily."
6. "Must be able to act without a precedent."
7. "Must have ingenuity to create new ideas."
8. "Must have the ability to deal with strangers."
11. "Must have poise and mastery of language in expression."
15. "Must develop rhythm and co-ordination in repetitive work."
19. "Must have the ability to overcome objections."
22. "Must seek authority in making policy statements."
23. "Must have patience to follow detailed instructions."

Other statements *generally agreed* on as **critical** for the job were:

16. "Must be able to handle interruptions and changes."
18. "Must have the ability to motivate others."

4.4.2.1 Reflection on the expert consensus group discussion

The following reflection on the expert consensus group discussion is my personal observations of the situation. Discourse during proceedings clarifies most of the issues that were raised. In reading the individual statements one by one it became clear that the interpretation of the statements and the semantic nuances were responsible for most of the choice differences on job importance. In essence the group agreed on the core characteristics of the job and during the group discussion it was apparent the participants did not have difficulty in changing their answers once there was consensus on the meaning of the statements.

One of the participants felt that the method were not scientifically reliable, but after discussion it was agreed that this exercise is aimed at a theoretical job benchmark, although the refinement process (described in section 4.4.2.4) would contribute to a more valid benchmark. Because of the vast differences in the individual interpretation of the statements, the only way to establish a benchmark was to have an expert consensus group discussion and, after the group had reached consensus on the actual meaning of the statements, try to arrive at a compromise. This led to a lively discussion. Statements that presented difficulties and the consequent difference in opinion are summarised in Table 4.35.

Table 4.35: Summary of discussion on HJA statements

Statement number	Statement	Discussion
2	"Must make unpopular decisions in carrying out the job."	Some of the group members felt that the specific role of the e-learning practitioner would dictate the situation. For example, even the lecturer who follows a participatory, active, student involvement approach will have deadlines for assignments, tests and group work. For some students (clients) adherence to deadlines may be seen as unpopular decisions. On the other hand in normal e-learning practice unpopular decision making is not a very important aspect of the job. Disciplining people based on own decision is not a high priority for the job and it is more likely that the job involves disciplining of students according to specific rules. The group decided to choose "significant" as the most applicable choice.
3	"Must have persistence to plug steadily at routine work."	Different opinions on this statement included on the one hand the view that to work in an online environment will require the person to stick at repetitive work. For example in a learning management system like WebCT, depending on the duration of the course, the cycle between the beginning and end of a task may be relatively short and the lecturer will have to stick to specific tasks on a regular basis. It is important for the job that the practitioners read, react to and answer students' e-mails and take note of the activities on the discussion board. Furthermore there will be routine work like the marking of assignments and managerial functions involving students, marks and courses. On the other hand routine work was interpreted as doing the same type of work on a regular basis, and the participants felt that the job of the e-learning practitioner may include a variety of roles. For example, the instructional design and production roles may involve creative processes not involving a particular short cycle routine. The group decided that the job has possibilities for high and low choices and chose "significant" as the most applicable choice.

Table 4.35: Summary of discussion on HJA statements (continued)

Statement number	Statement	Discussion
5	"Must be diplomatic and cooperative."	Different opinions on this statement included on the one hand the view that the e-learning practitioner needs to be diplomatic when approaching students in an online communication environment Because of the lack of face-to-face, personal communication there might be a chance that students may experience direct communication as intimidating. The rest of the group felt that it is important for the e-learning practitioner in the role of online teacher to lead the way and to firmly communicate information about deadlines, tests, assignments etc. The group decided to choose "low" as the most applicable choice.
9	"Must be steady in following an established work pattern. "	In contrast to the original choices of "significant" and "high", the group changed their choices to low after a discussion on the matter. "Following" is not a job characteristic in the sense that the practitioner would rather act in a proactive than reactive manner. The day-to-day work patterns may differ and the practitioner will make individual choices from day to day. The group decided to choose "low" as the most applicable choice.
12	"Must be able to follow a system to perfection."	The group were divided in their opinion on this statement. On the one hand the structured environment of a tertiary educational institution leaves little room for individual application of the institutional rules, regulations and procedures. On the other hand in the daily practice of the e-learning practitioner the individual has the capacity to make decisions on the merits of the situation and not according to a strict rulebook with an application for each and every situation. The group decided to choose "low" as the most applicable choice.

Table 4.35: Summary of discussion on HJA statements (continued)

Statement number	Statement	Discussion
13	"Must be able to help others to solve human problems."	Initially the choices suggested that the ability to help others to solve human problems did not really apply to this job. However after discussion the group agreed that it is important for the practitioner to be a good "listener". In the online environment especially the practitioner must be sensitive to students' responses concerning personal problems. For example the student might be "absent" from the online discussions due to personal problems and the practitioner might set aside the task focus for a while because it is appropriate to be concerned with the individual. The group decided to choose "significant" as the most applicable choice.
17	"Must seek authority in calculated risks."	Because the parameters of the online teaching and learning environment are not defined yet, the taking of risks is part of the job. For example, because of unforeseen technological problems an electronic test might be a risk, and there must always be a backup test available as a substitute. But this doesn't mean that the practitioner must ask permission from his/her superior every time an electronic test is delivered. On the other hand the structured environment of a tertiary educational institution dictates caution from the practitioner in certain situations and will require permission from the authorities before action is taken. This will definitely be applicable in a situation where funds are needed for a specific project. After discussion the group decided to choose "low" as the most applicable choice, because the e-learning practitioner dares to take risks without extreme caution.

Agreement by the group on the different job statements resulted in the completion of a new HJA form summarising the group's perceptions of the job. The group then had a general discussion on the nature of this job. Words like "innovative", "driver", "love of teaching", "leading", and "creative" were mentioned. An interesting observation after the HJA graph was drawn was the prominence of the "Influence" factor in the graph, but during the expert consensus group discussion, the group verbally stated that they did not think personal influence is extremely

important. Further individual discussions with the experts revealed interesting views on the importance of the Influence factor in terms of the virtual persona of the e-learning practitioner.

One other concern after completion of the HJA was that the procedure of theoretical benchmarking can only be valid if a process of consensus is followed. Different interpretations of the statements may have a substantial impact on the choices made by the participants. It is important to keep in mind that the theoretical benchmark is a presentation of the participants' perceptions of the job and not cast in stone. Therefore the group composition is extremely important to ensure expert opinion on the job parameters and characteristics. The theoretical benchmark must be validated by comparing the profile to profiles of star performers occupying similar positions.

It is interesting to note that although I took special precautions (selection criteria for participants and following the prescribed guidelines from Thomas International) to ensure validity and reliability in the benchmarking of the HJA, the experts still had a wide difference of opinion on a few statements. The expert consensus group discussed this phenomenon and came to the conclusion that the undefined nature of the job of the e-learning practitioner, the variety of roles that the e-learning practitioner can play and the fact that there is no job description for the job of the e-learning practitioner at TUT may be contributing factors to this uncertainty.

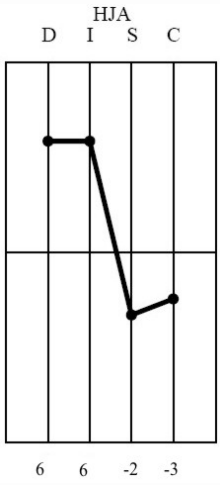
Furthermore, it is interesting to note that foci in the e-learning domain, and in other concurrent and completed research studies at the University of Pretoria, are on the role of the online facilitator the profile of the online facilitator, and the skills and competencies needed by instructional designers. These studies may contribute to the holistic understanding of the different job dimensions of the e-learning practitioner, but differ distinctly from this study in their specialised focus on the roles, skills and competencies of the online facilitator and the instructional designer.

The focus of the specific job analysis in this study is on the behavioural requirements of the e-learning practitioner job function. The latter is an umbrella construct that may well include functions of an online teaching and learning facilitator as well functions for the production and instructional design of e-learning materials.

4.4.2.2 HJA graph as perceived by the ECG

The completed HJA form was mapped on the DISC matrix and scored according to the scoring instructions on the HJA form. The following graph (Figure 4.29) emerged with a DISC factor score of D=6, I=6, S=-2, and C=-3 (see Figure 4.29 for a graphical presentation of the HJA).

Figure 4.29: HJA as perceived by the ECG



If an HJA form is completed by a group or team, once the form is completed consideration must be given to the possible overloading or under-appreciation of the job. In this case no indications of under- or overshift were present. In a case where a job has been overloaded (overshift) the graph will present all four factors above the line and an undershift will be demonstrated when all four factors are below the midline of the graph. In order to rectify the position, the midline is moved. A new midline is calculated by measuring the distance between the highest and lowest factors and dividing the intervening space in half. This will indicate the point for the new midline.

The HJA graph completed by the expert consensus group shows no indication of either an under-or overshift. It is important to keep in mind that this presentation is only a theoretical benchmark of the e-learning practitioner job and portrays the job function as perceived by the raters of the form.

4.4.2.3 Analysis of received data

Results for the completed HJA graph were sent to Thomas International to be analysed.

4.4.2.3.1 HJA report for the position of e-Learning Practitioner at TUT

The third HJA report for the e-learning practitioner job based on data as perceived by the expert consensus group addresses the job definition for the e-learning practitioner in a unstructured working environment. The following report was compiled by the analyst from Thomas International:

3. Human job requirement for the e-learning practitioner in an unstructured environment at TUT

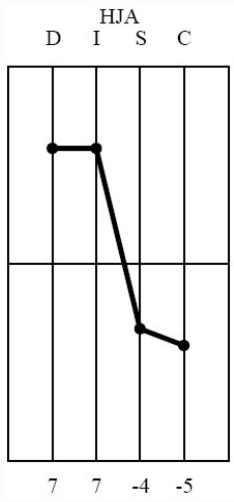
The results of the HJA under consideration suggest that the competences required by the jobholder should include the ability to:

- Take decisions in a timely and appropriate manner, whilst at the same time ensuring that others follow similar principles.
- Get oneself and others committed to the timeous commencement and achievement of tasks, and overcome any problems. Assist those who are not natural self-starters or who are inexperienced.
- Assert authority in order to meet agreed timescales and deadlines. Overcome any problems which may hinder the achievement of same.
- Be resolute in focusing on results and, if these are threatened, be prepared to resolve problems or conflicts, dealing with people, despite their feelings or the situation.
- Smooth relationships when difficult circumstances prevail and develop a culture of trust both within and outside the team.
- Create a network of contacts across various disciplines that will provide advice on what resources are available both within or outside the organisation.
- Bring a sense of urgency to situations, demonstrate an proactive approach, be willing to become involved in order to increase the pace and achieve goals and objectives.
- Be firm and persistent when expressing views, and present concepts and ideas to overcome problems once the situation has been carefully evaluated and discussed.

The HJA indicates that the person fulfilling the role should be inspirational, manipulative , with an ability to communicate with others. This job is likely to contain tasks which require individuality within antagonistic situations. Taking direct and positive action with little or no precedent may also be a critical factor. The job should carry freedom to act and the authority to make decisions even though they may not always be popular. It is important to note that the HJA suggests that the job incumbent may at times challenge and/or even go outside of set parameters in order to achieve results. The position requires a person who is venturesome, assertive, forceful, self-reliant, self-confident, verbal, independent, unyielding and impatient both to get things done and to succeed

See Figure 3.30 for a graphical presentation of the job structure for e-learning practitioners in an unstructured environment at TUT).

Figure 4.30: HJA for e-learning practitioner at TUT



4.4.2.4 Interactive refinement of the HJA

A further refinement to the HJA is to create a Master Job Profile which can be compared to the HJA already created. The aim of this exercise is to create a proper description of appropriate behaviour required for the post and whether a person behaving accordingly would be able to function effectively. Instructions on how to construct the Master Job Profile, as well as the relevant word descriptions, were provided by the analyst from Thomas International. To create the Master Job Profile graph report these steps are followed:

- **Step 1:** Once the HJA has been drawn, four descriptive adjective words for each High and Low factor using the provided adjective word list are written down;
- **Step 2:** Adjectives the words describing the main emphasis on the HJA are added;
- **Step 3:** The wording from the relevant “Basic Combinations descriptions” in the HJA instruction booklet are added;
- **Step 4:** Each group member indicates the characteristics of the person required by the HJA on an issued copy of the “Master Job Graph Interpretation” form, and
- **Step 5:** Acquired information can be analysed to construct the master profile which should correspond with the completed HJA graph. If it is not the case the group is not clear about the perception of the job.

After completing the HJA, the expert consensus group was asked to participate in the refining process. The above-mentioned steps were followed and the process started with an invitation e-mail. Firstly the group were given feedback on the completed HJA graph and were invited to participate (see Appendix E, Excerpt 4.3) in setting up the Master Graph document. Two respondents gave their feedback (see Appendix E, Excerpt 4.3b).

4.4.2.5 Master Graph Document

The above-mentioned steps for creating the Master Graph document were followed and the five steps are summarised below:

- **Step 1:** Give four descriptive words for each High and Low factor using the adjective word list.
    - **Feedback on step 1:**
    - The following words were identified:
    - High D: Self-Starter; Assertive; Decisive; Inquisitive;
    - High I: Persuasive; Positive; Participative; Communicative;
    - Low S: Active, Alert, Dynamic and Energetic
    - Low C: Independent; Persistent and Firm and Unconventional.
- **Step 2:** Describe the main emphasis on the HJA.
    - **Feedback on Step 2**
    - Directing (for the High D factor) and Leading (for the High I factor) were added to the above mentioned list.
- **Step 3:** Transcribe the wording from the "Basic Combinations descriptions".
    - **Feedback on Step 3**
    - The D/C combination was described as – 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".
    - The I/C combination was described as – Self-Confidence – "Contact situations require motivating and influencing people where there is little protocol or precedent available to serve as a guide. He/She may be required to commit himself/herself by taking a position or "stand" which is controversial" (Emphasised in combination with High D).
- **Step 4:** Indicate characteristics of the person required.
    - Each member of the expert consensus group received an e-mailed copy of the Master Job Graph interpretation table, and a request to select one block in each column that they felt was descriptive of the job of the e-learning practitioner. The four columns relate to DISC in that order and cells one to eight are above the midline and the rest below the midline. Responses and choices are listed in Table 4.36.
- **Step 5** is discussed in section 4.4.2.6.

Table 4.36: Summary of responses on the Master Job Graph Interpretation

D	I	S	C
1	**2**	Steadiness to accomplish results Patience Systematic approach Concentrating and finishing assignments usually by oneself Deliberate in approaching problem solving Fact gathering **3**	Conscientious effort Precision accuracy Critical approach in solving problems. Sensitivity in dealing with others Logical analysis **4**
Use of power and authority Immediate accomplishments Being firm in decision making Freedom from doing all the specific details Take an idea and move with it **5**	Actions involving contact with people Democratic relationships 'Open door' policy in working with others Congeniality Counselling/ teaching approach **6**	**7**	**8**
9	Logical in approach but still considers people Sincerity in helping others Must meet deadlines Must do the important tasks themselves **10**	Alertness Restlessness Quickness to change Demonstrative if things go wrong A number of projects going at the same time **11**	**12**
13	**14**	Freedom to act alone Develop new and different activities Active, mobile Develop opportunities to be heard in presenting new concepts **15**	Encouraged to try new ideas **16**

The selection of more than one cell in the different columns suggests that there might be a variation in perceived job requirements relating to different job scenarios and demands.

4.4.2.6 Synthesis of Master Job Profile

Synthesis of information provided by the expert consensus group pertaining to the Master Job Profile revealed the following job characteristics:

Descriptive words for competences required by the jobholder should include the ability to be a self-starter, be assertive; decisive; inquisitive; persuasive; positive; participative; communicative; active, alert, dynamic; energetic; independent; persistent; firm and unconventional.

The main emphasis of the job is highlighted as “directing and leading”. Taking direct and positive action where there may be little or no precedent to go on, motivating and influencing people with self-confidence.

Interpretations from the Master Graph table further suggest a combination of independent, firm decision making, active and quick reaction to change, democratic relationships, teaching approach, opportunity to develop new and different activities, sensitivity in dealing with others, deliberate in approaching problem solving, fact gathering, logical in approach but still considers people, sincerity in helping others and must meet deadlines.

- **Step 5:**
    - Acquired information for the Master Job Profile was sent for analysis to the analyst at Thomas International (see Appendix E, Excerpt 4.4).

Clarification on aspects of the Master Graph was requested from the analyst and in an hour-long telephonic conversation on 22 July 2005 we discussed the following issues:

Summary of discussion on Master graph

The respondents from the expert consensus group selected more than one option in the different columns, because they felt that some of the characteristics in other columns were applicable as well. For example: Block number 4 was selected but a statement from block 16 namely “Encouraged to try new ideas” was added. These contradictory choices can be interpreted in terms of the job complexity and environmental influences.

The structure of the e-learning practitioner job is complex in the sense that different job roles in different settings may dictate a variety of requirements. It is possible for a person to specialise and focus on one of the possible roles only in a structured or unstructured environment. On the other hand a person may experiment with all possibilities in an unstructured environment. These

different applications may impact on the human job requirement. For example in an unstructured and sometimes unfriendly environment it would be vital for an e-learning practitioner to drive initiatives and also to use his influence to sell ideas to his managers and also to the students. The high "I" in the proposed profile (HJA graph for the position of e-learning practitioner at TUT) suggests "people importance". This is in line with contemporary teaching and learning approaches emphasising the learner as active participant in the process. Effective communication is the vital energising component to activate and keep the teaching and learning environment alive. Especially in the online environment where the e-learning practitioner act as facilitator, e-,moderator, communicator, reacting on student's e-mails and giving regular feedback on input from students. The influence factor will be conveyed by the online persona of the persons involved.

The low "C" factor on the graph (HJA graph for the position of e-learning practitioner at TUT) is an indicator that the requirements for this job points to a person acting according to own discretion without restrictions from procedures, rules and regulations. Such a situation is not typical from the Higher Education environment, because there will always be procedures, rules and regulations about registration of students, marks, time tables for examinations etc. The freedom to act independently lies in the choice of educational approaches and applications within the framework of the organisation. Creativity and innovativeness as the most important characteristics of the e-learning practitioner as pointed out by participants in this study (see list of descriptive words from Questionnaire 3) are expressed in day to day practice within the organisational structure. We decided that it would appropriate to adapt the original HJA graph as compiled by the expert consensus group slightly to represent a higher "C" factor.

Before creating a full description of the HJA we also discussed the Personal Profiles of the "star performers" and relevance of these profiles to the Master Job Profile. Validation of this profile can be described as the actual benchmark for the job under construction.

4.4.2.7 Validating the Master Job Profile by creating an actual benchmark

To validate the theoretical benchmark as proposed by the expert consensus group, these perceptions must be compared to the profiles of star performers. The latter are defined as the persons in identical or related jobs whose job performance can be rated as exemplary and may indicate actual benchmarks for the job. It is important to ensure that the star performers are rated on their performance in the job in question and not because they are star performers. It is important to make the necessary adjustments to align the theoretical and actual benchmarks.

To define star performers, colleagues (instructional designers) in the department of Telematic Education were invited give their opinions (see section 3.8.4). An e-mail posing two questions was sent out to them (see Appendix E, Excerpt 4.5).

The variation in profiles of the star performers has already been discussed in section 4.3.2.4.1 but is relevant for the HJA in terms of the structuredness continuum.

4.4.2.8 Full description of the HJA

A full description of the HJA was written and checked back with the analyst from Thomas International. It is possible to have a perfect job profile but not the perfect person, and therefore it might be necessary to make the relevant calculated allowance. According to Thomas International it is easier to change the job than to change the person!

A registered analyst from Thomas International compiled the actual benchmark for the position of e-learning practitioner at TUT (see Figure 4.31 for details).

4.4.2.8.1 Adapted HJA report for the position of e-learning practitioner at TUT

The adapted HJA report for the e-learning practitioner job based on data as perceived by the expert consensus group addresses the job definition for the e-learning practitioner in a unstructured working environment. The following report was compiled by the analyst from Thomas International:

4. Human job requirement for the e-learning practitioner in an unstructured environment at TUT

The results of the HJA under consideration suggest that the competences required by the jobholder should include the ability to:

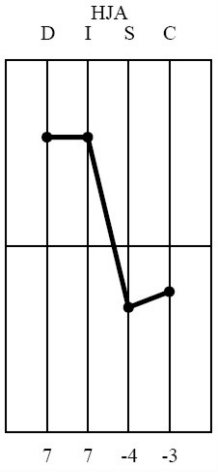
- Take decisions in a timely and appropriate manner, whilst at the same time ensuring that others follow similar principles.
- Get oneself and others committed to the timeous commencement and achievement of tasks, and overcome any problems. Assist those who are not natural self-starters or who are inexperienced.
- Assert authority in order to meet agreed timescales and deadlines. Overcome any problems which may hinder the achievement of same.
- Be resolute in focusing on results and, if these are threatened, be prepared to resolve problems or conflicts, dealing with people, despite their feelings or the situation.
- Smooth relationships when difficult circumstances prevail and develop a culture of trust both within and outside the team.

- Create a network of contacts across various disciplines that will provide advice on what resources are available both within or outside the organisation.
- Be firm and persistent when expressing views, and present concepts and ideas to overcome problems once the situation has been carefully evaluated and discussed.
- Bring a sense of urgency to situations, demonstrate an proactive approach, be willing to become involved in order to increase the pace and achieve goals and objectives.

The HJA indicates that the job requirement is for a person who is inspirational, manipulative and has the drive to achieve. The job is likely to require that tangible, measurable results are to be obtained despite opposition or resistance to their accomplishment. There may be pressure to meet deadlines in an environment laced with a wide variety of problems and unexpected interruptions. Communication and people skills are also important aspects of the job. The person fulfilling this role should be self-starting, competitive, imaginative, direct, influential, persuasive and self-confident. Independence, mobility, activity, pace and authority are also factors which could be important to this position.

See Figure 3.31 for a graphical presentation of the job structure for e-learning practitioners in an unstructured environment at TUT (adapted).

Figure 4.31: Actual benchmark for TUT



Subsidiary question 3:

What are the characteristics of the e-learning job at TUT?

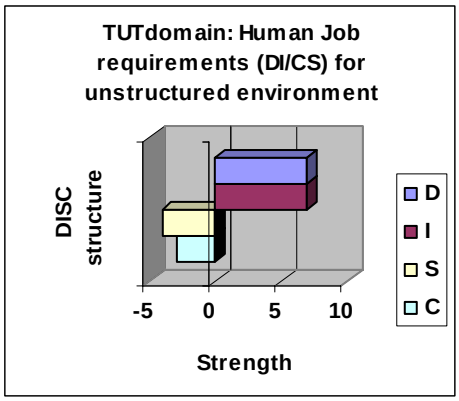
Based on the above description, job characteristics of the e-learning practitioner job may vary according to the structuredness of the environment. The job requirement is for a person who is inspirational, manipulative and has the drive to achieve. The job is likely to require that tangible, measurable results are to be obtained despite opposition or resistance to their accomplishment. There may be pressure to meet deadlines in an environment laced with a wide variety of

problems and unexpected interruptions. Communication and people skills are also important aspects of the job. The person fulfilling this role should be self-starting, competitive, imaginative, direct, influential, persuasive and self-confident. Independence, mobility, activity, pace and authority are also factors which could be important to this position.

Subsidiary question 4:

What are the job structures for the e-learning practice at TUT?

Based on the job requirements for an unstructured environment at TUT the job structure displays a DI/CS configuration, illustrated below.



4.4.2.9 Enrichment of the HJA

No organisational job specification, previous advertisements for the position, details on specific functions or key result areas, or critical success factors for analysing effectiveness in the future are available for the e-learning practitioner job at TUT. However, through the HJA process, as described above, enriched by a process of crystallisation, available resources can be utilised to get a clearer picture of what this job should look like. A number of resources were explored, for example the job profile as designed by the analyst from Thomas International (see section 4.4.2.8), the identification of “star performer” as perceived by practitioners from the Department of Telematic Education (see section 4.4.2.7), and the Master Job Profile created by the expert consensus group (see section 4.4.2.5).

Extending the enrichment process further to include the views of e-learning practitioners at TUT and the Partners in the P@W Programme produced valuable data on how they perceive job requirements for e-learning practice at TUT (see paragraphs below).

The rationale behind this was to obtain a holistic picture of how the e-learning practitioners perceived this job. The results were also, however, rather ‘fuzzy’. Seeing this exercise in light of

the fact that the experts had a difference of opinion on the semantics of some of the statements, there is no way that the choices of the participants could be listed as a theoretical benchmark for the job. This was not the intention of this enrichment activity, however, nor was it used as a validated, scientifically sound method to extrapolate an e-learning practitioner job description based on frequency of choices. The aim of this exercise was merely to get an impression of what existing practitioners at TUT think of the e-learning practitioner job and to add a little background colour to the mosaic of the e-learning practitioner construct.

4.4.2.9.1 Job requirements as perceived by e-learning practitioners at TUT

The e-learning practitioner group at TUT that participated in this research study could volunteer to complete an HJA form as well as a PPA form (see Appendix C6).

Those who agreed to participate were instructed to complete the HJA form in terms of their perceptions of job requirements for the e-learning practitioner's job. Nineteen completed forms were scored according to prescribed procedures.

4.4.2.9.2 Job requirements as perceived by the Partners

The Partners in the P@W Programme at TUT who participated in this research study could volunteer to complete an HJA form. They were invited by e-mail to participate and those who agreed were instructed to complete the HJA form in terms of their perceptions of job requirements for the e-learning practitioner's job. Six completed forms were scored according to prescribed procedures.

4.4.2.9.3 Analysis of completed HJA forms

The questions on the HJA form provided the structure for the participants' views. The data from the completed forms for each group were entered on a spreadsheet and scored as prescribed by the HJA method. Results from these completed HJA forms were used as guidelines to gather data about their perceptions of the e-learning practitioner job at TUT. The DISC scores for each individual were added to a frequency table and the average of these scores was graphed (see Table 4.37 and Figure 4.32 for responses from the TUT e-learning practitioners and Table 4.38 and Figure 4.33 for responses from the Partners).

4.4.2.9.4 Analysis of completed HJA forms from TUT e-learning practitioners

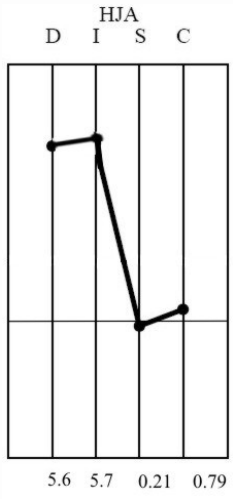
The analysis of the results of 19 HJA forms yielded interesting results. As can be seen from the frequency table 14 (73,6%) of the 19 raters considered Dominance and Influence as important factors for the e-learning practitioner, whilst only five (26%) indicated that the Steadiness factor is more important than the Dominance factor.

Table 4.37: Frequency of HJA scores from TUT e-learning practitioners

	Frequency of DISC scores on the HJA form from TUT e-learning practitioners																			Total	Average
D	11	1	8	9	6	7	5	10	0	4	-7	7	7	6	8	10	4	8	2	106	5.6
I	11	4	9	7	3	4	4	8	6	3	-1	6	5	4	8	8	8	9	3	109	5.7
S	-1	3	-5	0	-8	0	-6	1	2	-3	6	4	-6	2	-2	1	6	-2	4	-4	-0.21
C	1	3	-2	-2	-5	1	-5	2	2	4	4	2	2	1	2	3	2	-1	1	15	0.79

The DISC graph displays the same basic shape as the HJA graph developed by the expert consensus group. See Figure 4.32 for a graph of the job structure for e-learning practitioners in an unstructured environment at TUT as perceived by the TUT e-learning practitioners.

Figure 4.32: HJA as perceived by practitioners at TUT



4.4.2.9.5 Analysis of completed HJA forms from the Partners

Interesting to note that duplication of this exercise with the P@W group resulted in complementary results. All the participating Partners identified the Dominance and Influence factors as important for the e-learning practitioner at TUT.

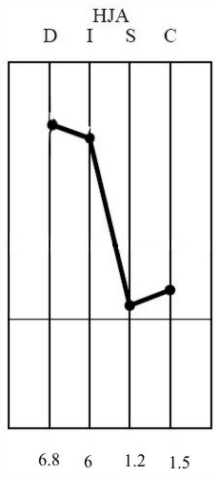
Table 4.38: Frequency of HJA scores from Partners

	Frequency of DISC scores on the HJA form from P@W						Total	Average
D	9	9	5	8	3	7	41	6.8
I	9	8	1	6	1	10	35	6
S	-2	1	2	-2	0	9	8	1.2
C	4	3	-1	1	0	2	9	1.5

As can be seen in the graph (Figure 4.33) there is an overshift in the HJA, which means that the job has been overloaded. In order to rectify the position the midline must be moved to between the highest and the lowest factor, dividing the intervening space in half. The new midline is not

on 0 but on 2.8. See Figure 4.33 for a graph of the job structure for e-learning practitioners in an unstructured environment at TUT as perceived by the Partners.

Figure 4.33: HJA as perceived by Partners

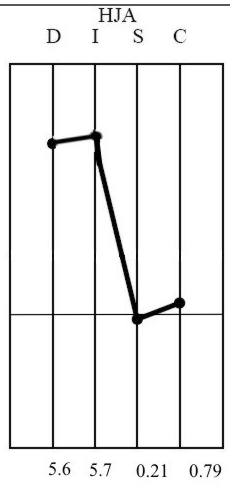
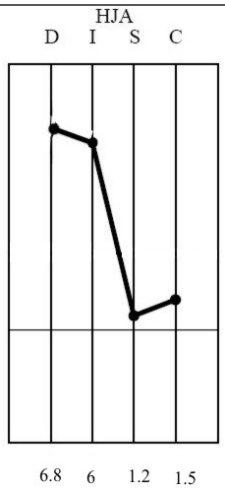
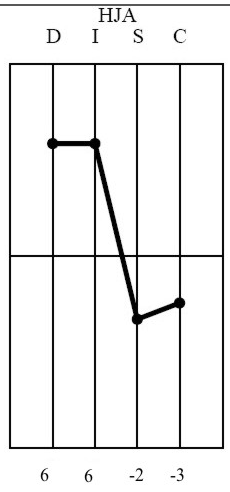
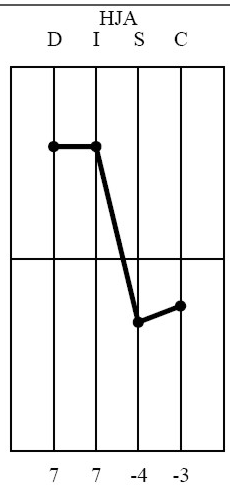


4.4.2.9.6 Comparative graphs of the job requirements as perceived by the TUT e-learning practitioners, Partners and the expert consensus group at TUT

As illustrated in the following HJA graphs (see Table 4.39), all the participating groups, namely the TUT e-learning practitioners (Figure 4.32), the Partners (Figure 4.33), and the expert consensus group (Figure 4.29) indicated that the Dominance and Influence factors are very important for the job. These perceptions were complemented by the validated, benchmarked profile for e-learning practitioners at TUT (Figure 4.31).

Table 4.39 presents a comparison of the job structures for e-learning practitioners in an unstructured environment at TUT as perceived by the TUT e-learning practitioner groups.

Table 4.39: Comparison between HJA's as perceived by different groups

Figure 4.32	Figure 4.33	Figure 4.29	Figure 4.31
			

The similarity of the graphs indicates a general agreement of opinion about the job requirements for e-learning practitioners at TUT. It is important to keep in mind that the graphs portray a mutual perception about a job that does not have a formal job description as such, but that is practised in a self-directed way by the practitioners. Different levels of support structures in terms of infrastructure, human resources and technologies are provided by the organisation and formal projects and programmes are further supported by the Department of Telematic Education.

Enrichment of subsidiary question 3:

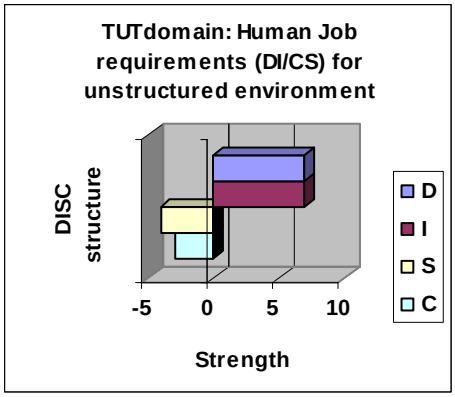
What are the characteristics of the e-learning job at TUT?

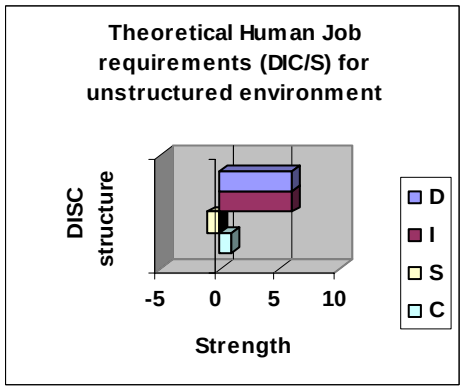
Based on the above description, job characteristics of the e-learning practitioner job may vary according to the structuredness of the environment. The job requires a person who is inspirational, manipulative and has the drive to achieve. The job is likely to require that tangible, measurable results should be obtained despite opposition or resistance. There may be pressure to meet deadlines in an environment laced with a wide variety of problems and unexpected interruptions. Communication and people skills are also important aspects of the job. The person fulfilling this role should be self-starting, competitive, imaginative, direct, influential, persuasive and self-confident. Independence, mobility, activity, pace and authority are also factors that could be important for this position.

Enrichment of subsidiary question 4:

What are the job structures for the e-learning practice at TUT?

Based on the job requirements for an unstructured environment at TUT the job structure displays a DI/CS configuration. Based on the theoretical benchmark of the job requirements for an unstructured environment at TUT, the job structure displays a DIC/S configuration.





4.4.2.10 Synthesis of job characteristics for the e-learning practitioner at TUT

The following job characteristics can be deduced from above-mentioned job requirements. The jobholder should have the ability to do the following:

- Adapt to the fast pace of the electronic teaching and learning environment, taking decisions in a timely and appropriate manner. There may be pressure to meet deadlines in an environment laced with a wide variety of problems and unexpected interruptions.
- Practise sound e-moderating principles by getting oneself and others committed to the timely commencement and achievement of tasks, and to address and overcome any problems as quickly as possible. Assist those who are not natural self-starters or who are inexperienced. Solid training for all participants is essential.
- Assert authority in order to meet agreed timescales and deadlines. Overcome any problems that may hinder the achievement of set outcomes. Proactive contingency plans to counteract infrastructural and technological failure are very important life savers.
- Be resolute in focusing on results and, if these are threatened, be prepared to resolve problems. The job is likely to contain tasks that require individuality in antagonistic situations. To achieve positive outcomes requires giving both direction and opportunity for participation. Dealing with students, despite their feelings or the situation, may sometimes require the freedom to act and the authority to make decisions even though they might not always be popular.
- Maintain smooth relationships when difficult circumstances prevail and to develop a culture of trust both within and outside the team, especially in the unstructured, ill-

defined work environment where persuasiveness and the selling of e-learning principles and concepts to managers and students are important.

- Create a network of contacts across various disciplines that will give advice on what resources are available both within or outside the organisation.

4.4.2.10.1 Key expectations of the HJA for the e-learning practitioner at TUT

In terms of the adapted HJA graph (see Figure 4.31), the High factors for the e-learning practitioner at TUT are Dominance and Influence and the Low factors are Steadiness and Compliance. The expectations outlined from the HJA will thus be for a person of an energetic, directing, leading and persuading nature combined with the ability to act independently and sometimes unconventionally. It is important for the e-learning practitioner in the online teaching and learning environment to actively lead the way for the students. The job requires, on the one hand, a powerful leader using force of character to get positive results and, on the other hand, an online persona who influences, motivates and persuades in order to create an online knowledge-building community. As it is so easy to get lost in cyberspace, students need a driver who has the ability to organise various types of people with confidence and enthusiasm. In the online environment in particular, where electronic communication is sometimes the only means of communication, the driver must have the ability to motivate and lead others successfully and to engage in communication with unseen strangers using a positive and participatory approach. Open, regular communication is an essential and crucial aspect of the online teaching and learning environment.

As mentioned earlier the e-learning practitioner job at TUT is not a formal, structured position and no formal job description for such a job exists. Lecturers who engage in e-learning practices are working in an unstructured working environment, but are also bound by the policies, rules, regulations and procedures of the organisation in which they are operating. Thus the working environment, acting on and influenced by varying degrees of supportive interventions, may sometimes tend to move to the other side of the continuum to become more and more structured. The P@W Programme as an example of such a structured environment will be discussed in the following paragraphs to addresses the fifth and sixth research goals for the second research question:

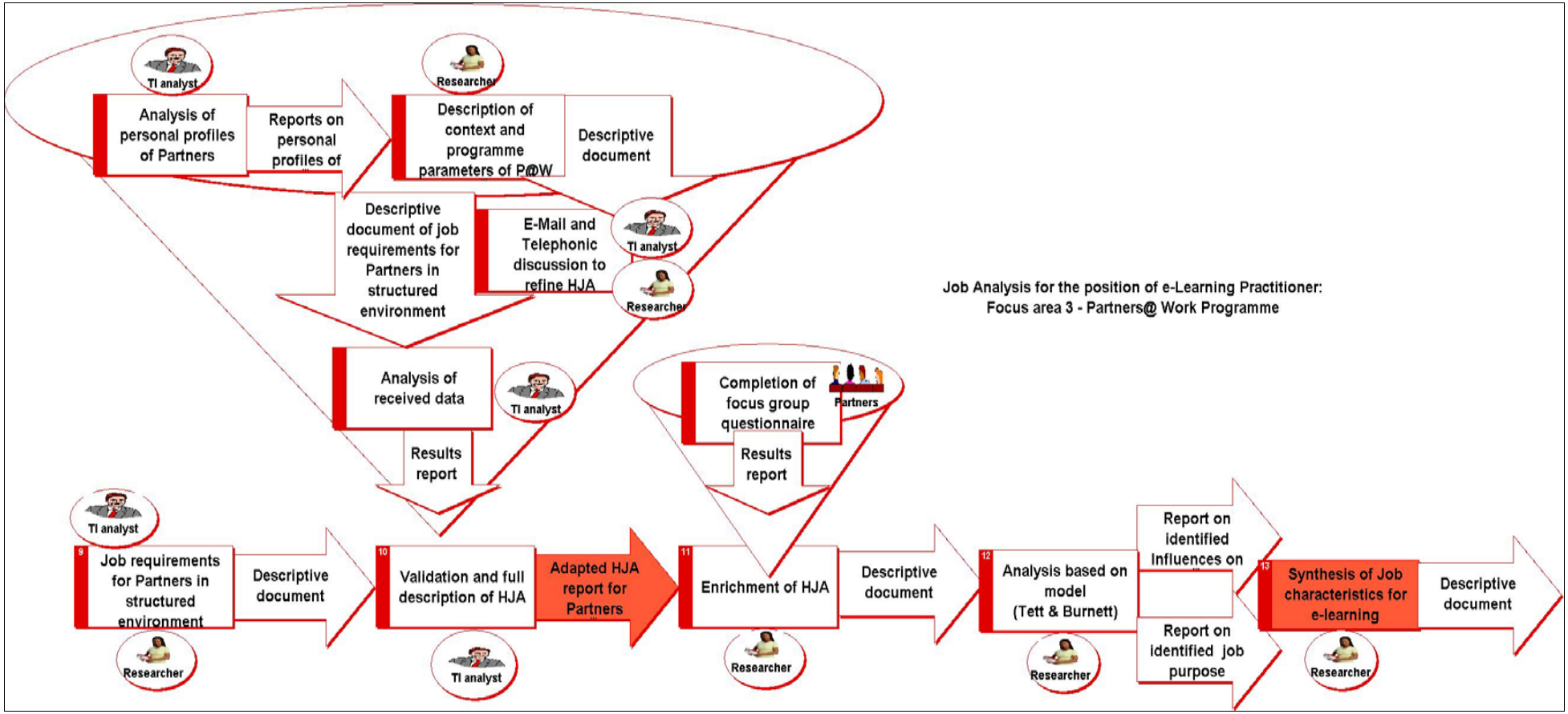
Research goals 5-6
To identify job characteristics of e-learning practice for the P@W Programme.
To identify job structures for e-learning practice for the P@W Programme.

4.4.3 Actual benchmark for the job requirements of Partners

If the focus shifts towards the P@W programme, the picture will change. This formal programme provides a structured working environment for the Partners. They accepted a “job description” when they contracted their positions with the department of Telematic Education and with TUT. A full description of this is available at http://www.tut.ac.za/tut_web/index.php?struc=2918.

The third focus area in this section presents findings for the job analysis for the position of e-learning practitioner in the P@W Programme. Focusing on the fifth, sixth and seventh research goals, research activities included an analysis of the e-learning practitioner job based on requirements adapted by consultants from Thomas International. Figure 4.34 illustrates the analysis process.

Figure 4.34: Job analysis process for the position of the e-learning practitioner in P@W Programme



4.4.3.1 Description of job requirements for Partners in a structured environment

Partners in the programme committed to:

- remaining **actively involved** in the project for at least **one full year** (June to June);
- being available as a **mentor** for the new intake of PARTNERS the following year (June – to June) and for other lecturers in the Faculty;
- attending and actively participating in **all contact sessions;**
- completing **web-based learning modules** on online facilitation and other relevant topics;
- participating actively and critically in **online discussions;**
- creating **technology-enhanced teaching materials** and **learning opportunities** of high quality;
- keeping a **reflective journal** for action research purposes;
- writing an **article** collaboratively that could be submitted to an accredited, peer-reviewed journal;
- preparing a **paper** collaboratively that could be submitted to a national conference in the field, and
- actively **implementing** the new teaching and learning materials, as well as the online facilitation skills that were mastered during the course of the year (January to June).

Certain quantity and quality standards were set to indicate appropriate compliance to the above-mentioned commitments. Full details on the “job” requirements for the position of Partner in the P@W Programme defining “job” roles and functions and the key performance areas that were set with clear guidelines on standard operating procedures are available at http://www.tut.ac.za/tut_web/index.php?struc=2452.

4.4.3.2 Validation and full description of HJA for Partners

Validation of the above-mentioned “job” for the Partners in the P@W Programme entails refinement of the “job” requirements. Starting with a discussion on the findings from the PPA of the Partners, the P@W Programme scenario was brainstormed in a series of email and telephonic discussions between the analyst from Thomas International and the researcher.

Definition of context is an extremely important issue in the validation process of the HJA considering the continuous interaction between the individual and the work context. According to Tett and Burnett (2003:502), “[b]ehavioural interpretation (as expressing one trait or another) is context-dependent; understanding trait expression calls for consideration of relevant situational features”. One of the topics under discussion during brainstorming sessions between

the analyst from Thomas International and I was the difference between unstructured and structured environments (see Appendix E, Excerpt 4.6).

It is evident from the above answer that to accommodate a more structured environment, the job requirements applicable in an unstructured environment, as proposed by the drafted HJA for the e-learning practitioner at TUT, need to be changed. A structured environment for the purpose of this study may be viewed as a secure and stable working environment, where the participants follow a plan of action, with well-defined roles and tasks, and clear parameters for job performance. The P@W Programme provides such a structured environment for the Partners.

4.4.3.2.1 Description of the context and programme parameters of the P@W Programme

The following contextual topics, capacity-building programme for Partners, key result areas of critical success factors and job roles directed our brainstorming sessions and are briefly outlined below.

- **Capacity-building programme for the Partners**

The capacity-building programme provides structure for the P@W programme and is designed to accommodate lecturers across faculty borders and in various academic support departments. Specific outcomes are contracted with both the Partners and their supervisors, and focus on the following:

- Design, development, implementation and evaluation of course materials using the main technologies available at the Department of Telematic Education.
- Skills development activities.
- Knowledge development activities.
- Active involvement in an action research project with the aim of strengthening the Partners' research skills.
- Mentoring activities.

Five key result areas of critical success factors were deduced from the above, namely online teaching, instructional design, personal development, research and project management. During the one-year duration of the programme it is compulsory for the Partners to comply with all above-mentioned focus areas, however, after completion of the programme further specialisation in one of these areas may be undertaken.

- **Key result areas of critical success factors and job roles**

Corresponding with the above-mentioned responsibilities are five main roles that the Partner should fulfil. These roles are:

1. Online teacher/facilitator/e-moderator.
2. Instructional designer.
3. Adult learner.
4. Researcher.
5. Project manager.

Structure and support for the Partners fulfilling these roles were created by the parameters of the programme, programme outcomes, infrastructure and personal support from staff in the Department of Telematic Education. Knowledge building activities are focused on the five main technologies, namely web-based teaching and learning using WebCT, video conferencing, video production, e-testing and the production of multimedia, and are enriched by contributions from guest speakers, conferences, workshops and work sessions. Assessment criteria for the critical performance areas are specified by the programme and the Partners use Self Assessment Reports to assess their progress. However, evaluation of the Partners' job performance is beyond the scope of this study and will not be discussed.

Information exchange between the analyst from Thomas International and I resulted in a report on job requirements to accommodate a more structured environment (see Appendix E, Excerpt 4.7).

4.4.3.2.2 HJA report for the e-learning practitioner at TUT (adapted for a structured environment)

The adapted HJA report for the e-learning practitioner job addresses the job definition for the e-learning practitioner in a structured working environment. The following report was compiled by the analyst from Thomas International:

5. Human job requirement for the e-learning practitioner adapted for a structured environment at TUT

The results of the HJA under consideration suggest that the competences required by the jobholder should include the ability to:

- Develop a team atmosphere through hard work, calmness, tolerance and consistency, attempting to fulfil work projects with honesty and integrity.
- Generate and provide specialist and/or administrative services which benefit the organization and, depending on whether they are task or people-related, lead to a high

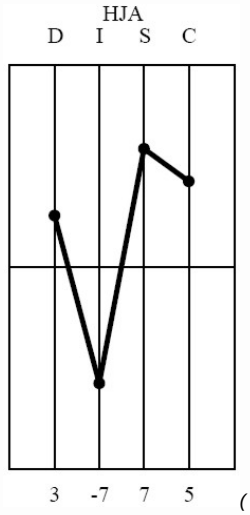
level of internal and external customer satisfaction.

- Be persistent in problem solving, seeking solutions through the expertise of both self and others. Research all the facts with care and resolving problems in a timely and thorough manner.
- Develop competencies and expertise in both oneself and others in order to attain satisfactory standards and deliver results within agreed timescales.
- Enjoy challenging problem solving situations and come up with well thought through practical solutions.
- Apply a systematic and logical approach in order to achieve accurate results.
- Create a culture of continuous improvement.
- Set clear objectives, monitor progress, take corrective action and control performance levels.
- Adopt a serious and questioning manner in order to assess situations and reach conclusions, thus basing the processes on facts and information gleaned from others.

The HJA is calling for a person who has the drive to achieve results within a specialist, technical or administrative area of expertise. The incumbent is likely to be reflective by nature and should enjoy working in areas which require attention to detail and maintaining quality and standards. The job is likely to involve concepts, equipment, ideas and problem solving where a sound depth of knowledge and expertise are a strong requirement. Persistence and the ability to see a job through to conclusion are important to the role as is security and a structured working environment. Impulsive and pressurised decision making should not be an integral aspect of the function as caution should be exercised in this area. The person fulfilling this role should be driving, thorough, systematic and enjoy working within clearly defined work parameters. Ideally the job is calling for a person who is tenacious, structured, methodical, organised, inquisitive, factual, cautious, shrewd, self reliant, hard working and with a strong need to achieve a worthwhile result. A probing, questioning and objective approach is also called for within the position.

The following graph (see Figure 4.35) captures the requirements for a structured working environment for the e-learning practitioner at TUT in for the Partners from the P@W Programme. The job structure is presented in Figure 4.35.

Figure 4.35: Proposed HJA for a structured environment



Subsidiary question 5:

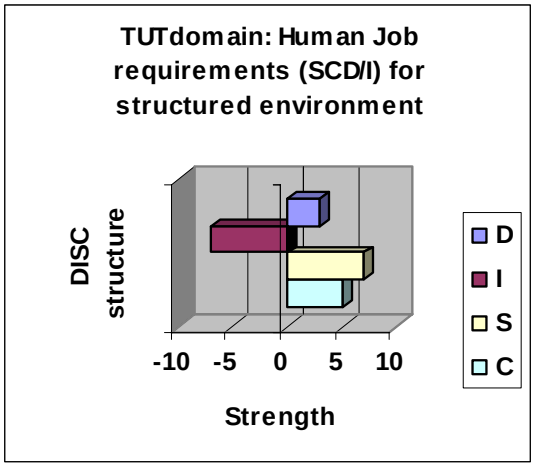
What are the characteristics of the P@W Programme e-learning job?

Based on the above description, the job characteristics of the e-learning practitioner job may vary according to the structuredness of the environment. The job is likely to involve concepts, equipment, ideas and problem solving where a sound depth of knowledge and expertise are a strong requirement. Persistence and the ability to see a job through to the conclusion are important to the role, as is security and a structured working environment

Subsidiary question 6:

What are the job structures for the P@W Programme e-learning job?

Based on the job requirements for a structured environment in the P@W Programme, the job structure displays a SCD/I configuration.



To conduct a thorough job function analysis and to establish clear behavioural criteria for the job all available information about the job should be taken into consideration. The above-mentioned HJA data were enriched by the following situational features:

- The details of specific functions of the e-learning practitioner as outlined in the capacity building programme for the Partners.
- The five key result areas of critical success factors as measured in the self-assessment as well as in the progression reports of the Partners.
- Written feedback on job features provided by the Partners and captured during a focus group session on 17 May 2005.

The above-mentioned features will be discussed very briefly below and address the seventh research goal for the second research question:

Research goal 7
To identify job demands, distracters and releasers as perceived by the Partners in the P@W Programme.

4.4.3.3 Enrichment of HJA – Feedback from the Partners on positive and negative job influences

Tett and Burnett (2003) propose a person-situation interactionist model of job performance that offers a basis for improving yields from personality measures in fitting people to jobs, and attempts to vitalise personality traits with motivational force in heightening appreciation for them as theoretical constructs. These researchers apply the model to target better use of personality information in work settings. The model introduced a concept of trait activation, principled on the premise that personality traits are expressed as responses to trait-relevant situational cues (e.g. demands) and it offers an interactional approach to understanding trait-performance relations. Tett and Burnett (2003) propose that latent personality traits will manifest as trait-expressive work behaviours only when trait-relevant cues are present at task, social and organisational levels. Working situations operating on each of these levels can be relevant to personality expression in several ways (Tett & Burnett, 2003), for example as a job demand, distracter, constraint or releaser. Their conceptualisation of the situational features relevant to personality expression at work is useful in the context of this study and three features, namely job demands, distracters and releasers, were investigated. Job demands are defined as an opportunity to act in a positively valued way. Job demands include tasks and duties found in the job description as well as less formal prescriptions carried in group norms and organisational

features. A distracter is related to a job demand but differs from it in that responding to a distracter interferes with performance. A constraint restricts cues for trait expression, while a releaser is a discrete work event that counteracts a constraint. According to Tett and Burnett's (2003) model a facilitator on the other hand makes trait-relevant information that already exists in a given situation more salient. Job demands, distracters and releasers are trait activators, constraints are deactivators and facilitators amplify the activation or deactivation effects of the other features.

To deepen my understanding of the situational context for the Partners in the P@W Programme I used the concept of trait activators to point to situational job features. Data captured during a focus group session with the Partners on 17 May 2005 highlighted important job-related issues. Participants were asked to comment on job demands, distracters and releasers for each of the five roles that they played during the P@W Programme. The five roles are teacher, designer, adult learner (student), manager and researcher.

4.4.3.4 Analysis of data based on the Tett and Burnett (2003) model

I analysed the responses for each role category using coloured highlighters to code remarks on similar themes or job features. The findings are presented here according to the five job roles categorised in three trait activators, namely job demands, distracters and releasers. A number of situational features were mentioned and these are thematically displayed in the tables below. Relevant comments from the Partners are cited verbatim to illustrate some of the findings. However, to **protect the identity of the participants, references cite only the DISC factor** and not the relevant style combinations.

4.4.3.4.1 Findings

The findings are presented here according to the five job roles:

- online teacher/facilitator/e-moderator;
- instructional designer;
- adult learner;
- researcher, and
- project manager

categorised in three trait activators, namely job demands, distracters and releasers.

4.4.3.4.1.1 Role of online teacher/facilitator/e-moderator

Playing the role of **online teacher/facilitator/e-moderator** during the P@W Programme, the Partners experienced various positive and negative influences. A number of p*rogramme*

demands, distracters and releasers were highlighted. Sixteen themes were identified. These are listed together with the number of responses by theme in Table 4.40.

Table 4.40: Summary of influences on online teacher/facilitator/e-moderator's role

Role of online teacher/facilitator/e-moderator	
Themes and topics identified	**Number of responses (n)**
Programme demands	
Lack of infrastructure	3
Time saving with new applications	1
Proactive planning	1
Lack of skills	1
Large student groups	1
Workload	2
Student demands	3
Programme distracters	
Lack of infrastructure	3
Slow Internet access	3
Involvement in departmental activities	2
Unexpected software problems	1
Login problems	1
Power failure	1
Programme releasers	
Utilising new technologies to enhance interaction between lecturer and students	2
New knowledge opens possibilities	8
Technology eased pressure during contact sessions	1

Lack of infrastructure with respect to Internet, classroom and laboratory facilities:

> I did not have Internet in the lab. Was very frustrated at first as I have interactive lessons linking to the internet. I worked around this by concentrating on the other content in the lesson – shifted my focus (I, FGQues, 17 May 2005).

slow internet access:

> Slow Internet. Students complained about access when not in structured/booked lab sessions (C, FGQues, 17 May 2005).

and student demands:

> I have put in more hours to mark online assignments. Took time to train the students for the use of WebCT (C, FGQues, 17 May 2005).

were the most prominent negative demands on the online teacher:

> Some students couldn't login during testing: I supplied them with multiple choice sheet and continued with assessments (C, FGQues, 17 May 2005).

Positive influences on workload were availability of new technologies and support provided by assistants:

> New knowledge about technology urged me to include online assignments in my course (C, FGQues, 17 May 2005).

Furthermore, nearly all the Partners mentioned the use of new technologies and application of acquired knowledge as releasers that counteract the constraints. One example of this is the use of local WebCT servers in computer laboratories to cater for the slow Internet access, however these interventions sometimes increased the administrative burden, which then again became a negative demand:

> Slow internet – created a dummy on [server] (lots of extra admin – just did it …) (S, FGQues, 17 May 2005).

4.4.3.4.1.2 Role of instructional designer

Playing the role of instructional designer during the P@W Programme, the Partners experienced various positive and negative influences. A number of p*rogramme demands, distracters and releasers* were highlighted. Seventeen themes were identified. These are listed together with the number of responses by theme in Table 4.41.

Table 4.41: Summary of influences on instructional designer's role

Role of instructional designer	
Themes and topics identified	**Number of responses (n)**
Programme demands	
Exhaustion/long hours	4
New possibilities for design	2
Lack of knowledge and skills	4

Table 4.41: Summary of influences on instructional designer's role (continued)

Themes and topics identified	Number of responses (n)
Lack of assistance	2
Uncertainty	3
New WebCT developments	1
Programme distracters	
Lack of infrastructure	3
Slow Internet access	1
Unavailable support	2
Homework	1
Lack of skills	2
Confusion	1
Programme releasers	
Encouragement by colleagues	2
Encouragement by partners	2
Personal assistant	1
Fast ADSL at home	1
New knowledge – new insight	7

Long hours of battling to master all the new technologies:

> Very frustrating when one small step prevents you from going forward with design. When you have overcome this, there is suddenly another hurdle (C, FGQues, 17 May 2005).

and to acquire necessary knowledge and skills exhausted the Partners:

> Homework was time consuming and prevented me from getting to real development of my course. I tried to finish off the homework as quickly as possible and to pay attention to what really mattered (C, FGQues, 17 May 2005).

> I had no choice but to bite the bullet in understanding how the programs work. Overcoming the lack of knowledge and realizing the benefit of the added value is a very positive aspect (D, FGQues, 17 May 2005).

> Being a computer illiterate was one of the most telling distracters. Having now learnt al lot (but not enough) about computer programs makes it all worthwhile (D, FGQues, 17 May 2005).

but most of them experienced encouragement and support offered by colleagues and their fellow Partners as motivating influences:

> The more knowledge I gained about what was expected, the easier I managed the development work (C, FGQues, 17 May 2005).

> The help I received from my partners had a very positive influence. When I didn't know something or needed assistance I knew I could ask any of them (I, FGQues, 17 May 2005).

In the online design environment slow Internet access is a distracter that impacts negatively on job performance:

> Slow internet on campus – worked at home on online course material (S, FGQues, 17 May 2005).

> Slow lines let me feel frustrated and anxious (S, FGQues, 17 May 2005).

4.4.3.4.1.3 Role of adult learner

In playing the role of an adult learner during the P@W Programme the Partners experienced various positive and negative influences. A number of p*rogramme demands, distracters and releasers* were highlighted. Twelve themes were identified. These are listed together with the number of responses by theme in Table 4.42.

Table 4.42: Summary of influences on adult learner's role

Role of adult learner	
Themes and topics identified	**Number of responses (n)**
Programme demands	
Enjoyed workshops	2
Workload/programme and technology demands overwhelming	6
Experimentation with possibilities	2
Programme distracters	
Time	3
Uncertainty	2

Table 4.42: Summary of influences on adult learner's role (continued)

Lack of knowledge and skills	2
Confusion	2
Programme releasers	
Learn new knowledge and skills	4
Application of new knowledge and skills	2
Empowerment	1
Positive attitude of Partners	1
Varied approaches to mastery learning	3

Feelings of confusion and being overwhelmed by tough programme demands and distracters:

> I found the quick pace of teaching practical applications a bit difficult and had to do more work on my own to master it (I, FGQues, 17 May 2005).
>
> I was overwhelmed and confused with all the info provided and not really knowing what was expected. I consulted ID for long hours to get some structure (C, FGQues, 17 May 2005).
>
> Too much computer knowledge in too short a time. Felt totally lost. Also forgot most of what I was shown. Stressed out (I, FGQues, 17 May 2005).

were counteracted by releasers such as positive, enthusiastic participation, perseverance and encouragement by the group:

> I searched for as much information on programmes as I could. I went on a PowerPoint course in order to improve my skills, searched for written info on WebCT etc. I played around with programs a lot and experimented (I, FGQues, 17 May 2005).
>
> The more knowledge I gained about what was expected, the easier I managed the development work (C, FGQues, 17 May 2005).
>
> All the new knowledge and skills continuously motivated me to explore and use it where applicable in my course material and research topic (C, FGQues, 17 May 2005).

4.4.3.4.1.4 Role of researcher

In playing the role of researcher during the P@W Programme the Partners experienced various positive and negative influences. A number of p*rogramme demands, distracters and releasers* were highlighted. Eleven themes were identified. These are listed together with the number of responses by theme in Table 4.43.

Table 4.43: Summary of influences on researcher's role

Role of researcher	
Themes and topics identified	**Number of responses (n)**
Programme demands	
Unfamiliar terrain	5
Write an article	2
Confusion	2
Decisions on topics	2
Frustration	2
Programme distracters	
Timeframe	6
Funds	1
Programme releasers	
Encouragement/support by instructional designers	2
Support by experts	2
Internet searches	1
Positive feelings/enjoy research	2

The hat of researcher was unfamiliar for a number of Partners who felt uncomfortable with this role:

> I am not a researcher by nature and have had to discipline myself and keep myself motivated (I, FGQues, 17 May 2005).

> I was very confused with regard to research and what was expected of me. I relied heavily on my ID and did an extensive literature search. I am still very unsure of what to do (I, FGQues, 17 May 2005).

They experienced the research timeframe as inadequate:

> Article and paper to be presented in short period of time – started thinking early and thinking about possibilities (C, FGQues, 17 May 2005).

> TIME. This was and is a huge problem. To be able to present a valuable paper/ presentation I need much more time to obtain some reliable data. However, being forced to deliver, I use what I have! (C, FGQues, 17 May 2005).

and consequently felt pressurised and frustrated:

> Time – just left other important stuff for a few days to do it (and are still paying the price of being behind) (S, FGQues, 17 May 2005).

Releasers consisted mainly of personal support from various sources as well as formal research workshops presented by research experts from TUT:

> The programme lent itself to various research topics. I had to decide which will be most interesting and effective in my specific field (C, FGQues, 17 May 2005).

> A Releaser: To use help in the form of expert and services available (I, FGQues, 17 May 2005).

> Support from our research professor motivated me to go for it (S, FGQues, 17 May 2005).

4.4.3.4.1.5 Role of project manager

In playing the role of project manager during the P@W Programme the Partners experienced various positive and negative influences. A number of p*rogramme demands, distracters and releasers* were highlighted. Fourteen themes were identified. These are listed together with the number of responses by theme in Table 4.44.

Table 4.44: Summary of influences on project manager's role

Role of project manager	
Themes and topics identified	**Number of responses (n)**
Programme demands	
Share developments with colleagues	3
Student management	2

Table 4.44: Summary of influences on project manager's role (continued)

Costs	1
Proactive planning and organisation	3
Programme distracters	
Lack of infrastructure	4
Negative colleagues	1
Rethink and reinvent	2
Unforeseen costs	1
Student demands	2
Extra responsibilities	2
Programme releasers	
Encouragement by colleagues/students	3
Successful implementation of courses	2
Communication to other colleagues	2
Effective facilitation of learning	2

Demands such as management of students, courses and interdepartmental communication were mentioned frequently:

> Demands: Co-operation interdepartmentally and across cultures (I, FGQues, 17 May 2005).
>
> Distracters: Unforeseen circumstances not budgeted for (C, FGQues, 17 May 2005).
>
> I had to arrange and negotiate physical facilities for implementation (CS, FGQues, 17 May 2005).
>
> Distracters: all the technical difficulties I experienced with the course and the lack of facilities. It prevented me from presenting the course the way I would have liked to but had to take to Plan B and adopt to the difficult circumstances (I, FGQues, 17 May 2005).

Positive outcomes of the programme were strong releasers that counteracted negative distracters:

> The encouragement of my colleagues and students has made a positive impact on future development (C, FGQues, 17 May 2005).

I took up the challenge, even when it cost me money, to solve problems (D, FGQues, 17 May 2005).

Rethink and reinvent ways that teaching and learning can be undertaken (D, FGQues, 17 May 2005).

Organising, planned ahead, structured sessions (C, FGQues, 17 May 2005).

Demands of programmes forced me to improve my organisation skills (C, FGQues, 17 May 2005).

Assistance of ID, and student assistants, helped (C, FGQues, 17 May 2005).

I felt relieved and proud of the way in which my course material effectively facilitated learning in my students, however only the final exam will confirm this (C, FGQues, 17 May 2005).

Releasers: When something did go right I was enthusiastic and told myself that one day I will have everything in place and then it will be COOL RUNNINGS (I, FGQues, 17 May 2005).

4.4.3.4.2 Synthesis of data

Subsidiary question 7

What are the job demands, distracters and releasers as perceived by the Partners in the P@W Programme?

With regard to the above description, the following summary answers subsidiary question 7.

A holistic summary of the job features perceived as demands, distracters and releasers shows that lack of infrastructure was identified as the most prominent distracter, and that several innovative measures and alternatives were implemented to counteract it; nevertheless these were not enough to meet the demands and needs of the e-learning environment. Without a supportive infrastructure in terms of availability of technology, fast Internet access and adequately equipped classrooms and computer laboratories programme sustainability will be under question. One of the Partners voiced this issue crisply in a blog entry:

> … The most important aspect of the project is to extend the technology at all Departments in order to be able to facilitate e-learning. Every lecture room should at least be equipped with ADSL, video projector, and DVD players. If this is not done, TUT will stay behind in terms of cutting edge training. 20 October 2004: 7:12am

The high Steadiness and high Compliance factor personal profiles displayed by this group may explain why the members experience the fast pace and huge workload of the programme and their lack of knowledge and skills as exhausting demands. Empowerment through gaining new knowledge and skills, the creative application and implementation of these acquired assets, as well as the positive outcomes of their projects in terms of the set criteria, counteracted some of the distracters. The encouragement and support offered by various groups were frequently mentioned as releasers and motivators.

Ii is interesting to note that the three Partners with a high Influence behavioural style frequently mentioned the support of other people – fellow Partners, students, instructional designers and colleagues – as releasers. Innovativeness and creative approaches were mentioned as releasers by people with low Compliance, high Dominance and high Influence factor combinations. "*I consulted ID for long hours to get some structure*" was the lament of most Partners with high Compliance profiles, but was counteracted by "*knowledge and skills continuously motivated me".*

4.4.3.4.3 Identification of job features/trait activators

A comparison of the results of the HJA for P@W Programme with the above-mentioned situational job features, as perceived by the Partners, yielded amazing results. The competences required by the jobholder that were highlighted in the HJA corresponded very highly with the influences identified by the Partners (see list below).

Competencies required by the jobholder should include the ability to:

- develop a *team atmosphere* through hard work, calmness, tolerance and consistency, attempting to fulfil work projects with honesty and integrity vs. 'encouragement and support offered by various groups were frequently mentioned as releasers and motivators';
- generate and provide *specialist and/or administrative services* that benefit the organisation and, depending on whether they are task or people-related, lead to a high level of internal and external customer satisfaction vs. 'empowerment through gaining new knowledge and skills, creative application and implementation of these acquired

assets as wells as the positive outcomes of their projects in terms of the set criteria, counteracted some of the distracters';

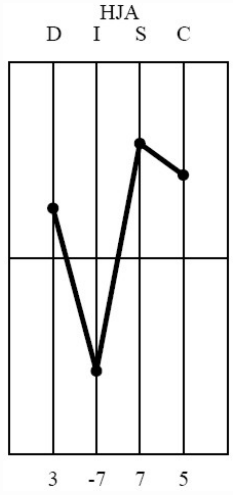
- be persistent in problem solving, seeking solutions through the expertise of both self and others. Research all the facts with care and resolve problems in a *timely and thorough* manner vs. 'they experienced the research timeframe as inadequate and consequently felt pressurised and frustrated';
- develop competencies and expertise in both oneself and others in order to attain satisfactory standards and *deliver results within agreed timescales* vs. 'the fast pace, huge workload of the programme and their lack of knowledge and skills as exhausting demands';
- enjoy challenging *problem-solving situations* and come up with well-thought through practical solutions vs. 'lack of infrastructure with respect to Internet, classroom and laboratory facilities, slow Internet access and student demands were the most prominent negative demands on the online teacher. Positive influences on workload were availability of new technologies and support provided by assistants, furthermore nearly all the Partners mentioned the use of new technologies and application of gained knowledge as releasers that counteracts the constraints. One example of this is the use of local WebCT servers in computer laboratories to cater for the slow Internet access speed, however these interventions sometimes loaded the administrative burden which then again became a negative demand';
- apply a *systematic and logical approach* in order to achieve accurate results vs. 'feelings of confusion and being overwhelmed by tough programme demands" will influence job performance negatively';
- create a culture of *continuous improvement* vs. 'lack of infrastructure was identified as the most prominent distracter, several innovative measures and alternatives were implemented to counteract this distracter, but nevertheless is not enough to comply to the demands and needs of the e-learning environment';
- set *clear objectives, monitor progress, take corrective action and control performance levels* vs. 'positive outcomes of the programme were strong releasers that counteracted negative distracters', and
- adopt a serious and questioning manner in order to assess situations and reach conclusions, thus basing the processes on *facts and information gleaned from* others vs. 'releasers were mostly personal support from various sources as well as formal research workshops presented by research experts from TUT.

4.4.3.4.4 Identification of job purpose

The job purpose is the holistic theme of the job pattern and the above-mentioned job features can be translated into *DISC language* and a corresponding graph to present the e-learning

practice. The following graph (see Figure 4.36) captures the job requirements for a structured working environment for the e-learning practitioner on the P@W programme. The combination of high Steadiness, high Compliance, high Dominance and low Influence factors map the job pattern in Figure 4.36.

Figure 4.36: Proposed HJA for a structured environment.



4.4.4 Synthesis of job characteristics

In conclusion, e-learning practice in a structured environment is likely to involve concepts, equipment, ideas and problem solving where a sound depth of knowledge and expertise are a strong requirement. Another very important feature is the development of a team spirit, involving the whole knowledge building community including the students. White (2000:1) is of the opinion that “online education is structured around the dynamics of human communication”. A participative, interactional communication model is vital for this environment. This may be done by building team spirit and striving for success through hard work and attempting to complete work projects with honesty and integrity. Persistence and the ability to see a job through to its conclusion are important to the role, as is security and a structured working environment. Impulsive and pressurised decision making should not be a feature of the function, however the fast pace and the sometimes unpredictable nature of the e-learning teaching and learning environment will always be an uncomfortable job feature for the practitioners who prefer a slower pace within agreed timescales without sudden changes.

4.4.5 Summary

Three levels of job analysis for the position of e-learning practitioner at TUT were investigated. The first focus area analysed important job characteristics identified from a meta-analysis of the literature. The findings resulted in two HJA reports: one for an e-learning practitioner job definition in a structured environment and one in an unstructured working environment. The second focus area analysed the e-learning practice at TUT, with the findings pertaining to a job

definition in an unstructured working environment. The third focus area analysed the e-learning practice embedded in the Partners@Work Programme at TUT, where findings resulted in an adapted HJA report for job requirements in a structured working environment.

Drawing comparisons between these findings yield thought-provoking results. A high Dominance factor was identified as an important job requirement on all three job levels. The importance of this factor will correlate with the degree of environmental structuredness. Virtual organisations with a high degree of virtuality (Shin, 2004) are characterised by a relatively flat structure as opposed to the traditional organisational hierarchy (DeSanctis & Monge, 1999; Snow, Lipnack &Stamps, 1999) in Shin (2004). Networks of individuals work together in a flexible way (unstructured work environment) and person attributes that are most important according to Shin (2004) are computer literacy, the ability to work autonomously, and time management skills. Autonomy is one of the most important values pursued by virtual organisations (Shin, 2004). Employees are expected to be self-motivated and self-directed, goal orientated and getting results. Thus employees who value this type of work arrangement are likely to be a better fit to this job.

Choices made by all the groups involved in the construction of the HJA culminated in a job requirement pointing to a high Influence factor. Virtual teams relies heavily on electronic communication and although communication is the life stream of any team it is more important in virtual teams (Cascio, 2000, in Shin, 2004) because it is necessary for effective collaboration and for building trust (Shin, 2004). It enables team members to connect across time and space. However, indices from the literature and job requirements for the Partners in a structured work environment, suggested a low Influence factor, bringing values like “working alone; can work in a job that requires little personal contact; preferring things to people, orientated to problem solving, trouble shooting and planning”, to the job.

Variation in the degree of importance of the Steadiness factor correlates with the pace of the environment. The fast pace of the unstructured environment calls for a low Steadiness factor, which is also proposed by the report based on analysis of literature. Adhering to an accepted work pattern requires a higher Steadiness factor.

Movement of the Compliance factor from above the line to below the line in the different job analysis suggests environments that vary in terms of controlled operation and working independently.

As mentioned previously the complexity of the e-learning practitioner job, contextualised in different settings, with a variety of available job roles, provides a kaleidoscope of job

opportunities to accommodate different behavioural styles in various combinations. However, bearing in mind the above findings it would be safe to argue that two prominent patterns, namely a high DI style combination and a high CS style combination emerged. As discussed in the preceding paragraphs, these two opposite combinations at the ends of a continuum, contextualised in a specific working environment will interact with the organisation to produce unique job requirements.

Research question 2

What is the latent structure of the e-learning practitioner construct in terms of work environment context?

Based on the previous discussion the basic structure of the e-learning practitioner construct in terms of work environment context as presented in this section consists of five possible configurations namely: CD/SI, CDS/I, DI/CS, SCD/I and DIC/S. As discussed previously the e-learning job is a living subsystem of the e-learning practitioner system, displaying certain characteristics, patterns and relationships. It may emerge differently from its latent position depending on a number of influences e.g. environmental structuredness.

Further discussion of how these job characteristics fit together with personal characteristics of the e-learning practitioner will be discussed in the next section.

4.5 Research Question 3

> Without work all life goes rotten. But when work is soulless, life stifles and dies (Camus, n.d.).

4.5.1 Introduction: - Analysis of P-J fit of the e-learning practitioner

The match of the personal profiles to the requirements of the job position was obtained by means of a computerised fit between the PPA and the HJA for TUT. The computerised match between these two small groups resulted in a goodness of fit score on a scale of 1-5, were one is the best fit and five is not a good match. Because of emerging high cost implications it was not possible to score all the data by means of a computerised match. On the advice of the analyst from Thomas International and to ensure consistency in the P-J fit analysis it was decided to rather use a manual calculation method. All the PPAs were analysed against all the possible HJAs for goodness of fit. To be able to do the analysis and calculations, I received training from Thomas International in Cape Town. Results were verified by the analyst from Thomas International (Appendix D10 and Appendix E, Excerpt 4.8).

The profile analysis results were matched and scored against five different HJA results, according to the provided formula by Thomas International. Fitting the HJA to an individual personal profile will result in a fit “score” that can be used as a guideline to determine if the person will fit the job. A goodness of fit profile relating to a 1-6 score was constructed. Six out of six is the best fit and a score of one out of six indicates that this is not a good match, a score of zero indicates no fit at all. Both the PPA and the HJA are graphically represented in a visual DISC graph, so as to be able to compare compatibility of the individual to the position. The results of the PPA/HJA fit will be discussed in this section and the findings will answer the third research question:

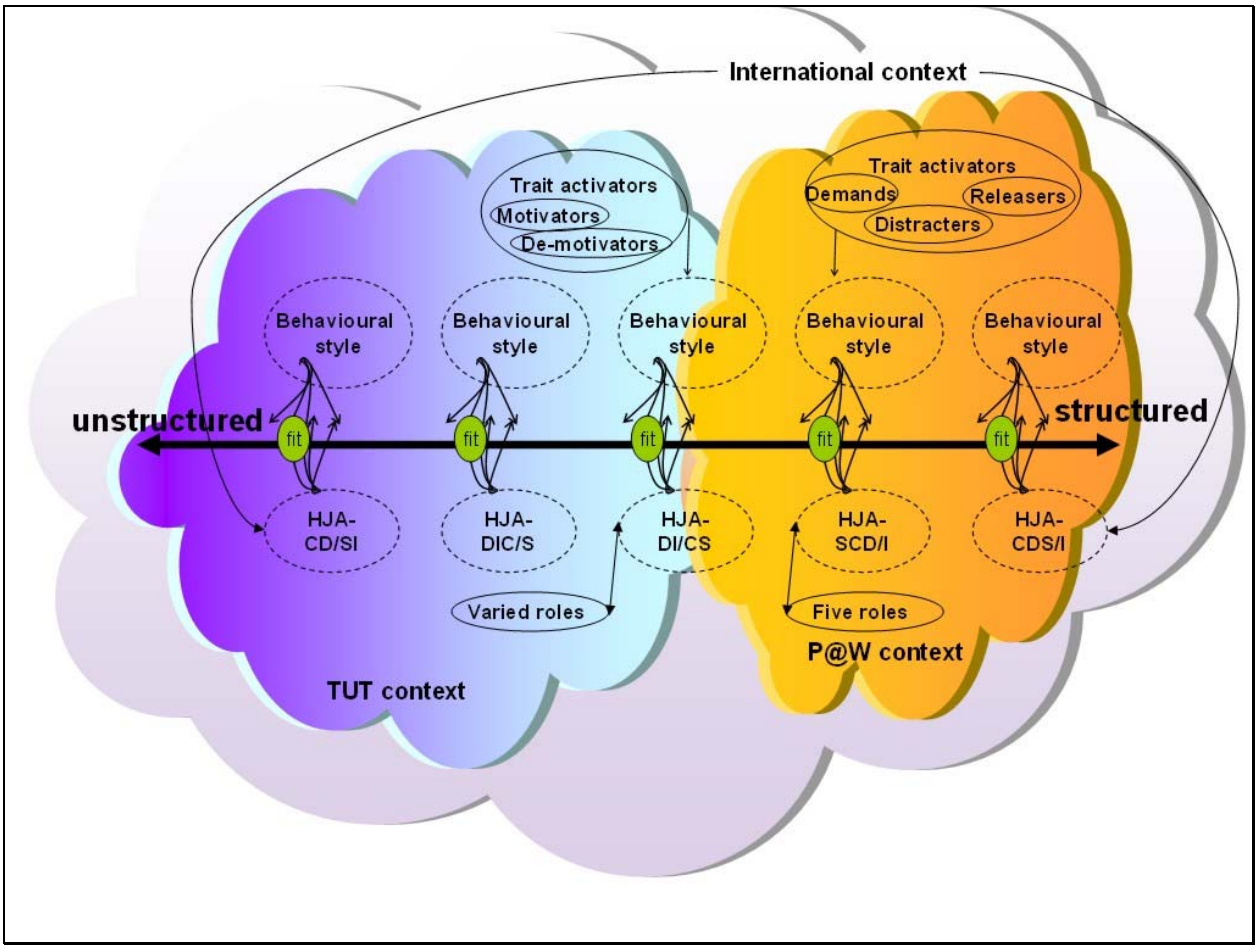
How do the work environment- and person attributes fit together in the structure of the e-learning practitioner construct?

The following subsidiary questions were complimentary to research question 3:

1. What is the P-J fit for the different groups in different e-learning work environments?
2. What is the 'goodness of fit" between the personal profile and e-learning job structures for the different e-learning practitioner groups at TUT in terms of acceptable compatibility?

Although the work environment of the e-learning practitioners in the P@W Programme is contextualised and demarcated by the parameters of the programme, it is part of the TUT organisation which is further contextualised in the international domain of higher education. However, for the purposes of this study the information on the characteristics of the e-learning practitioner as portrayed by international resources was used to get background for setting the stage. However, individual personality characteristics have no meaning as such and further analysis in terms of their relationships is indispensable for construction of meaning. As already discussed in section 3.3.3, systems thinking provided the framework to do just that and was used to integrate aspects of person attributes and human job requirements in the organisational (TUT and P@W Programme) context. Bateman and Zeithaml (1990) describe an organisational system as a set of interdependent elements with a generic structure of input, process, output and environment. The following paragraphs will describe the application of systems theory in clarifying the patterns, processes, structures and purposes of two subsystems in the TUT organisation. The two subsystems are the e-learning practice (job) and the e-learning practitioner (person) interacting on a continuum of an unstructured to a more structured environment. The inherent drivers and operating principles of the person (behavioural styles) react to environmental trait activators (motivators, demotivators) that will influence the relationship with the job. The latter react to environmental influences that will dictate the human job requirements. The congruence in the patterns and structures of the two subsystems in a given environment will result in harmony that will benefit both subsystems. See graphical presentation below (Figure 4.37).

Figure 4.37: Graphical presentation of the e-learning practitioner and -practice subsystems



Relationships between these subsystems embedded in the context of the TUT e-learning practitioner work environment and the P@W Programme will be analysed. Findings pertaining to these analyses will constitute the building blocks for the structure of the e-learning practitioner construct and answer the main research question:

What is the latent structure of the e-learning practitioner construct?

This section starts off with a discussion on the relationship between the two subsystems and reports on the P-J fit in terms of the goodness of fit of the different work environments. The focus areas are the following:

P-J fit of the e-learning practitioner in:

- international domain (see Figure 4.38);
    - o PPA:HJA fit report for unstructured environment;

        - TUT e-learning practitioner population;
        - TUT e-learning practitioner group;
        - Star performer group;
        - Partner group;

    - PPA:HJA fit report for structured environment;

        - TUT e-learning practitioner population;
        - TUT e-learning practitioner group;
        - Star performer group;
        - Partner group;

- TUT e-learning practitioner group (see Figure 4.43);

    - PPA:HJA fit report for unstructured environment;

        - TUT e-learning practitioner population;
        - TUT e-learning practitioner group;
        - Star performer group;
        - Partner group;

    - PPA:HJA fit report for structured environment (see Figure 4.48);

        - TUT e-learning practitioner population;
        - TUT e-learning practitioner group;
        - Star performer group;
        - Partner group;

- Theoretical situation as perceived by the e-learning practitioners at TUT (see Figure 4.53);

    - PPA:HJA fit report for theoretical e-learning practitioner in unstructured environment;

        - TUT e-learning practitioner population;
        - TUT e-learning practitioner group;
        - Star performer group, and
        - Partner group.

The second theme in this section continues with an analysis and comparison of the relationship between the two subsystems in terms of the different groups that were studied. The results

reported and analysed in Theme 1 are integrated in Theme 2 to enable a better understanding of the relationships between person attributes from the different groups studied and the different human job requirements for the different environments[6] in the TUT organisational system. The focus areas are:

- The integration of findings on the relationships between the patterns and structure of P-E fit in the different environments.
- The integration of findings on the relationships between the patterns and structure of P-E fit in the different groups.

4.5.2 Theme 1: P-J fit analysis in the different domains

This theme focused on the P-J fit between the results of the personal profiles (see section 4.3) of the different groups that were studied and the results of the human job requirements as determined for the different focus areas (see section 4.4). The findings of the P-J fit are given in this section beginning with assessment of the PPAs studied being mapped onto the five different human job requirements respectively. Exemplary fit patterns for the most prominent behavioural style combinations (D, DI, ID, ICD, SC, SCD, CD, CDS, CS and CSI) and the CD/SI human job requirement profile are displayed in Appendix D10. The P-J fit analysis focuses on the self image graphs from the personal profiles, as being representative of personal characteristics. The aim of analysis was not to focus on individual profiles or individual behavioural style changes under pressure, but rather to focus on the relationships and structure of personal characteristics in the work context. Relationships between the patterns and structures of the personal profiles and the human job requirements are mapped in terms of "goodness of fit" between the relevant profiles. In this section the first research goal of the third research question is addressed.

Research goal1
To identify the relationship between the e-learning practitioners and the e-learning job (P-J fit) in terms of different work environments.

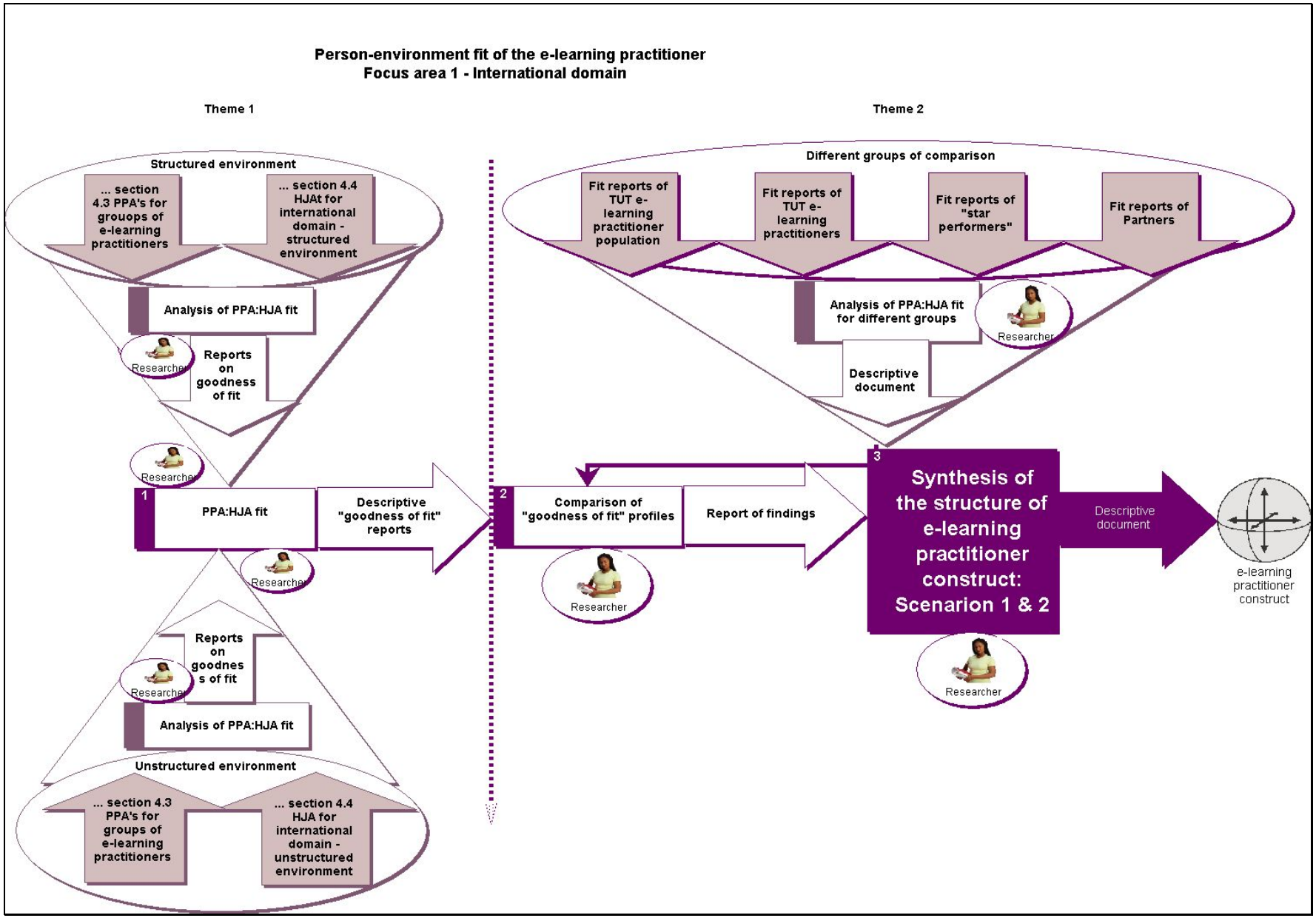
[6] The work environment varies on a blended continuum from unstructured to structured, providing the context for the e-learning practitioners at TUT. "Unstructured" pertains to a context that "experiences more change and thus is more demanding in the sense that it doesn't offer stability, and are open to the adoption of new inventions and ideas" (TI analyst, 26 July 2005 09:27). The structured context offers more stability, clear guidelines on standard operating procedures, and more formal job tasks. Supportive measures provided by personal assistance from the instructional designers at the Department of Telematic Education, formal project plans or limiting the focus to one area of expertise influence the environment to become more structured.

4.5.2.1 International domain focus area 1: HJA (CD/SI)

Figure 4.38 illustrates the analysis process that was followed to synthesise the findings presented in this section. P-J fit (unstructured environment) between the e-learning practitioner and HJA (CD/SI) are presented for the following groups:

- TUT e-learning practitioner population;
- TUT e-learning practitioner group;
- Star performer group, and
- Partner group.

Figure 4.38: P-J fit of the different groups and the international e-learning domain



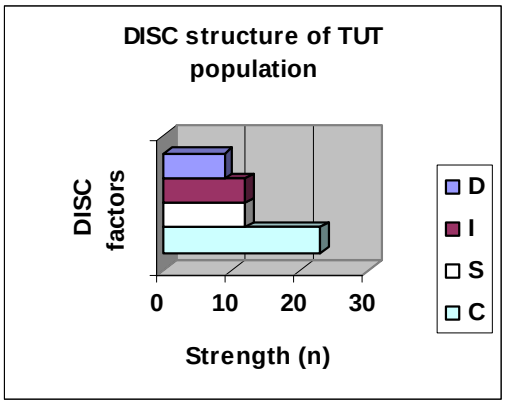
4.5.2.1.1 P-J fit of the TUT population : HJA (CD/SI)

Behavioural characteristics of the e-learning practitioner as outlined 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 chapter). The TUT population, assessed in terms of the four DISC factors and measured against 96 personal characteristics (PPA) relevant in the work environment, displayed 23 high factor behavioural style combinations. The highest frequency of style combinations was in the Compliance (35%) factor, followed by the Dominance (26%), Influence (22%) and Steadiness (17%) factors (see Table 4.45).

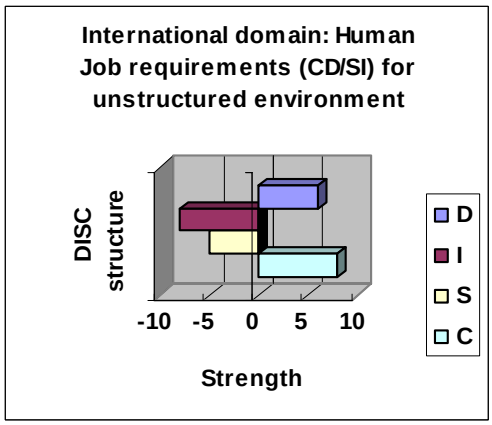
Table 4.45: Frequency of style combinations in TUT population

Style combinations	Frequency (%) of Style combinations in each DISC factor
D	
DC	
DI	6 (26%)
DIC	
DIS	
DS	
IC	
ICD	
ID	5 (22%)
IS	
ISC	
S	
SC	4 (17%)
SCD	
SD	
C	
CD	
CDI	
CI	8 (35%)
CIS	
CS	
CSD	
CSI	
Total	**23 (100%)**

DISC personal profiles (reference Table 4.30)



CD/SI profile (reference Figure 4.27)



Measured against the CD/SI profile (see Table 4.45) these behavioural characteristics as captured in the DISC personal profiles (see Table 4.45) were assessed to determine goodness of fit.

It is evident from the graphs in Table 4.45 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 an unstructured environment. The TUT population shows the least strength in the Dominance factor, whereas the job under discussion calls for a stronger Dominance factor. 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. A zero score indicates fit absence. The refined fit scores for the TUT population are tabulated in Table 4.46.

Table 4.46: P-J fit scores for the TUT population : HJA (CD/SI)

Styles	Frequency (%) of fit per style combination						
	6	5	4	3	2	1	0
CD	3.6	3.6					
DC		1.8					
C		1.8	3.6				
CSD		5.3					
D			1.8	1.8			
SCD			5.3				
CDI			1.8				
CS			3.6	7.1			
DS				3.6			
DIC				1.8			
IC				1.8	1.8		
ICD				5.3			
CI				1.8			
DI					3.6		
ID					7.1		
SD					3.6		
SC					10.7		
CIS					3.6		
CSI					3.6	1.8	
DIS						1.8	
ISC						1.8	
S						1.8	
IS							3.6
Total	3.6	12.5	16.1	23.2	34	7.2	3.6
			32.2				68

Table 4.46: P-J fit scores for the TUT population : HJA (CD/SI) (continued)

Figure A

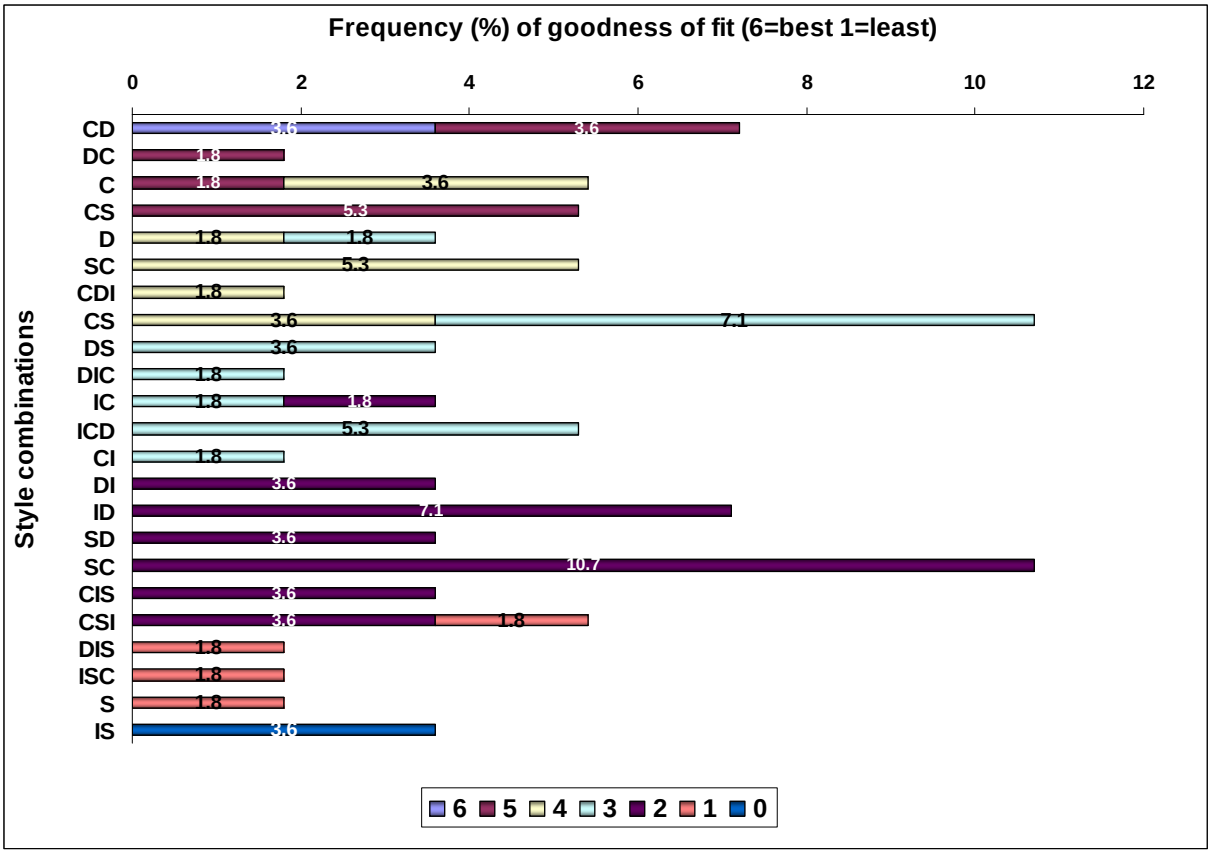
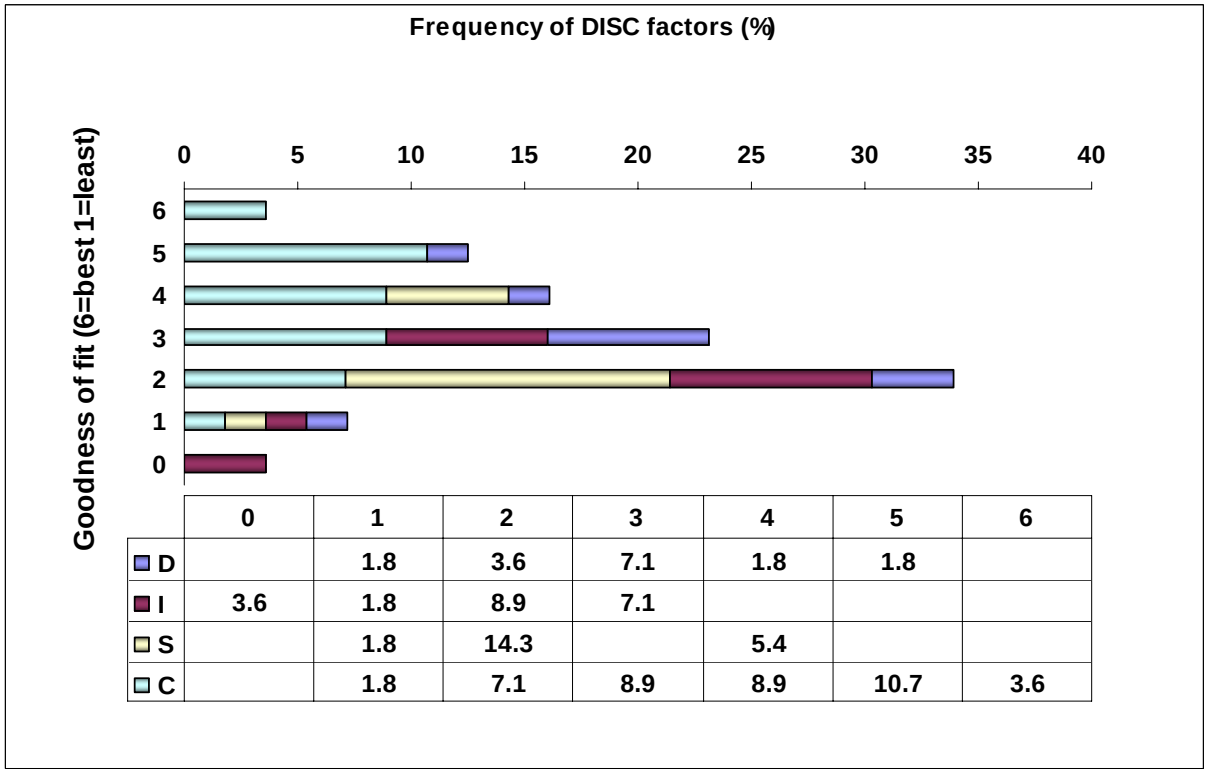


Figure B



	0	1	2	3	4	5	6
D		1.8	3.6	7.1	1.8	1.8	
I	3.6	1.8	8.9	7.1			
S		1.8	14.3		5.4		
C		1.8	7.1	8.9	8.9	10.7	3.6

Table 4.46 shows that the best fit for the job is the high Compliance factor (style combination percentage of 3.6%), whilst other patterns of style combinations between mainly the Compliance and Dominance factors show scores of between five (style combination percentage of 12.5%) and four (style combination percentage of 16.1%) for goodness of fit. The other combinations (68%) 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 4.46.

The best fit for the job is a high CD style combination; only 3,6 percent of the population scores a best fit score. However, because of a low style distribution difference of the low factors, another 3,6 percent in the group from the high CD style combination scored five and not six[7]. A percentage of 1,8% of the group displaying a high DC profile scored five and a further five percent of the group in each of the high C and high CSD profile groups scored in the five to four range. A percentage of 1,8% of the group in each of the high D and high CDI combination groups scored four. Five percent high SCD scored four. In the 0-2 score range the high CSI, high ISC, high S and high IS style combinations represented 10.8 percent of the group.

It is evident from Table 4.46 that the Compliance factor is absent from the zero 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 in this factor tend to be more negatively related to the job requirements for the CD/SI structure. Figure B in Table 4.46 shows that only two (3.6%) profiles of the TUT population display a job fit of 6/6.

These findings suggest that only 32 percent of the TUT population falls in an acceptable range for goodness of fit. Although the Compliance factor is the most prominent factor 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.

[7] Identical high style combinations may display different fit scores due to variations in the low style combination patterns.

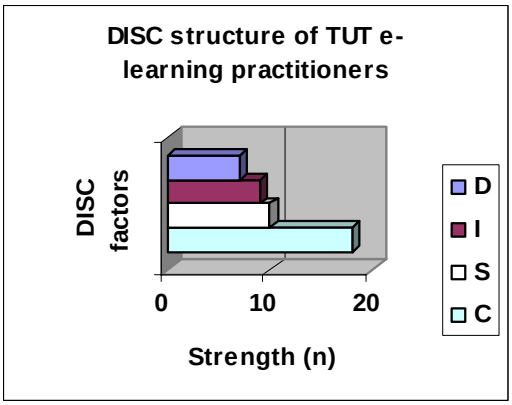
4.5.2.1.2 P-J fit of the TUT e-learning practitioner group : HJA (CD/SI)

The TUT e-learning practitioner group assessed in terms of the four DISC factors displayed similar fit patterns as the TUT population (see tables 4.47 and 4.48 and a detailed description in Appendix D11). P-J fit patterns for the TUT e-learning practitioner group exclusive of the star performer group displayed patterns more in favour of the Steadiness and Compliance factors. Figure 4.19 shows that only 10 percent of this group displayed strength in the Dominance factor. Table 4.48 shows small variances between the fit patterns from the inclusive and exclusive e-learning practitioner groups.

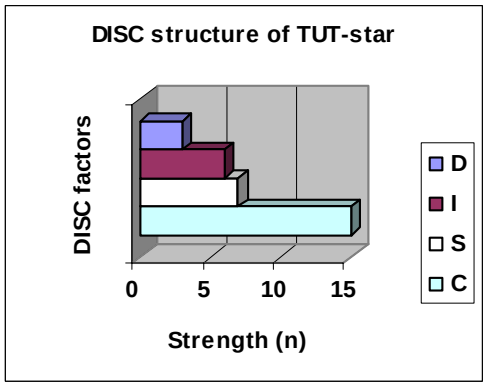
Table 4.47: Frequency of style combinations of the TUT e-learning practitioner group

Style combinations	Frequency (%) of Style combinations in each DISC factor
D	
DC	
DI	6 (27.3%)
DIC	
DIS	
DS	
IC	
ICD	
ID	5 (22.7%)
IS	
ISC	
S	
SC	3 (13.6%)
SCD	
SD	
C	
CD	
CDI	
CI	8 (36.4%)
CIS	
CS	
CSD	
CSI	
Total	**23 (100%)**

DISC personal profiles (reference Table 4.2)



DISC personal profiles (reference Table 4.30 and Figure 4.19)



CD/SI profile (reference Figure 4.27)

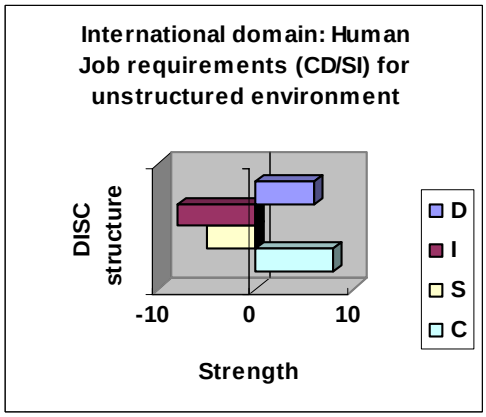


Table 4.48: P-J fit for the TUT e-learning practitioner group : HJA (CD/SI)

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

Only 4,5 percent 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. These trends strengthen if the star performer group is excluded from the TUT e-learning practitioner group.

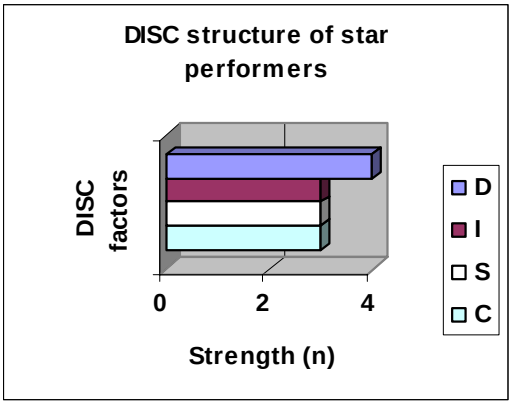
4.5.2.1.3 P-J fit of the star performer group : HJA (CD/SI)

The star performer group assessed in terms of the four DISC factors displayed nine behavioural style combinations (see Table 4.49).

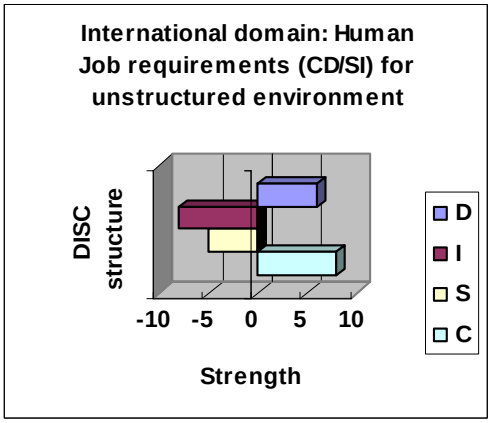
Table 4.49: Frequency of style combinations of the star performer group

Style combinations	Frequency (%) of Style combinations in each DISC factor
D	
DC	3 (33.3%)
DS	
IC	
ID	2 (22.2%)
SC	
SCD	2 (22.2%)
CD	
CSI	2 (22.2%)
Total	**9 (100%)**

DISC personal profiles (reference Figure 4.6)



CD/SI profile (reference Figure 4.27)



It is evident from the graphs in Table 4.49 that the Dominance factor is strongest in the star performer group, but the human job requirements for an e-learning practitioner in an unstructured environment call for a high Compliance factor. The star performer group shows equal strength in the Compliance, Steadiness and Influence factors, whereas the job under discussion calls for less strength in the Influence and Steadiness factors. Table 4.50 shows a refined fit score between the star performer group and the job.

Table 4.50: P-J fit scores for the star performer group : HJA (CD/SI)

Styles	Frequency (%) of fit scores per style combination						
	6	5	4	3	2	1	0
DC		7.7					
CD		7.7					
D			7.7	7.7			
SCD			7.7				
DS				7.7			
ID					15.4		
IC					7.7		
SC					15.4		
CSI					15.4		
Total	0	15.4	15.4	15.4	53.9	0	0
			30.8				69.3

Figure A

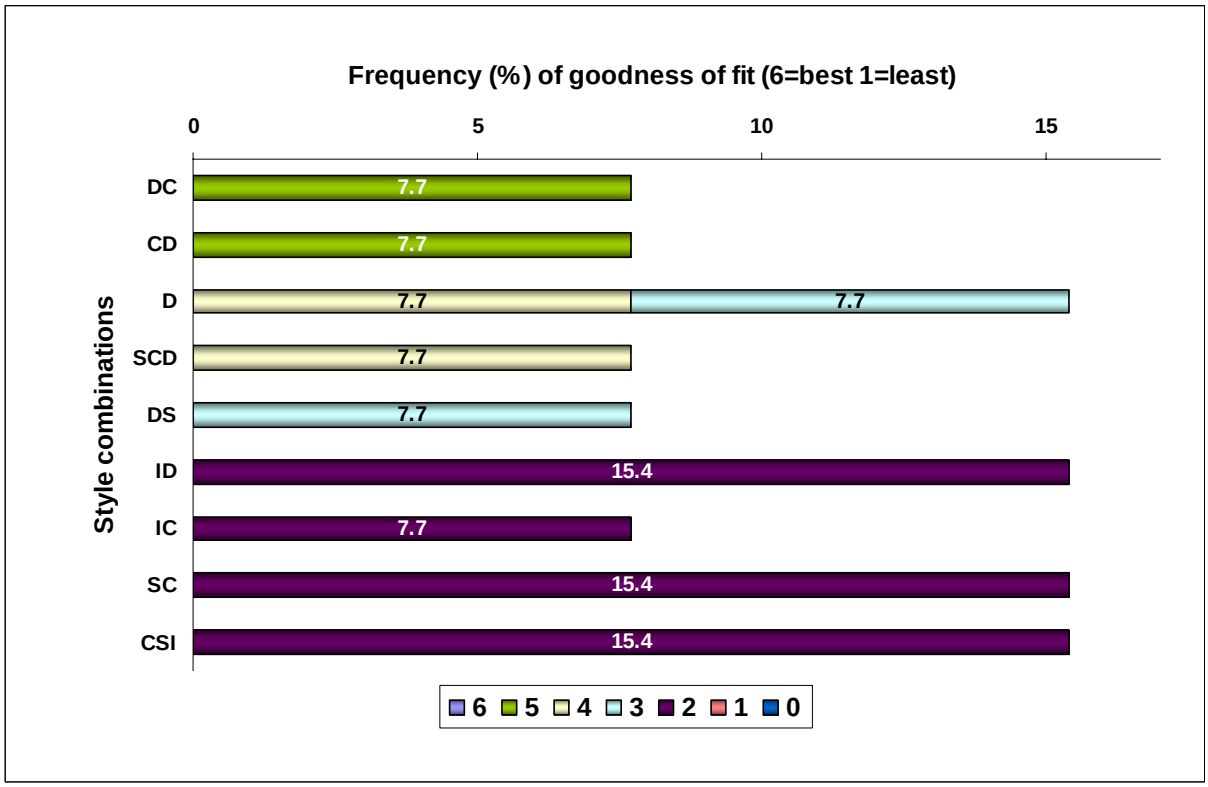
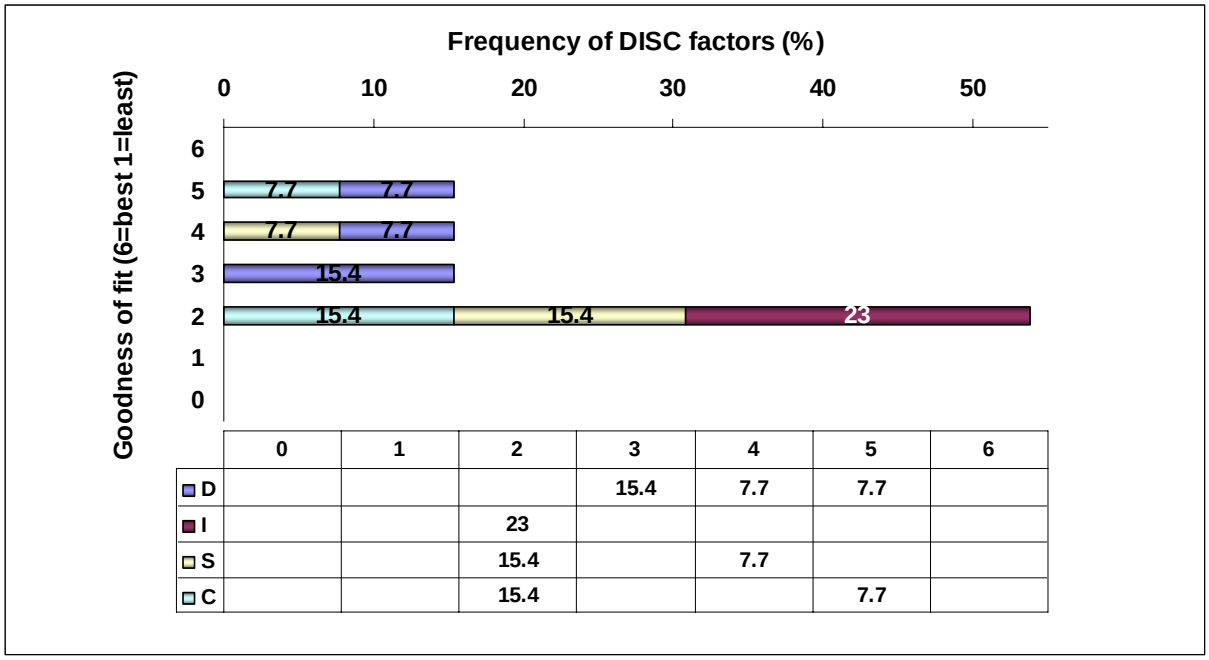


Table 4.50: P-J fit scores for the star performer group : HJA (CD/SI) (continued)

Figure B



	0	1	2	3	4	5	6
D				15.4	7.7	7.7	
I			23				
S			15.4		7.7		
C			15.4			7.7	

Table 4.50 shows no best fit for the job, but the two complementary style combinations, high DC and high CD (15.4%) in the Dominance and Compliance factors, show a fit range of five. The Steadiness factor shows a score of four (style combination percentage of 7.7%) for goodness of fit. The other combinations (69%) 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 Table 4.50.

Table 4.50 shows no factors in the extreme score ranges. The Dominance and Compliance factors present in the five fit score range imply that profile styles for these factors tend to be more positively related to the job requirements for the CD/SI structure. The Influence factor is only present in the two fit score range and 15,4 percent of the Compliance and 15,4 percent of the Steadiness factors are also distributed towards the lower score range, which implies that profile styles in these factor combinations tend to be more negatively related to the job requirements for the CD/SI structure. Table 4.50 shows that 30,8 percent of this group fall into an acceptable range for goodness of fit.

The star performer group differs from the TUT population in that the Dominance factor is the most prominent in the group, but the least represented in the TUT population group. Although the Compliance factor is the most prominent factor in the TUT population, the star performer group presents an equal distribution of the Compliance, Steadiness and Influence factors. The job requirements under discussion call for a stronger Compliance factor presence thus the

majority of the star performers' behavioural characteristics do not seem to match the requirements of the HJA and will not be a natural fit for the job.

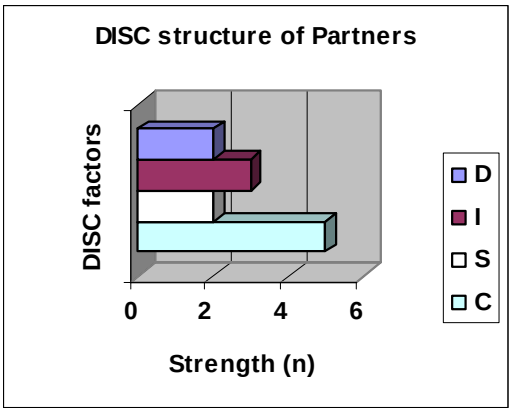
4.5.2.1.4 P-J fit of the Partner group : HJA (CD/SI)

The Partner group assessed in terms of the four DISC factors displayed nine behavioural style combinations. The highest frequency of style combinations was in the Compliance factor (33%), followed by the other factors (22%) each (see Table 4.51).

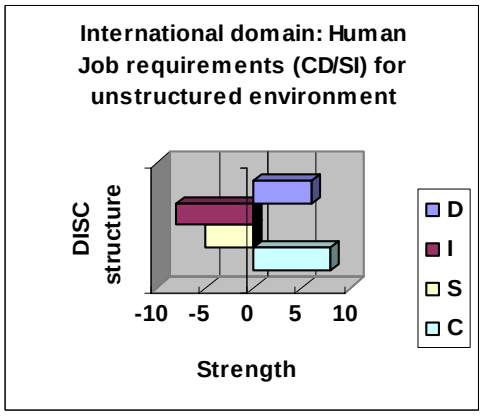
Table 4.51: Frequency of style combinations of the Partner group

Style combinations	Frequency (%) of Style combinations in each DISC factor
D	
DS	2 (22.2%)
IC	
ID	2 (22.2%)
S	
SD	2 (22.2%)
CD	
CS	
CDS	3 (33.4%)
Total	**9 (100%)**

DISC personal profiles (reference Table 4.28)



CD/SI profile (reference Figure 4.27)



It is evident from the graphs in Table 4.51 is that the Compliance factor has the greatest strength in both the Partner group, and the human job requirements for an e-learning practitioner in an unstructured environment. The Partner group shows strength in the Influence factors, whereas the job under discussion calls for less strength in the Influence and Steadiness factors. Table 4.52 shows a refined fit score between the Partner group and the job.

Table 4.52: P-J fit scores for the Partner group : HJA (CD/SI)

Styles	Frequency (%) of fit scores per style combination						
	6	5	4	3	2	1	0
CSD		8.3					
C			8.3				
CS			8.3	16.7			
DS				8.3			
DI					8.3		
ID					16.7		
SD					8.3		
S						8.3	
IS							8.3
Total	0	8.3	16.6	25	33.3	8.3	8.3
			24.9				74.9

Figure A

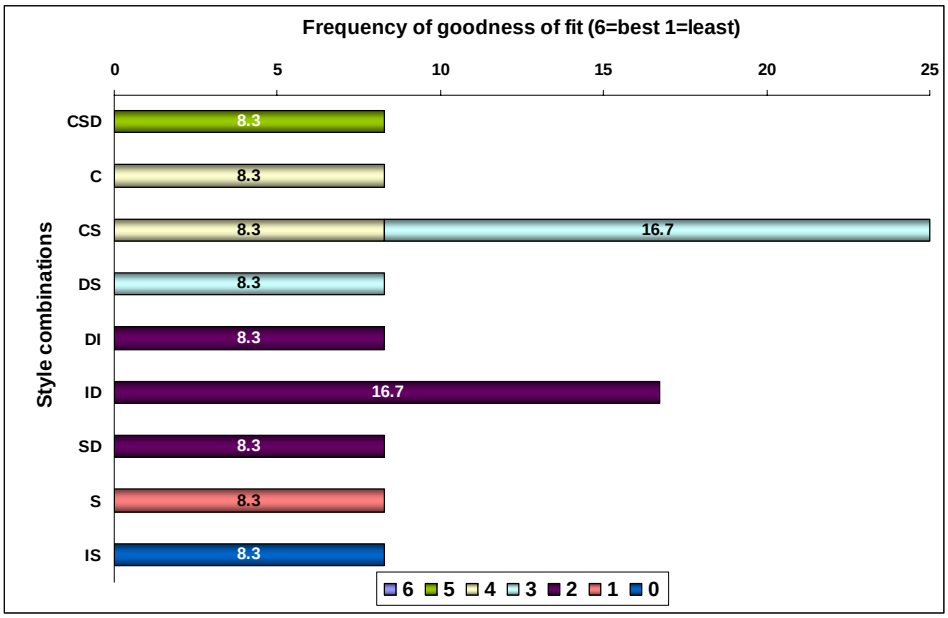


Figure B

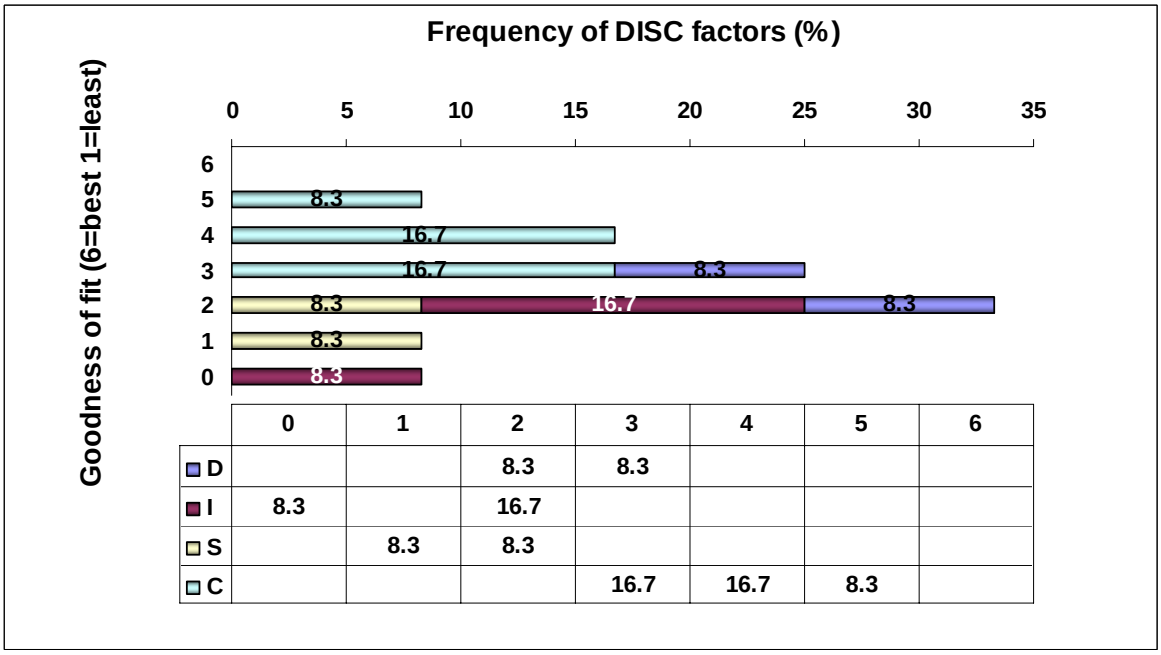


Table 4.52 shows no best fit for the job, but a high CSD style combination and high Compliance factors show a fit range of five and four. The Steadiness and Influence factors show scores in the low ranges. Only 25 percent of the Partners group falls into the acceptable P-J fit score range, while the other combinations (75%)[8] 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 4.52.

Table 4.52 shows no factors in the best fit score range and one style combination, namely the high IS, in the zero fit score category. The Compliance factor is present in the five fit score range, implying that profile styles for this factor tend to be more positively related to the job requirements for the CD/SI structure. The Influence factor is only present in the two and zero fit score range, which implies that profile styles in these factor combinations tend to be more negatively related to the job requirements for the CD/SI structure. Approximately seventeen percent of the Dominance factors fall into the 3-2 score ranges. The majority of Compliance factors are distributed in the 5-3 score ranges. The findings suggest that only 25 percent of the Partner group fall into an acceptable range for goodness of fit. The majority (75%) of the Partner 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 Partner group complements the TUT population in that the Compliance factor is the most prominent, but the Influence factor is stronger in the Partner group, with the other two factors equally the lowest represented. The job requirements under discussion call for a stronger Dominance factor, presence thus the majority of the Partner behavioural characteristics do not seem to match the requirements of the HJA and will not be a natural fit for the job.

4.5.2.2 International domain focus area 2: HJA (CDS/I)

Figure 4.38 illustrates the analysis process that was followed to synthesise the findings presented in this section. P-J fit (structured environment) between the e-learning practitioner and the HJA (CDS/I) are presented for the following groups:

- TUT e-learning practitioner population;
- TUT e-learning practitioner group;
- Star performer group, and
- Partner group.

[8] Note: It is possible that percentages shown in figures may differ slightly because of the use of approximate values.

4.5.2.2.1 Person-job fit of the TUT population : HJA (CDS/I)

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 display similarities with the scores for the e-learning practitioner group (see Appendix D11 for details). Only 35,7 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.

Figure 4.39: DISC factor distribution for TUT population vs. HJA (CDS/I

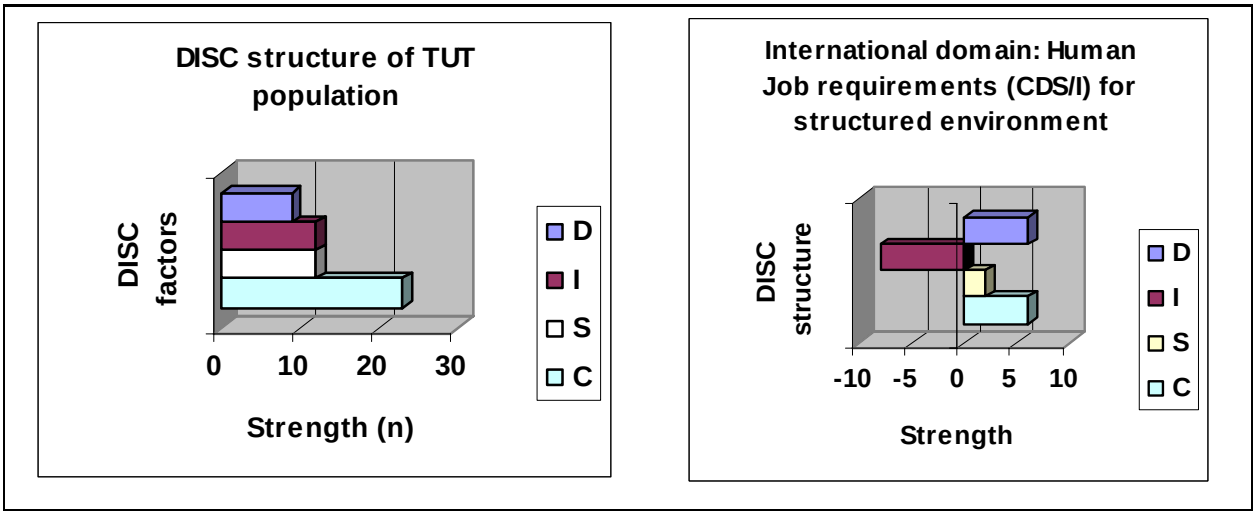
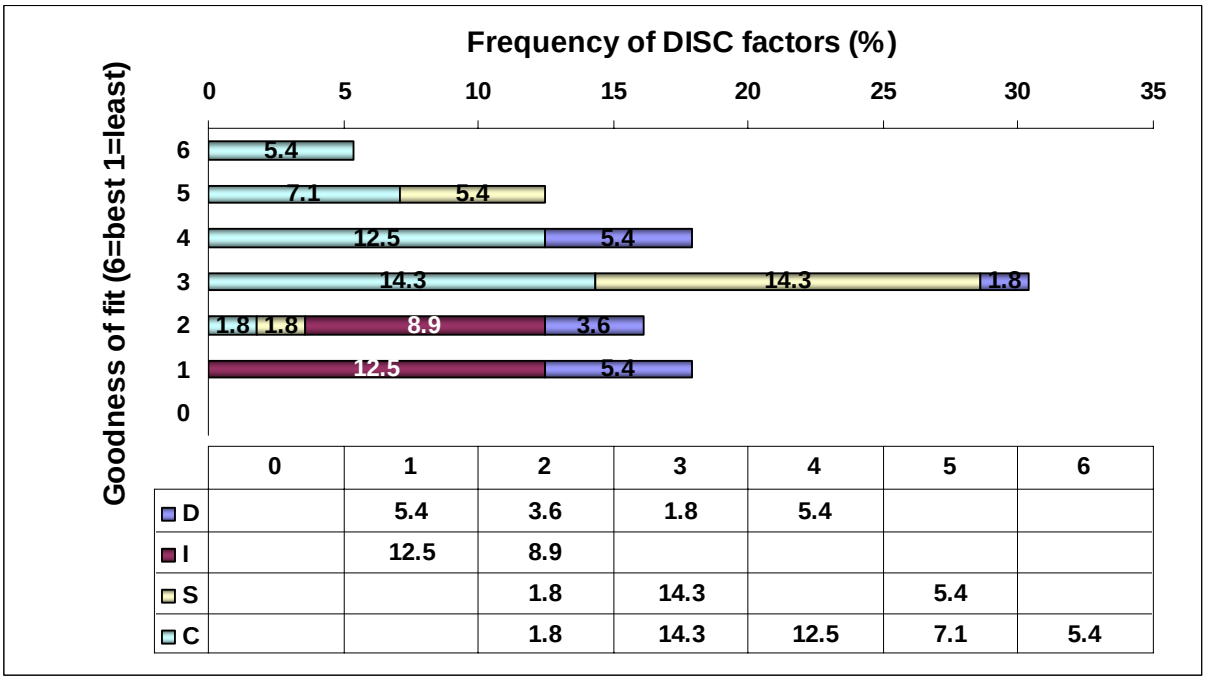


Table 4.53: P-J fit for the TUT population : HJA (CDS/I)

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

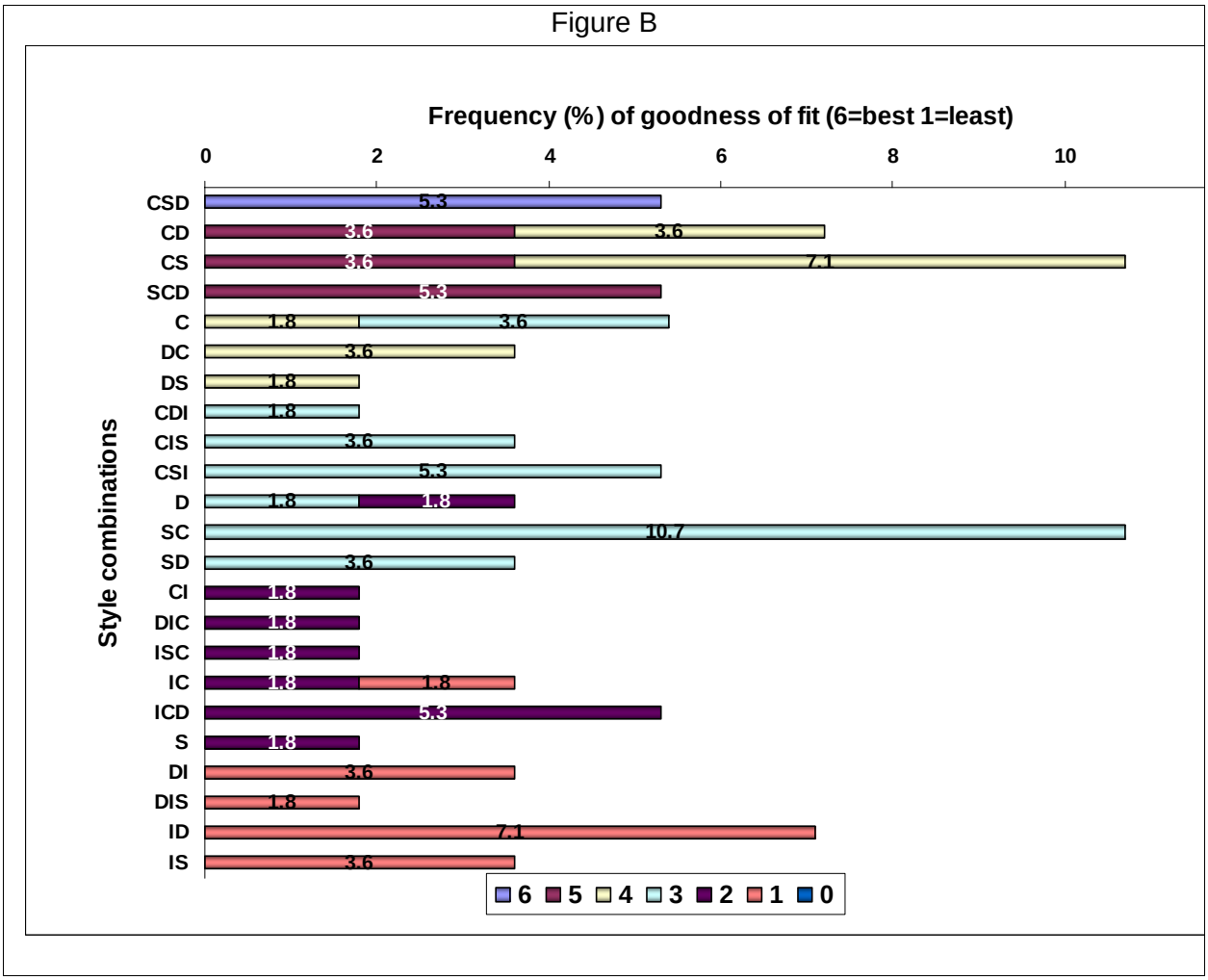
Figure A



	0	1	2	3	4	5	6
D		5.4	3.6	1.8	5.4		
I		12.5	8.9				
S			1.8	14.3		5.4	
C			1.8	14.3	12.5	7.1	5.4

Table 4.53: P-J fit for the TUT population: HJA (CDS/I) (continued)

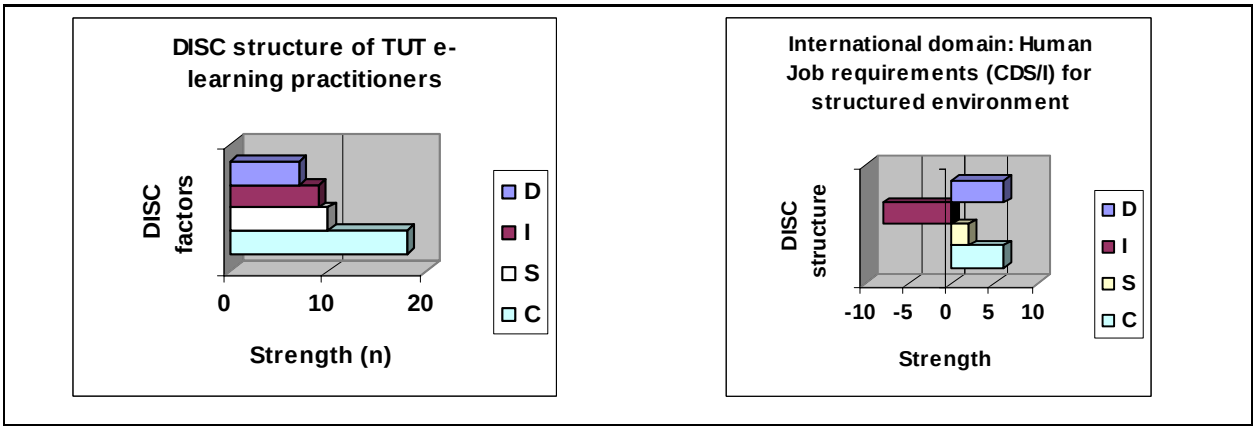
Figure B



4.5.2.2.2 P-J fit of the e-learning practitioner group: HJA (CDS/I)

Measured against the CDS/I profile the behavioural characteristics of the e-learning group at TUT as captured in the DISC personal profiles (see Figure 4.40) were assessed to determine goodness of fit. The scores for the e-learning group are tabulated in Table 4.54.

Figure 4.40: DISC factor distribution for e-learning group at TUT vs. HJA (CDS/I)



It is evident from Figure 4.40 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 e-learning practitioner group shows the least strength in the Dominance factor; whereas the job under discussion calls for a stronger Dominance factor. Table 4.54 shows a refined fit score between the TUT e-learning group and the job.

Table 4.54: P-J fit for the TUT e-learning group : HJA (CDS/I)

Styles	Frequency (%) of fit scores per style combination from e-learning practitioner group including star performers						
	6	5	4	3	2	1	0
CSD	4.5						
CD		4.5	4.5				
CS		2.3	4.5				
SCD		6.8					
C			2.3	2.3			
DC			2.3				
DS			2.3				
CDI				2.3			
CIS				4.5			
CSI				6.8			
D				2.3	2.3		
SC				13.6			
SD				2.3			
CI					2.3		
DIC					2.3		
ISC					2.3		
IC					2.3	2.3	
ICD					6.8		
DI						2.3	
DIS						2.3	
ID						4.5	
IS						2.3	
Total	4.5	13.6	15.9	34.1	18.3	13.7	0
	34			66.1			

Styles	Frequency (%) of fit scores per style combination from e-learning practitioner group excluding star performers						
	6	5	4	3	2	1	0
CSD	6.5						
CD		6.5	3.2				
CS		3.2	6.5				
SCD		6.5					
C			3.2	3.2			
CDI				3.2			
CIS				6.5			
CSI				3.2			
SC				12.9			
SD				3.2			
CI					3.2		
DIC					3.2		
IC					3.2		
ICD					9.7		
ISC					3.2		
DI						3.2	
DIS						3.2	
IS						3.2	
Total	6.5	16.2	12.9	32.2	22.5	9.6	0
	35.6			64.3			

Table 4.54: P-J fit for the TUT e-learning group : HJA (CDS/I) (continued)

Figure A

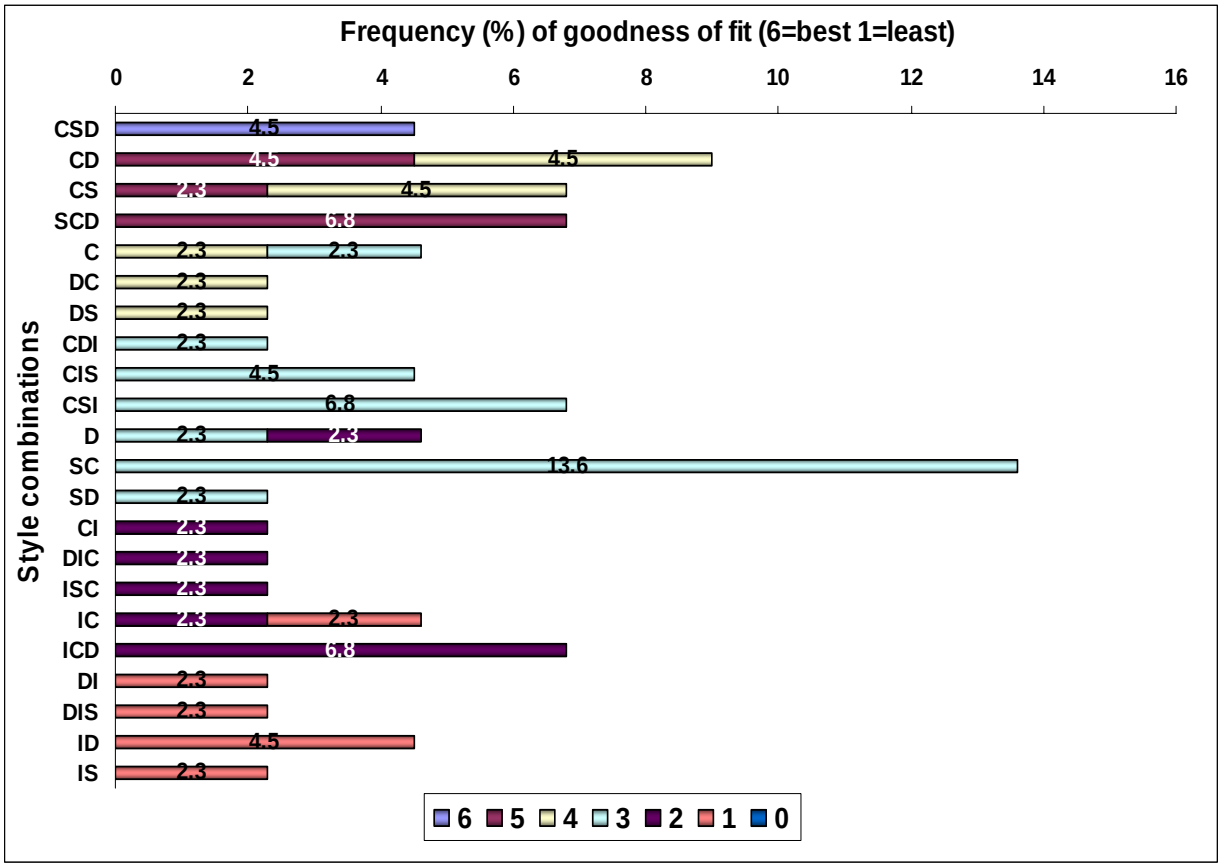


Figure B

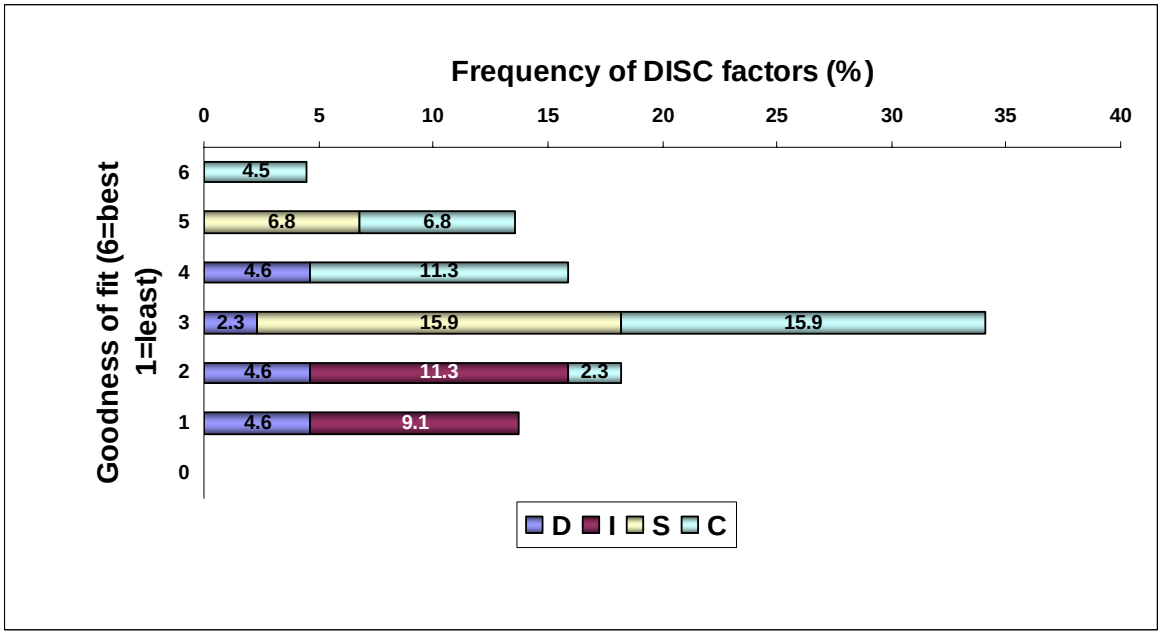


Table 4.54 shows that the best fit for the job is the high Compliance factor (style combination percentage of 4.5%), whilst other patterns of style combinations between the Compliance and Steadiness and to a lesser extent the Dominance factors show scores between five (style combination percentage of 13.6 %) and four (style combination percentage of 15.9%) for

goodness of fit. The other combinations (66%) 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 4.54.

Only 4,5 percent from the group in the high CD, 2,3 percent from the group in the high CS and 6,8 percent from the group in the high SCD style combinations scored five. A percentage of 2.3% of the group in each of the high C, high DS, high DC and 4,5 percent of group in the high CD and high CS combination 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 are displayed by 29,7 percent of the group.

Table 4.54 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 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 towards the job requirements for the CD/SI structure.

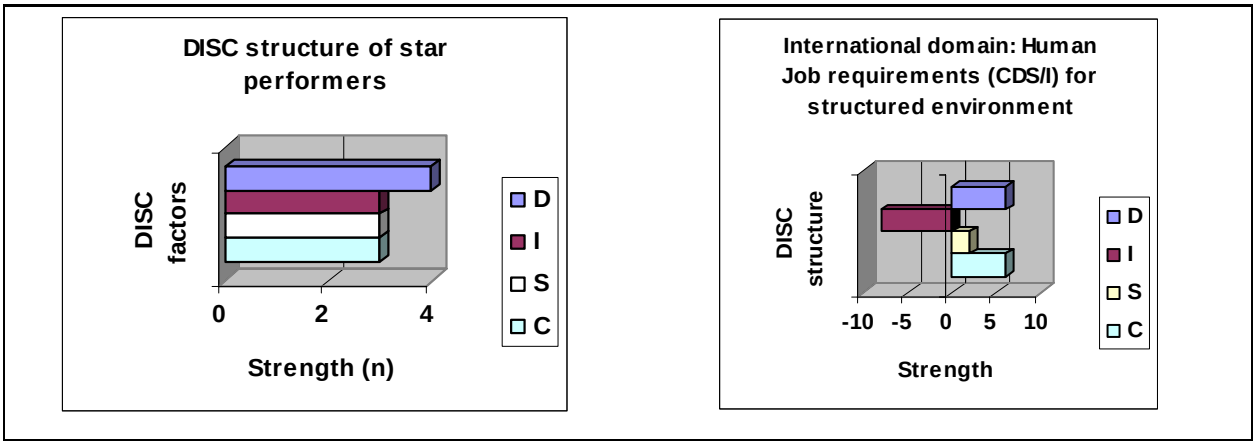
The highest frequency of **best** fit style combinations in the structure of the P-J fit between the TUT e-learning practitioner group and the CDS/I Human Job requirements is displayed in the high Compliance Dominance Steadiness style combinations. The highest frequency of **least** fit style combinations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

Only 4,5 percent profiles of the e-learning group display a job fit of 6/6, which correspond with the score of the TUT population (see Table 4.54). If the star performers are excluded from this group the percentage increases to 6,5 percent (see Table 4.54). These findings suggest that if the star performer group is excluded from the group only 35,6 percent of the TUT e-learning practitioner group fall in an acceptable range for goodness of fit.

4.5.2.2.3 P-J fit of the star performer group : HJA (CDS/I)

Measured against the CDS/I profile the behavioural characteristics of the star performer group as captured in the DISC personal profiles (see Figure 4.41) were assessed to determine goodness of fit. The scores for the star performer group are tabulated in Table 4.55.

Figure 4.41: DISC factor distribution for star performers vs. HJA (CDS/I)



It is evident from Figure 4.41 that the Dominance factor has the greatest strength in the star performer group and the human job requirements call for high Dominance and Compliance factors. The Steadiness factor in the star performers' profile is more prominent and the Influence factor too strong for the CDS/I HJA requirement. Table 4.55 shows a refined fit score between the star performer group and the job.

Table 4.55: P-J fit for the star performer group : HJA (CDS/I)

Styles	Frequency (%) of fit scores per style combination from star performer group						
	6	5	4	3	2	1	0
SCD		7.7					
DS			7.7				
DC			7.7				
CD			7.7				
D				7.7	7.7		
SC				15.4			
CSI				15.4			
ID						15.4	
IC						7.7	
Total	0	7.7	23.1	38.5	7.7	23.1	0
			30.8				69.3

Table 4.55: P-J fit for the star performer group : HJA (CDS/I) (continued)

Figure A

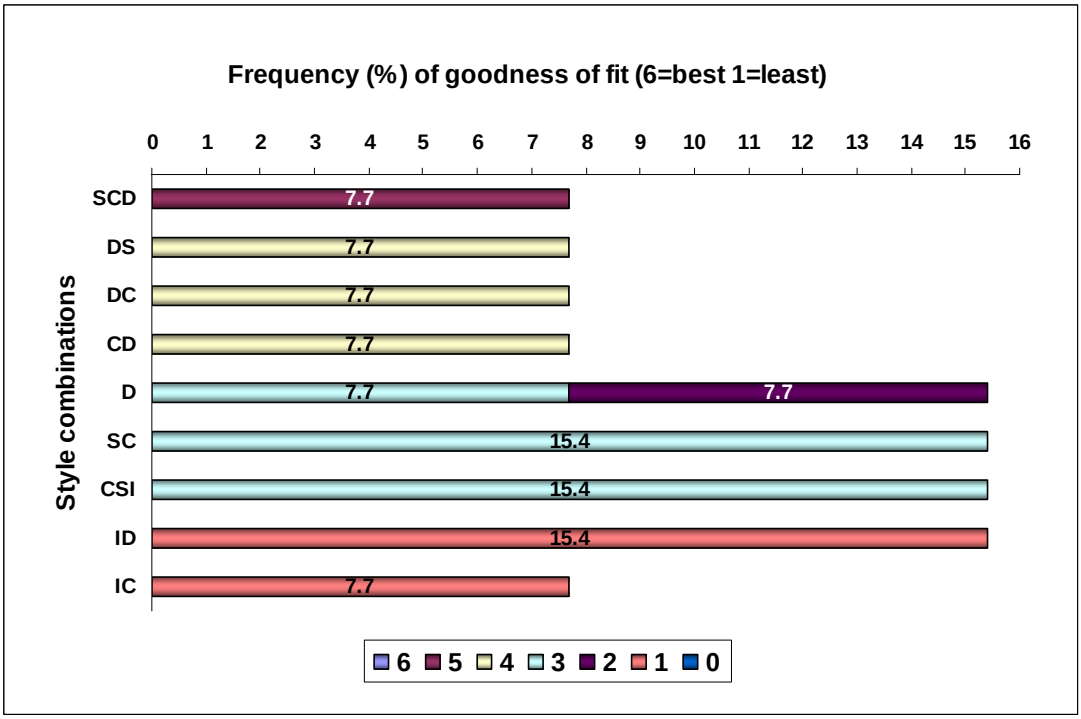


Figure B

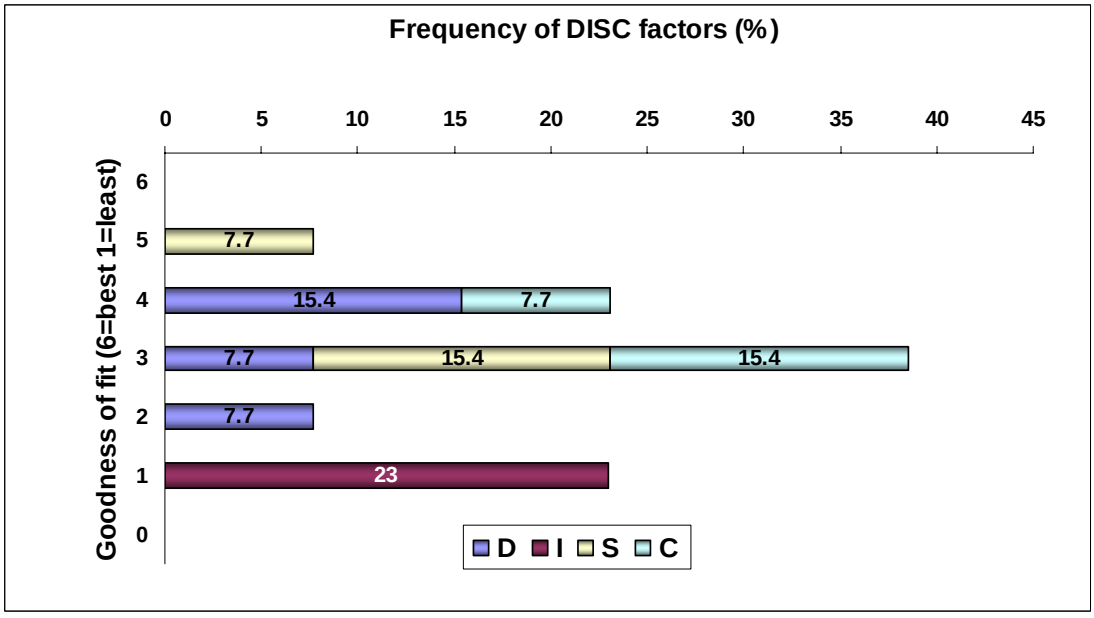


Table 4.55 shows no best fit for the job, and only the Steadiness (7.7%) displays a fit score of five. The Dominance (15.4%) and the Compliance (7.7%) factors display a fit score of four. The other Steadiness, Dominance and Compliance factors are distributed in the mid score ranges. The Influence factor (23%), including all the high Influence style combinations, is in the one fit score range. Sixty-nine percent of the star performer group does 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 4.55.

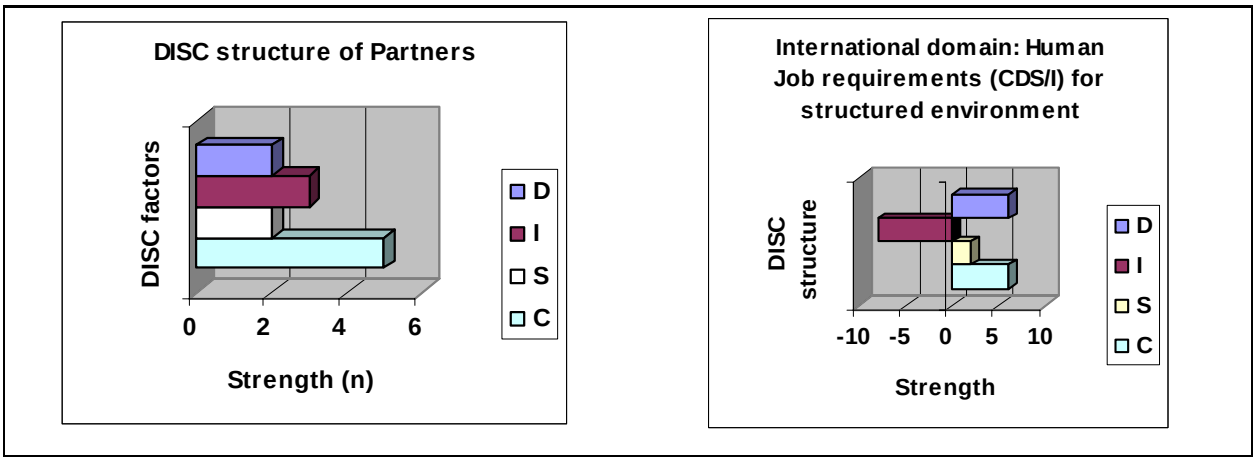
Table 4.55 shows no factors in the extreme score ranges. None of the star performer group displays a job fit of 6/6 but these findings (Table 4.55) suggest that 31 percent of this group fall into an acceptable range for goodness of fit. The majority (69%) of the star performer group's behavioural characteristics do not seem to match the requirements of the HJA and will thus not be a natural fit for the job.

The star performer group differs from the TUT population in that the Dominance factor is the most prominent in this group but the least represented in the TUT population. Although the Compliance factor is the most prominent factor in the TUT population, the star performer group displays an equal distribution of the Compliance, Steadiness and Influence factors. The job requirements under discussion call for a stronger Compliance and Steadiness factor presence thus the majority of the star performers' behavioural characteristics do not seem to match the requirements of the HJA and hence they will not be a natural fit for the job.

4.5.2.2.4 P-J fit of the Partner group : HJA (CDS/I)

Measured against the CDS/I profile the behavioural characteristics of the Partner group as captured in the DISC personal profiles (see Figure 4.42) were assessed to determine goodness of fit. The scores for the Partner group are tabulated in Table 4.56.

Figure 4.42: DISC factor distribution for Partners at TUT vs. HJA (CDS/I)



It is evident from Figure 4.42 that the Compliance factor has the greatest strength in the Partner group and the human job requirements call for high Dominance and Compliance factors. The Steadiness factor in the Partner's profile is more prominent and the Influence factor too strong for the CDS/I HJA requirement. Table 4.56 shows a refined fit score between the Partner group and the job.

Table 4.56: P-J fit for the Partner group : HJA (CDS/I)

Styles	Frequency (%) of fit scores per style combination for Partner group						
	6	5	4	3	2	1	0
CSD	8.3						
CS		8.3	16.7				
DS			8.3				
SD				8.3			
C				8.3			
S					8.3		
DI						8.3	
ID						16.7	
IS						8.3	
Total	8.3	8.3	25	16.6	8.3	33.3	0
			41.6				58.2

Figure A

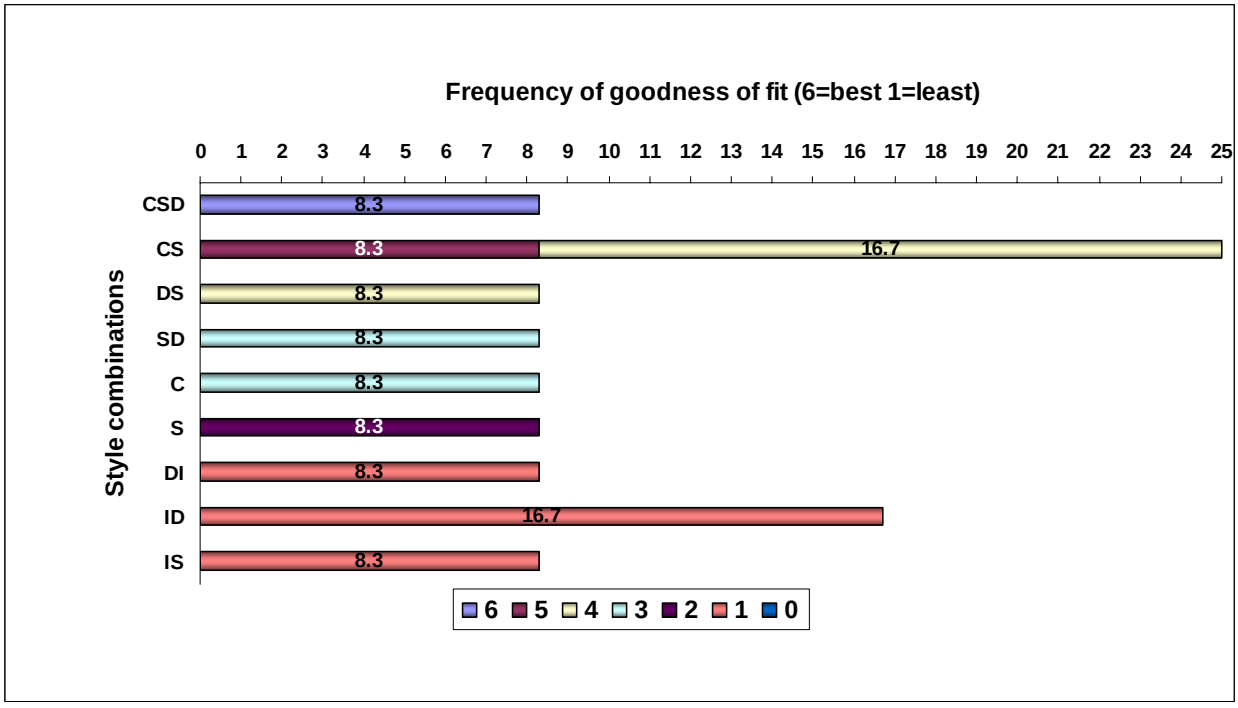


Table 4.56: P-J fit for the Partner group : HJA (CDS/I) (continued)

Figure B

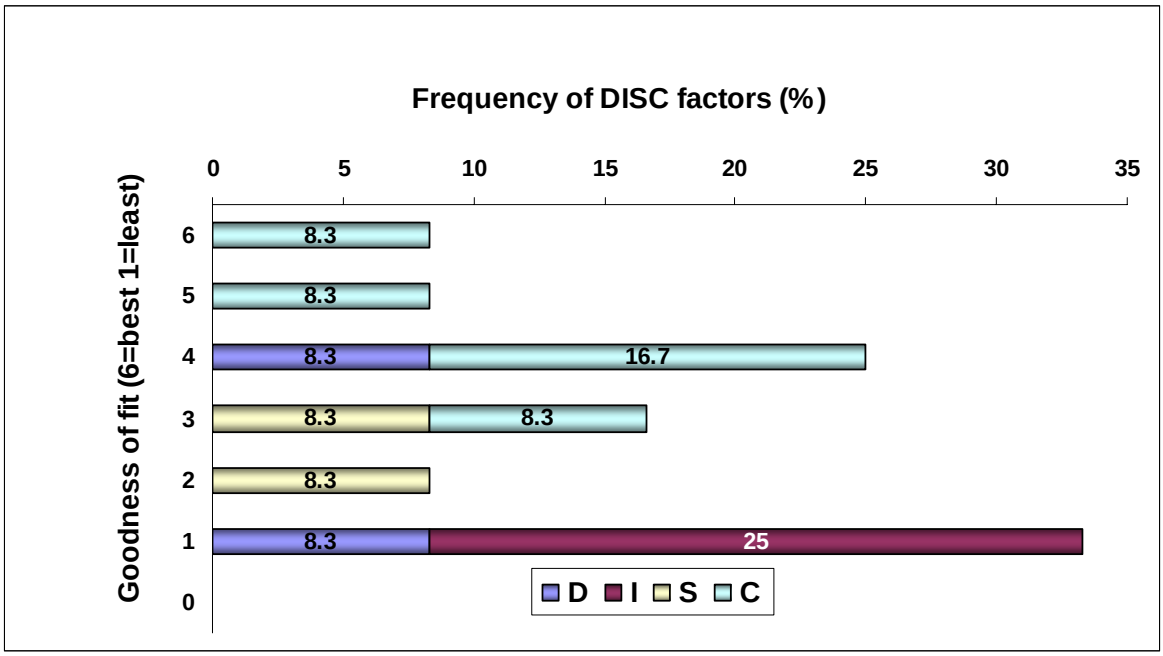


Table 4.56 shows the high CSD style combination as a best fit for the job, and the Compliance (25%) and Dominance (8.3%) display fit scores in the 5-4 score range. The Influence factor (25%), including all the high Influence style combinations, are in the one fit score range. These findings suggest that 42 percent of the Partner group falls in an acceptable range of goodness of fit and only 58 percent does 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 4.56.

Table 4.56 shows no factors in the extreme low score ranges and the high CSD style combination as a best fit. The high DS and high CS factors present in the five fit score range imply that profile styles in this factor tends to be more positively related to the job requirements for the CDS/I structure. The Steadiness and Compliance style combinations are distributed towards the three to six fit score range. A percentage of 8,3% of the Dominance factors and all the Influence factors are in the low fit score ranges, which imply that profile styles in these factor combinations tend to be more negatively related to the job requirements for the CDS/I structure.

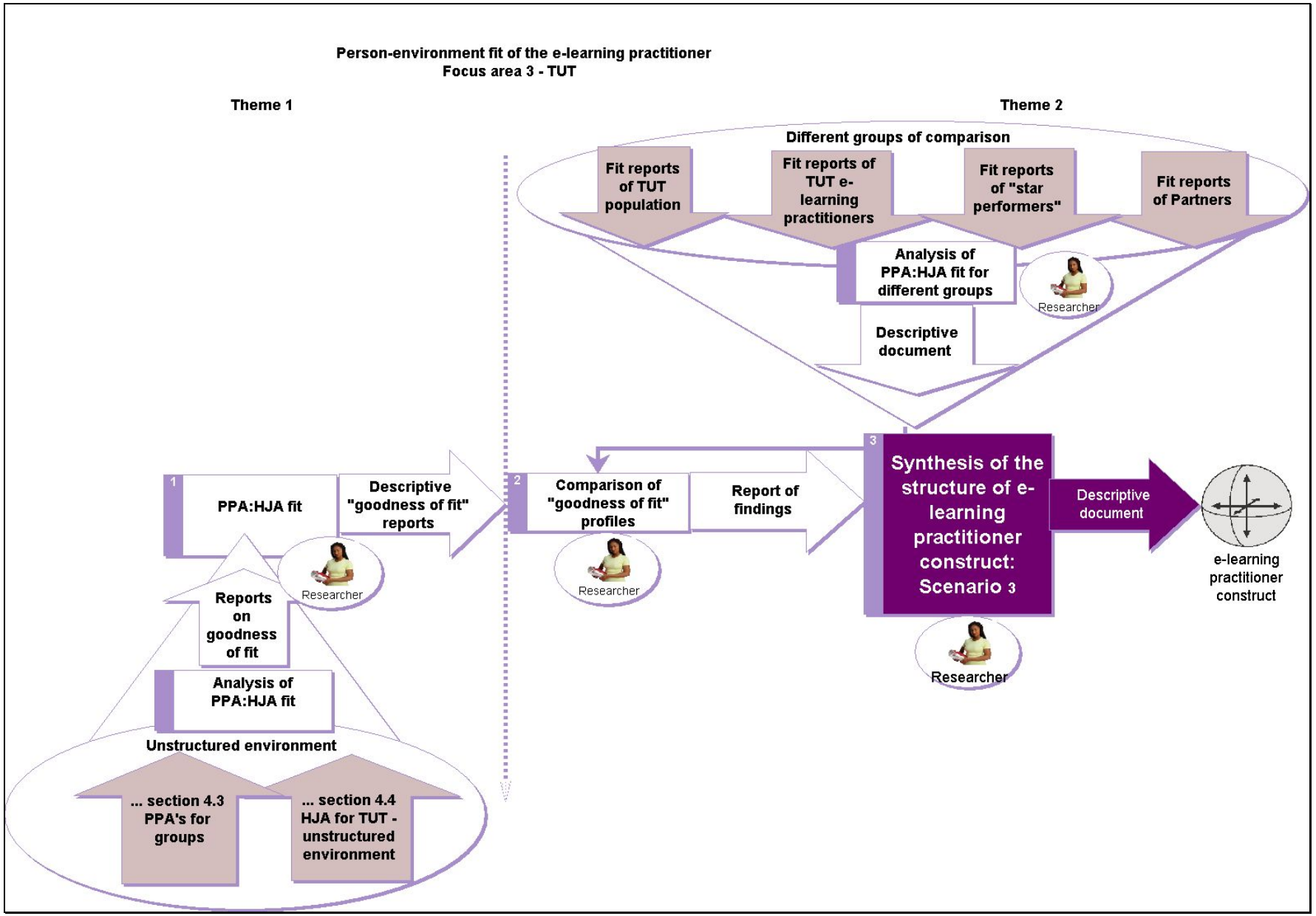
The Partner group complements the TUT population in that the Compliance factor is the most prominent, however the high CS style combination accounts for 60 percent of the style combinations in the Compliance factor. The job requirements under discussion call for a strong Compliance factor presence and 42 percent of the Partner's style combinations show an acceptable job-fit score. However the majority of the Partner's behavioural characteristics do not seem to match the requirements of the HJA and will not be a natural fit for the job.

4.5.2.3 TUT domain focus area 3 : HJA (DI/CS)

Figure 4.43 illustrates the analysis process that was followed to synthesise the findings presented in this section. P-J fit (unstructured environment) between the e-learning practitioner and HJA (DI/CS) are presented for:

- TUT e-learning practitioner population;
- TUT e-learning practitioner group;
- Star performer group, and
- Partner group.

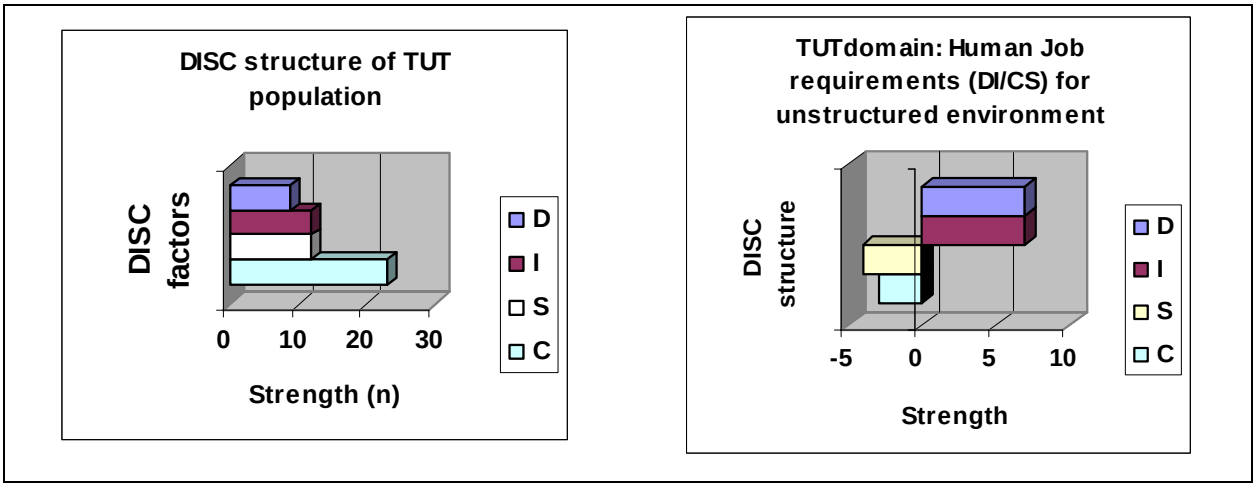
Figure 4.43: P-J fit of the e-learning practitioner and requirements from the TUT domain



4.5.2.3.1 P-J fit of the TUT population : HJA (DI/CS)

Behavioural characteristics of the TUT e-learning practitioner population captured in the PPAs were graphed and measured against the DI/CS profile (see Figure 4.44) to determine goodness of fit. The scores for the TUT population are tabulated in Table 4.57.

Figure 4.44: DISC factor distribution for TUT population vs. HJA (DI/CS)



It is evident from Figure 4.44 that the Dominance factor has the greatest strength in the human job requirements for an e-learning practitioner in an unstructured environment, but the lowest strength in the TUT population group. The Influence factor in the TUT profile is less prominent than the one for the DI/CS HJA and the TUT population shows the greatest strength in the Compliance factor, whereas the job under discussion calls for a low Compliance factor. The two graphs display two opposites Table 4.57 shows a refined fit score for the TUT population and the job.

Table 4.57: P-J fit for the TUT population : HJA (DI/CS)

Styles	Frequency (%) of fit scores per style combination for population						
	6	5	4	3	2	1	0
DI	3.6						
DIC		1.8					
ID		3.6	3.6				
CDI			1.8				
D			3.6				
DC			1.8				
DIS			1.8				
IC			1.8	1.8			
ICD			5.4				
CD				3.6	3.6		
CI				1.8			
DS				3.6			
C					1.8	3.6	
IS					3.6		
SD					3.6		
CIS						3.6	
CSD						5.4	
CSI						5.4	
ISC						1.8	
SCD						5.4	
S						1.8	
CS							10.7
SC							10.7
Total	3.6	5.4	19.8	10.8	12.6	27	21.4
			28.8				71.8

Figure A

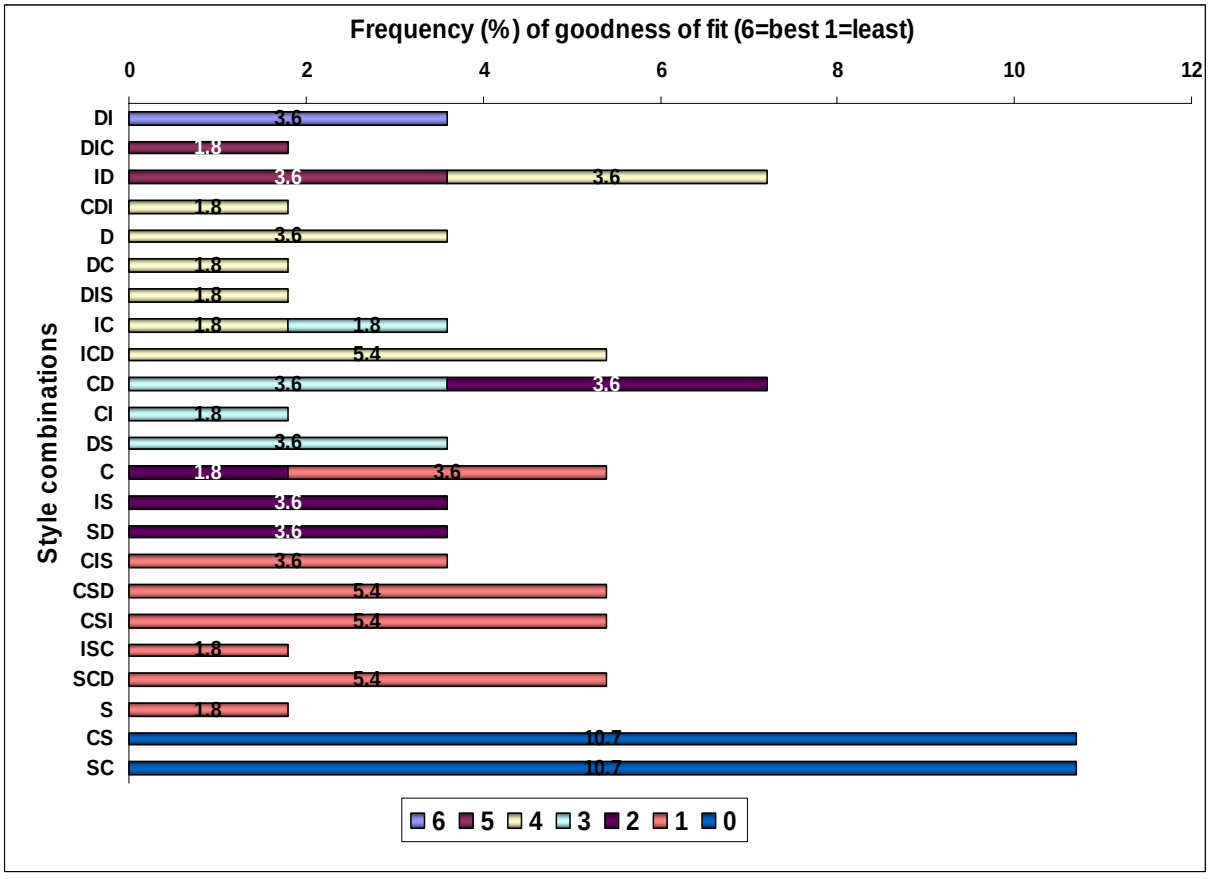


Table 4.57: P-J fit for the TUT population : HJA (DI/CS) (continued)

Figure B

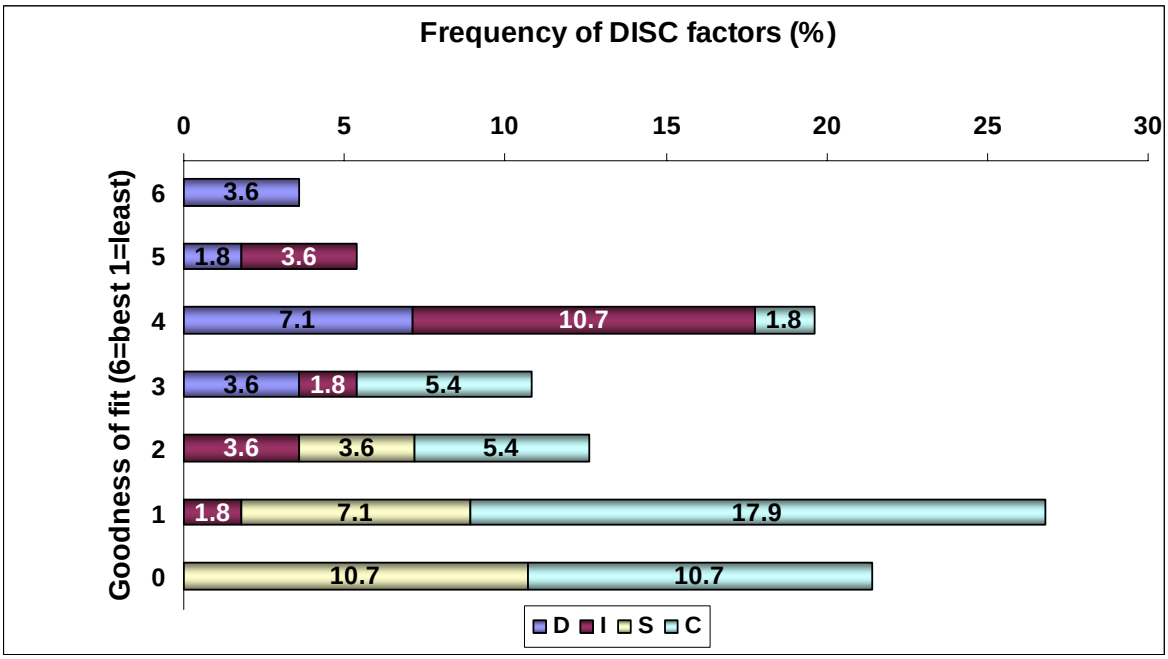


Table 4.57 shows that the best fit for the job is the high Dominance factor (style combination percentage of 3.6%), whilst other patterns of style combinations between the Dominance and Influence factors show scores between five (style combination percentage of 5.4%) and four (style combination percentage of 19.8 percent) for goodness of fit. The other combinations (71.8%) 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 4.57.

The group displaying high DIC profiles (1.8%) scored five and a percentage of 3,6% of the population in the high ID style ccmbination scored in the five range. Because of a low style distribution difference of the low factors of the high ID style combination, another percentage of 3,5% of the population scored four and not five. The rest of the style pattern distribution shows score variations between four and one. Very prominent is the high CS and high SC style combinations in the zero score range.

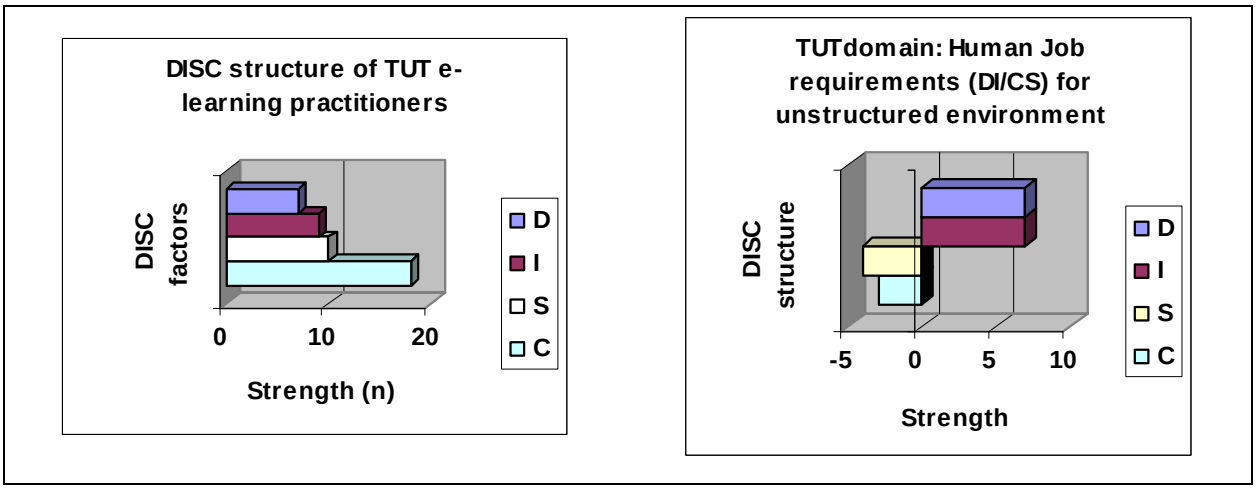
Table 4.57 shows that the Dominance factor is absent from the 0-2 score range and the only factor present in the best fit score range, which imply that profile styles in this factor tend to be more positively related to the job requirements for the DI/CS structure. The Influence factor is distributed towards the top mid range scores. Except for the presence of a very small percentage of the Compliance factor, the Dominance and Influence factors are the only factors present in the 6-4 score range of fit. The Steadiness and Compliance factors are very prominently distributed towards the lower score ranges, which implies that profile styles in this

factor tend to be more negatively related to the job requirements for the DI/CS structure. A percentage of 21,4% of the Steadiness and Compliance factors are in the zero score range of fit. These findings suggest that only 29 percent of the TUT population fall into an acceptable range for goodness of fit. Although the Dominance and Influence factors are the most prominent for goodness of job fit, the Dominance factors are the least present and the Influence factors only moderately present in the TUT population. This means that if the job requirements call for a stronger Dominance and Influence 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.

4.5.2.3.2 P-J fit of the e-learning practitioner group : HJA (DI/CS)

Behavioural characteristics of the e-learning practitioner group captured in the PPAs were graphed and measured against the DI/CS profile (see Figure 4.45) to determine goodness of fit. The scores for the TUT e-learning group are tabulated in Table 4.58.

Figure 4.45: DISC factor distribution for groups at TUT vs. HJA (DI/CS)



It is evident from Figure 4.45 that the Dominance factor has the greatest strength in the human job requirements for an e-learning practitioner in an unstructured environment, but the lowest strength in the TUT e-learning practitioner group. The Steadiness factor in the e-learning practitioner group is more prominent that the one for the total population but in general the e-learning group and the TUT population show similar strengths. Table 4.58 shows a refined fit score between the TUT e-learning practitioner group and the job.

Table 4.58: P-J fit for the TUT e-learning practitioner group : HJA (DI/CS)

Styles	Frequency (%) of fit scores per style combination from e-learning practitioner group including star performers						
	6	5	4	3	2	1	0
DI	2.3						
DIC		2.3					
ID		4.5					
CDI			2.3				
D			4.5				
DC			2.3				
DIS			2.3				
IC			2.3	2.3			
ICD			6.8				
CD				4.5	4.5		
CI				2.3			
DS				2.3			
C					2.3	2.3	
IS					2.3		
SD					2.3		
CIS						4.5	
CSD						4.5	
CSI						6.8	
ISC						2.3	
SCD						6.8	
CS							6.8
SC							13.6
Total	2.3	6.8	20.5	11.4	11.4	27.2	20.4
			29.6				70.4
Styles	**Frequency (%) of fit scores per style combination from e-learning practitioner group excluding star performers**						
	6	5	4	3	2	1	0
DI	3.2						
DIC		3.2					
CDI			3.2				
DIS			3.2				
IC			3.2				
ICD			9.7				
CD				3.2	6.5		
CI				3.2			
C					3.2	3.2	
IS					3.2		
SD					3.2		
CIS						6.5	
CSD						6.5	
CSI						3.2	
ISC						3.2	
SCD						6.5	
CS							9.7
SC							12.9
Total	3.2	3.2	19.3	6.4	16.1	29.1	22.6
			25.7				74.2

Table 4.58: P-J fit for the TUT e-learning practitioner group : HJA (DI/CS) (continued)

Figure A

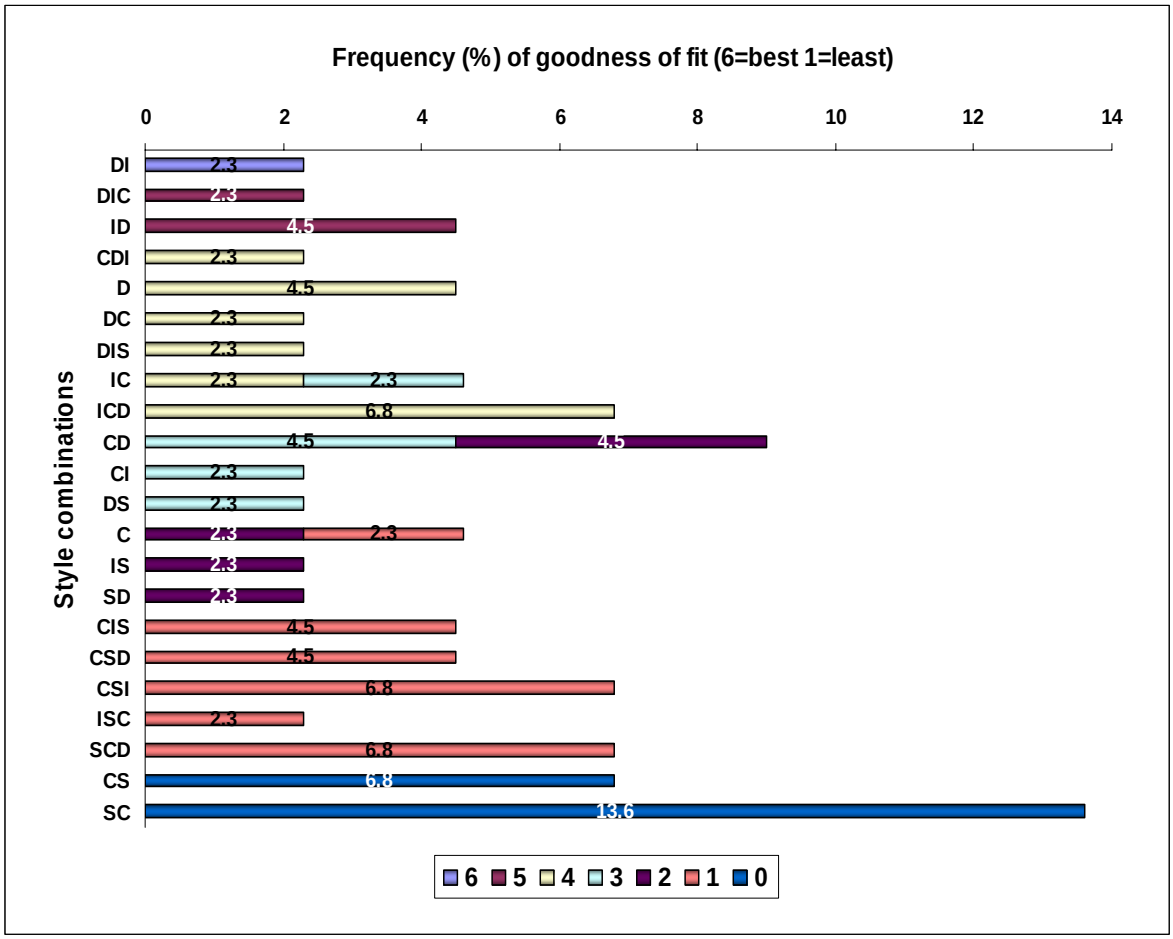


Figure B

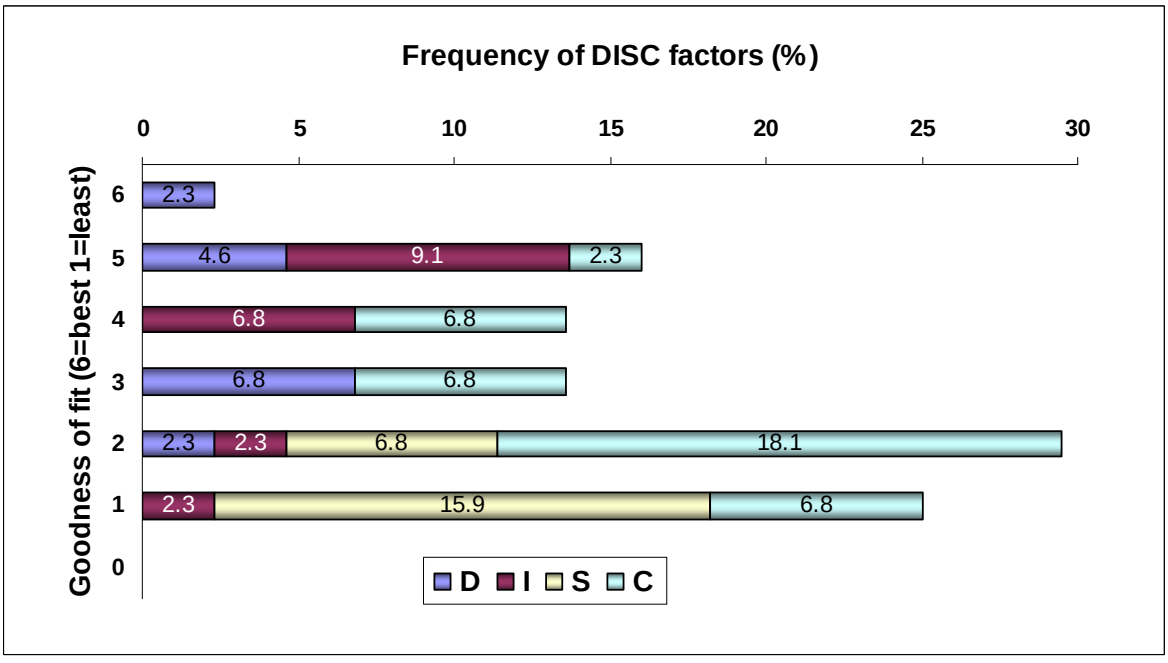


Table 4.58 shows that the best fit for the job is the high Dominance factor (style combination percentage of 2.3%), whilst other patterns of style combinations between the Dominance and

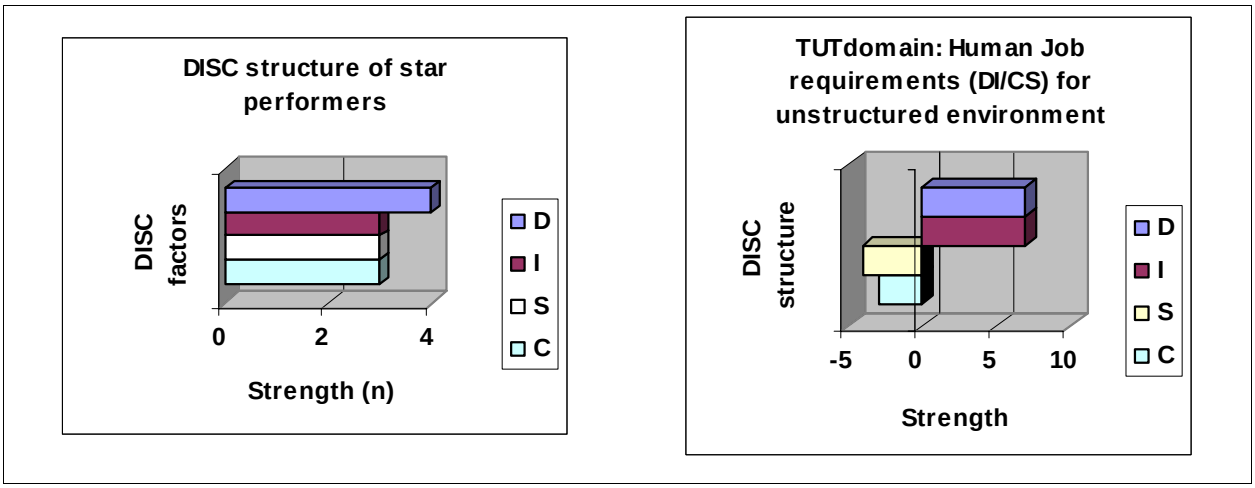
Influence factors show scores between five (style combination percentage of 6.8%) and four (style combination percentage of 20.5%) for goodness of fit. The other combinations (70.4%) do not seem to be in line with the requirements of the HJA. DISC factor ***structure*** and frequency of style combination ***patterns*** in terms of goodness of fit are graphically presented in figures A and B in Table 4.58.

Table 4.58 shows that except for the presence of a percentage of 2,3% of the Compliance factor both the Dominance and Influence factors are the only factors present in the 6-4 range of fit score. The Steadiness and Compliance factors are very prominently distributed towards the lower score ranges, which implies that profile styles in this factor tend to be more negatively related to the job requirements for the DI/CS structure. A percentage of 20,4% of the Steadiness and Compliance factors are in the zero score range of fit. These findings suggest that only 30 percent (26 percent excluding the star performers) of the TUT e-learning practitioner group fall within an acceptable range for goodness of fit. 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.

4.5.2.3.3 P-J fit of the star performer group : HJA (DI/CS)

Measured against the HJA (DI/CS) profile the behavioural characteristics of the star performer group as captured in the DISC personal profiles (see Figure 4.46) were assessed to determine goodness of fit. The scores for the star performer group appear in Table 4.59.

Figure 4.46: DISC factor distribution for star performers at TUT vs. HJA (DI/CS)



It is evident from Figure 4.46 that the Dominance factor has the greatest strength in the star performer group and the human job requirements for an e-learning practitioner in an unstructured environment. The DI/CS HJA calls for a high Influence factor and lower Steadiness and Compliance factors. The star performer group shows equal strength in the Compliance, Steadiness and Influence factors, whereas the job under discussion calls for less strength in the

Compliance and Steadiness factors. Table 4.59 shows a refined fit score between the star performer group and the job.

Table 4.59: P-J fit scores for the star performer group : HJA (DI/CS)

Styles	Frequency (%) of fit scores per style combination from star performers						
	6	5	4	3	2	1	0
ID		15.4					
D			15.4				
DC			7.7				
DS				7.7			
IC				7.7			
CD				7.7			
SCD						7.7	
CSI						15.4	
SC							15.4
Total	0	15.4	23.1	23.1	0	23.1	15.4
			38.5				61.6

Figure A

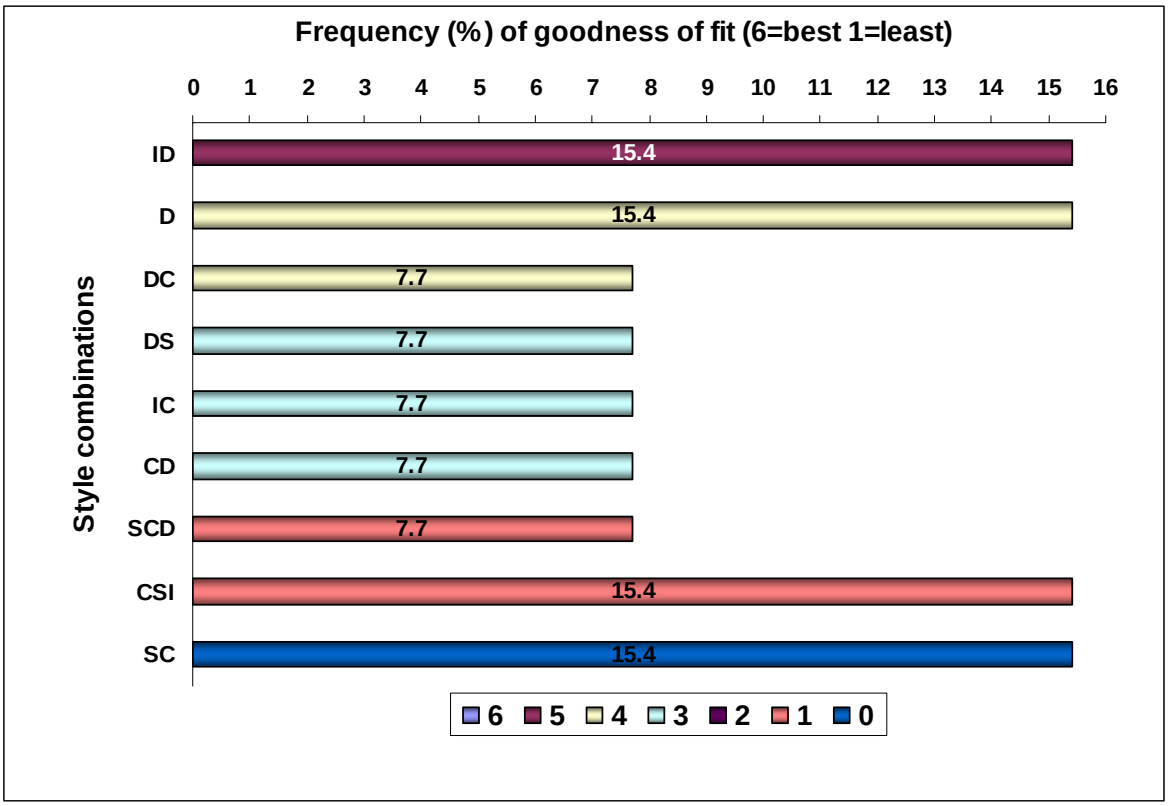


Table 4.59: P-J fit scores for the star performer group : HJA (DI/CS) (continued)

Figure B

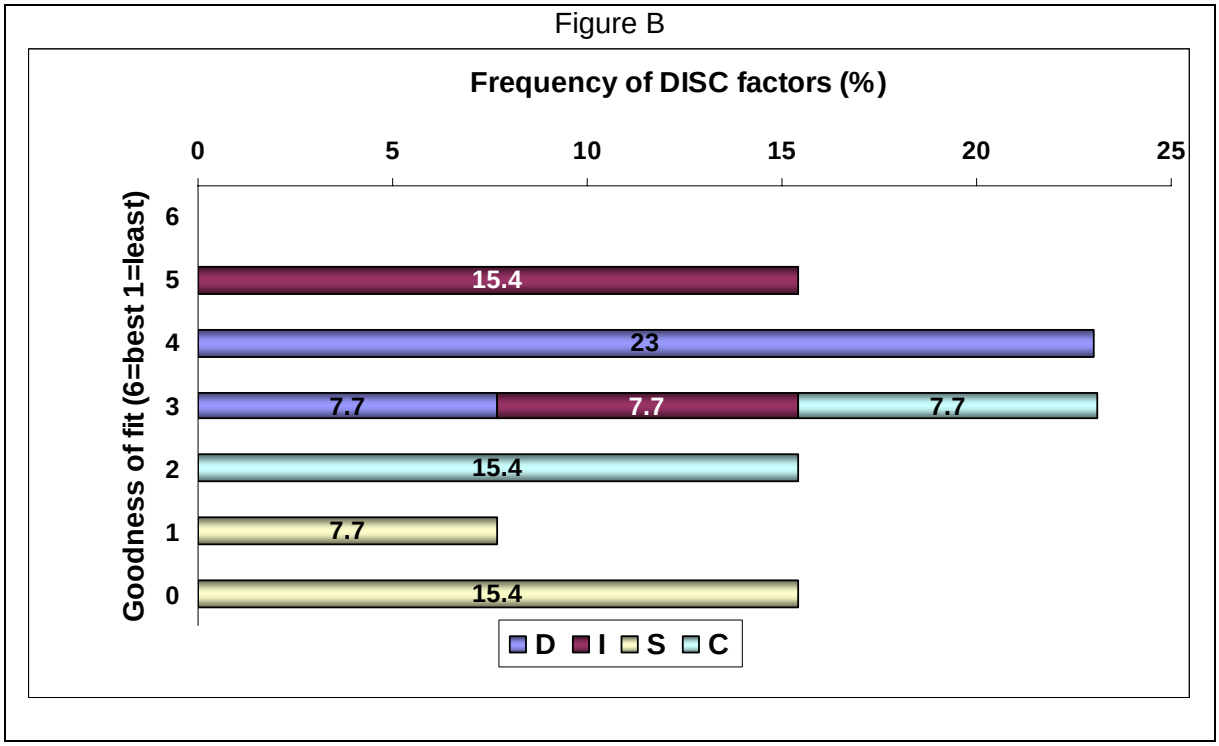


Table 4.59 shows no best fit for the job, but the two complementary style combinations, high DI, high D (15.4% each) and high DC (7.7%) in the Dominance and Influence factors show a fit range of five and four. The Compliance factor is added to the mid range of scores, and the Steadiness factor shows extremely low scores in the 1-0 score ranges. A percentage of 38,5% of the style combinations show an acceptable job fit score and 61,6 percent 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 4.59.

Table 4.59 shows the Influence and Dominance factors present in the 5-4 fit score ranges which imply that profile styles in these factors tend to be more positively related to the job requirements for the DI/CS structure. None of the star performer group display a job fit of 6/6 but these findings suggest that 39 percent of the star performer group falls into an acceptable range for goodness of fit.

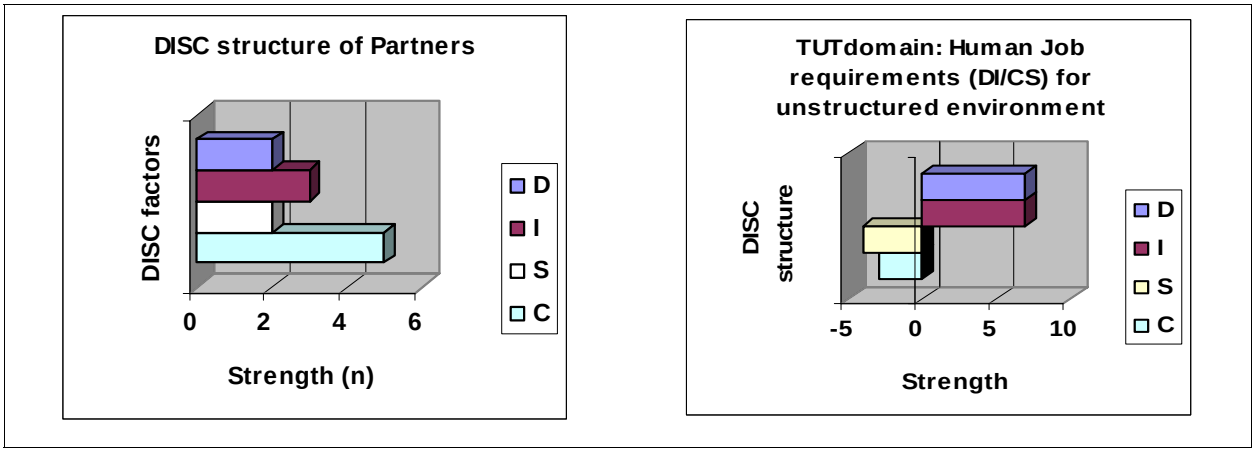
The star performer group differs from the TUT population in that the Dominance factor is the most prominent in this group but the least represented in the TUT population group, furthermore the star performer group is the only group that displays high D style combinations. Although the Compliance factor is the most prominent factor in the TUT population, the star performer group presents an equal distribution of the Compliance, Steadiness and Influence factors. Although the job requirements under discussion call for a stronger Dominance presence and the majority of the star performers' behavioural characteristics do not seem to match the requirements of the

HJA and will not be a natural fit for the job, the overall job fit of 39 percent is slightly higher than for other (CD/SI, CDS/I) P-J fit combinations.

4.5.2.3.4 P-J fit of the Partner group : HJA (DI/CS)

Measured against the HJA (DI/CS) profile the behavioural characteristics of the Partner group as captured in the DISC personal profiles (see Figure 4.47) were assessed to determine goodness of fit. The scores for the Partner group are tabulated in Table 4.60.

Figure 4.47: DISC factor distribution for Partners at TUT vs. HJA (DI/CS)



It is evident from Figure 4.47 that the Compliance factor has the greatest strength in the Partner group, but the Dominance and Influence factors are the most prominent for the human job requirements for an e-learning practitioner in an unstructured environment. The DI/CS HJA calls for lower Steadiness and Compliance factors. The Partner group shows equal strength in the Dominance and Steadiness factors, whereas the job under discussion calls for less strength in the Compliance and Steadiness factors. Table 4.60 shows a refined fit score between the Partner group and the job.

Table 4.60: P-J fit scores for the Partner group : HJA (DI/CS)

Styles	Frequency (%) of fit scores per style combination from Partner group						
	6	5	4	3	2	1	0
DI	8.3						
ID			16.7				
DS				8.3			
IS					8.3		
SD					8.3		
S						8.3	
C						8.3	
CSD						8.3	
CS							25
Total	8.3	0	16.7	8.3	16.6	24.9	25
			25				74.8

Figure A

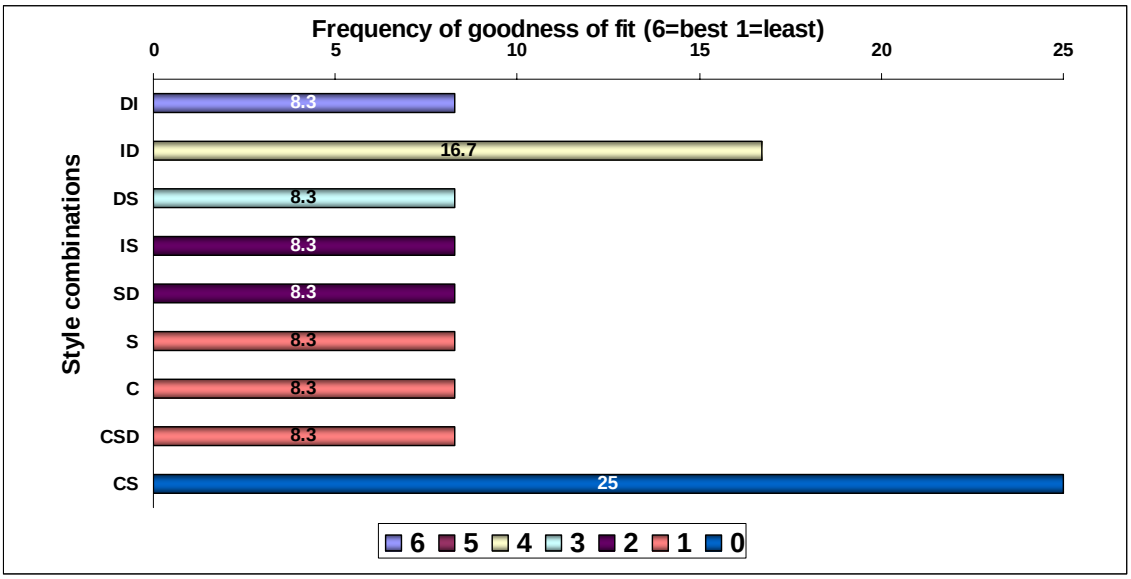


Figure B

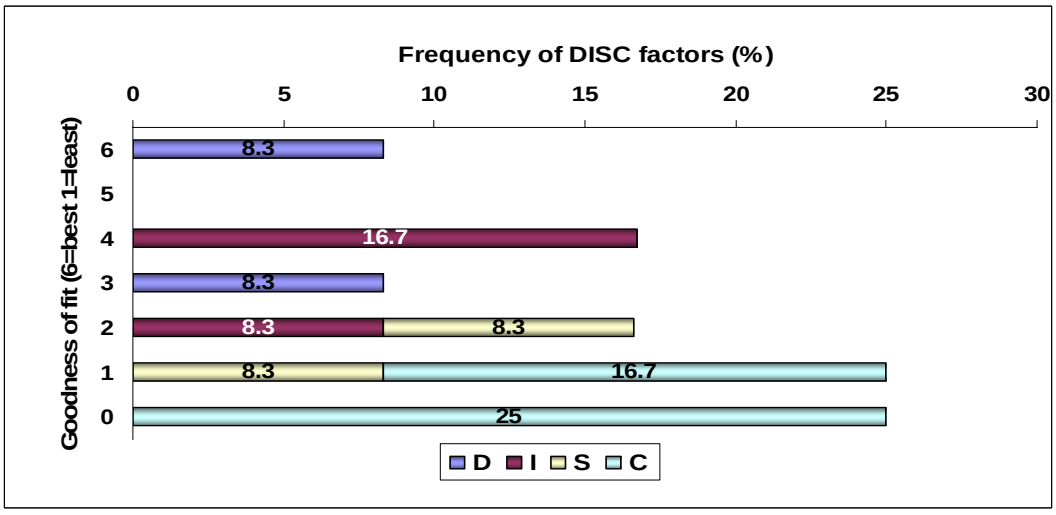


Table 4.60 shows a best fit (high DI style combination) for the job, and a fit score of four for the high ID (16.7%) complementary style combination. The Compliance and the Steadiness factor

show extremely low scores in the 1-0 score ranges. Twenty-five percent (high CS) of the fit scores are in the zero job-fit score category. Only 25 percent of the Partners' style combinations shows an acceptable job fit score and 75 percent does 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 4.60.

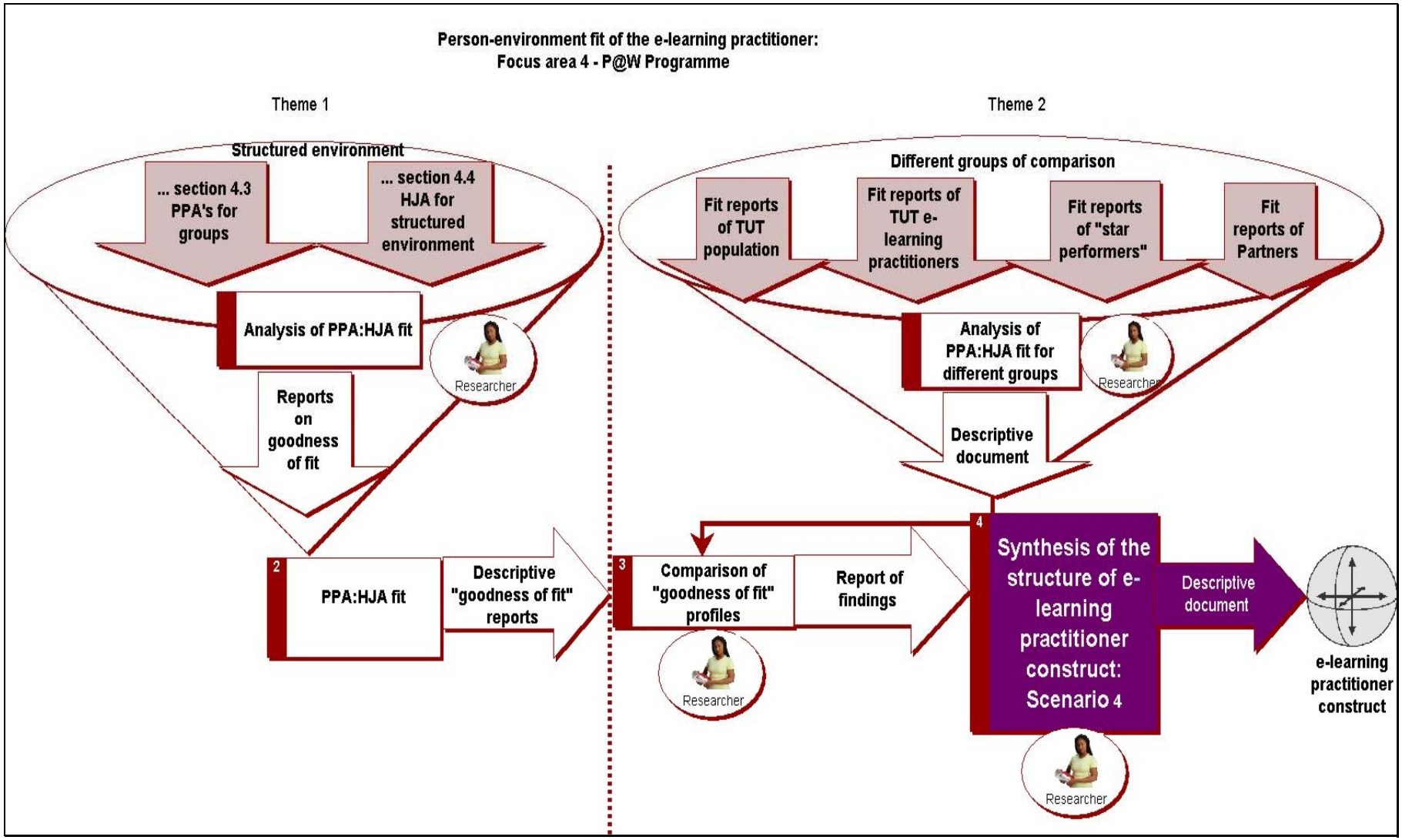
Table 4.60 shows the high DI (8.3%) style combination as being in the best fit score range and the Influence factors present in the 4 fit score range imply that profile styles in the Dominance and Influence factors tend to be more positively related to the job requirements for the DI/CS structure. Other high Influence and high Steadiness style combinations (16.3%) are displayed in the two fit score range. Fifty percent, nearly all of the Steadiness and Compliance factors, is displayed in the 1-0 fit score ranges, which implies that profile styles in these factor combinations tend to be more negatively related to the job requirements for the DI/CS structure. These findings suggest that only 25 percent of the Partner group falls in an acceptable range for goodness of fit. The majority (75%) of the Partner 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 prominence of the high CS style combination does not seem to match the requirements of the HJA and will not be a natural fit for the job.

4.5.2.4 TUT domain focus area 4 : HJA (SCD/I)

Figure 4.48 illustrates the analysis process that was followed to synthesise the findings presented in this section. P-J fit (unstructured environment) between the e-learning practitioner and the HJA (SCD/I) are presented for:

- TUT e-learning practitioner population;
- TUT e-learning practitioner group;
- Star performer group, and
- Partner group.

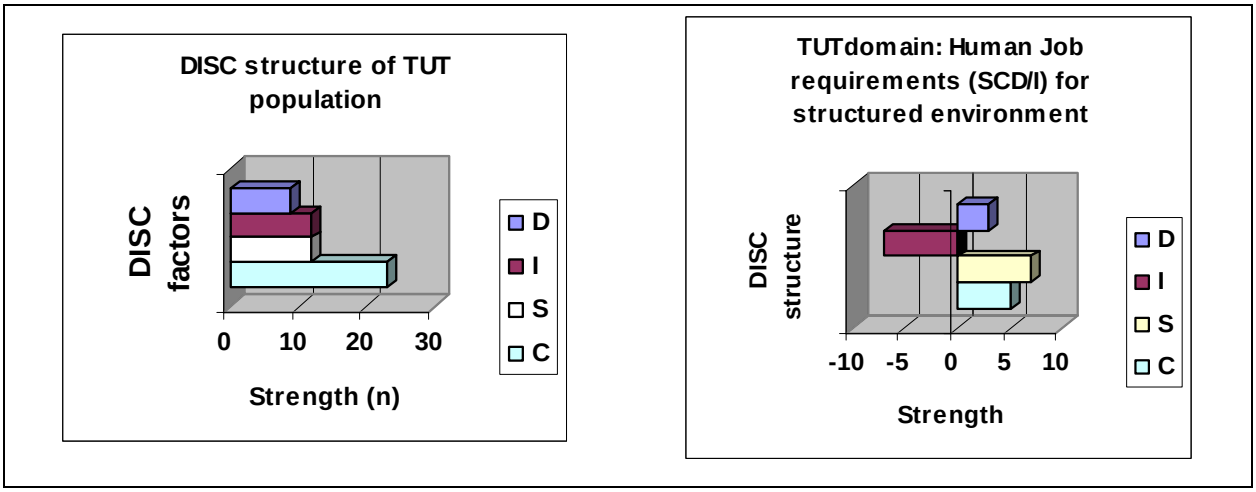
Figure 4.48: P-J fit of the e-learning practitioner and P@W domain



4.5.2.4.1 P-J fit of the TUT population: HJA (SCD/I)

Behavioural characteristics of the e-learning practitioner population captured in the PPAs were graphed and measured against the SCD/I profile (see Figure 4.49) to determine goodness of fit. The scores for the TUT population are tabulated in Table 4.61.

Figure 4.49: DISC factor distribution for TUT population vs. HJA (SCD/I)



It is evident from Figure 4.49 that the Steadiness factor has the greatest strength in the human job requirements for an e-learning practitioner in a structured environment and a moderate strength in the TUT population group. The Influence factor in the human job requirements shows the least strength but moderate strength in the TUT profile. The Compliance and Dominance factors are less prominent in the human job requirements than in the TUT population. Table 4.61 shows a refined fit score between the TUT population and the job.

Table 4.61: P-J fit for the TUT population : HJA (SCD/I)

Styles	Frequency (%) of fit scores per style combination from TUT population						
	6	5	4	3	2	1	0
SCD	5.4						
CSD		5.4					
DS			3.6				
DC			1.8				
SD			3.6				
SC			10.7				
CD			3.6	3.6			
CS			3.6	7.1			
D				1.8	1.8		
S				1.8			
C				1.8	3.6		
DIC					1.8		
DIS					1.8		
ISC					1.8		
IC					1.8	1.8	
ICD					5.4		
CDI					1.8		
CIS					3.6		
CSI					5.4		
DI						3.6	
ID						7.1	
IS						3.6	
CI						1.8	
Total	5.4	5.4	26.9	16.1	28.8	17.9	0
			37.7				62.8

Figure A

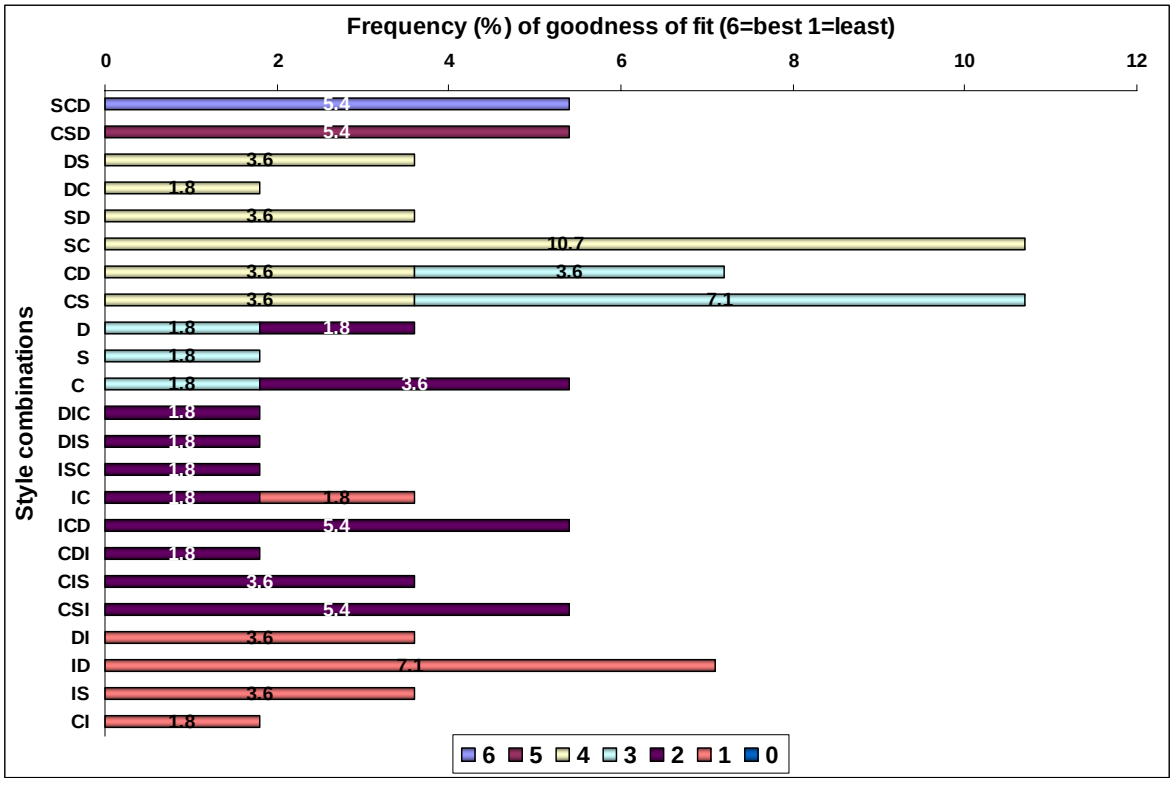


Table 4.61: P-J fit for the TUT population : HJA (SCD/I) (continued)

Figure B

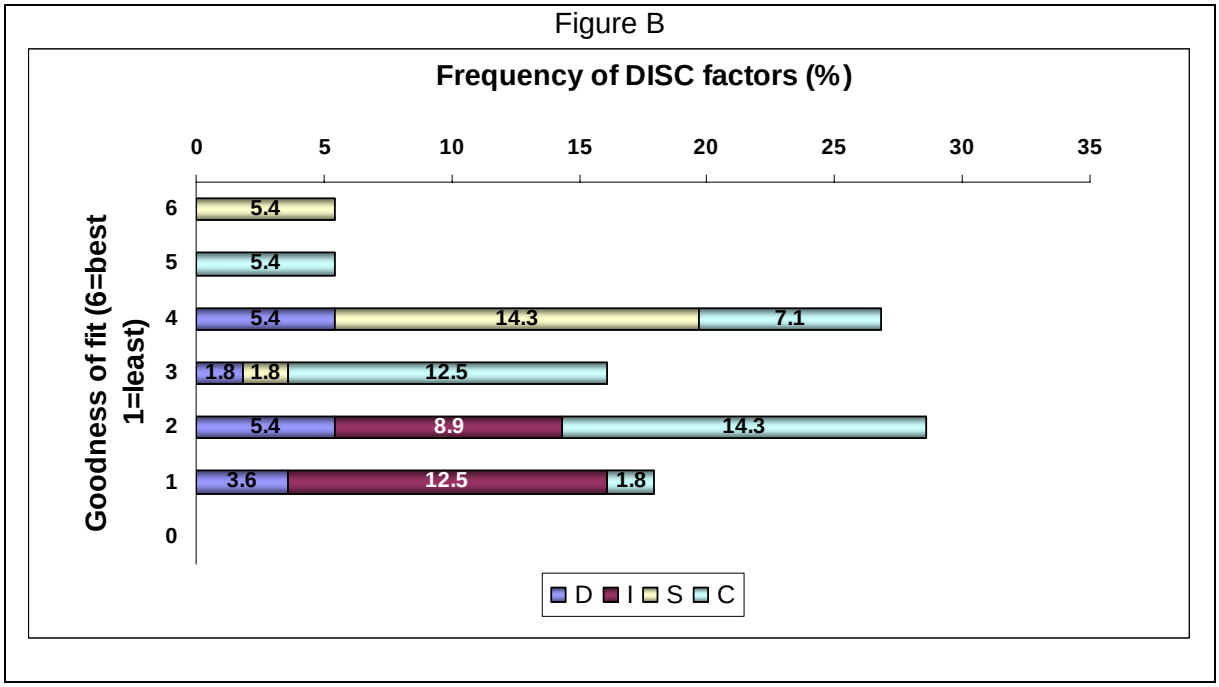


Table 4.61 shows that the best fit for the job is the high Steadiness factor (style combination percentage of 5.4%), whilst other patterns of style combinations between the Dominance, Steadiness and Compliance factors show a score of five (style combination percentage of 5.4%) and four (style combination percentage of 26.9%) for goodness of fit. The other combinations (62.8%) do not seem to be in line with the requirements of the HJA. DISC factor ***patterns*** and ***structure*** in terms of goodness of fit are graphically presented in figures A and B in Table 4.61.

A percentage of 5.4% of the group scores a best fit score. Another 5,4 percent of the group, displaying a complementary style combination of CSD, scored in the five fit range. The rest of the style pattern distribution shows score variations between four and one. Very significant are the high Influence style combinations in the one score range and no style combinations in the zero range.

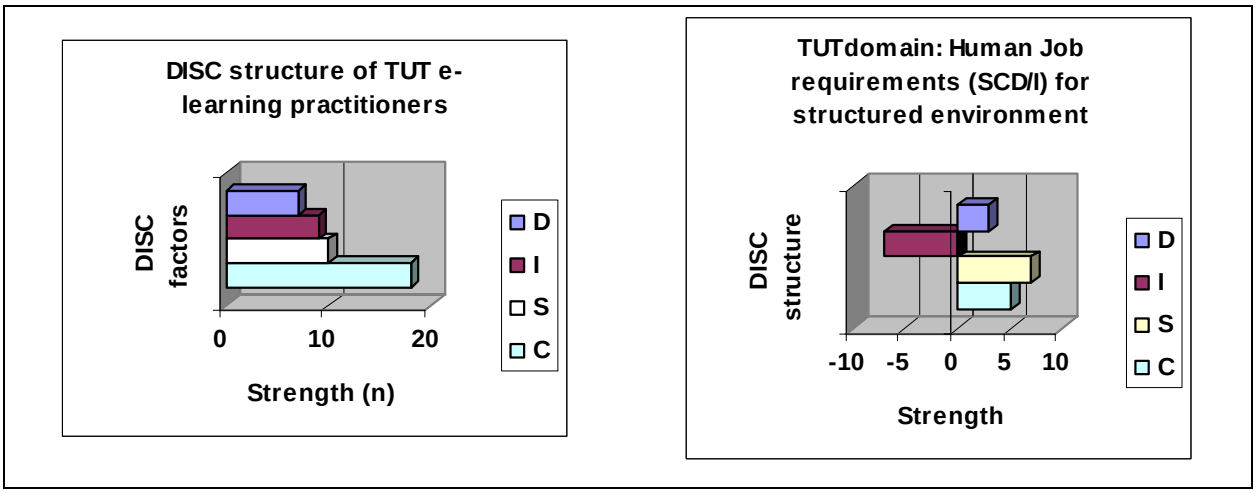
The Steadiness factor is absent from the 0-2 score range and is the only factor present in the best fit score range, which implies that profile styles for this factor tend to be more positively related to the job requirements for the SCD/I structure. Except for the best score range, the Compliance factor is evenly distributed towards all the score ranges. The Dominance factor is distributed towards the lower score ranges and the Influence factor is displayed only in the lowest score ranges which implies that profile styles for this factor tend to be more negatively related to the job requirements for the SCD/I structure. Table 4.61 shows that only three (5.4%) profiles of the TUT population display a job fit of 6/6. These findings suggest that only 38 percent of the TUT population falls into an acceptable range for goodness of fit. The Compliance factors are the most prominent and the Steadiness factors are moderately present

in the TUT population, which means that if the job requirements call for a stronger Steadiness 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.

4.5.2.4.2 P-J fit of the e-learning practitioner group : HJA (SCD/I)

Behavioural characteristics of the e-learning practitioner population captured in the PPAs were graphed and measured against the SCD/I profile (see Figure 4.50) to determine goodness of fit. The scores for the TUT e-learning practitioner group are displayed in Table 4.62.

Figure 4.50: DISC factor distribution for groups at TUT vs. HJA (SCD/I)



It is evident from Figure 4.50 that the Steadiness factor has the greatest strength in the human job requirements for an e-learning practitioner in a structured environment and a moderate strength in the TUT e-learning practitioner group. The Influence factor in the human job requirements shows the least strength, but moderate strength in the TUT profile. The Compliance and Dominance factors are less prominent in the human job requirements than in the TUT population. Table 4.62 shows a refined fit score between the TUT e-learning practitioner group and the job.

Table 4.62: P-J fit for the e-learning practitioner group : HJA (SCD/I)

Styles	Frequency (%) of fit scores per style combination from e-learning practitioner group including star performers						
	6	5	4	3	2	1	0
SCD	6.8						
CSD		4.5					
DS			2.3				
DC			2.3				
SD			2.3				
SC			13.6				
CD			4.5	4.5			
CS			2.3	4.5			
D				2.3	2.3		
C				2.2	2.3		
DIC					2.3		
DIS					2.3		
ISC					2.3		
IC					2.3	2.3	
ICD					6.8		
CDI					2.3		
CIS					4.5		
CSI					6.8		
DI						2.3	
ID						4.5	
IS						2.3	
Total	6.8	4.5	27.3	13.5	34.2	13.7	0
			38.6				61.4

Styles	Frequency (%) of fit scores per style combination from e-learning practitioner group excluding star performers						
	6	5	4	3	2	1	0
SCD	6.5						
CSD		6.5					
SD			3.2				
SC			12.9				
CD			6.5	3.2			
CS			3.2	6.5			
C				3.2	3.2		
DIC					3.2		
DIS					3.2		
ISC					3.2		
IC					3.2		
ICD					9.7		
CDI					3.2		
CIS					6.5		
CSI					3.2		
DI						3.2	
IS						3.2	
CI						3.2	
Total	6.5	6.4	25.8	12.9	38.6	9.6	0
			38.7				61.1

Table 4.62: P-J fit for the e-learning practitioner group : HJA (SCD/I) (continued)

Figure A

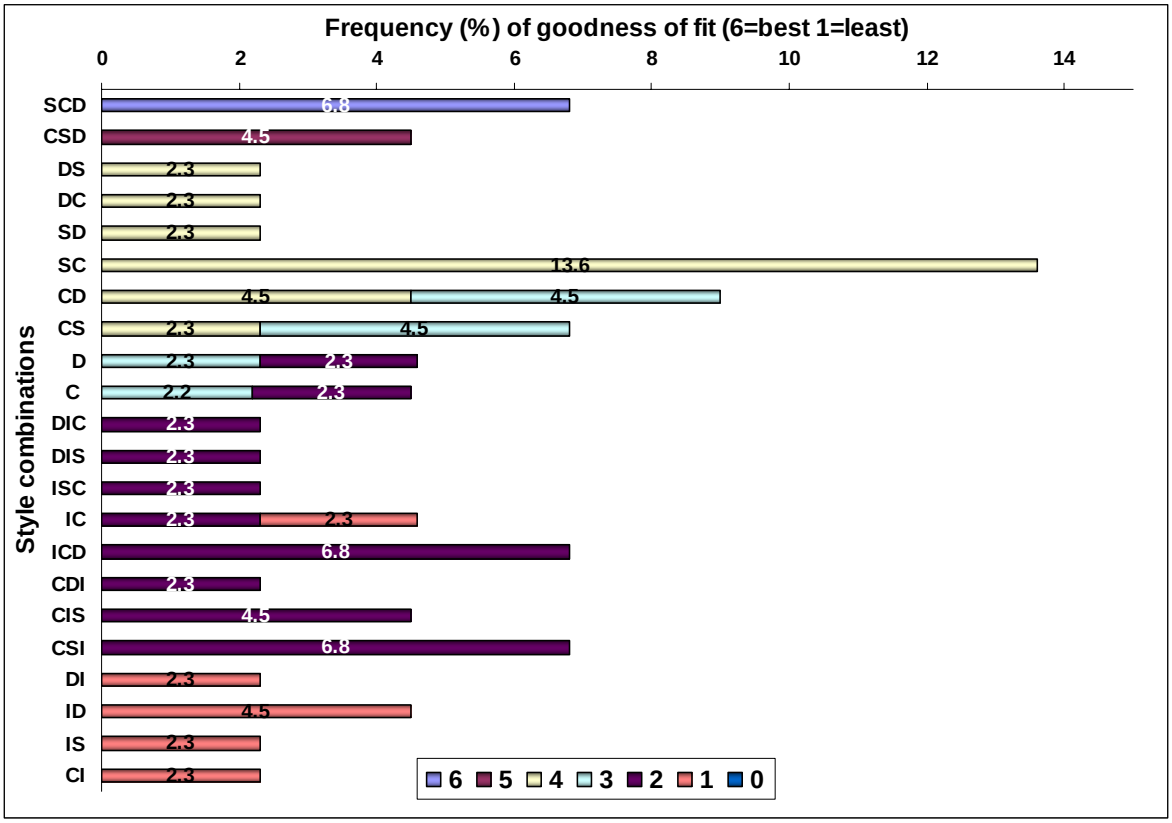


Figure B

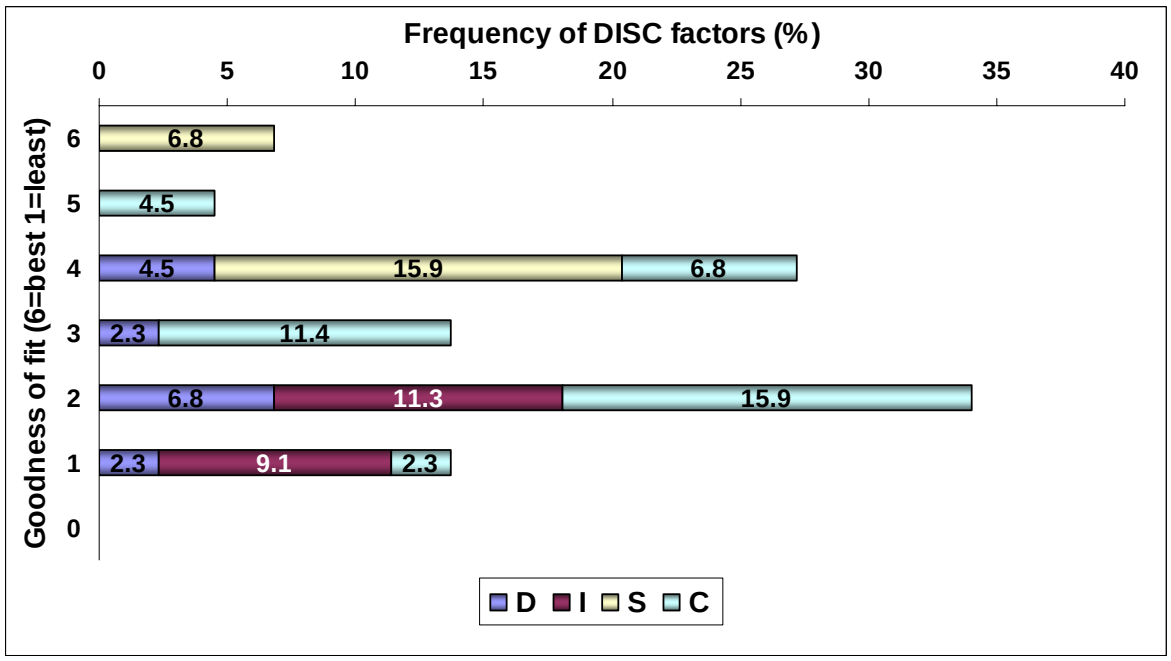


Table 4.62 shows that the best fit for the job is the high Steadiness factor (style combination percentage of 6.8%), whilst other patterns of style combinations between the Dominance, Steadiness and Compliance factors show a score of five (style combination percentage of 4.5%) and four (style combination percentage of 27.3%) for goodness of fit. The other combinations

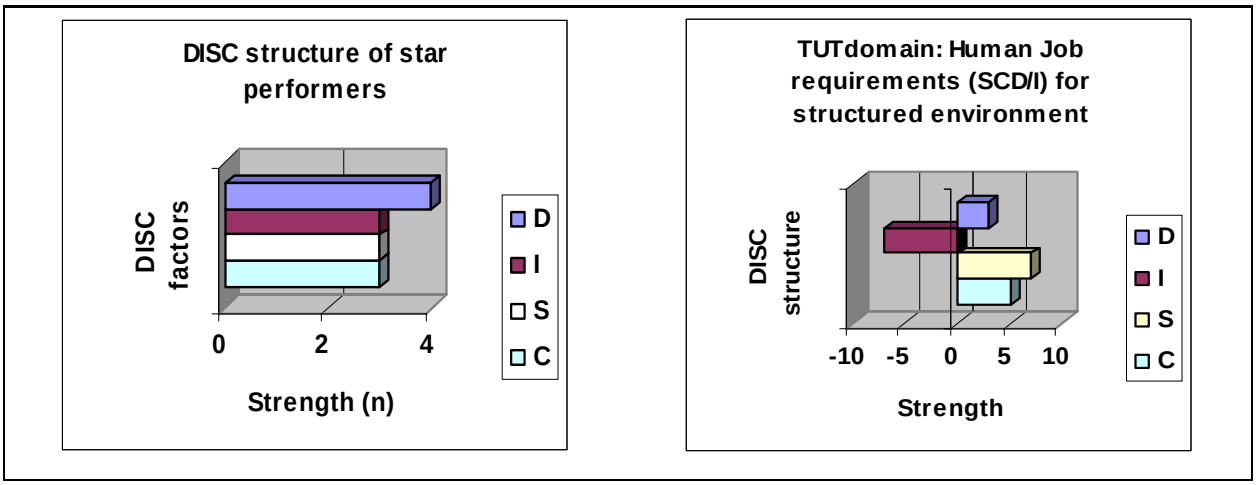
(61.4%) do not seem to be in line with the requirements of the HJA. DISC factor ***patterns*** and ***structure*** in terms of goodness of fit are graphically presented in figures A and B in Table 4.62.

Table 4.62 shows that the Steadiness factor is absent from the 0-2 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 SCD/I structure. Apart from the best score range, the Compliance factor is evenly distributed towards all the score ranges. The Dominance factor is distributed towards the lower score ranges and very significant is that the Influence factor is displayed only in the lowest score ranges, which implies that profile styles for this factor tend to be more negatively related to the job requirements for the SCD/I structure. Table 4.62 shows that only 39 percent of the TUT population fall within an acceptable range for goodness of fit. The Steadiness factors are moderately present in the TUT e-learning practitioner group which means that if the job requirements call for a stronger Steadiness factor presence the majority of the TUT e-learning practitioner's behavioural characteristics do not seem to match the requirements of the HJA and will not be a natural fit for the job.

4.5.2.4.3 P-J fit of the star performer group : HJA (SCD/I)

Goodness of fit measured between the DISC personal profiles (see Figure 4.51) of the star performer group and the HJA (SCD/I) were assessed. The scores for the star performer group are given in Table 4.63.

Figure 4.51: DISC factor distribution for star performers at TUT vs. HJA (SCD/I)



It is evident from Figure 4.51 that the Dominance factor is strongest in the star performer group and the human job requirements call for high Steadiness and Compliance factors combined with a less strong Dominance factor. The Steadiness factor in the star performers' profile complements the requirements of the HJA, but the latter calls for a low Influence factor, which means that this factor is too strong for the SCD/I requirement. Table 4.63 shows a refined fit score between the star performer group and the job.

Table 4.63: P-J fit for the star performer group : HJA (SCD/I)

Styles	Frequency (%) of fit scores per style combination from star performers						
	6	5	4	3	2	1	0
SCD	7.7						
DS			7.7				
DC			7.7				
SC			15.4				
D				7.7	7.7		
CD				7.7			
CSI					15.4		
ID						15.4	
IC						7.7	
Total	7.7	0	30.8	15.4	23.1	23.1	0
			38.5				61.6

Figure A

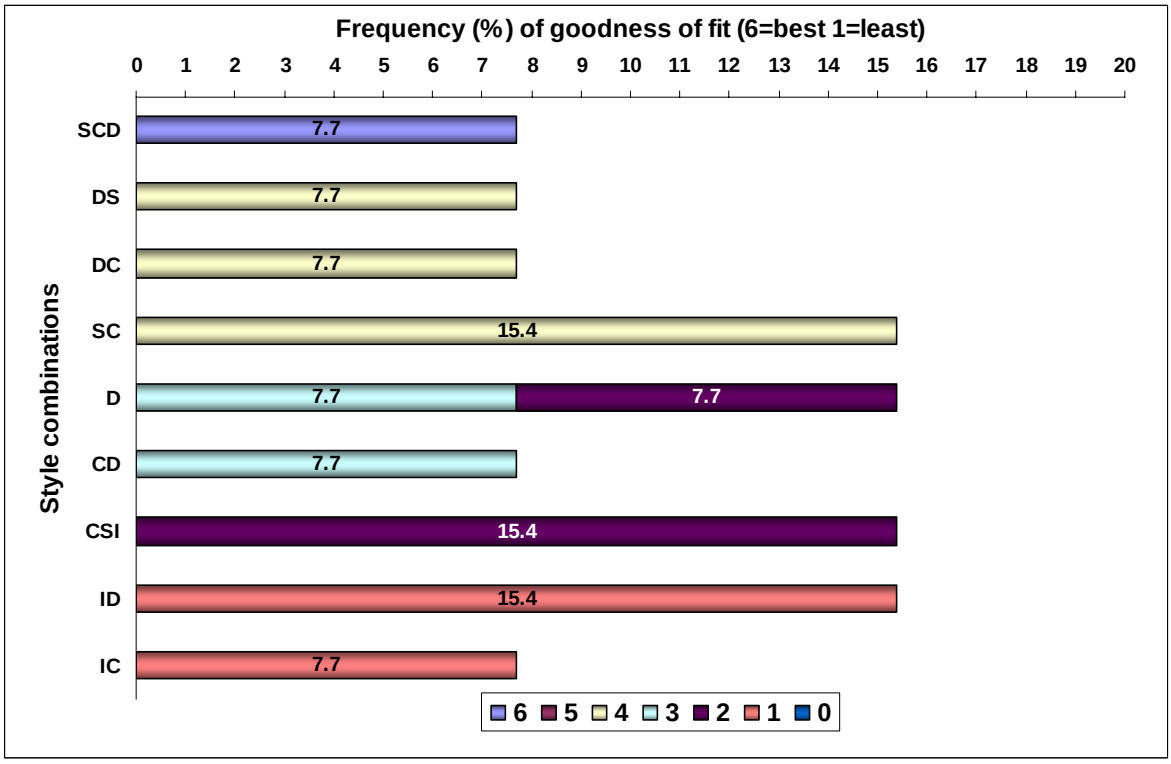


Table 4.63: P-J fit for the star performer group : HJA (SCD/I) (continued)

Figure B

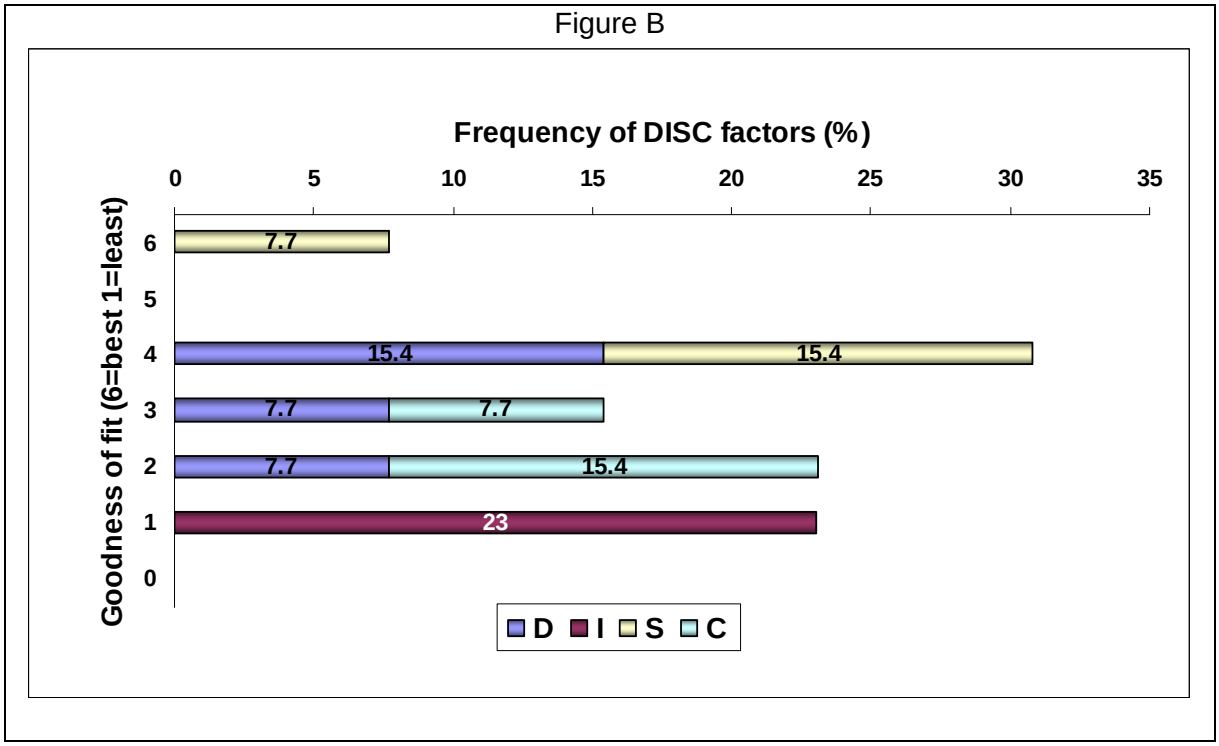


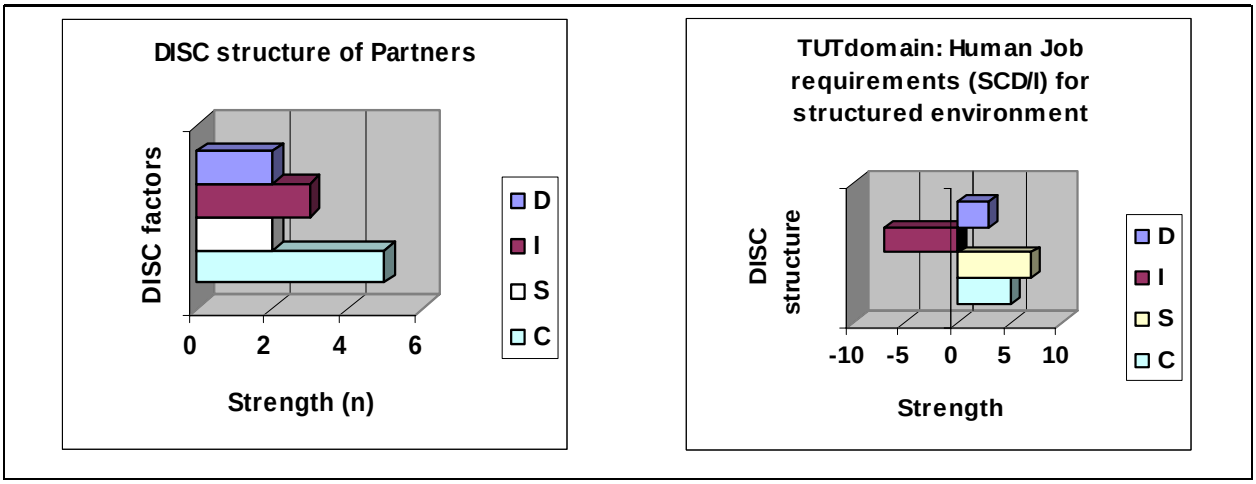
Table 4.63 shows a best fit for the job in the Steadiness (7.7%) factor. No job fit scores are displayed for the five score range. A combination of Steadiness (15.4%) and Dominance (15.4%) factors present with a fit score of four. The other Steadiness, Dominance and Compliance factors are distributed in the mid score to low score ranges. The Influence factor (23.1%), including all the high Influence style combinations, is in the one fit score range. Sixty-two percent of the star performer group does 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 4.63.

Table 4.63 shows no factors in the low extreme score range. The Steadiness factor is present in the best fit score range as well as in the four fit score range. This implies that profile styles for this factor tend to be more positively related to the job requirements for the SCD/I structure. The findings suggest that 39 percent of the star performer group falls within an acceptable range for goodness of fit, but the majority (62%) of the star performer group's behavioural characteristics do not seem to match the requirements of the HJA and will not be a natural fit for the job.

4.5.2.4.4 P-J fit of the Partner group : HJA (SCD/I)

Measured against the HJA (SCD/I) profile the behavioural characteristics of the Partner group as captured in the DISC personal profiles (see Figure 4.52) were assessed to determine goodness of fit. The scores for the Partner group are given in Table 4.64.

Figure 4.52: DISC factor distribution for Partners vs. HJA (SCD/I)



It is evident from Figure 4.52 that the Compliance factor has the greatest strength, while the Steadiness factor has moderate strength in the Partner group. The human job requirements call for high Steadiness and Compliance factors combined with a less strong Dominance factor. The Steadiness factor in the Partner's group profile complements the requirement of the HJA, but the latter calls for a low Influence factor, which means that this factor is too strong for the SCD/I requirement. Table 4.64 shows a refined fit score between the Partner group and the job.

Table 4.64: P-J fit for the Partner group : HJA (SCD/I)

Styles	Frequency (%) of fit scores per style combination from Partner group						
	6	5	4	3	2	1	0
CSD		8.3					
DS			8.3				
SD			8.3				
CS			8.3	16.7			
S				8.3			
C					8.3		
DI						8.3	
ID						16.7	
IS						8.3	
Total	0	8.3	24.9	25	8.3	33.3	0
			33.2				66.6

Figure A

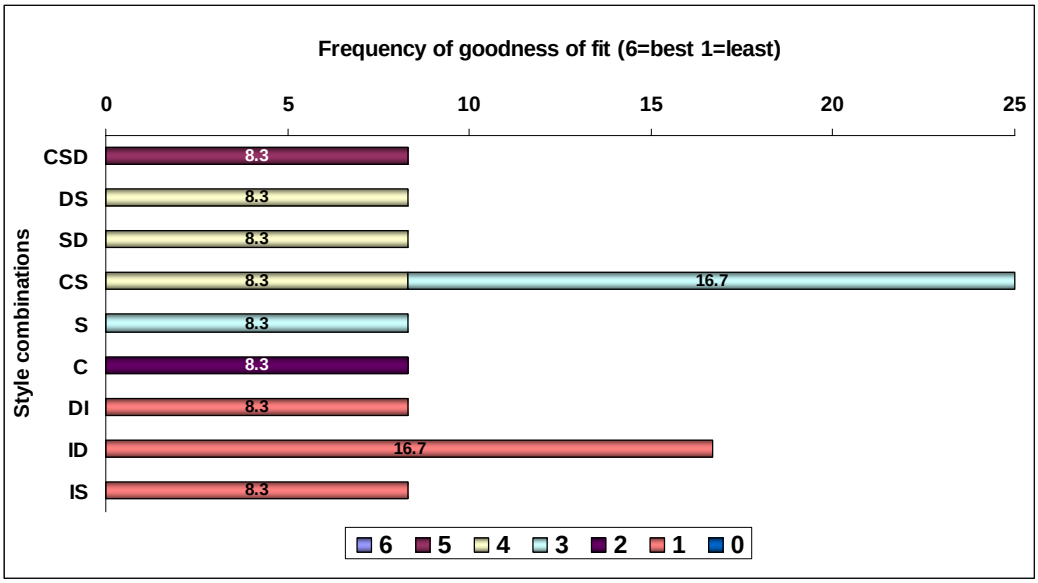


Figure B

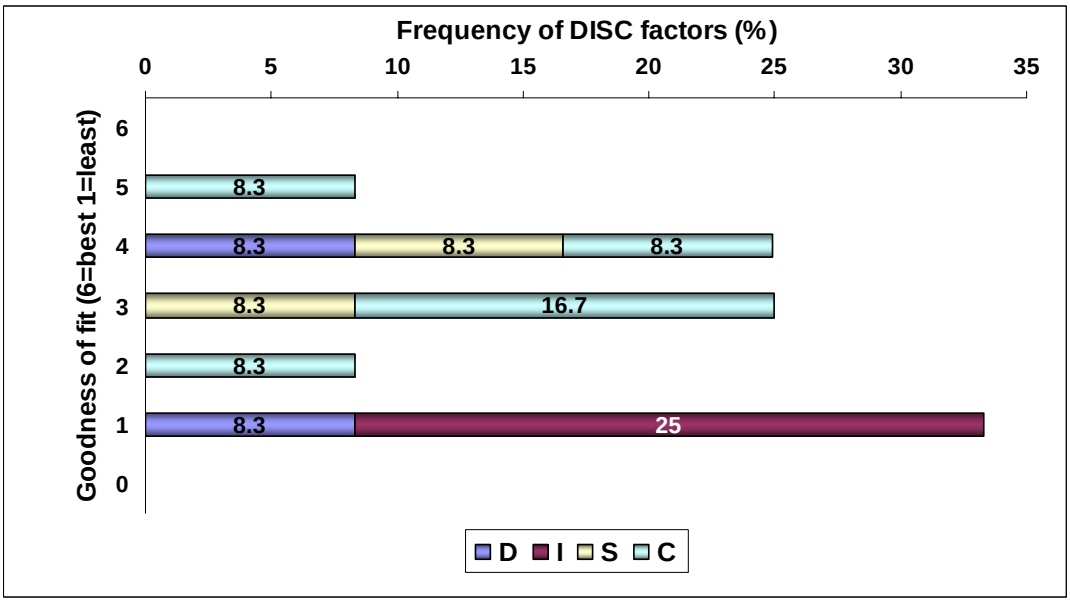


Table 4.64 shows no best fit for the job and only one style combination in the five fit score range. Combinations of Steadiness (8.3%), Compliance (8.3%) and Dominance (8.3%) factors display a fit score of four. The other Steadiness, Dominance and Compliance factors are distributed in the mid score to low score ranges. The Influence factor (25%), including all the high Influence style combinations, is in the one fit score range. A percentage of 66.6% of the Partner group does 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 4.64.

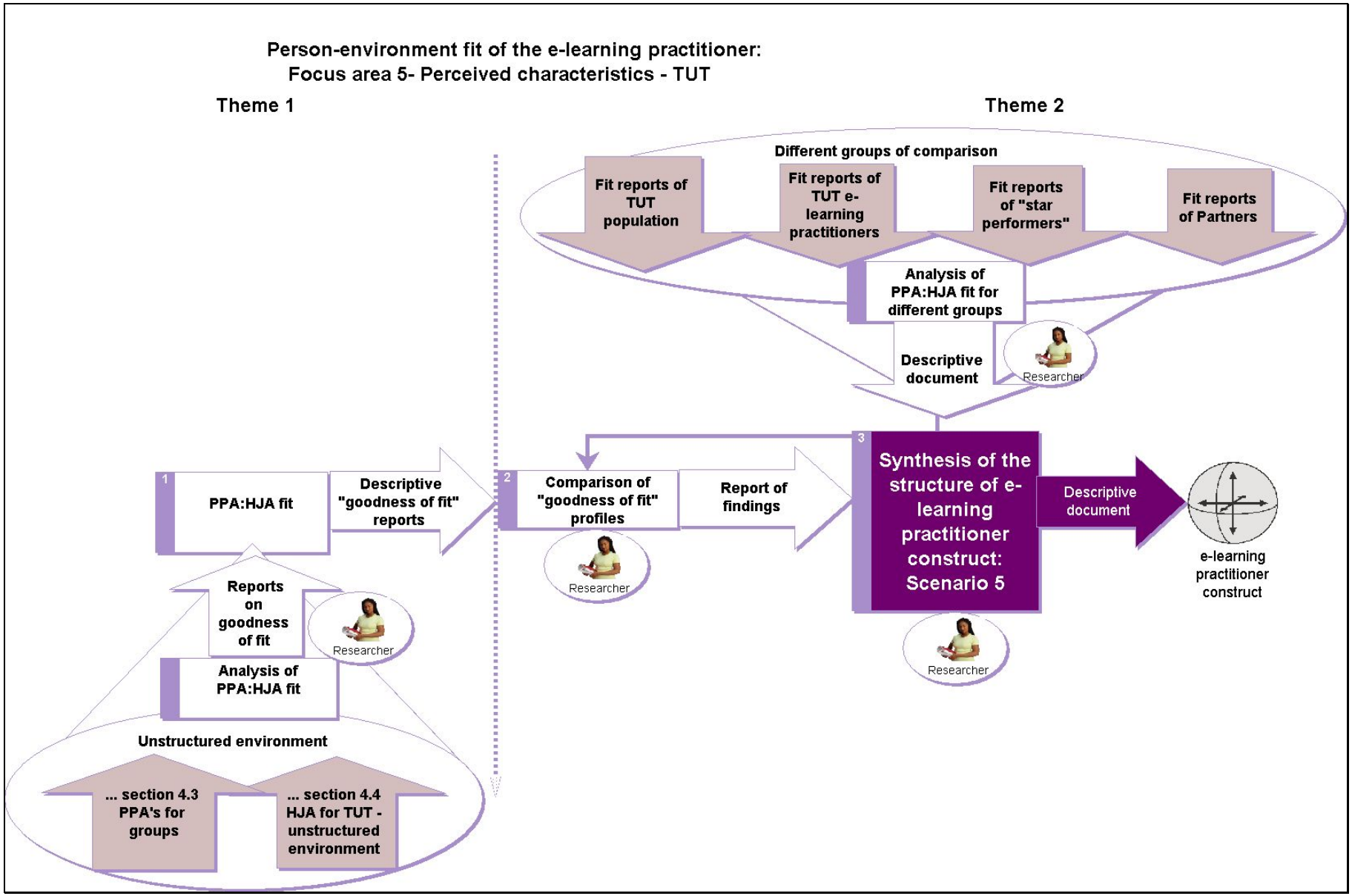
Table 4.64 shows that the high DS (8.3%), SD (8.3%) and high CS (8.3%) styles fall within the four fit range and, because of a low style distribution difference of the low factors, another 16,7 percent of the high CS style combination falls in the three fit range. The findings suggest that the majority (67%) of the Partner group's behavioural characteristics do not seem to match the requirements of the HJA and will not be a natural fit for the job.

4.5.2.5 Theoretical domain focus area 5 : HJA (DIC/S)

Figure 4.53 illustrates the analysis process that was followed to synthesise the findings presented in this section. P-J fit (unstructured environment) between the e-learning practitioner and the HJA (DIC/S) is presented for:

- TUT e-learning practitioner population;
- TUT e-learning practitioner group;
- Star performer group, and
- Partner group.

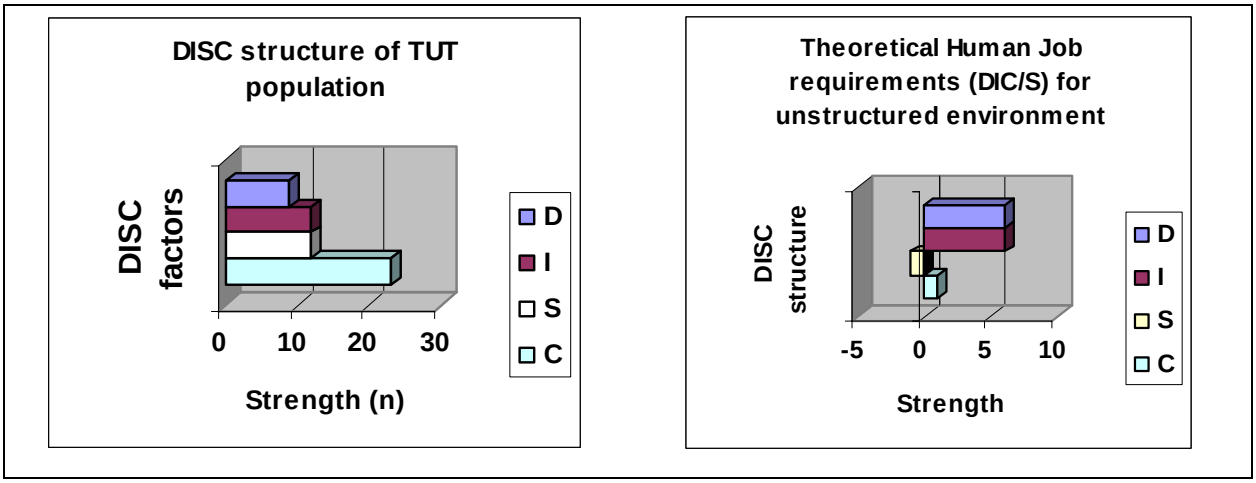
Figure 4.53: P-J fit of the e-learning practitioner and the theoretical domain



4.5.2.5.1 P-J fit of the e-learning practitioner population : HJA (DIC/S)

Goodness of fit measurements between the theoretical benchmark as set by the e-learning practitioners and the behavioural characteristics of the e-learning practitioner population were graphed and scored. (see Figure 4.54 and Table 4.65 for details).

Figure 4.54: DISC factor distribution for TUT population vs. HJA (DIC/S)



It is evident from Figure 4.54 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 population group. The Steadiness factor in the human job requirements shows the least strength but moderate strength in the TUT profile. The Compliance factor shows low strength in the human job requirements but the greatest strength in the TUT population. Table 4.65 shows a refined fit score between the TUT population and the job.

Table 4.65: P-J fit for the TUT population : HJA (DIC/S)

Styles	Frequency (%) of fit scores per style combination from Partner group						
	6	5	4	3	2	1	0
DIC	1.8						
CDI		1.8					
DC		1.8					
DI		3.6					
IC		1.8	1.8				
ICD		5.4					
CD			3.6	3.6			
CI			1.8				
ID			3.6	3.6			
C				1.8	3.6		
D				3.6			
DIS				1.8			
CIS					3.6		
CSD					5.4		
CSI					5.3		
DS					3.6		
ISC					1.8		
SCD					5.4		
CS						10.7	
IS						3.6	
SC						10.7	
SD						3.6	
S							1.8
Total	**1.8**	**14.4**	**10.8**	**14.4**	**28.7**	**28.6**	**1.8**
			27				**73.5**

Figure A

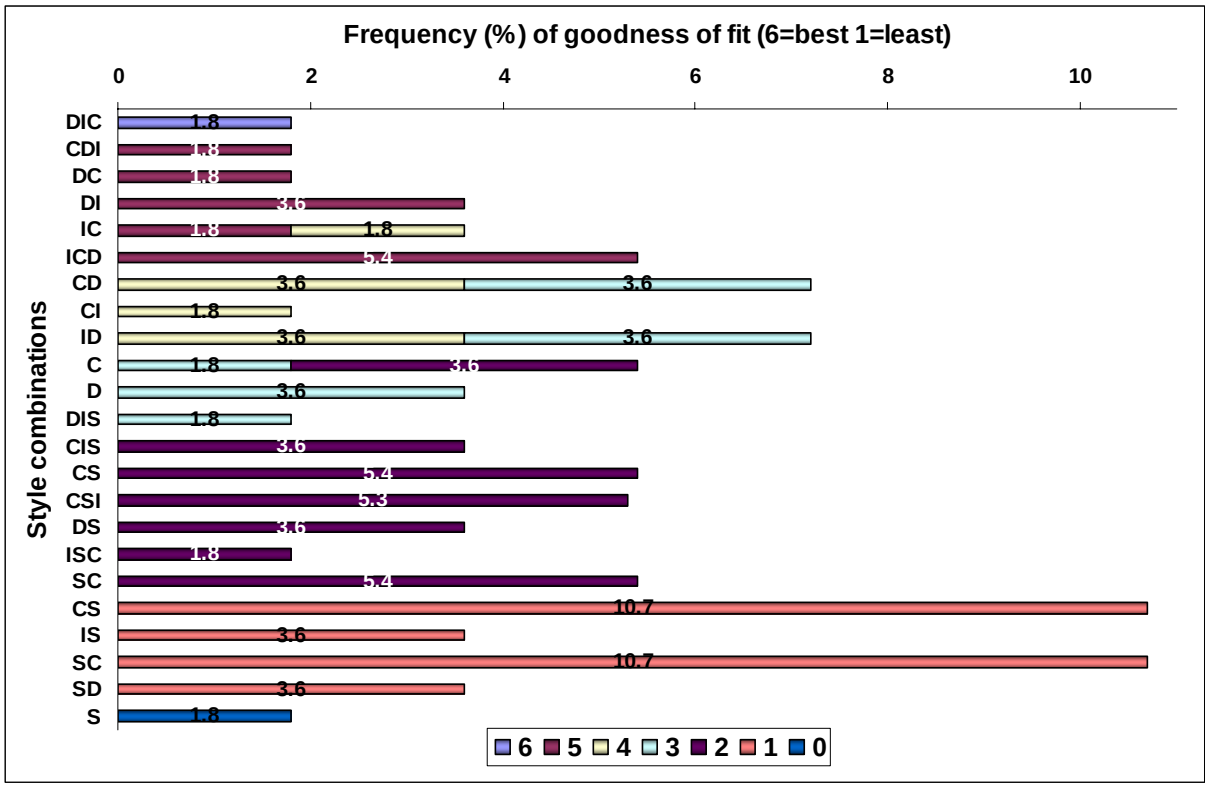


Table 4.65: P-J fit for the TUT population : HJA (DIC/S) (continued)

Figure B

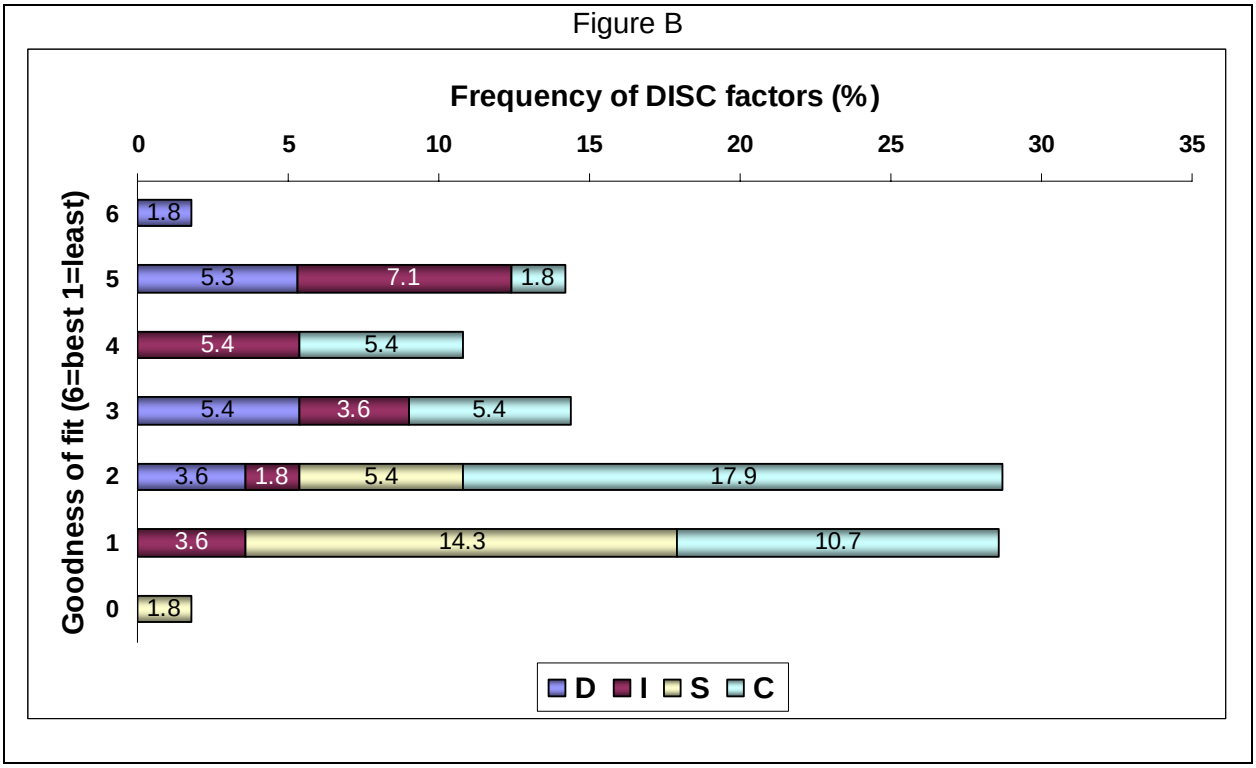


Table 4.65 shows that the best fit for the job is the high Dominance factor (high DIC style combination percentage of 1.8%), whilst other patterns of style combinations between mainly the Dominance, Influence and Compliance factors show scores between five (style combination percentage of 14.4%) and four (style combination percentage of 10.8%) for goodness of fit. The other combinations (73.5%) 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 4.65. A percentage of 1,8% of the group in the high Steadiness profile scored zero.

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 prominently 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 4.65 shows that only 27 percent of the TUT population falls within an acceptable range for goodness of fit, and that 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.

4.5.2.5.2 P-J fit of the e-learning practitioner group : HJA (DIC/S)

The TUT e-learning practitioner group assessed in terms of the four DISC factors displayed similar fit patterns as the TUT population. (see Figure 4.55, Table 4.66 and Appendix D11 for details.)

Figure 4.55: DISC factor distribution for groups at TUT vs. HJA (DIC/S)

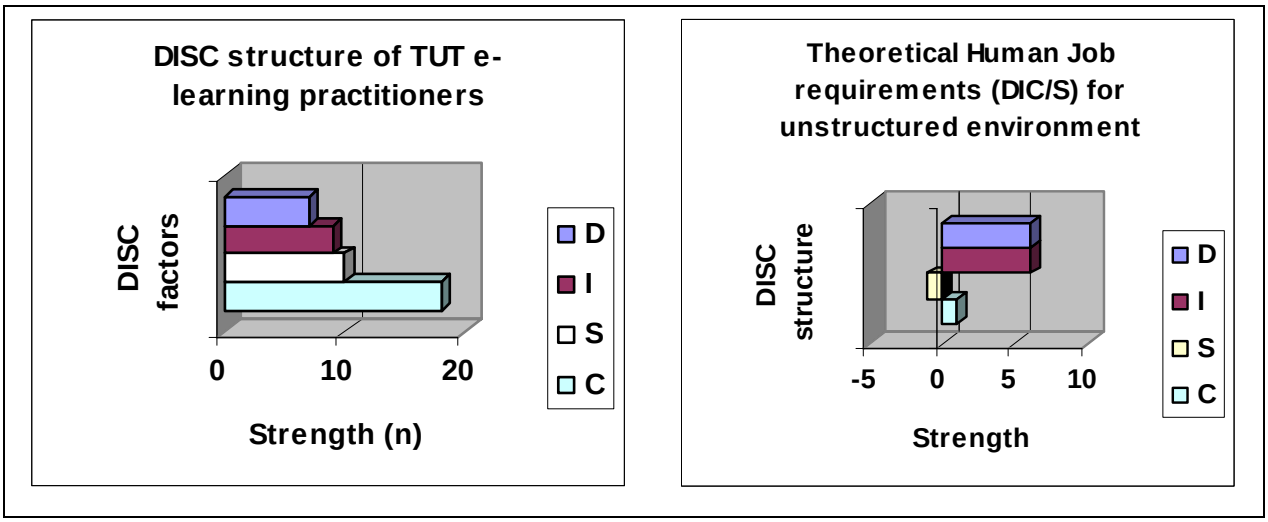


Table 4.66: P-J fit for the e-learning practitioner group : HJA (DIC/S)

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

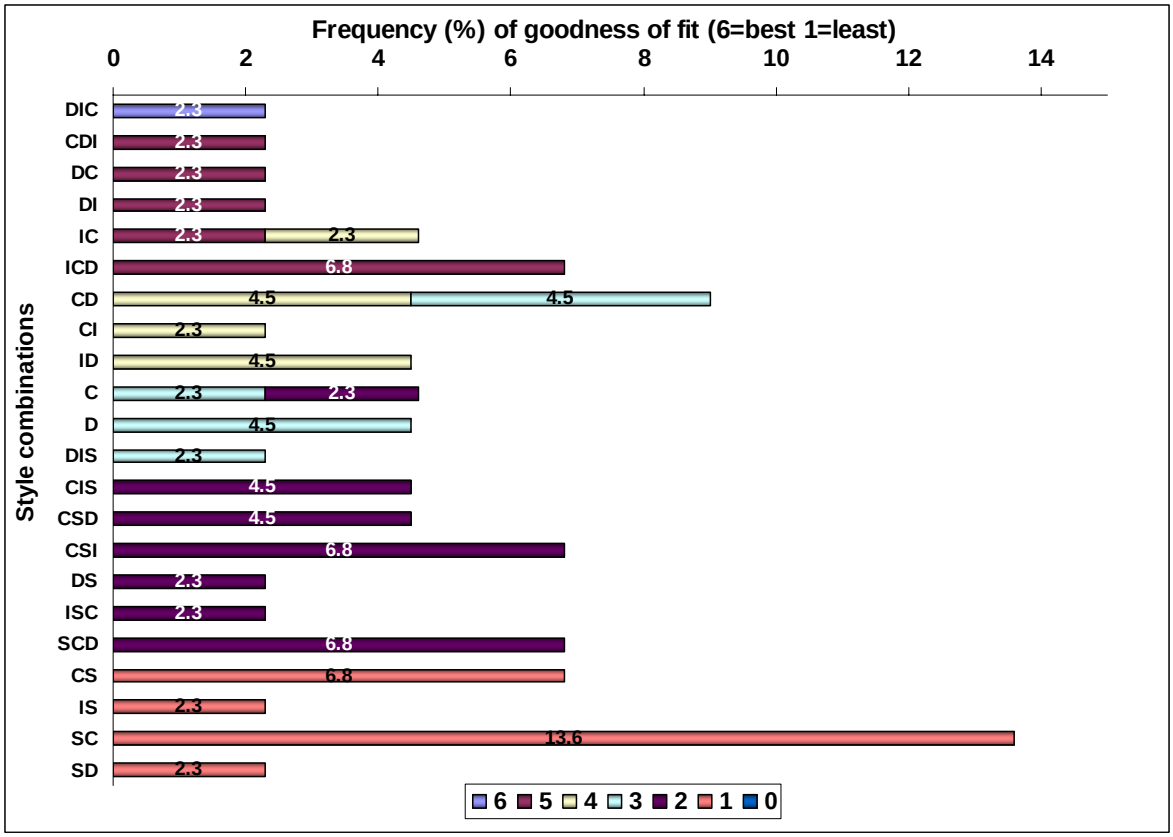
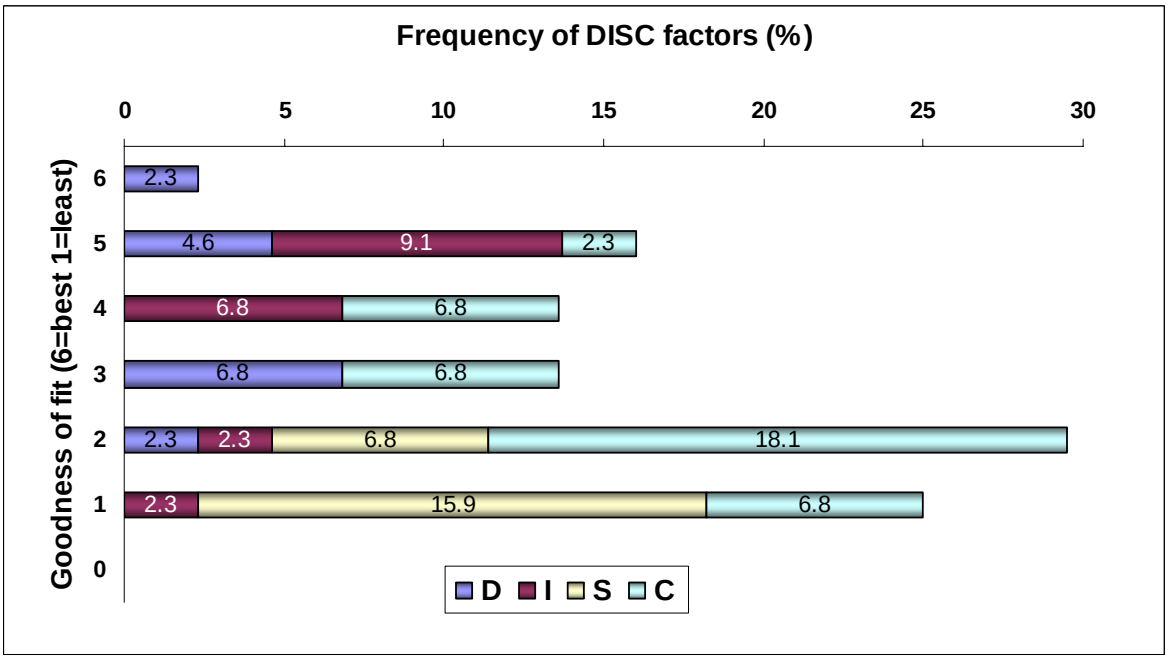


Table 4.66: P-J fit for the e-learning practitioner group : HJA (DIC/S) (continued)

Figure B

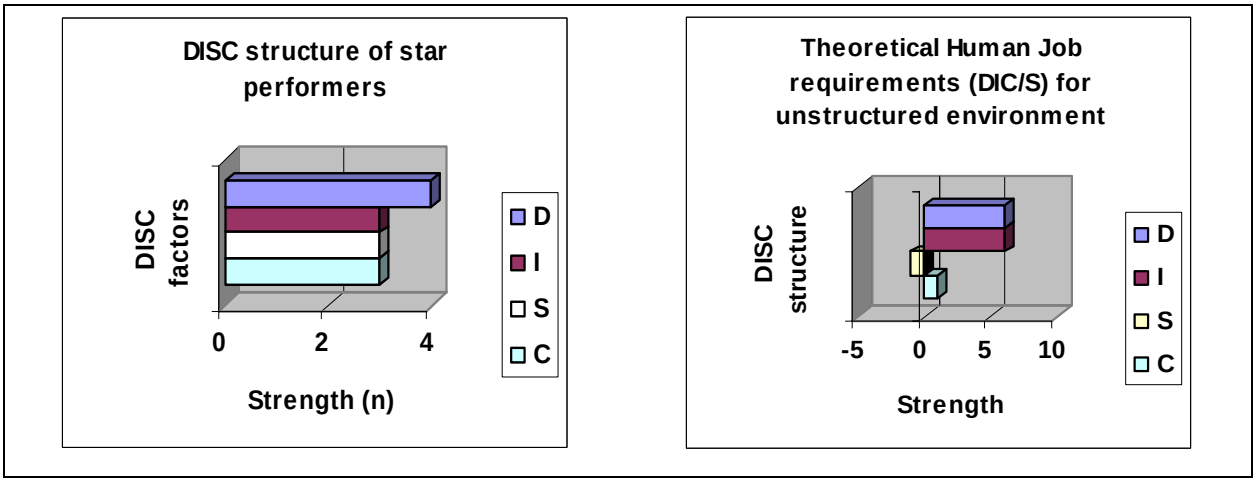


The best fit for the job is from the high DIC style combination, which represents only a percentage of 2.3% of the group. Findings suggest that only 32 percent of the TUT e-learning practitioner group falls within an acceptable range for goodness of fit.

4.5.2.5.3 P-J fit of the star performer group : HJA (DIC/S)

Measured against the HJA (DIC/S) profile the behavioural characteristics of the star performer group as captured in the DISC personal profiles (see Figure 4.56) were assessed to determine goodness of fit. The scores for the star performer group are presented in Table 4.67.

Figure 4.56: DISC factor distribution for star performers at TUT vs. HJA (DIC/S)



It is evident from Figure 4.56 that the Dominance factor has the greatest strength in both the star performer group and the human job requirements for an e-learning practitioner in an unstructured environment as theoretically perceived by the TUT e-learning practitioners. The star performer group shows equal strength in the Compliance, Steadiness and Influence factors, whereas the job under discussion calls for a high Influence factor, less strength in the Compliance and low Steadiness factors.

Table 4.67: P-J fit scores for the star performer group : HJA (DIC/S)

Styles	Frequency (%) of fit scores per style combination from star performers						
	6	5	4	3	2	1	0
DC		7.7					
ID			15.4				
IC			7.7				
CD			7.7				
D				15.4			
DS					7.7		
SCD					7.7		
CSI					15.4		
SC						15.4	
Total	0	7.7	30.8	15.4	30.8	15.4	0
			38.5				**61.6**

Figure A

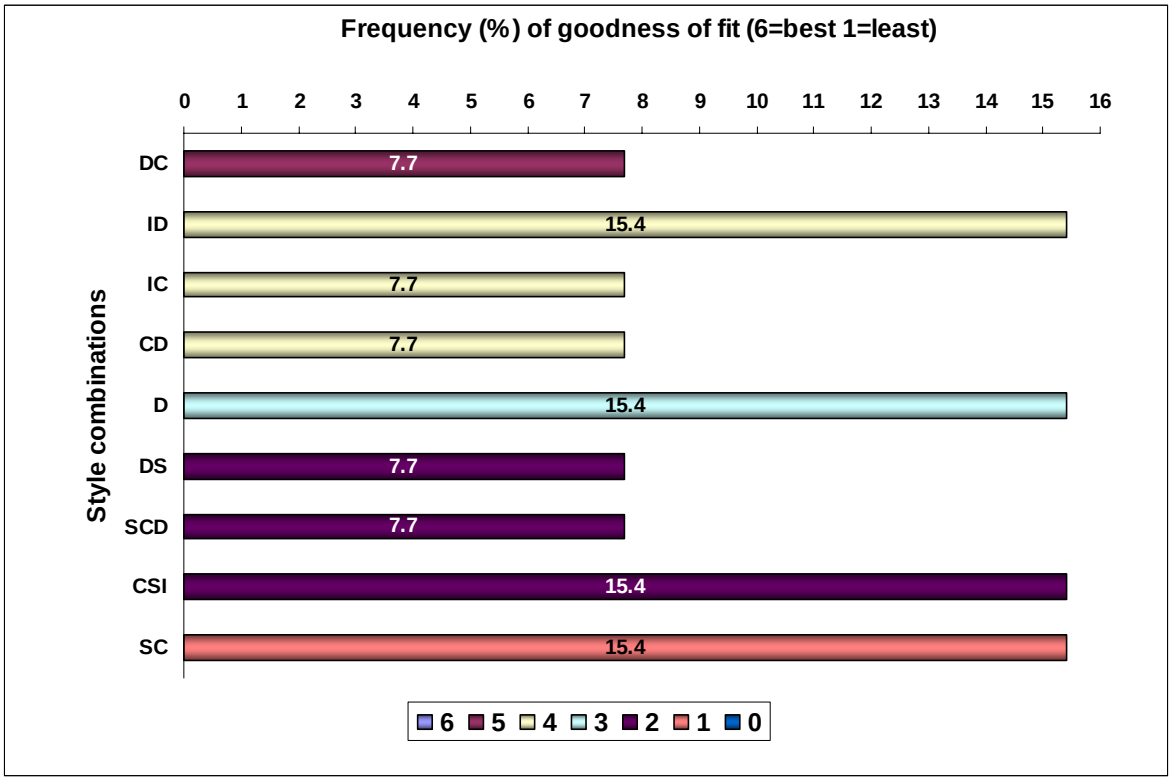


Table 4.67: P-J fit scores for the star performer group : HJA (DIC/S) (continued)

Figure B

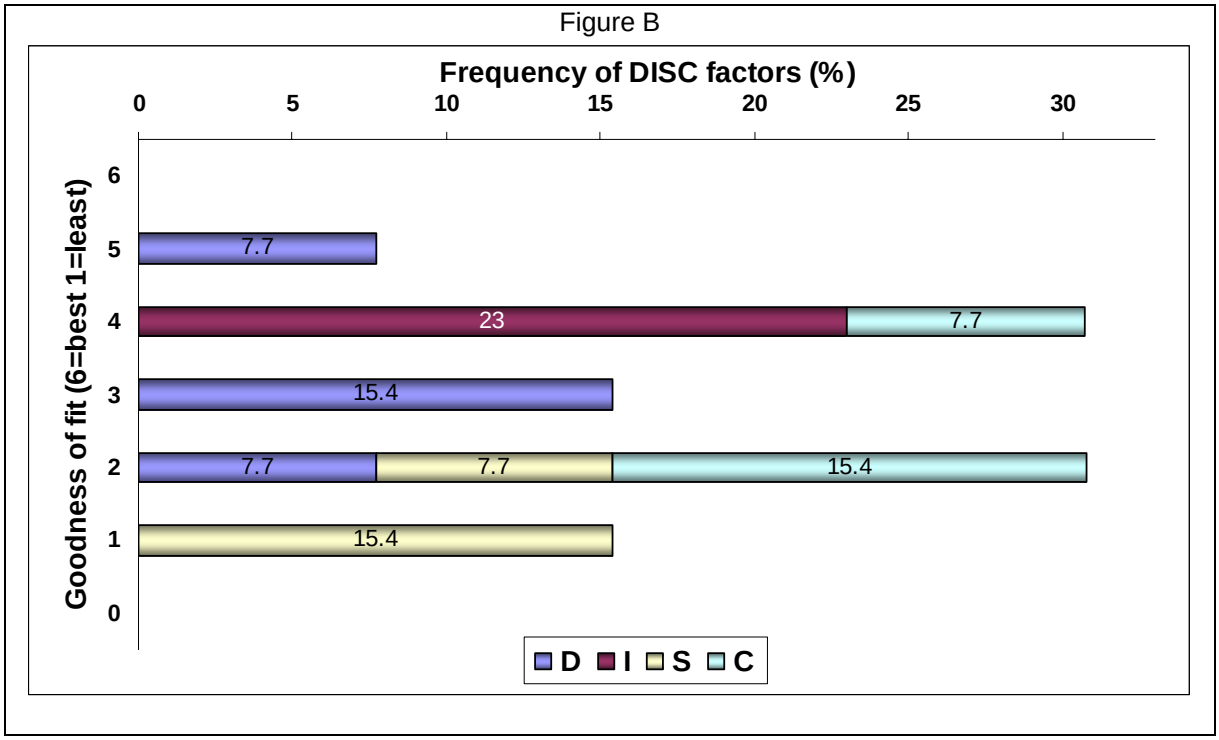


Table 4.67 shows no best fit for the job, but the two complementary style combinations, high DC (7.7%), high ID (15.4%), high IC (7.7%) and high CD (7.7%) in the Dominance and Influence factors show a fit range of five and four. The Dominance (15.4%) is the only factor with a fit score of three. Compliance and Dominance (7.7% each) factors are distributed in the two fit score category. The Steadiness factor shows scores in the one fit score category.

The Dominance 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 for this factor tend to be more positively related to the job requirements of the DIC/S structure. The Influence and Compliance factors are distributed towards the mid range scores. The Steadiness factor is very prominently 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 one score range of fit. A percentage of 38,5% of the style combinations show an acceptable job fit score and a percentage of 61,6% 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 4.67.

Table 4.67 shows no factors in the extreme score ranges. The Influence and Dominance factors and to a lesser degree the Compliance factor present in the 5-4 fit score ranges imply that profile styles for these factors tend to be more positively related to the job requirements for the DIC/S structure. A percentage of 38,5% of the Steadiness and Compliance factors is displayed in the 2-1 fit score ranges, which implies that profile styles for these factor combinations tend to

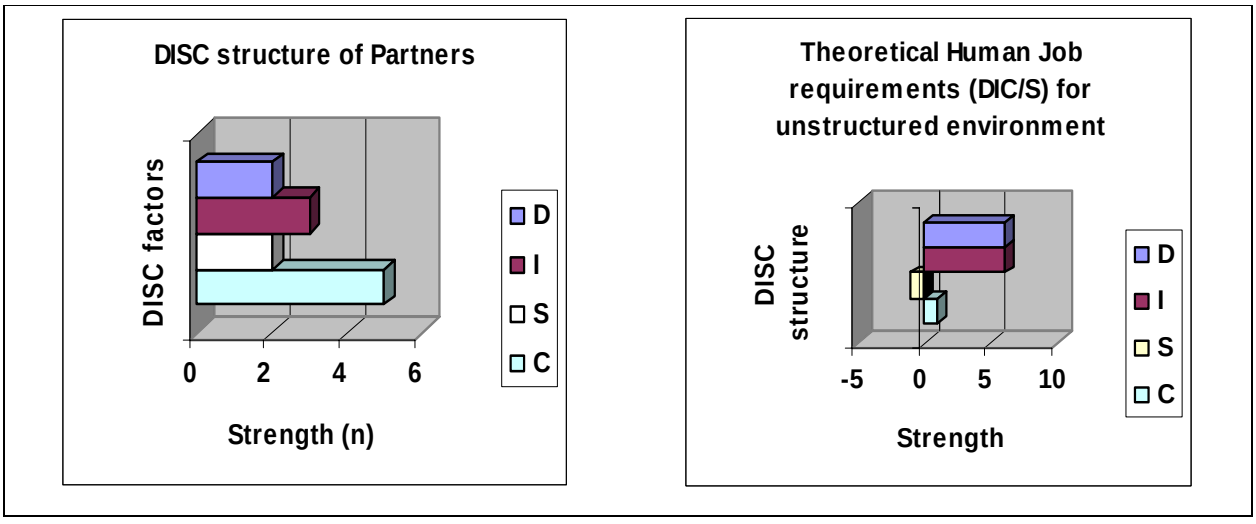
be more negatively related to the job requirements of the DIC/S structure. None of the star performer group displays a job fit of 6/6 but these findings suggest that 39 percent of the star performer group falls within an acceptable range for goodness of fit. The majority (61.6%) of the star performer group's behavioural characteristics do not seem to match the requirements of the HJA and will thus not be a natural fit for the job.

The star performer group differs from the TUT population in that the Dominance factor is the most prominent in that group but the least represented in the TUT population group; furthermore the star performer group is the only group that displays high D style combinations. Although the Compliance factor is the most prominent factor in the TUT population, the star performer group displays an equal distribution of the Compliance, Steadiness and Influence factors. Although the job requirements under discussion call for a stronger Dominance presence and the majority of the star performers' behavioural characteristics do not seem to match the requirements of the HJA and will not be a natural fit for the job, the overall job fit of 39 percent is higher than for other P-J fit combinations.

4.5.2.5.4 P-J fit of the Partner group : HJA (DIC/S)

Measured against the HJA (DIC/S) profile, the behavioural characteristics of the Partner group as captured in the DISC personal profiles (see Figure 4.57) were assessed to determine goodness of fit. The scores for the Partner group are given in Table 4.68.

Figure 4.57: DISC factor distribution for Partners at TUT vs. HJA (DIC/S)



It is evident from Figure 4.57 that the Compliance factor has the greatest strength in the Partner group, but the human job requirements for an e-learning practitioner in an unstructured environment as theoretically perceived by the TUT e-learning practitioners call for a low strength. The Partner group shows equal strength in the Dominance and Steadiness factors,

whereas the job under discussion calls for a high Dominance and high Influence factors and low Steadiness factors. Table 4.68 shows a refined fit score between the Partner group and the job.

Table 4.68: P-J fit scores for the Partner group : HJA (DIC/S)

Styles	Frequency (%) of fit scores per style combination from Partner group						
	6	5	4	3	2	1	0
DI		8.3					
ID				16.7			
DS					8.3		
C					8.3		
CSD					8.3		
IS						8.3	
SD						8.3	
CS						25	
S							8.3
Total	0	8.3	0	16.7	24.9	41.6	8.3
	8.3			91.5			

Figure A

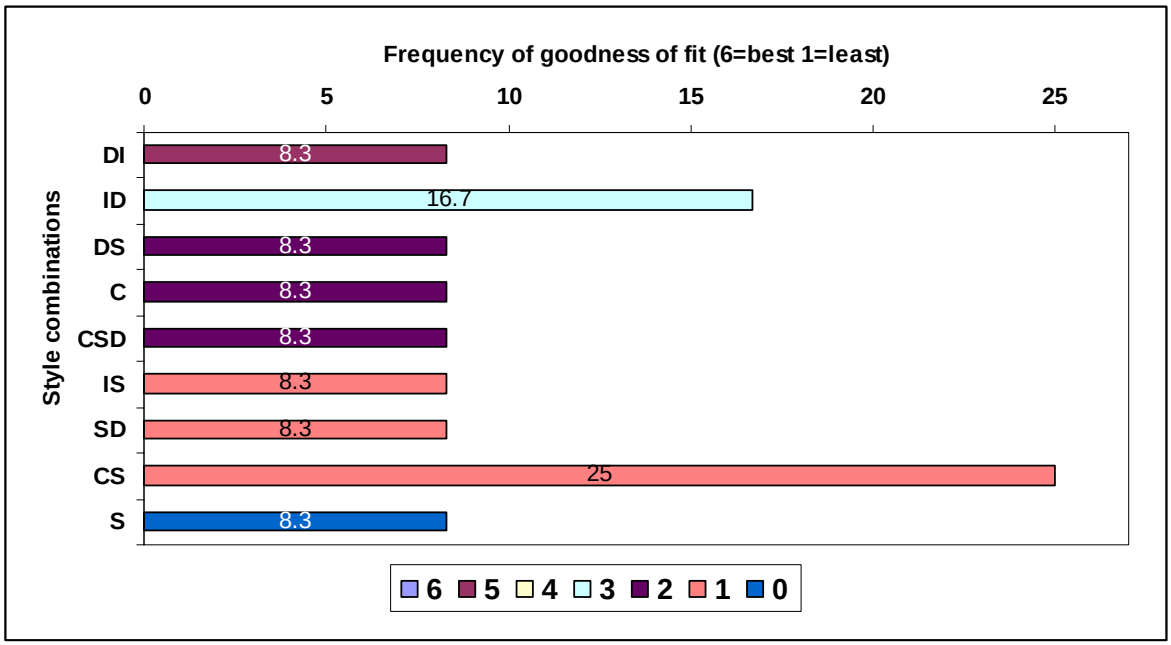


Table 4.68: P-J fit scores for the Partner group : HJA (DIC/S) (continued)

Figure B

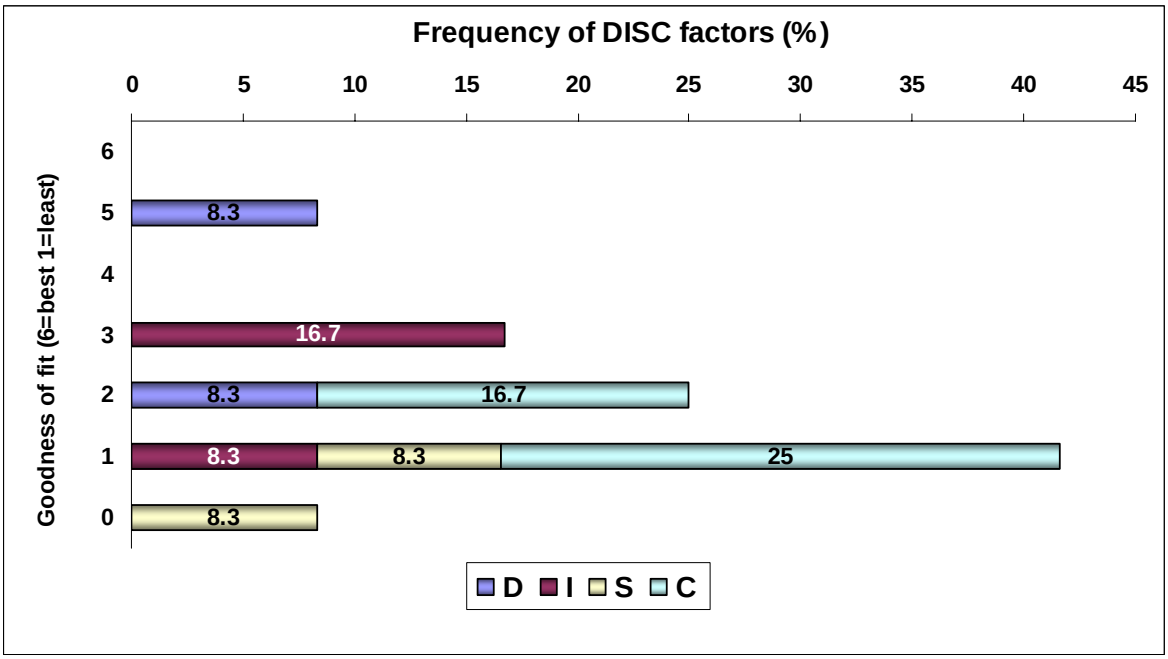


Table 4.68 shows no best fit for the job, and only one style combination, namely high DI (8.3%) in the Dominance factor in the acceptable range for job-fit. All the other factors (91.5%) do not seem to be in line with the requirements of the HJA. DISC factor ***structure*** and frequency of style combination ***patterns*** in terms of goodness of fit are graphically presented in figures A and B in Table 4.68.

Table 4.68 shows no factors in the acceptable score ranges apart from the high DI style combination. This implies that this profile style tend to be more positively related to the job requirements for the DIC/S structure. The majority of work behavioural styles as displayed by the Partners tend to be more negatively related to the job requirements for the DIC/S structure.

Subsidiary question 1:
What is the P-J fit for the different e-learning groups in different e-learning work environments?

Based on the relationships defined and described in section 4.5.2, a number of P-J fit scores were calculated. The majority of fit scores for the e-learning practitioners at TUT and job structures for unstructured and structured work environments were not a good match.

4.5.3 Theme 2: Comparison of job compatibility between the groups

The second theme in section 4.5 deals with an analysis and comparison of the relationship between the two subsystems in the e-learning environment at TUT in terms of the different groups that were studied to address the second research goal of the third research question:

Research goal 2
To identify the match between the personal profile patterns and structures of the e-learning practitioners and the human job requirement patterns and structures of the e-learning practice.

The results pertaining to acceptable compatibility reported in the previous section are integrated in this theme to form a description of the structure of the e-learning practitioner construct.
The focus areas are

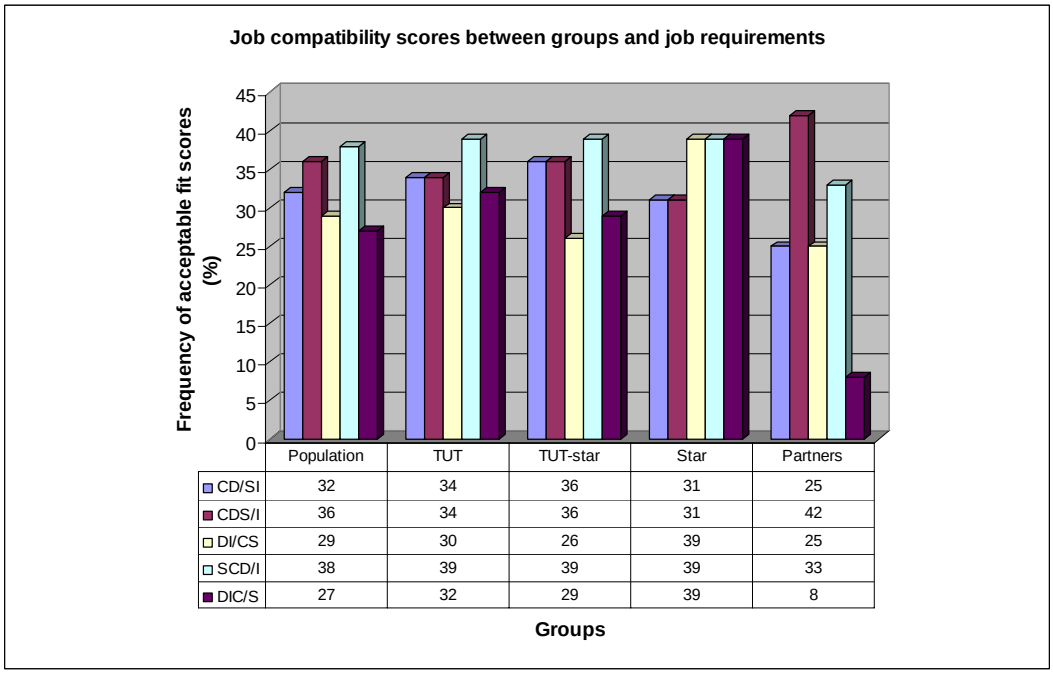
- the integration of findings on the relationships between the patterns and structure of an acceptable person-environment (P-E) fit in the different environments, and
- the integration of findings on the relationships between the patterns and structure of an acceptable (P-E) fit in the different groups[9].

4.5.3.1 Integration of findings on P-E fit

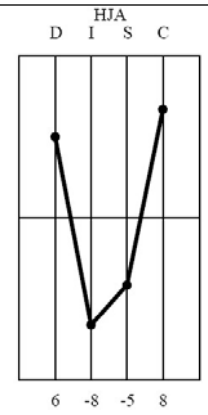
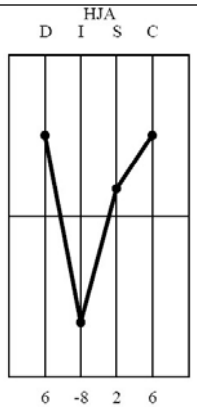
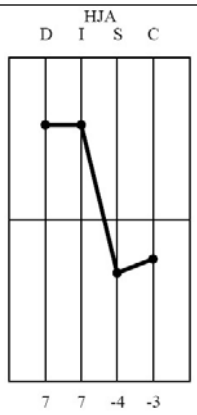
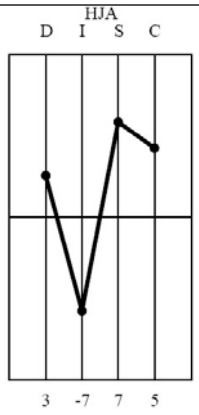
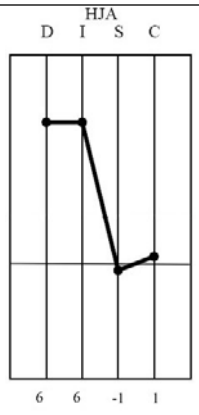
It is evident from Figure 4.58 that the results of the job compatibility of the TUT e-learning practitioner groups and the five different human job analysis requirements reveal a low percentage of acceptable fit scores for all the groups. An acceptable fit score includes fit scores from 4/6 to 6/6. The CD/SI, DI/CS and DIC/S job structures suggest more unstructured work environments and the CDS/I and SCD/I job structures suggest a more structured work environment.

[9] Note: It is possible that percentages shown in figures may differ slightly because of the use of approximate values.

Figure 4.58: Acceptable job compatibility scores



Graphical illustration of the different job structures

Unstructured work environment Literature based CD/SI	Structured work environment Literature based CDS/I	Unstructured work environment DI/CS	Structured work environment SCD/I	Theoretical HJA DIC/S
				

The structured and unstructured e-learning environments at TUT are the two opposite poles of the structuredness continuum which merge at some point on the continuum. A short discussion in the following paragraphs will highlight some of the features of the structuredness continuum.

4.5.3.1.1 Structured environment

The higher the Steadiness and Compliance factors and the lower the Dominance factor, the more the job structure tends to favour standard operating procedures and a traditional approach, maintaining the status quo. Getting things right, attention to detail, ensuring quality and standards are important factors for these positions. Structure and security are provided by clearly defined job parameters and a predictable stable work environment. The P@W

Programme provided a structured work environment, offering the Partners security and support through a well-defined programme with tangible goals and parameters for job performance. This environment may favour not only the Partners but also the majority of the TUT population. Figure 4.58 shows that all the groups scored highest for acceptable job compatibility with job structures in structured environments. This correlates closely with the finding that the Compliance and Steadiness factors are the most prominent factors in the TUT e-learning practitioner group.

The TUT e-learning practitioner group excluding the star performer group **(TUT-star)** represents 55 percent of the TUT population but shows a remarkable resemblance to the acceptable job compatibility scores of the TUT population in the CDS/I and SCD/I job structure for structured environments and correlates with the fact that the strongest DISC factor in the TUT population and TUT e-learning practitioner group is the Compliance factor including the highest clusters of style combinations, namely high CS and high SC.

The star performer group, which represents 23 percent of the TUT population, also shows a remarkable resemblance to the acceptable job compatibility scores of the TUT population in the SCD/I job structure for structured environments and correlates with some of the highest clusters of style combinations, namely high CSI and high SC in this group.

The lowest acceptable job compatibility score of eight percent was obtained by the Partner group in the DIC/S job structure, and its highest acceptable job compatibility score of 42 percent was obtained in the CDS/I job structure.

4.5.3.1.2 Unstructured environment

The higher the Dominance and the lower the Steadiness and Compliance factors, the more the job tends to favour the accomplishment of results in spite of unfavourable circumstances. Focusing on the e-learning job as a living organism, self-adaptation or self-emergence of functions and structures are relevant (Herrero, 2002). Although most of the e-learning practitioners at TUT were involved in telematic projects for teaching and learning, there were also activities in informal ad hoc projects mostly driven by the particular interested individual. In this way networks of people emerged from different parts of TUT, connected by teaching and learning goals not necessarily listed in a job description. These people are motivated and inspired by the challenging and dynamic environment and enjoy experimenting with new technologies at a fast pace. This unstructured environment instead of prescribing strict rules and procedures allows for frameworks and directions to guide people on how to act, and tolerates innovative thought, creative problem solving and independence to act. The e-learning practitioners at TUT describe the characteristics of the e-learning practitioner in the unstructured

work environment as *inter alia* creative, patient, innovative, knowledgeable, persevering, dedicated, working smarter to make life easier with less work, enthusiastic, affinity for technology, open to change, interested, and open-minded. As pointed out in section 4.3 these characteristics predominantly point to a high Dominance behavioural style, combining elements of the high Compliance and high Influence factors.

The majority of the TUT population does not show a high strength in the Dominance factor in their behavioural styles and only 16 percent falls into this category. However the star performers has a strong Dominance factor presence and these behavioural styles generally favour the unstructured work environments, showing the highest acceptable job compatibility (39%) in these job structures. In comparing all the e-learning practitioner groups (see Figure 4.58) it is evident that the star performer group displays the overall highest scores for acceptable job compatibility.

The theoretical benchmark created by the TUT e-learning practitioner group (see section 4.4) has basically the same features as the DI/SC job structure created by the expert consensus group, but differs in terms of the Compliance factor that shifted from a low (DI/CS) to a high factor (DIC/S). In comparing this job structure with the personal profiles of the TUT e-learning practitioners to assess acceptable compatibility, reveals resemblances to acceptable job compatibility scores for the TUT population as well as the star performers, but not for the Partner group.

This is interesting to note that both the enriched and perceived benchmarks for the position of e-learning practitioner show the Dominance factor as being important for the job, but in reality the majority of practitioners' profiles displayed high Compliance (41%) and Steadiness (23%) factors. These practitioners lack strength in the one factor that they themselves perceive as being very important for the job. Although the Partners' Compliance (42%) and Influence (25%) factors are the highest of all the groups, their acceptable compatibility with the DIC/S job structure is only eight percent. The Partners, influenced by their participation of nearly a year as Partners in a structured work environment, set up the job requirements for the position of e-learning practitioner and also selected a DI/CS job structure (see section 4.4). These choices correspond with the choices of the expert consensus group. The Partner group's acceptable compatibility with the DI/CS job structure was only 25 percent. Furthermore, the fact that the majority of the profiles from the group who was selected by the team from the Department of Telematic Education at TUT as star performers shows the highest strength in the Dominance factor may suggest that the Dominance factor is important for the e-learning practitioner. It is also interesting to note that the Dominance factor is the only factor identified as a high factor in all the job structures. However, the more structured the work environment becomes the less

prominent this factor seems to become, because the environment and not the person drives the initiative. This has important consequences for the e-learning practice in the real world, as will be pointed out later in this discussion.

4.5.3.2 Integration of findings on P-E fit in the different groups

The results from the acceptable job compatibility scores in terms of the different style combinations for the TUT population, TUT e-learning practitioner, star performer, and Partner groups will be discussed in this section. The TUT e-learning practitioner group represents 55 percent (excluding the star performer group), the star performers group 23 percent and the Partners group 21 percent of the total TUT population. These three groups will be compared for acceptable job compatibility against the five different job definitions as mapped by the HJA. The TUT population group will only be used as a baseline for best fit comparisons.

4.5.3.2.1 Comparison of job compatibility between the groups and HJA – CD/SI

It is evident from Figures 4.58 and 4.59 that acceptable job compatibility of the TUT e-learning practitioner groups and the CD/SI job structure is low with the best fit score coming from the TUT population and e-learning practitioner groups respectively with percentages of 3.6%, 4.5% and 6.5%. The TUT e-learning practitioner group (excluding the star performers) shows the highest (36%) and the Partner group the lowest (25%) frequency of acceptable compatibility scores.

Figure 4.59: Job compatibility scores for the different groups: HJA CD/SI

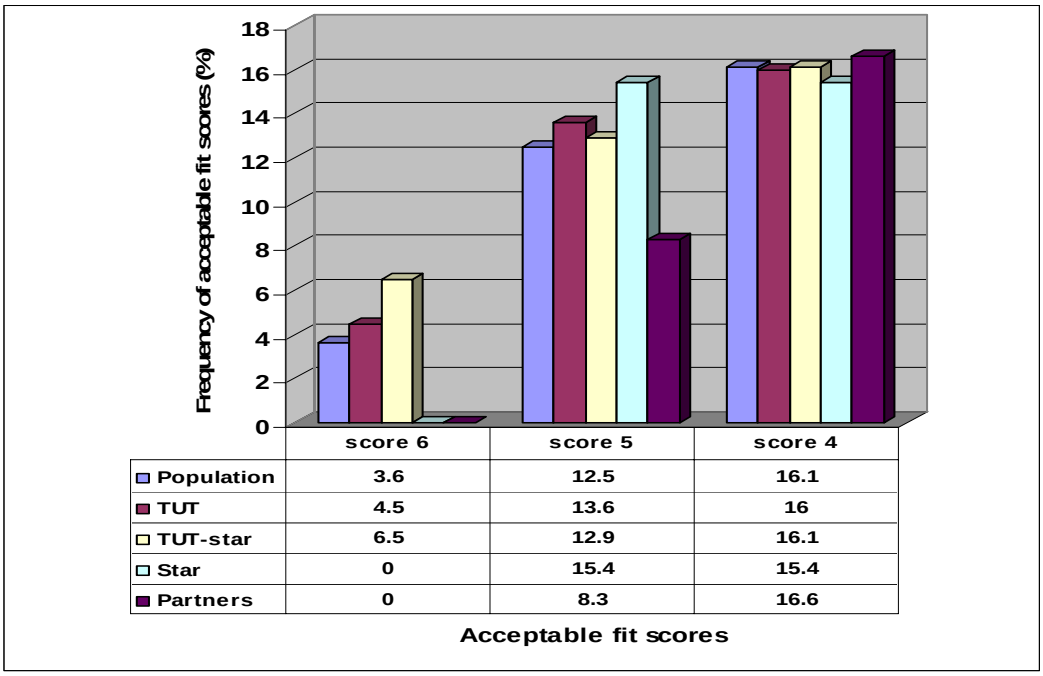
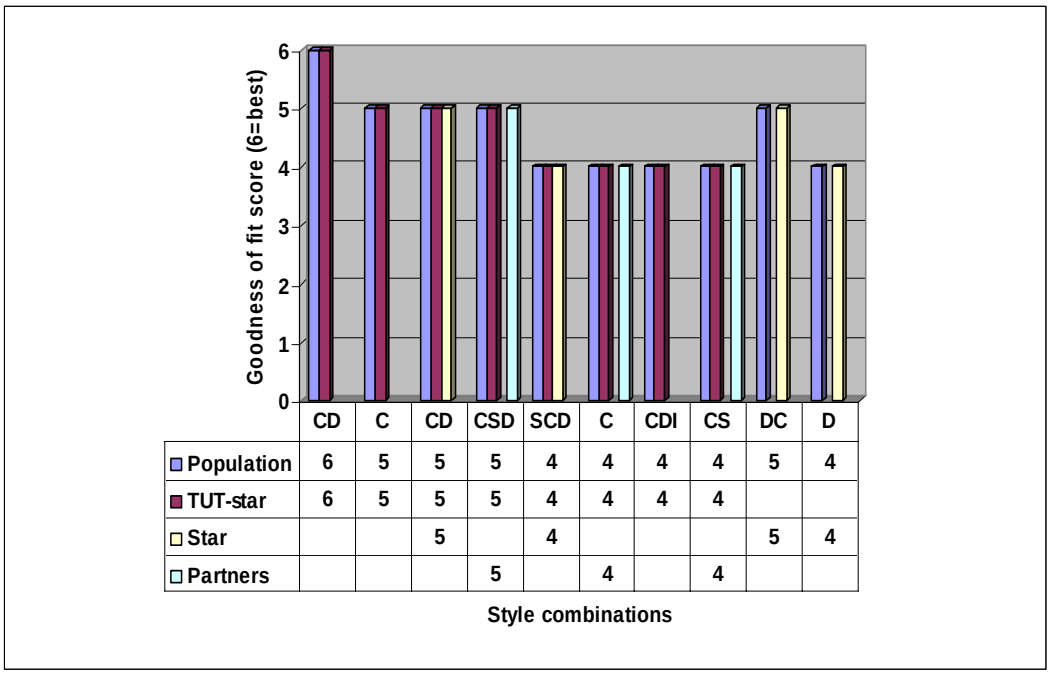


Figure 4.59: Job compatibility scores for the different groups: HJA CD/SI (continued)

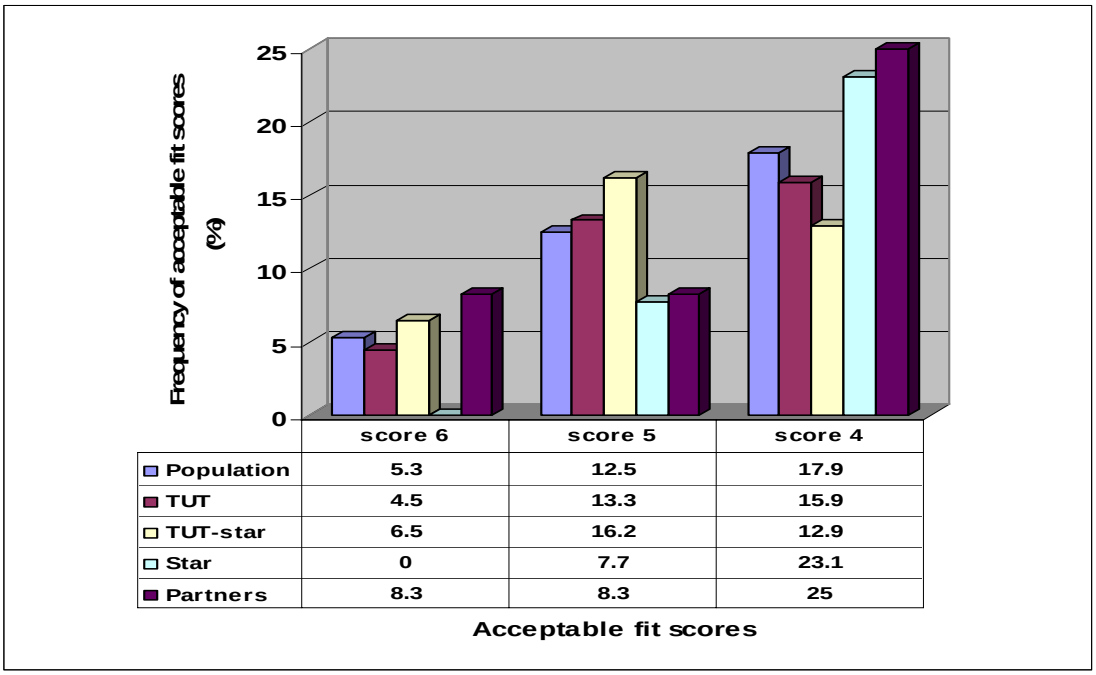


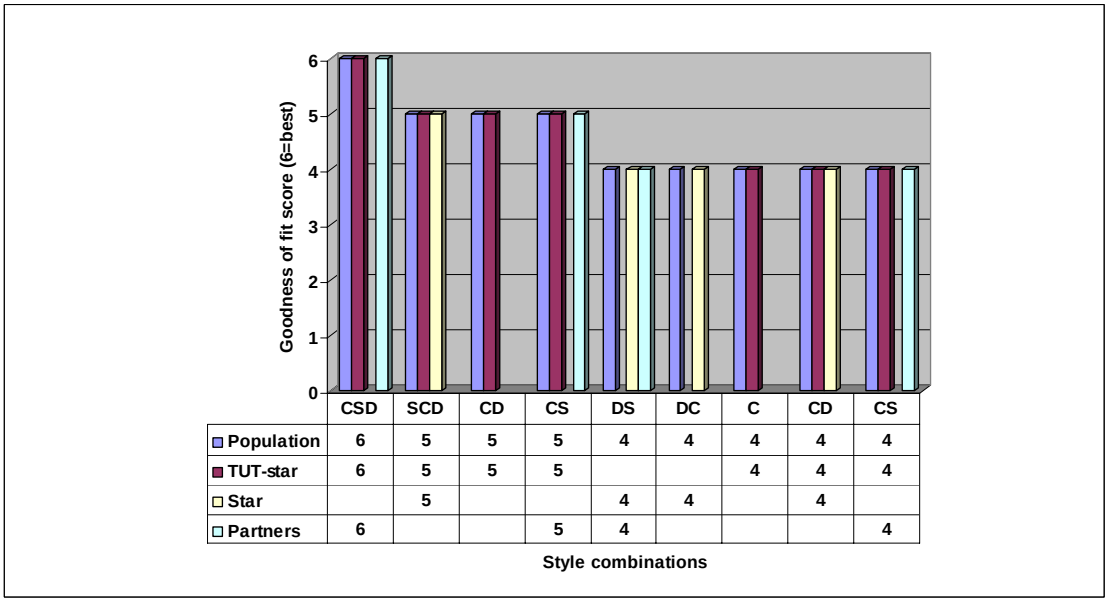
The most prominent style combinations for the job requirements are the high CD, high C and high CSD combinations. The high CD, high SCD, high DC and high D style combinations are most prominent in the star performer group with the high Dominance factors being visible in this group only. The high SCD style combination is not present in the Partner group and the other three style combinations present in the Partner group are not present in the star performer group. It is clear that the difference between the Partner and star performer groups is the result of the specific pattern difference in style combinations present in each group and that the high CD and DC combinations present in the star performer group indicate a better job compatibility with the CD/SI structure than the high CS style combinations from the Partner group.

4.5.3.2.2 Comparison of job compatibility between the groups and the HJA – CDS/I

It is evident from Figures 4.58 and 4.60 that acceptable job compatibility between the TUT e-learning practitioner groups and the CDS/I job structure is low with the best fit score from the TUT population, e-learning practitioner and Partner groups respectively with percentages of 5.3%, 4.5%, 6.5% and 8.3%. The Partner group displays the highest frequency (42%) of compatibility scores, whilst the two other groups display the same patterns as for the CD/SI job structure. It is interesting to note that the 42 percent is the highest score not only for this job structures but for all the job structures. This indicates that the Partner group fits relatively well with the job structure constructed from the literature-based information deduced from the preliminary taxonomy.

Figure 4.60: Job compatibility scores for the different groups: HJA CDS/I



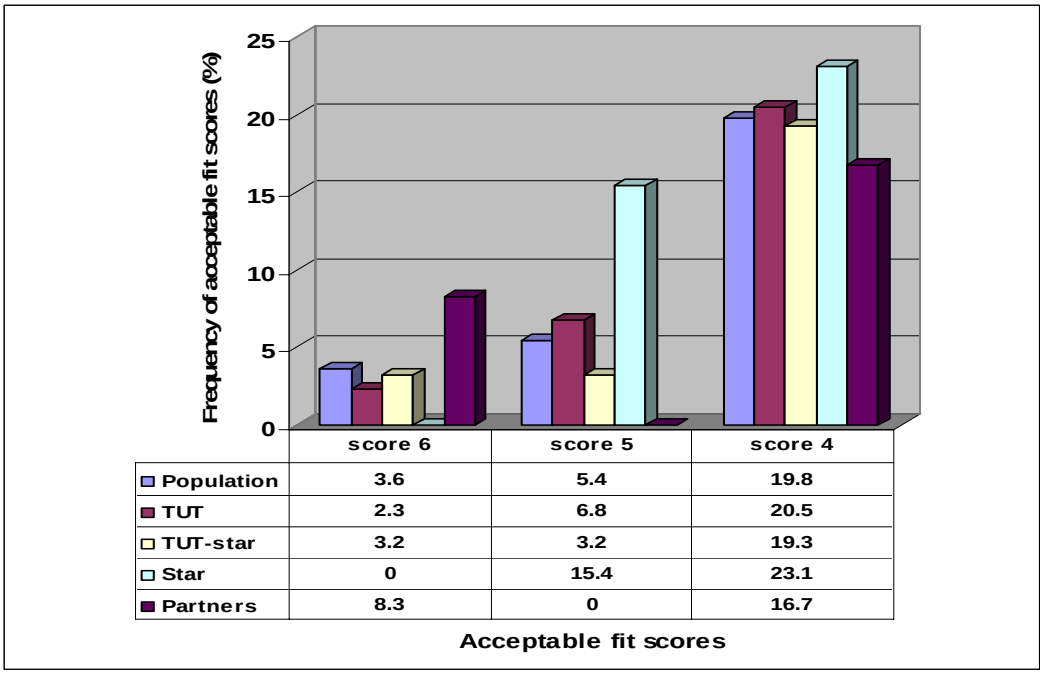


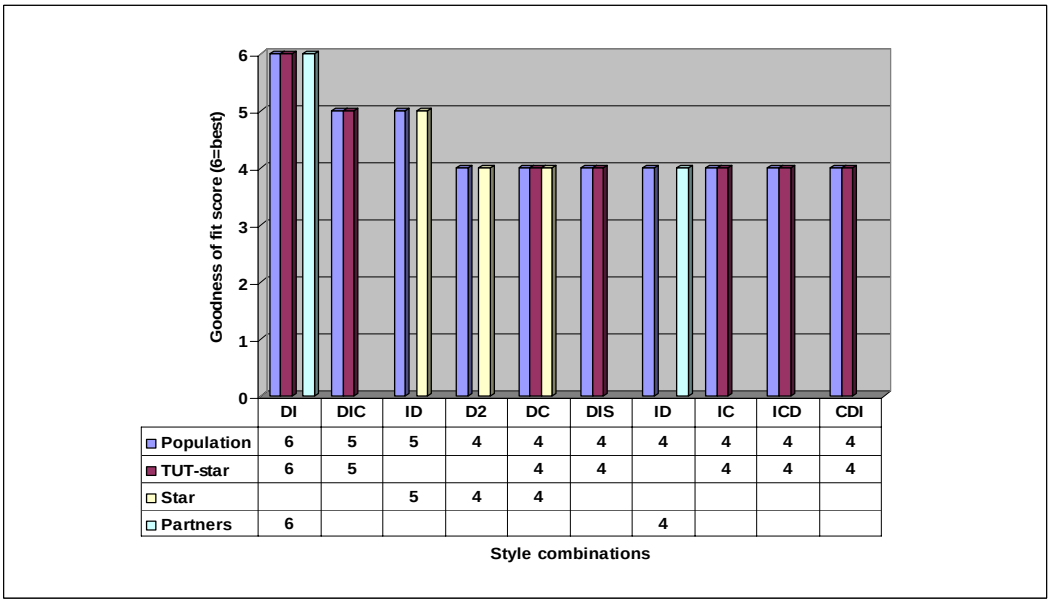
The most prominent style combinations for the job requirements are the high CSD and high SCD combinations. The high CSD and SCD style combinations are most prominent for all the groups apart from the star performer group. The same pattern of opposite groupings for the star performer and Partner groups as seen in the previous job structure is repeated in this job structure. It is clear that the difference between the Partner and star performer groups is the result of the specific pattern difference in style combinations present in each group and that the high CS combination present in the Partner group indicates a better job compatibility with the CDS/I structure than the high CD or DC style combinations from the star performer group.

4.5.3.2.3 Comparison of job compatibility between the groups and the HJA – DI/CS

It is evident from Figures 4.58 and 4.61 that acceptable job compatibility between the TUT e-learning practitioner groups and the DI/CS job structure is low with the best fit score coming from the TUT population, e-learning practitioner and Partner groups respectively with percentages of 3.6%, 2.3%, 3.2% and 8.3%. An outstanding feature is the high frequency (39%) of job compatibility between the star performer group and the job structure, whilst the other two groups show low frequencies of 26 percent and 25 percent respectively.

Figure 4.61: Acceptable job compatibility scores for the different groups: HJA DI/CS



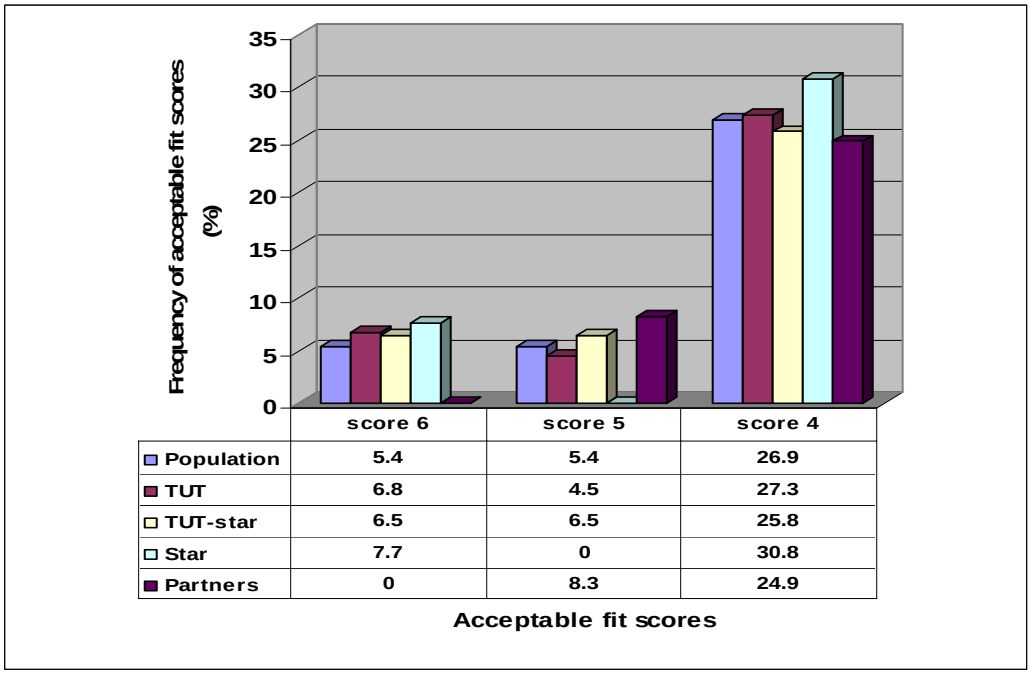


The most prominent style combinations for the job requirements are the high DI, high DIC and high ID combinations. All the groups except the star performers are present in the best fit score category. A difference between the previous job structures and this one is that the high Influence factor is present in most of the compatible style combinations. Although the high DI combination is the best fit for this job structure, only two people from the total population fall into this category. One of these practitioners is not actively involved in practice anymore. It is therefore important to note that the job structure that was created by the expert consensus group, supported by the e-learning practitioner group for the job of the e-learning practitioner at TUT, is only minimally complemented by the population of e-learning practitioners. Although the planning of interventions for the system is not part of this study, the implications of this scenario will be touched on in subsequent paragraphs.

4.5.3.2.4 Comparison of job compatibility between the groups and the HJA – SCD/I

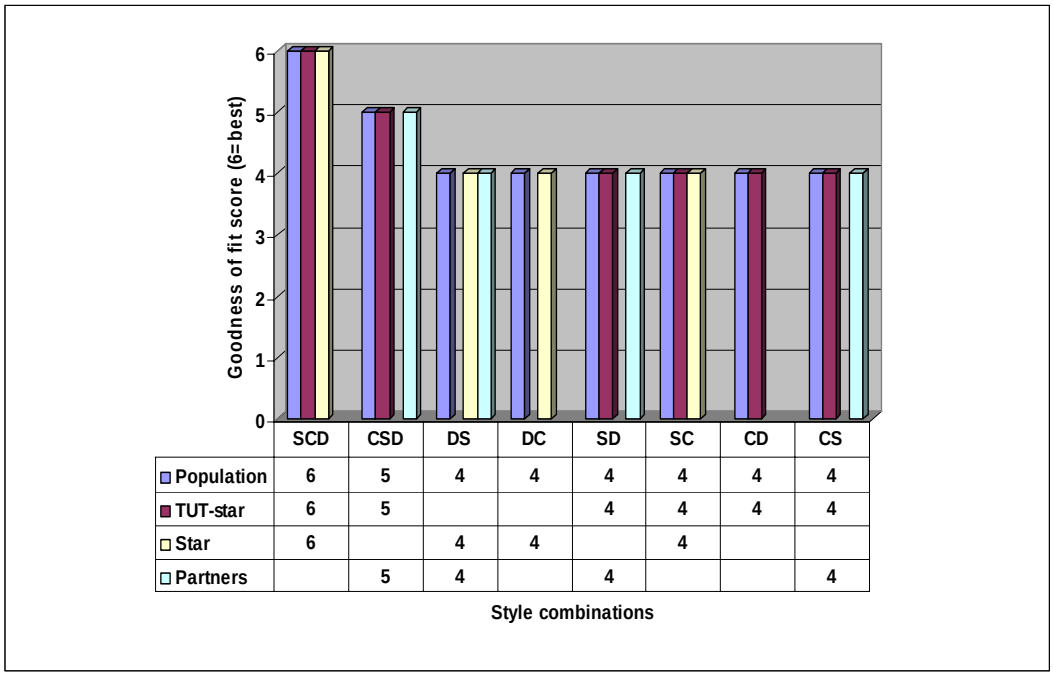
It is evident from Figures 4.58 and 4.62 that acceptable job compatibility between the TUT e-learning practitioner groups and the SCD/I job structure is low with the best fit score coming from the TUT population, e-learning practitioner and star performer groups respectively with percentages of 5.4%, 6.8%, 6.5% and 7.7%. An outstanding feature is the high frequency (39%) of job compatibility between the star performer as well as the TUT e-learning practitioner groups and the job structure, whilst the Partner group shows a lower frequency of 33 percent.

Figure 4.62: Job compatibility scores for the different groups: HJA SCD/I



	score 6	score 5	score 4
Population	5.4	5.4	26.9
TUT	6.8	4.5	27.3
TUT-star	6.5	6.5	25.8
Star	7.7	0	30.8
Partners	0	8.3	24.9

Figure 4.62: Job compatibility scores for the different groups: HJA SCD/I (continued)

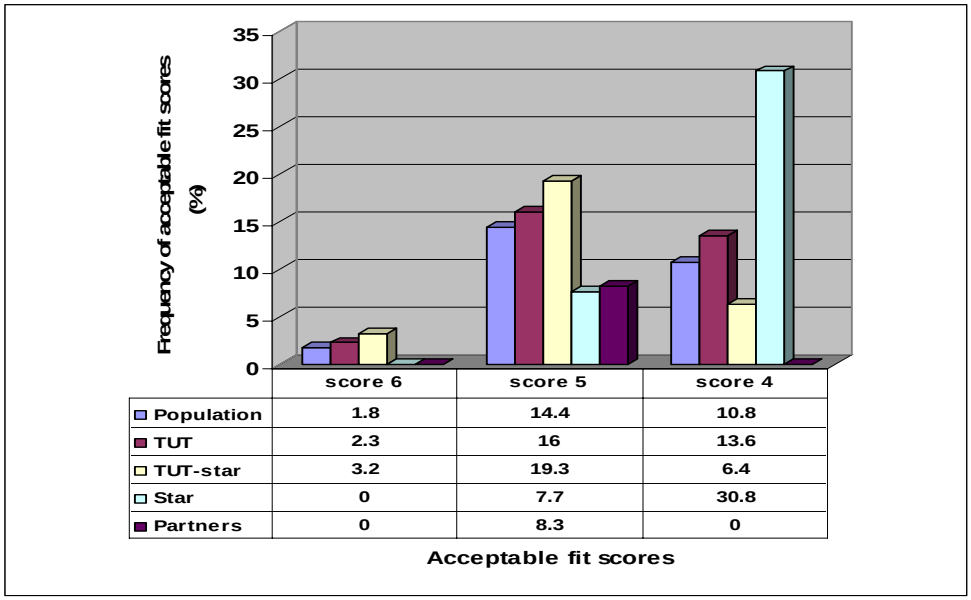


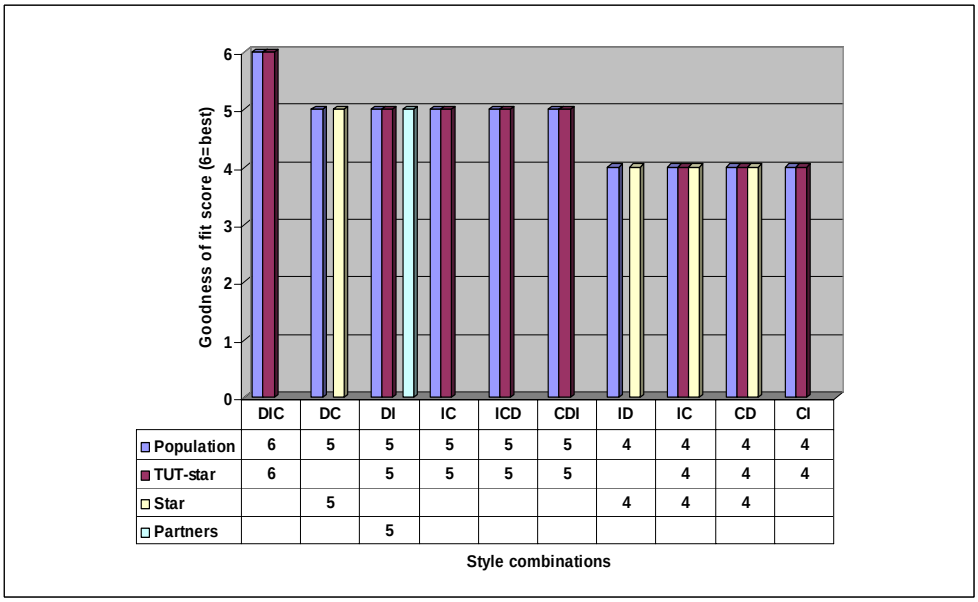
The most prominent style combinations for the job requirements are the high SCD and high CSD combinations. All groups except the Partners scored in the best fit category. The distribution pattern for compatibility between the different style combinations and the job structure is distributed between the groups. Except for a similarity in the high DS style combination, the pattern of opposite groupings for the star performer and Partner groups, as seen in the previous job structures, is repeated in this job structure. It is clear that the difference between the Partner and star performer groups is the result of the specific pattern difference in style combinations present in each group and that the high SCD combination present in the star performer group indicates better job compatibility with the CDS/I structure than the high CSD style combinations from the Partner group.

4.5.3.2.5 Comparison of job compatibility between the groups and the HJA – DIC/S

It is evident from Figures 4.58 and 4.63 that acceptable job compatibility between the TUT e-learning practitioner groups and the DIC/S job structure is low with the best fit score coming from the TUT population and e-learning practitioner groups respectively with percentages of 1.8%, 2.3% and 3.2%. An outstanding feature is the high frequency (39%) of job compatibility between the star performer group and the job structure, whilst the Partner group shows the lowest of any compatibility score frequency, namely eight percent. The TUT e-learning practitioner group (excluding the star performers) shows a moderate frequency of 29 percent.

Figure 4.63: Acceptable job compatibility scores for the different groups: HJA DIC/S





The most prominent style combinations for the job requirements are the high DIC and high DC combinations. None of the star performer or Partner groups is represented in the best fit category. In comparison with the other groups the Partner group has the highest cluster of Influence style combinations but these are not well matched to this job structure. The style patterns of the lower factors in these high ID combinations resulted in 3/6 fit scores for these profiles.

Subsidiary question 2

What is the 'goodness of fit' between the personal profile and e-learning job structures for the different e-learning practitioner groups at TUT in terms of acceptable compatibility?

Based on the relationships defined and described in the previous paragraphs, a number of P-J fit scores were calculated to report on the “goodness of fit” in terms of acceptable compatibility between the personal profile and e-learning job structures for e-learning practitioners at TUT.

To answer the main research question:

Research question 3

How do the work environment and person attributes fit together in the structure of the e-learning practitioner construct?

Based on the previous discussion the match between the person, the job and the environment is dependent on the characteristics of these three legs of the e-learning P-J fit triad. Depending on a number of different scenarios the triad may emerge differently from its latent position depending on the congruence of the three legs of the triad.

4.5.4 Synthesis of research findings to answer the main research question

To answer the main research question:

What is the latent structure of the e-learning practitioner construct?

The findings reported in the previous sections of this chapter need to be integrated into a holistic picture. Different lenses were used to take ’snapshots’ in order to illuminate the separate parts (the environment, the e-learning practitioner and the e-learning practice) of the system. However, to view the system and to answer the main research question, five possible scenarios will be described. Time and context will influence the system in such a way that any one, a combination of more than one, or all of the latent scenarios may emerge as a structure for the system for a specifically defined purpose. The living dynamic system will constantly grow and develop but may sometimes divide or become parts or subsystems of other systems.

Systems thinking was used to tell the story, identify the characteristics of each subsystem, draw the graphs and highlight the patterns and their relationships within each subsystem, and to use these building blocks to create the structure of the system (how the parts fit together). The different parts work together according to a specific plan, driven by organising principles, towards a specific goal to fulfil a common purpose. The latter gives meaning to the system.

The interaction between a person and his/her job to fulfil a job purpose can either be strengthened energy if the two fit well together or, if the person has to do work which requires

strengths that he/she does not possess, self-motivation may take 30 percent of the available energy and another 20 percent energy may be wasted in frustration, which leaves only 50 percent of the available energy to do the job. People have a natural behavioural preference and there are some interventions that can be implemented to narrow the gaps between the “what is…” and the “what should be…”

A combination of inductive and abductive reasoning were used to synthesise meaning from the **What is…?”, the What should be…? and the What does it mean**…**?** in each scenario. The aim of this study is to delve deeper into the structure of the e-learning practitioner construct and not to plan interventions for practical problems, thus for illustrative purposes only short reflective ideas on the implications for training and career development and possible interventions will be given.

4.5.4.1 First scenario highlighting the structure of the e-learning practitioner construct

Note: Job descriptions used in this study were provided by the analysts from Thomas International and to ensure authenticity the wording of these reports are used to describe the different positions.

What is…?

Acceptable compatibility between the TUT e-learning practitioners and a job structure (CD/SI) was discussed in the preceding paragraphs (see sections 4.5.2.1 and 4.5.3.2.1). However, the current situation at TUT present a group profile that does not seem to fit very well with the described position. The highest style combination present in the TUT population that presented with a best fit score is the high CD style displayed in percentages of 3,6% of the population and absent from both the star performers and the Partner group. The general job compatibility score for the TUT population was 32 percent.

The job profile for this position is applicable in an unstructured work environment bounded by clear-defined organisational parameters. Compliance with systems, procedures, objectives and timescales set by the organisation are key aspects of the job. Concern for the consequences of actions and alertness to quality and standards are also key aspects of the job. The job could involve a variety of activities, emphasising correct and logical results and an analytical approach.

The individual who is best suited for this job may be described as a person who is creative and results-orientated, systematic, precise, driving, careful, self-starting, inquisitive, active, rule-orientated and assertive. These individuals are motivated by clear job objectives and frames of

reference prior to starting an assignment, challenging tasks which will stimulate natural inquisitiveness and logic, freedom to act independently, and correct achievement of results. When compared to the HJA the personal strengths of the high CD profile appear to be as follows:

- “Can take decisions when called upon to do so.
- Will be proactive and is a self-starter.
- Willingly asserts authority and strives to achieve deadlines timeously.
- Competent to tackle any problems or conflicts which might threaten progress or success.
- Demonstrates an active approach and increases the pace in order to achieve goals.
- Brings a sense of urgency to most situations” (Thomas International, 2005).

Strengths that the high CD practitioner can bring to the organisation are controlling quality, complying with standards, careful planning, technical competence and specialised skills combined with an ability to perform detailed tasks and to adapt relatively quickly to new rules and procedures.

Limitations that the high CD practitioner may bring to the organisation are that they are bound by procedures, methods and detail, are demanding and perfectionist by nature and this can detrimentally affect the speed of decisions as they would want to double check all available information prior to taking any action.

As pointed out, a low percentage of the TUT population shows a best fit for this job structure and in comparing the activity profiles (see Table 4.21) of practitioners displaying the profile under discussion, it is evident that they only concentrated on the distribution of online course material and were engaged in a limited number of activities. As already pointed out in Table 4.22 reasons for this might be that the need for clear job objectives and the importance of online communication between the e-moderator and the students were not set as clear guidelines before they started their activities. The one exception is the star performer who was involved in a variety of activities and specialised not only in presenting research subjects but also used the e-learning experience to conduct own research.

What should be…?

Should the CD/SI job structure be the reality and the choice for the position of e-learning practitioner, it would imply a capitalisation of strengths and meeting the needs of practitioners complying with this job structure, as well as supporting those who do not show an acceptable compatibility with the job requirements. This might involve staff training, structuring and adapting the context of the job.

What does it mean…?

Interaction between the person and job subsystems is mainly influenced by cues from the environment pushing the person to react to an antagonistic job environment. The creative ability, problem-solving and research capabilities of these practitioners should be cherished and channelled into a supportive work environment that enables them to achieve positive results and at the same time obtain the "correct solution". Demands from the unstructured online teaching and learning environment dictate a dynamic drive from the practitioner to influence students to participate in educational activities and to get results in terms of pass rates, student throughput and so on. Another challenge for the dynamic driver would be to involve colleagues and managers in a new way of thinking within the existing organisational parameters.

Practitioners compatible with the job structure under discussion are not naturally emotional and are more focused on "things" than people. For this job this may imply a need for a degree of self-awareness to modify behaviour towards a more communicative approach in terms of online communication with students. Tendencies to resent restrictions, particularly with regard to time and the dislike of being tied to deadlines, may be beneficial to the job in terms of accepting challenges and venturing into the unknown. However, in terms of structuring the online environment for students, reacting to students' questions and needs and managing the course, the practitioners will need some guidelines on how to fulfil the role of e-moderator.

What are the implications for training?

Training programmes should set out clear programme objectives in terms of the training programme per se, but also pertaining to the different job roles that the person is likely to perform. Only 32 percent of the practitioners at TUT are compatible with this job structure, which implies that it would require substantial effort from these practitioners to comply to these job requirements. The training programme and structure provided by the organisation in terms of policies, regulations and procedures should compensate for the lack of inner drive amongst the majority of practitioners. Therefore, should this job structure be the reality, the training programme should include a mixture of activities for creative experimentation with new educational approaches, new technologies and applications in a constructivistic approach. However it should also provide structure in terms of the broad programme outline. The practitioner's knowledge should be strengthened by giving guidelines for best practices and developing specialised skills. Development of expertise will motivate these practitioners and meet their need for authority vested in their specific skills.

Democratic but direct leadership from the programme presenters will best complement the needs of the practitioners. Leaders need to communicate tasks and assignments clearly, set definite timescales and well-defined programme outcomes to satisfy the practitioners' need to

know 'why'. Reassurance, the absence of sudden or abrupt changes, and recognition of input to the organisation will energise the person with the high CD behavioural style. However, it should be borne in mind that these practitioners need a fast pace, challenging tasks and an outlet for their creativity.

What are the implications for career development?

The nature of the job will imply achievement of results of a precise and detailed nature, and may also include a variety of tasks. This means that the practitioner in this environment will strive to achieve the goals set for his/her course, applying specialised knowledge and skills that will allow learners to consistently achieve the outcomes set. The job scope provides opportunity to do research and to discuss and communicate and to present these results to other people (Thomas International, 2005). Support from the organisation in terms of the necessary infrastructure, strategic goals, policies and so on is indispensable if this job structure is to be formalised in a formal job description for the e-learning practitioner.

Roles and applications that will ideally suit the high CD profile group will be the role of researcher or specialist working in the e-learning environment with the emphasis on DRIVING TOWARDS PERFECT SOLUTIONS. Using systems terminology this job structure can be transcribed as representative of the system **DRIVER**.

4.5.4.2 Second scenario highlighting the structure of the e-learning practitioner construct

Note: Job descriptions used in this study were provided by the analysts from Thomas International and to ensure authenticity the wording from these reports are used to describe the different positions.

The CDS/I job structure show broad commonalities with the CD/SI job structure but differs in terms of the structuredness of the environment. The higher Steadiness factor requires a more secure work environment with less emphasis on fast pace, frequent changes and challenging the unknown.

What is…?

Acceptable compatibility between the TUT e-learning practitioners (see sections 4.5.2.2 and 4.5.3.2.2) and job structure CDS/I was discussed in the preceding paragraphs. However, the current situation at TUT presents a group profile that does not seem to fit very well with the position described. The highest style combination present in the TUT population that presented with a best fit score is the high CSD style, displayed in percentages of 5,3% of the TUT population, 8,3% of the Partners and absent from the star performer group. However the

highest frequency of acceptable fit scores (42%) was displayed in this job structure by the Partner group.

The job profile for this position is applicable in a structured work environment bounded by clearly defined organisational parameters and emphasis on administrative standards. The focus in this job is to push both self and others to achieve targets and solve problems that may hinder the achievement of results, despite any opposition encountered. The job includes team participation with the practitioners' input as independent experts, monitoring students' progress, and measuring achievement in terms of set outcomes and timescales. Knowledge and expertise are important factors in the job.

The individual who is best suited for this job may be described as a person who is results-orientated, assertive and inquisitive, loyal, organised and determined. The practitioner should have the perseverance to complete the job within set parameters, in a methodological, precise and systematic way. These individuals are motivated by a well-structured work environment without sudden changes. Job goals should be well defined and precise. These individuals have a need for both security and self-organisation and want to know "why" and "how". When compared to the HJA the personal strengths of the high CDS and CSD profiles appear to be as follows:

- "Can take decisions when called upon to do so.
- Willingly asserts his/her authority and strives to achieve deadlines timeously.
- Competent to tackle any problems or conflicts which might threaten his/her progress or success" (Thomas International, 2005).

Strengths that the high CSD practitioner can bring to the organisation are loyalty, steady under pressure, careful planning, technical competence and specialised skills, respectful of tradition, and an ability to make logical and systematic decisions.

Limitations that the high CSD practitioner can bring to the organisation are that they are not too concerned with people, and may have a tendency to stand back and observe what is going on rather than getting involved voluntarily and enthusiastically. They are motivated into action from forces in the environment rather than driven from force of character. They may fail to bring a sense of urgency to situations or to increase pace in order to reach or improve on timescales.

As pointed out, a very low percentage of the TUT population (see Table 4.53) shows a best fit for this job structure. Although these practitioners practised in a structured environment, secured by definite job parameters they experienced difficulty in adhering to the timescales of the programme.

What should be…?

Should the CDS/I job structure be the reality and the choice for the position of e-learning practitioner, it would imply capitalising strengths and meeting the needs of practitioners complying with this job structure, as well as supporting those who do not show an acceptable compatibility with the job requirements. This might involve staff training, and structuring and adapting the context of the job.

What does it mean…?

Interaction between the person and the job subsystems is mainly influenced by driving forces from within the job environment pushing the person into action in an antagonistic environment. Demands from the structured online teaching and learning environment are the driving forces that demand action from the practitioner in influencing students to participate in educational activities and to get results in terms of pass rates, student through put and so on.

Reliability and loyalty to the organisation, and the problem-solving and research capabilities of these practitioners should be cherished and channelled into a supportive work environment that enables them to achieve positive results and at the same time 'get things right'. These people will become frustrated if high standards are not achieved as is illustrated by a comment on a specialist presentation of low standard: "It would have been better to read a book about those topics" (Blogger 16 June 2004). They are capable of making logical and systematic decisions uncluttered by emotion and personal involvement. The job requirements suggest that quick pace and flexibility are not very important for this job. This means that this job will tend to accommodate very specialised areas in the e-learning practice, for example e-testing. This implies a need for order, accuracy, attention to detail and specialised skills and knowledge These individuals will get demotivated by hassle. For example: "I still feel frustrated because it didn't upload as I want it." As an independent expert, organised and well-planned actions and input are important focus areas of this job scenario for the practitioner. Being fairly cautious by nature, these practitioners fit in well with the structured, predictable work environment of the e-learning specialist. They are demotivated by insecurity, for example: "What we will do next is unknown to me, so I feel somewhat like a fish out of water" (Blogger 11 June 2004).

The somewhat higher percentage of Partners compatible with this job structure suggests that for a group such as the Partners, environmental structure and set job requirements as offered in the P@W Programme may contribute to the security that practitioners in the high CDS or CSD style combinations need to fit into the CDS/I job structure.

What are the implications for training?

Training programmes should support the need for security and a structured work environment by setting out clear programme objectives in terms of the training programme per se, as well as the different job roles that the person is likely to perform. Knowledge and guidelines about best practices and specialised skills training to develop expertise will motivate these practitioners. Programme leaders should have some form of technical or specialist background and the practitioners have a need for good communication skills. Equally, however, the leaders should be prepared to listen to ideas and should be honest and supportive and where necessary give help in the decision-making process.

Democratic but direct leadership from the programme presenters will best complement the needs of the practitioners. Leaders need to communicate tasks and assignments clearly, set definite timescales and well-defined programme outcomes to satisfy the practitioners' need to know 'how' and 'why'. Reassurance, the absence of sudden or abrupt changes, and recognition of expertise will energise the person with the high CSD behavioural style (Thomas International, 2005).

What are the implications for career development?

The nature of the job will imply achievement of results of a precise and detailed nature. This means that the practitioner in this environment will strive to achieve the goals set for his/her course, applying specialised knowledge and skills, and support and allow learners to consistently achieve set outcomes. The job scope provides an opportunity to specialise in one or more focus areas and to do research, and communicate and present these results to other people (Thomas International, 2005).

Another possible role is the one of course administrator, especially as applied in e-moderating online setting. Support from the organisation in terms of the necessary infrastructure, strategic goals, policies and so on, as well as well-planned training programmes to provide the necessary knowledge, skills and expertise, will be indispensable if this job structure should be formalised into a formal job description for the e-learning practitioner. The P@W Programme is an example of such a training programme.

Roles and applications that will ideally suit the high CDS profile group are the roles of administrator, specialist and researcher in the e-learning environment with the emphasis on PERFECTIONISM AND ENSURING STANDARDS. Using systems terminology, this job structure can be transcribed as representative of the system **QUALITY CONTROLLER**.

4.5.4.3 Third scenario highlighting the structure of the e-learning practitioner construct

Note: Job descriptions used in this study were provided by the analysts from Thomas International and to ensure authenticity the wording from these reports are used to describe the different positions.

What is…?

Acceptable compatibility between the TUT e-learning practitioners (see sections 4.5.2.3 and 4.5.3.2.3) and job structure DI/CS has been discussed in the preceding paragraphs. However, the current situation at TUT present a group profile that does not seem to fit very well with the described position. The highest style combination present in the TUT population that presented with a best fit score is the high DI style, displayed in percentages of 3,6% of the TUT population, 8,3% of the Partners, and absent from the star performer group. However 39 percent of the star performer group displayed acceptable job fit scores.

The job profile for this position is applicable in an unstructured/low-structured work environment. The main focus of the job should be that of getting results in terms of educational targets and outcomes set in a network for lifelong learning. There should be pressure to obtain these goals and individuals should be responsible and have the authority to act both independently and quickly without having to refer back to the set structure. The job is contextualised and bounded by the organisational parameters, but the degree of 'virtuality' will dictate the influence of detail, routine, rules and regulations. The other very important job function is to inspire and influence others to achieve a purpose; in this case not only the students in their academic endeavours, but also colleagues and managers who need enthusiasm for e-learning. Freedom to use initiative and being proactive and creative in problem solving, speeding up pace to achieve goals and set outcomes within a short time span, are important features of this job profile.

The individual who is best suited to this job may be described as a person who is creative/innovative and results-orientated, enthusiastic, optimistic, self-starting, inquisitive, active, influential, persuasive, competitive and self-confident. The majority of these characteristics were also listed by the TUT e-learning practitioner group as important for the e-learning practitioner. Prestige, position and authority, as well as freedom from unnecessary controls, routine and repetitive assignments are important motivators. Pressure to produce results and a fast work pace are very important for this profile. Goals and targets need to be measurable in terms of success obtained through the best use of people's skills. Popularity, freedom of speech and democratic relationships are also important motivational drivers (Thomas International , 2005).

When compared with the HJA the personal strengths of the high DI profile appear to be as follows:

- “A competent decision taker.
- Proactive. Possesses self-starting ability.
- Is willing to assert his/her authority in order to meet goals and deadlines.
- Competent to tackle problems, conflict situations or people who hinder the achievement of his/her objectives.
- Assists, advises and counsels others, developing trust and building sound relationships.
- If necessary can identify resources and develop networks.
- Able to analyse and debate problems and then to express his/her views and come up with innovative thoughts and ideas to overcome them.
- Demonstrates an active approach and increases the pace in order to achieve goals.
- Brings a sense of urgency to most situations” (Thomas International, 2005).

Strengths that the high DI practitioner can bring to the organisation are competitiveness, getting results, accepting challenges, venturing into the unknown, goal orientation and problem solving.

Limitations that the high DI practitioner can bring to the organisation are inattentiveness to detail, sometimes ’push too hard’, impatient and impulsive, not always making decisions based on facts, sometimes relying too much on the power of their personalities.

As pointed out, a low percentage of the TUT population shows a best fit for this job structure and comparing the activity profiles (see Table 4.8) of practitioners displaying the profile under discussion, it is evident that the limited computer access for students discouraged this person from continuing as an e-learning practitioner. Being results orientated and motivated by tangible results this person decided to move away from the WebCT application. Practitioners from the Partner group practice according to their behavioural style. It is interesting to note that the star performers, who scored a 5/6 fit for this position and displayed a slightly lower Dominance and higher Influence factor, were involved in a variety of activities. They experimented with a number of new technologies and applications, generating dynamic energy in their online courses and high levels of communication between themselves and their students. Their innovative educational approaches culminated in positive results for the practitioners and students alike.

What should be…?

Should the DI/CS job structure be the reality and the selected choice for the position of e-learning practitioner, it would imply capitalising on strengths and meeting the needs of practitioners complying with this job structure, as well as supporting those who do not show an

acceptable compatibility with the job requirements. This might involve staff training, as well as structuring and adapting the context of the job.

What does it mean…?

Interaction between the person and job subsystems is mainly influenced by the driving force from within the person reacting to an antagonistic job environment. These practitioners' creative/innovative ability, energetic problem solving, good communication and people skills and networking capabilities of these practitioners should be cherished and channelled into a supportive work environment that enables them to achieve positive results through managing people and the e-learning work environment. They are people's persons who are inspirational, manipulative and influential and focused on managing others to get results. If the positive power to act is cherished by the organisation, in terms of creating opportunities for innovativeness, creative experimentation and open communication, the results may be valuable assets for the organisation. The DI/CS job structure was not only the job structure of choice by the expert consensus group, but also the one informally created by the TUT e-learning practitioner group. The most important characteristics of the e-learning practitioner that were pointed out by the TUT e-learning practitioners were creativity, innovativeness, patience, "people's person" and organised. Apart from patience, all the other choices correspond with the job structure under discussion, however, few of the current e-learning practitioners' profiles fit into this category. Although most of the e-learning practitioners at TUT do not display a best fit with this job structure, a significant section of the star performer group does fit into the acceptable fit score ranges. As pointed out in the previous sections of this chapter, the star performer group displays unique style combination patterns, which contribute to a better fit score in the unstructured environment under discussion. They will help to fulfil the need for dynamic force from the online teaching and learning environment.

Tendencies to resent restrictions, particularly with regard to time, and a dislike for being tied to deadlines may be beneficial to the job in terms of accepting challenges and venturing into the unknown. Positive communication and people skills are important drivers for positive online communication, but the practitioner might need guidelines on how to pay attention to detailed activities such as class schedules, publishing of online course materials and study guides.

What are the implications for training?

Training programmes should provide freedom of choice regarding the different job roles that the person is likely to perform, free experimentation with available technologies and applications accompanied with brain storming sessions and "show cases" on a variety of educational approaches. Idea generation and creative solutions to "real world" problems, a fast pace and dynamic energy are vital ingredients of training programmes for the DI/CS job structure. Programme leaders should be direct but participative leaders, displaying good people and

communicating skills. They should be prepared to set fair but very objective tasks, which ideally should be negotiated on a one-to-one basis. The possibility that these practitioners may enjoy being challenged by difficult assignments should be exploited and once a requirement has been agreed on they should be given sufficient authority and freedom to achieve the result.

The current situation at TUT suggests that the majority of e-learning practitioners fall outside this job structure fit range. However, by adapting training programmes slightly to accommodate the higher Compliance and Steadiness behavioural style combinations more, greater compatibility between the job structure and the e-learning practitioners is possible. The scope of the e-learning practice is rich and versatile offering a variety of roles and possibilities enriched by a number of different technologies and applications. This means that by shifting the focus of job tasks slightly a number of different job fit combinations are possible. For example the 'high D' driver suggested by the job structure under discussion is not very keen on doing the detailed administrative tasks, hence to enhance the job fit it might be beneficial to add an assistant to aid this person in these tasks. Rather than setting up a video conference (a task that may be enjoyed by the high SC style combination) the interaction and personal communication of video conferencing may be energising for the high DI style combination.

What are the implications for career development?

The nature of the job will imply that responsibilities should lie in the areas of planning, problem solving, and organising, and handling a number of concurrent projects in innovative situations were initiative is important. Authority to make decisions and independence of action, with a possibility of using administrative staff support in order to free himself/herself from the finer administrative details are important focus areas.

The job scope provides opportunity to do research and to discuss and communicate and to present these results to other people (Thomas International, 2005).

Support from the organisation in terms of formal recognition for successes and entrepreneurial freedom to act to the benefit of the organisation will be important considerations if this job structure were to be formalised in a formal job description for the e-learning practitioner.

The high DI profile group will be ideally suited for the role of e-moderator as well as for director, manager and inspiring motivator in the e-learning environment to develop new curricula, course and instructional design with the emphasis on INNOVATOR/ENTREPRENEUR. Using systems terminology this job structure can be transcribed as representative of the system **CHANGE AGENT/ACTIVATOR**.

4.5.4.4 Fourth scenario highlighting the structure of the e-learning practitioner construct

Note: Job descriptions used in this study were provided by the analysts from Thomas International and to ensure authenticity the wording from these reports are used to describe the different positions.

What is…?.

Acceptable compatibility between the TUT e-learning practitioners (see sections 4.5.2.4 and 4.5.3.2.4) and job structure SCD/I was discussed in the preceding paragraphs. However, the current situation at TUT displays a group profile that does not seem to fit very well with the described position. The highest style combination present in the TUT population that displayed a best fit score is the high SCD/I style, was present in percentages of 5,4% of the TUT population and 7,7% of the star performers and absent from the Partner group. The star performer and Partner groups displayed scores of 39 percent and 33 percent respectively for job compatibility.

The job profile for this position is applicable in a structured work environment bounded by clearly defined organisational parameters, but at the same time allows for independent actions and completion of tasks. The work environment should provide opportunities for collegial interaction and a team atmosphere should be developed through hard work, honesty and integrity. As one participant straightforwardly put it: “lots of extra admin, just did it and went on with the job” (FG, 17 may 2005). A questioning and objective approach is called for within the position, focusing on work-related problems rather than personal ones. The job involves expertise and a depth of expert knowledge and a focus on getting on with the job.

The individual who is best suited to this job may be described as someone who is a “finisher completer”, tenacious, structured, methodical, organised, inquisitive, factual, cautious, self-reliant, hard working with a strong nee to achieve a worthwhile result (Thomas International, 2005).

“I would like the Show and Tell to be more structured, the last two weeks felt a bit disorganised” and “I haven’t received any feedback on my work” encapsulate these individuals’ inner need for accomplishment and achievement, as well as security from structure. When compared to the HJA the personal strengths of the high SCD profile appear to be as follows:

- “Generate and provide specialist and/or administrative services which benefit the organization and, depending on whether they are task or people-related, lead to a high level of internal and external customer satisfaction.

- Be persistent in problem solving, seeking solutions through the expertise of both self and others. Research all the facts with care and resolving problems in a timely and thorough manner.
- Apply a systematic and logical approach in order to achieve accurate results.
- Create a culture of continuous improvement.
- Set clear objectives, monitor progress, take corrective action and control performance levels" (Thomas International, 2005).

Strengths that the high SCD practitioner can bring to the organisation are performing to accepted work standards in a consistent and predictable manner, having staying power in an organisation, and being loyal and respectful of tradition.

Limitations that the high SCD practitioner can bring to the organisation are that they need a long time to adjust to change, and may affect the speed of decisions as they would want to double check all available information prior to taking any action. Once their mind is made up they will stick to their decisions and can be extremely persistent.

As pointed out, a low percentage of the TUT population shows a best fit for this job structure and comparing the activity profiles (see Table 4.17) of practitioners displaying the profile under discussion, it is evident that they concentrated their activities on using the e-learning environment for administrative and managerial tasks and low level online communication, although one person who was also a star performer used a variety of activities, including online communication and video conferencing.

What should be…?

Should the SCD/I job structure be the reality and the choice for the position of e-learning practitioner, it would imply capitalising on strengths and meeting the needs of practitioners complying with this job structure, as well as supporting those who do not show an acceptable compatibility with the job requirements. This might involve staff training, restructuring and adapting the context of the job.

What does it mean…?

Interaction between the person and job subsystems is mainly influenced by the cues from the environment encouraging the passive person to react to a favourable job environment. The qualities of these practitioners, performing to an accepted work pattern, loyalty, reliability, predictability and steady performance under pressure, should be cherished and channelled into a supportive work environment that enables them to finish tasks and to achieve positive results. They are good listeners but are more focused on 'things' and more interested in planning and organising tasks than people and they may stand back from people, slowly building their

relationships based on trust. For this job this may imply a need for a degree of self-awareness to modify behaviour to a more communicative approach in terms of online communication with students. The tendency to investigate thoroughly before taking action and to work at own pace within a secure and structured environment may cause stress in the fast paced e-learning environment. The job structure calls for an e-learning environment that is structured, focusing on specialised applications such as e-testing, online course management and research. The focus of this job structure will not be on extensive online communication between students and the practitioner, and should the job requirements change slightly, this aspect needs more attention. The practitioners will need some guidelines on how to fulfil the role of e-moderator, in order to keep in touch with the online students. Expertise and technical knowledge directed at the instructional design role would be beneficial to this job position. However, development time should be negotiated to structure deadlines.

What are the implications for training?

Training programmes should provide trainees with a structured programme, setting out a well-defined job role with tangible goals. A sense of belonging should be developed and the programme should be conducted in a friendly non-threatening atmosphere. Frequent meetings, brain storming and personal contact sessions are important motivators. Knowledge and guidelines about best practices and specialised skills training to develop expertise must be presented in a clear structured manner. It is very important to give them enough time to assess all available information. The possibility of specialising in elective programme components for the online environment will also appeal to these practitioners. For example, an in-depth focus on one specific application such as e-testing or specialised problem-solving interventions for a specific practical problem and so on. Sudden changes and snap decisions should be avoided.

The job structure under discussion is applicable in the current P@W Programme at TUT. In this programme, participants are given structure and security in the form of detailed descriptions of the programme and the programme parameters, the set programme goals, capacity building activities and a schedule of fixed timescales for programme activities. Further scaffolding and technical support are provided by the Department of Telematic Education, and the production and instructional design teams from this department. Goodness of fit between the Partners and the Programme can be enhanced by capitalising on the existing strengths of both parties. The profile of the current Partner group shows a peak in the Compliance factor with a cluster of the high CS style combination. The latter shows a 4/6 score for job compatibility and this could be enhanced by addressing the Partners' needs. As was pointed out in the previous sections of this chapter, a variety of releasers, demands and distracters were identified by the group. Interventions to address these needs may contribute to a higher compatibility between the Partner group and the job structure.

Diplomatic but direct leadership from the programme presenters will best complement the needs of the practitioners. It is important for the communication style between leaders and the group to be of a democratic nature and should take place in a friendly atmosphere, because the relevant behavioural style prefers a non-aggressive, friendly work environment. Leaders need to communicate tasks and assignments clearly, set definite timescales, well-defined programme outcomes and exact job requirements to satisfy the practitioners' need to know 'why', 'what' and 'how'. Reassurance and recognition by programme leaders for hard work and input to the organisation will energise the person with the high SCD behavioural style.

What are the implications for career development?

The nature of the job will imply achievement of results through hard work, dedication and persistent effort. This means that practitioners in this work environment will strive to achieve the goals set for their courses, applying specialised knowledge and skills. They will set an example to students through hard work and will not tolerate anything but hard work from the students. The job scope provides the opportunity to do instructional design, specialised e-learning applications and research and to discuss and communicate and present these results to other people (Thomas International, 2005). Support from the organisation should take the form of necessary infrastructure, technical and personal support, well-planned training programmes and skills training opportunities with the possibility of specialising. Support would be one of the key factors for success if this job structure were to be formalised in a job description for the e-learning practitioner.

The high SCD profile group will therefore be ideally suited for the role of specialist or instructional designer with a specialised focus, or the role of directing, managing and supervising in research and development, especially in the e-learning environment with the emphasis on SPECIALIST/TECHNICAL. Using systems terminology this job structure can be transcribed as representative of the system **PROCESSOR**.

4.5.4.5 Fifth scenario highlighting the structure of the e-learning practitioner construct

Note: Job descriptions used in this study were provided by the analysts from Thomas International and to ensure authenticity the wording from these reports are used to describe the different positions.

What is…?

Acceptable compatibility between the TUT e-learning practitioners (see sections 4.5.2.5 and 4.5.3.2.5) and job structure DIC/S was discussed in preceding paragraphs. However, the current situation at TUT displays a group profile that does not seem to fit very well with the

described position. The highest style combination present in the TUT population that displayed a best fit score is the high DIC style, present in a percentage of only 1,8% of the TUT population, and absent from the star performer and Partner groups. The job compatibility score for the star performer group is 39 percent, but only eight percent for the Partner group.

As mentioned in previous paragraphs this job structure was theoretically constructed by the TUT e-learning practitioner group and correlates with the characteristics for the e-learning practitioner that they listed. It seems that their thinking about the e-learning practitioner and the e-learning practice show remarkable conceptual similarities. Although I converted their concepts into DISC language to put it into context, it was not feasible to convert the list of e-learning practitioner characteristics into a fictional PPA report. It was however possible to use profiles from the TUT population to match with the DIC/S job structure.

The job profile for such a position is applicable in an unstructured work environment bounded by clearly defined organisational parameters. The focus of this job should be “directing and leading others to achieve in a variety of situations via the use of personal skills and expertise” (Thomas International, n.d.). A changing environment with a wide scope of practice is typical of this job profile.

The individual who is best suited to this job can be described as a person who is a natural self-starter, with a forceful and competitive nature, loves intellectual challenges, and is active and assertive. These individuals need a fast work pace, are well disciplined and methodical, and strive for high standards. They are motivated by prestige and authority, and enjoy tackling a variety of problems, with freedom to act within organisational parameters. They are friendly and enjoy contact with a variety of individuals, being part of a group and doing business in a sociable manner (Thomas International, 2005).

Strengths that the high DIC practitioner can bring to the organisation are influencing people and people skills, competence and specialised skills combined with the ability to take up challenges and to adapt quickly to new rules and procedures.

Limitations that the high DIC practitioner can bring to the organisation are that they are critical and impatient especially with colleagues who are unwilling to adapt to change or are slow to react. They may sometimes be too optimistic and trust people indiscriminately. A lack of thoroughness may be the result of taking too much on and not following a job through.

As pointed out, a very low percentage of the TUT population shows a best fit for this job structure and comparisons of activity profiles in this category are not feasible.

What should be…?

Should the DIC/S job structure be the reality and the choice for the position of e-learning practitioner, it would imply capitalising on strengths and meeting the needs of practitioners complying with this job structure, as well as supporting those who do not show an acceptable compatibility with the job requirements. This might involve staff training, structuring and adapting the context of the job.

What does it mean…?

Interaction between the person and job subsystems is mainly influenced by the driving force within the person reacting to an antagonistic job environment. The ability of these practitioners to adapt quickly to change, to move at a fast pace, to be comfortable in a variety of settings with a varied group of people, combined with a methodical approach to their work, places them in a favourable position to succeed in the e-learning environment. Although the DIC/S job structure was constructed theoretically by the TUT e-learning practitioners it might be a possible e-learning practice scenario for the more unstructured work environments. The enthusiasm, communicative abilities and influential capabilities of these practitioners may be the driving force for successful practice in the e-learning environment. Their persuasive manner should influence both students and colleagues to their viewpoint and their methodical approach may contribute to success in the role of the online e-moderator. A tendency to resent restrictions, particularly with regard to time, and a dislike of being tied to deadlines, may be beneficial to the job in terms of accepting challenges and venturing into the unknown, but most important for students might be the after hours online availability of the practitioner not bound by time and place.

What are the implications for training?

Training programmes should set out clear programme objectives in terms of the training programme per se and the different job roles that the person is likely to perform. Knowledge about and guidelines on best practices and specialised skills training to develop expertise will motivate these practitioners. Furthermore their need for prestige and authority should be addressed by creating opportunities for them to showcase their course developments and share their ideas and accomplishments with their colleagues. They would also be motivated by being offered a variety of role options, and different technologies and applications to choose from. If this job structure is the reality, a balance between a ’people’s’ and a ’results’ approach should be kept and the strength of the Compliance factor in the job structure should counteract a too loosely defined structure.

Democratic but direct leadership from the programme presenters will best complement the needs of the practitioners. Leaders need to understand these individuals’ need for challenging situations and should communicate tasks and assignments clearly, and set definite timescales

and well-defined programme outcomes to satisfy the practitioners' need to know the 'what', 'how' and 'who'. Reassurance and guidance from the leaders will support these practitioners, especially if decisions have to be made outside their area of expertise.

What are the implications for career development?

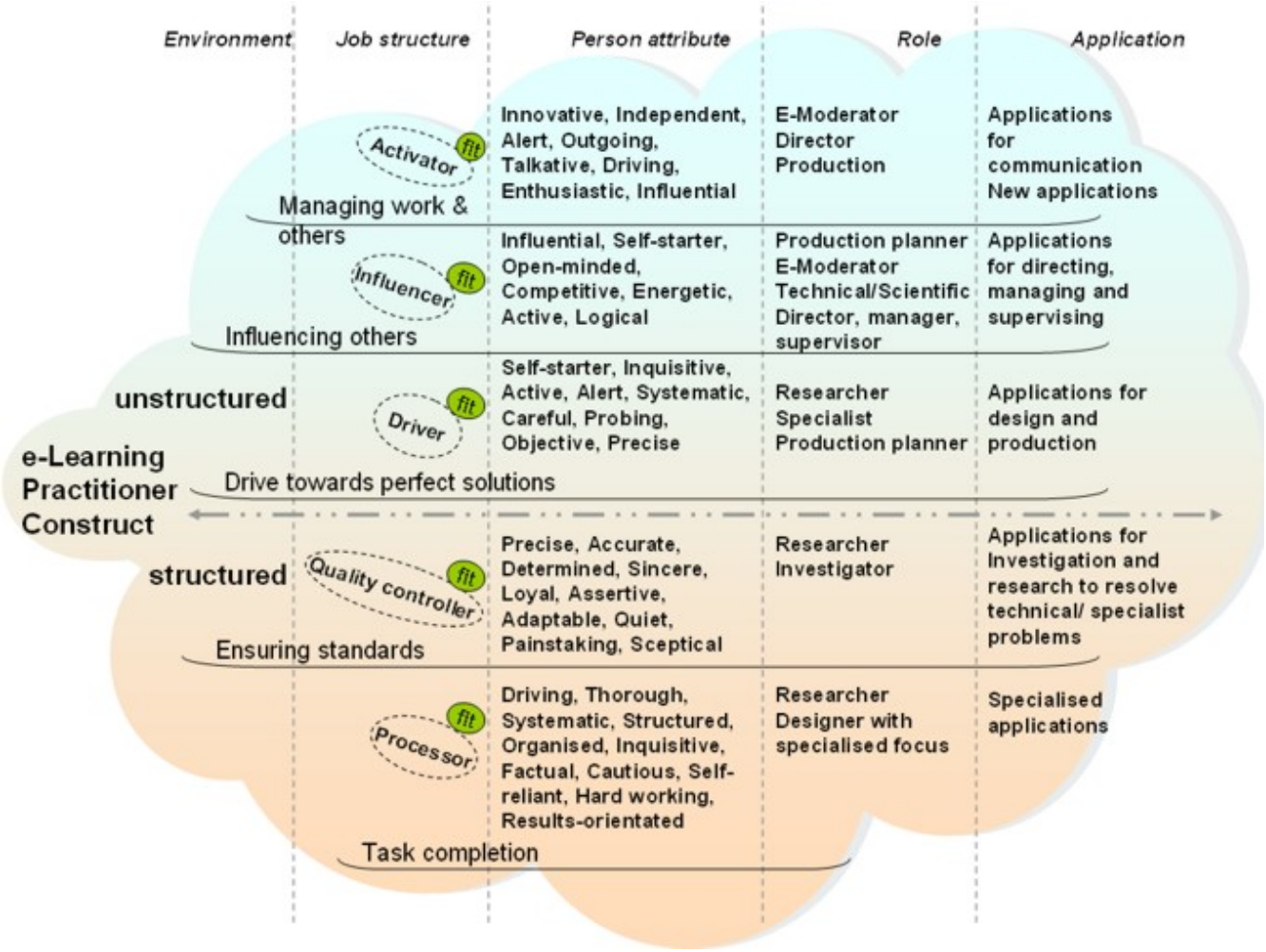
The nature of the job will include a variety of tasks in different settings using personal influence and expertise to get results. The job scope provides opportunity to do research and to discuss and communicate and to present these results to other people (Thomas International, 2005).

Should this job structure be formalised in a formal job description for the e-learning practitioner it would provide a varied scope of practice including online lecturing, production planning and management, as well as research. Therefore the high DIC profile group will ideally be suited to doing specialist work acting as e-moderator, instructional designer, project manager and researcher. The job emphasis would be on DRIVING AND INFLUENCING OTHERS (Directing, Managing, Production and Accuracy). Using systems terminology this job structure can be transcribed as representative of the system **INFLUENCER**.

4.6 Summary

The relationships of the two subsystems in the entire system were highlighted in the discussion of five different scenarios to illuminate the latent structure of the e-learning practitioner construct. To simplify the structure for better understanding, these relationships can be organised into a classifying scheme that illustrates the structure and its purpose (see Figure 4.64). Important dimensions in this classifying scheme are the three legs of the e-learning triad consisting of the e-learning environment, the e-learning job and the e-learning practitioner. These are interrelated and have a dynamic interactive nature that produces a variety of outcomes – presented in the classifying scheme as the five proposed scenarios – each of which displays different roles and applications. For example, in the unstructured e-learning environment the interventionist job structure (activator) calls for a person who is innovative, independent, outgoing and enthusiastic striving not only to manage the work but also to manage the people involved in this work environment. Matching roles and applications for this scenario are firstly those of online teacher and e-moderator, using applications for online communication, and secondly directing and producing roles that involve the application of new technologies.

Figure 4.64: Classifying scheme for e-Learning practitioner construct



This chapter presented the research findings for this study. Chapter 5 will conclude the study report with a methodological, substantive and scientific reflection, and make recommendations for practical interventions to enhance the P-J fit in e-learning. It will also discuss further research endeavours.