

Chapter 4

4..... IDENTIFYING THE ASPECTS OF E-READINESS

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4 Identifying the Aspects of e-Readiness

4.1 Introduction

This research project began when I was confronted with the challenge to design and develop e-learning for warehouse workers. It took some time to define the academic puzzle: what aspects of e-readiness can I identify to substantiate the effort to develop e-learning for this group of learners? I gained some understanding into the problem after I had consulted Reeves' (1999) advice to instructional designers when designing learning on the web. Aspects of readiness can have different meanings to different groups in different places in the world. My research guided me to understand and view my unit of analysis to be part of a developing community who is exposed to the effects of the digital divide. I learnt that regardless of this deficit, warehouse workers are surrounded by technology in an industry that will survive only when it employs the latest technological innovations in SCM.

Previous research revealed that technology has been introduced in developing communities over the world, with mixed successes. One specific recommendation from these studies was to take a bottom up approach. My understanding from these recommendations was that the learners, for whom the training has been intended, had not been thoroughly consulted or involved in a training plan that was supposed to change their lives. Learning is meant to have a permanent impact on the students' life, it served as a timely reminder for me to include the learners in my planning. Instructional design can only be successful if preceded by a thorough target-group analysis. Many colleagues are of the opinion that to realise e-learning for a group that are not motivated to learn on their own, is merely a waste of time and money.

In South Africa, we find ourselves in some kind of a paradox when e-learning is discussed for a community of warehouse workers. Classroom training is their only-known learning strategy, and a habit has developed over the years that the training facilitator is responsible for the development of employees. This condition adds fuel to notion that an inner drive to learn must exist before self-driven learning can be introduced. Extrinsic motivations are provided by the South African government by promoting and supporting the introduction of IT training and usage to all the communities – especially to previously disadvantaged groups. Training and learning institutions heeded the request and forms of IT training is aggressively promoted and advertised in South Africa today. Sadly, very few online courses are available for learners with the stature of warehouse workers.

It is for this reason that I have decided to make use of an interpretive research design. I followed a bottom up approach and explored the e-readiness of the warehouse workers from their viewpoint. In the previous chapter I described how the data had been collected in three phases. I have also explained the research design, the selection of the unit of analysis and methods to collect data. This chapter reports on the results of the data collected during phase 1.

The purpose of phase one was to review the literature and determine what types of e-readiness research has already been conducted. The information collected from the literature, together with global e-readiness reports were used to identify categories of e-readiness. The purpose here was to identify the main aspects that were considered when e-readiness was discussed or reported. Figure 4.1 illustrates the first phase of the data collection strategy.

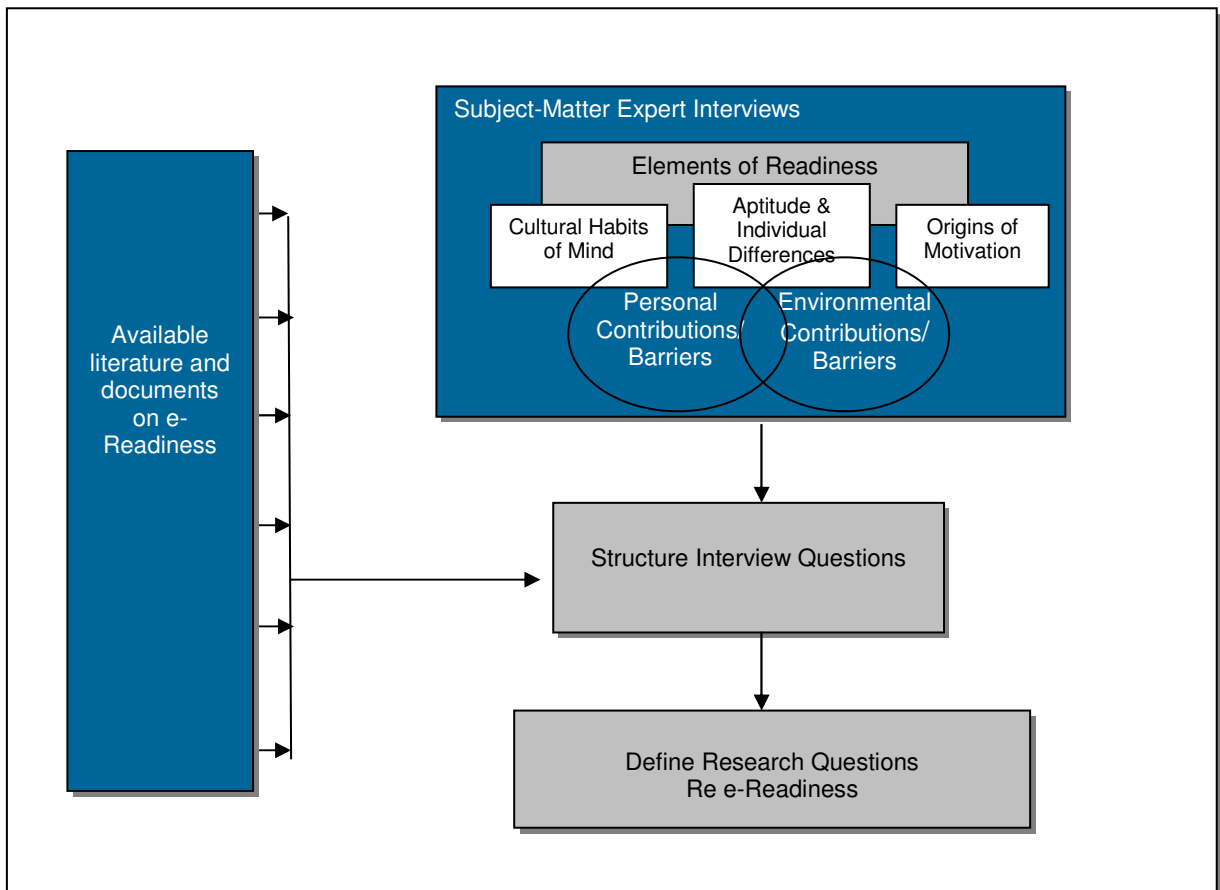


Figure 4.1 Data Collection Phases

I have studied readiness assessments from the University of Georgia, Powell, Guglielmino and Guglielmino, APEC, Harvard University, MIT, Huang *et al*, PriceWaterhouseCoopers, Cisco, Ifinedo and Bridges.org. Most of these e-readiness assessments are used to evaluate countries and organisations at the macro level, with only a few that concentrate on individual or group levels. It seems that a consensus exists on what should be assessed when e-readiness is explored, with differences relating to the purpose of the assessment. The literature review (chapter 2) discussed several of these assessments to identify the dimensions deemed to be important for assessing e-readiness. My research focuses on the warehouse workers as a community and with the aim to understand the community through the workers as individuals.

I then interviewed eight local subject-matter experts to get each one's own account of what they perceive to be the most important elements to be present in e-learning. With the help of Atlas.ti™ I generated a list of e-readiness elements. I categorised the readiness elements I received from the experts and then requested them to rate the elements in importance. I received ten SMEs' ratings and

categorised them into the synthesis of categories I had generated from the literature. These six categories became my guidelines to structure the interviews to explore the e-readiness of warehouse workers.

The purpose of chapter four is to identify important aspects of e-readiness. The main research objective is to explore the aspects that contribute to the e-readiness of the warehouse workers. To start this process, I needed to identify the aspects that are generally regarded to be the main categories of e-readiness. To do this I needed to find answers to the following questions: Which aspects are identified by the literature to evaluate e-readiness of communities? Secondly, I needed to identify the aspects to be considered to be present in the warehouse community to evaluate their status. I aimed to identify a basic framework to work from when interviewing the warehouse workers to explore their e-readiness.

The next section deals with the e-readiness as gathered from the available literature, to identify the aspects of e-readiness.

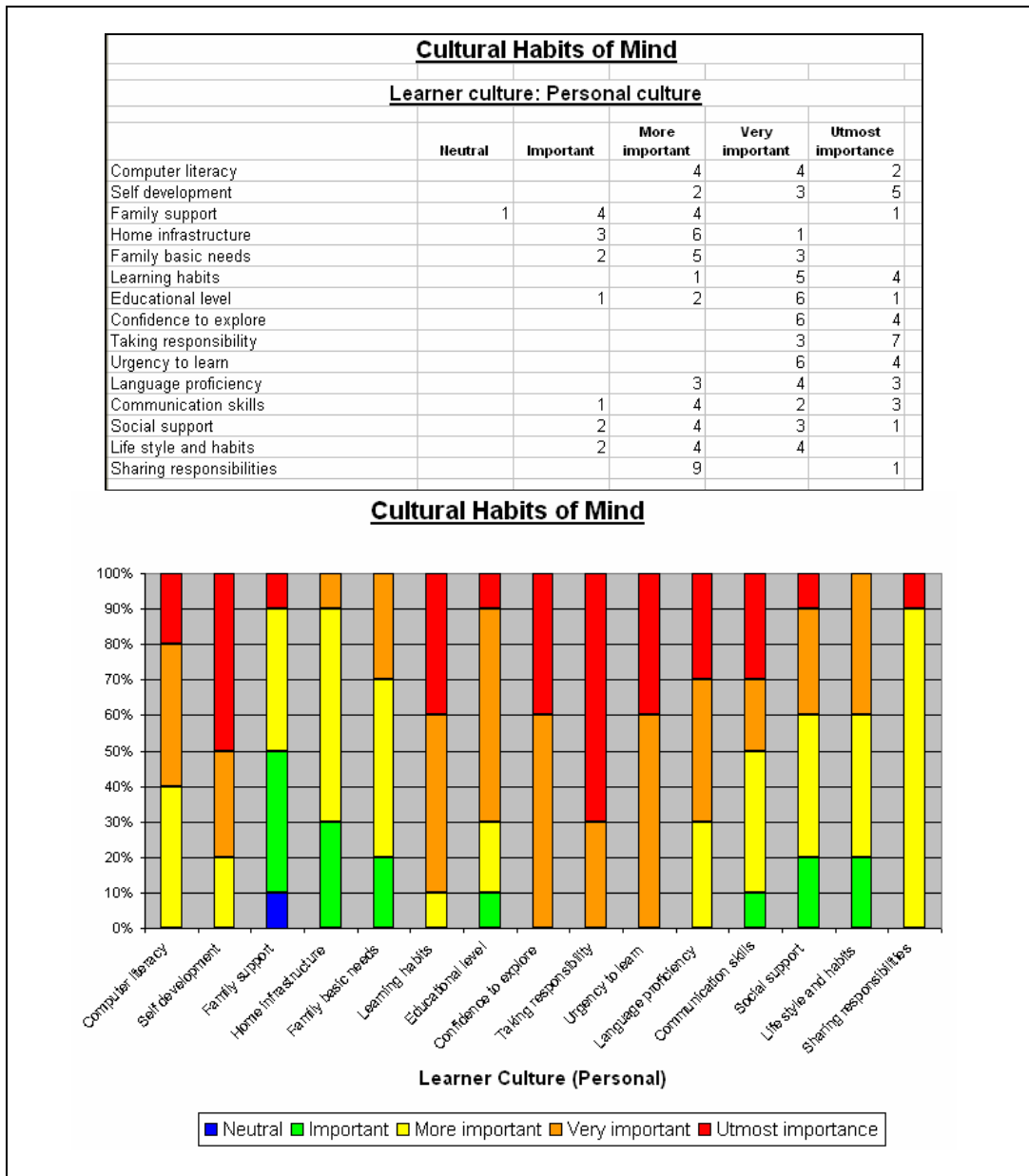
4.2 Results of subject matter expert ratings

I discuss only the elements rated to be the most important by the group of SMEs (Appendix 4.1 – highest frequency of codes). Tables 4.10 to 4.15 illustrate the importance ratings by the experts. The following paragraphs discuss the results and comments by the experts during the interviews. It is from these rated elements that I drew my main queries to be explored in the interviews with the warehouse workers. I discuss the aspects as categorised in Reeves' model under the headings "Cultural influences, attitude and individual differences and origins of motivation" (Reeves, 1999). I do not discuss all the aspects rated by the SMEs, but only those that were rated to be the most important, or where I had come across a significant outcome.

4.2.1 Cultural influences on learning

SMEs had to rate the aspects from "neutral, important, more important, very important" and finally to be "of utmost importance". The accompanying bar-graph, with Tables 4.1 to 4.5, indicates the inclination towards a specific aspect. Red and orange colours are used to indicate the more important aspects, while green and yellow are used to identify the aspects believed to be less critical. These graphs enabled me to identify the SMEs' preferred aspects of e-readiness (Appendix 4.2).

Table 4.1 Cultural Influences on e-readiness: Personal



The e-readiness elements as contributed by the individual that were rated highest by the subject-matter experts regarding cultural influences were: taking responsibility, self development, confidence to explore, urgency to learn and learning habits (Table 4.1).

The experts emphasised the importance of the individual’s intrinsic drive and ability to learn on his/her own. Learners should take responsibility and “want” to develop their knowledge and skills. As described by one of the experts: *I find the learner to be the biggest restriction. They should decide for themselves whether they want to learn more and go that route* 6:33 (195:200). Another expert said *You need to motivate yourself to learn*² 7:30 (275:276) and added that the learner’s ability to learn on his own may

² “Jy moet uit eie motivering hier wees”.

be the most important aspect of all ...*to accept the responsibility to master content within a specified time*³ 8:2 (7:9).

Some SMEs believed that there is no culture of self learning. In the words of one respondent: *The key for me is 'I want to'. If I don't want to learn, it's not going to happen*⁴ 8:29 (182:185). The same respondent added that extrinsic motivation like a salary incentive may be a short term solution, but next year the same problem may prevail. *It comes from the heart, if he doesn't have it, he won't learn to do it by himself. You may motivate him extrinsically by offering a higher salary, but next year the same problem will appear*⁵ 8:31 (191:194). Another respondent reiterated that a resistance to learn is sometimes found: *I find that there is a resistance to learn, and to do more from your own point of view, that sel- driven learners are really very, very scarce* 5:21 (98:100).

The culture of learning by him/herself goes hand in hand with confidence, as explained by a following respondent:

- *despite the availability of technology, learners are not exposed to its everyday use often enough. This causes them to miss out on an opportunity to grow in confidence* 3:17 (68:70).
- *These learners need to get practical experience how to use the computer. He can be introduced to the computer by playing games and experiencing the use of the technology. Keep this up until he is comfortable and confident* 5:4 (24:28).

The same respondent referred to the urgency to learn and possible change of attitude: *when benefits are experienced and seen. Your main focus should be to remove the threat and focus on the positives* 5:49 (236:238).

I found it interesting that the SMEs did not think that family support was critical to establish a learning culture. Although important, I understood from the interviews that the belief was that the learning culture had to be developed at the workplace, because this was where the access to technology was mostly possible.

To summarize, from a learning culture point of view, it was evident to me that the experts believed that a culture of self motivation is critical for self-driven learning. The interviews also indicated that the methods used by the instructional designer can be critical in the development of a learning culture if the learner is exposed to the technology often enough.

4.2.2 Environmental learning culture

This section refers to organisation, background and personal environment that may contribute to a learning culture. The following aspects have been rated by the SMEs to be critical. (Table 4.11). Time for learning and managerial guidance were the two most critical elements listed by the experts.

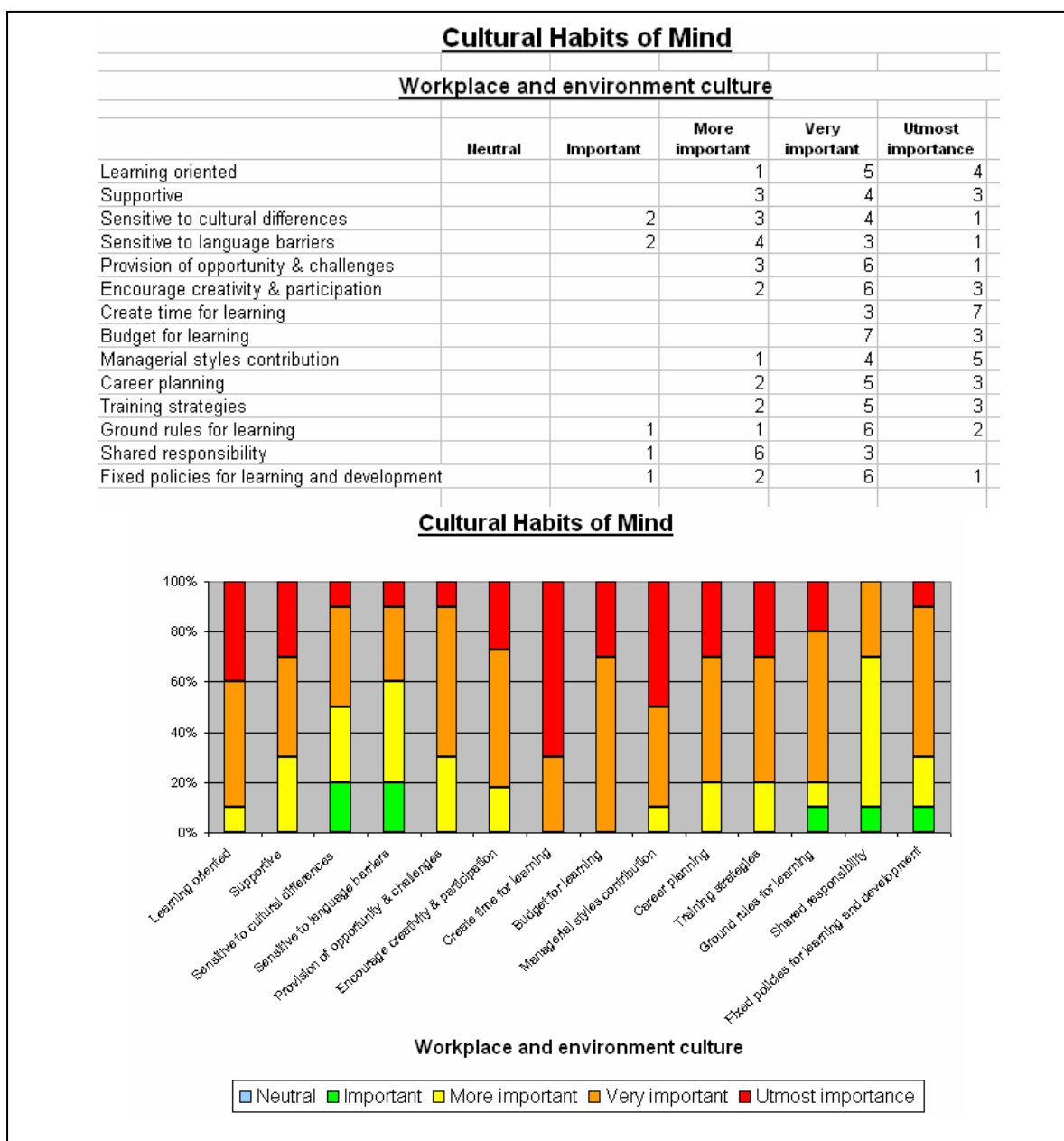
³ Om self die verantwoordelikheid te aanvaar dat ek hierdie inhoud moet bemeester binne 'n spesifieke tyd".

⁴ "Die sleutel lê vir my by 'Ek wil'. As ek nie wil nie gaan dit nie gebeur nie".

⁵ "As hy dit nie vanself het nie, gaan hy dit nie sommer aanleer nie. Dit kom uit die hart uit. Jy gaan hom dalk ekstrinsiek motiveer, salaris, ens. Maar volgende jaar wil hy weer net meer geld hê, maar niks gebeur om hom te laat groei nie".

Readiness is influenced by the organisation’s culture towards training. Learners may benefit if time is set aside for training, accompanied by a culture of guidance and support.

Table 4.2 Cultural Influences on e-Readiness: Environment



Time for learning is important, and most SME’s agreed that the typical warehouse worker may not have the opportunity at home. One respondent highlighted the limited infrastructure: *that the workplace is almost always the only viable option for learning, because once they return home, they go to a shack with no electricity* 1:78 (536:540). The importance of the workplace is emphasised in that *the workplace cares and [provides] an opportunity to develop skills* 1:79 (541:543). One respondent advocated the introduction of a “growth charter”: *to give employees the opportunity to learn at the work* 1:77 (531:533). The same respondent added that a message is sent that the workplace cares: *...cares and provides opportunities to develop your skills. But it takes time. It’s got to be a way of work* 1:79 (541:543).

The importance of an induction course to inform the learner of times for learning is also mentioned: *The ideal would be for the business to tell the instructional designer to concentrate on developing a full scale induction course which will prepare the learner for everything he'll need in that organisation, including how to learn* 5:32 (137:141). A specific assigned time for training was mentioned by several participants, even for online learning:

- *... it worked well at Standard Bank, the employees were able to access the training material from 7:30 to 8:30*
- *they were not allowed to access this in normal working hours* 2:16 (122:125).

I got the impression an assigned and dedicated time for training was used to provide comfort and create confidence for the new online learners:

...first you need to introduce the system, put them at ease by demonstrating the system, and show them the system does not need to be feared. Then short and basic exercises to get to know the system 5:8 (41:44).

Another respondent supported the notion of training at work during a specific time, but added the sudden control the user may have as an online learner:

Compute- based training sometimes makes the user feel they are not in control. They needed to control their own progress and performance. For novice learners we tend to give them too much control and they feel threatened... 6:29 (172:176).

It is argued that new e-learners will feel more confident when assigned-time for training is provided, the reason being that they will keep on postponing their own learning. But, if they have the opportunity of learning for two hours each day, and their progress is monitored, they will make an effort to complete the required training.

I found it interesting that the SMEs advocated a specified time for training, as this opposed one of the main benefits of online learning, the so called "anytime-anywhere" aspect. The SMEs argued that a specific time at the workplace may be used initially to create confidence and to get to learn the mechanisms of e-learning. It may also serve to transform the learner gradually to become a self-driven learner.

The guidance of employees at work is also recognised by the fact that the managers are believed to be instrumental in the development of employees at work. *The manager should act as guide to make sure that the training is relevant for the workplace and to keep the learner motivated* 1:88 (602:611). The learning culture that exists with a company are believed to start with the management according to the SMEs. *Training on e-learning should be presented to the management first, so that they may give their staff the necessary support and guidance.* 3:11 (41:43) or as reiterated by another: *...management should be directly involved in this initiative. The worker should get guidance and leadership from his manager how to address a specific issue* 1:89 (616:618). They are criticised for not knowing what e-learning is, and therefore not getting their workers involved. *Within businesses, that specific culture can have a huge influence to make e-learning work or not. Sadly, in many cases management is not directly involved in the implementation process...* 3:39 (184:188). One respondent regarded this as a risk:

*...our biggest risk is the buy in from managers. They should attend the road shows and information sessions to get to know the products. When employees see that their managers are not interested, why should they be?*⁶ 4:39 (283:288).

The third element is orientation towards learning. The culture needs to be positive and inclined to support learning. The importance of this is stressed by one respondent: *They do not easily use their free time – lunch, tea break – to do work-related activities.* Then she again stressed the responsibility and roles of managers and supervisors: *Managers and supervisors will be easier to persuade due to the cost effectiveness of this type of learning. But the workers need to be managed well* 5:19 (85:89).

The e-learning experts regard an e-ready business culture to be one where a positive attitude exists towards training, where managers take responsibility by promoting e-learning and providing the necessary time and support. The fact that assigned time is advocated by the experts may imply that the learners and their managers do not follow a sound policy of time management, where working responsibilities and learning responsibilities are in conflict, rather than supporting one another.

4.2.3 Attitude and Aptitude Influences Personal Learning

The SMEs identified the following aspects from a personal perspective to be the most critical to ensure e-readiness: Intrinsic motivation, apply acquired information, urgency to develop the self and a sense of achievement (Table 4.3).

In the category "Attitude and Individual Differences" the group of SMEs recognized that intrinsic motivation, application of acquired knowledge and the urgency to develop oneself, are the three most critical attributes a learner should have to be e-ready. *They should decide for themselves if they want to learn more and go that route. This means they need to be motivated learners.* 6:33 (195:200). Another respondent believed: *It comes from the heart... If we need to force you, you are not needed here...*⁷ 7:30 (271:277). He stressed that the student requires the ability to learn on his own. Another comment was: *You definitely need one or other form of intrinsic motivation and support mechanism to achieve this* 5:17 (80:81). One respondent regarded intrinsic and extrinsic motivation to be the most important aspect of all to make a success of e-learning: *Even more important than basic computer literacy*⁸ 8:10 (59:61). This same respondent has a somewhat fatalistic opinion regarding the readiness or motivation of learners. He stated that it is a matter of personality, *if you don't have that inner drive, nobody will ever teach you to change it. If he doesn't have it, he won't learn it*⁹ 8:30 (188:191).

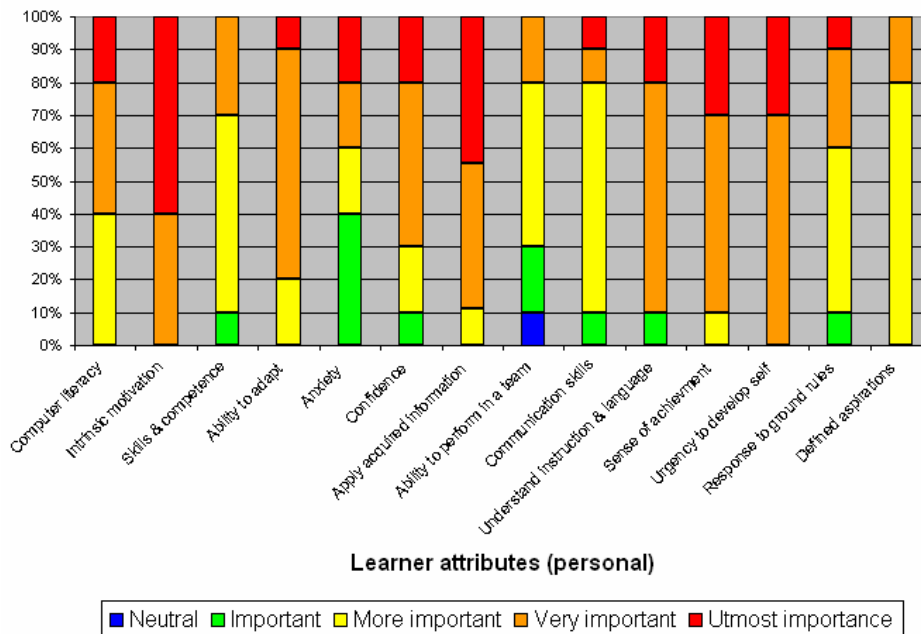
Table 4.3 Attitude and Individual Differences for e-Readiness: Personal

<p>⁶ Dis ons grootste risiko... as die bestuurders inkoop. As hulle inkoop is daar dadelik 'n beter gesindheid.</p> <p>⁷ "Ek sê altyd dit kom van die hart af... As ons jou moet dwing, soek ons jou nie hier nie..."</p> <p>⁸ "...innerlike of intrinsieke motivering, dit is vir my die belangrikste aspek van 'readiness', nog belangriker as basiese rekenaargeletterdheid."</p> <p>⁹ Ek is nie 'n motiveringsekspert nie, ek glo dis 'n storie van persoonlikheid. Mens kan nie sommer iemand leer om sy persoonlikheid te verander nie. As hy dit nie vanself het nie, gaan hy dit nie sommer aanleer nie".</p>

Attitude and Individual Differences

<u>Learner attitude and personal attributes</u>					
	Neutral	Important	More important	Very important	Utmost importance
Computer literacy			4	4	2
Intrinsic motivation				4	6
Skills & competence		1	6	3	
Ability to adapt			2	7	1
Anxiety		4	2	2	2
Confidence		1	2	5	2
Apply acquired information			1	4	4
Ability to perform in a team	1	2	5	2	
Communication skills		1	7	1	1
Understand instruction & language		1		7	2
Sense of achievement			1	6	3
Urgency to develop self				7	3
Response to ground rules		1	5	3	1
Defined aspirations			8	2	

Attitude and Individual Differences



Application of acquired information or relevancy of learning has been identified to be critical. *Whatever exercises you present to the learner, [these] have to be relevant to the working environment 1:68 (444:445).* The same respondent referred to the fact that the worker needs to experience the benefits: *He is a store-man, he works on the floor. And now suddenly we want him to learn in a strange medium 1:70 (452:454).* Still from the same source: *Learning should resemble the work demands. Never present the learner with irrelevant objectives at work 1:85 (583:585).* As stated by another: *Clarity on the value of the learning objective is important. The carrot-factor is always important. If he/she learns the skill more doors will open, more opportunities may arise. For me this is the first motivator...3:36 (161:166).* A next respondent argued that e-learning will be accepted when the “what’s in it for me”- argument is understood 4:63 (502:504). From the discussions it was evident that the relevancy of e-learning to their tasks and how the learner may benefit, had to be clear and relevant to his/her growth in the workplace.

The urgency to develop oneself can be equated with intrinsic motivation, where the learner has to experience a sense of self-development. *Businesses these days require staff to take responsibility and develop their own skills and competencies* 1:87 (593:595). Another argument was that learning opportunities need to be provided so that learners were aware, or made aware, that the opportunities were available: *They literally knew [know] it was there and the responsibility was theirs to learn themselves* 2:19 (130:131). Some of the participants mentioned that some learners did achieve success on their own, and had no problem in supporting others: *Some used these opportunities and grew quicker than their peers. And they assist their peers to grow to that same level*¹⁰ 4:18 (128:135). The individual drive of learners is seen to be critical: *...it depends on individuals and their personalities. Some individuals are more inclined to be self-directed*¹¹ 4:32 (225:227). Not only do the SMEs prescribe an urgency to learn, it is also a concern that this drive is lacking: *I find that there's resistance to learn and to do more from your own point of view. Self-driven learners are very, very scarce* 5:21 (98:100). From these requirements I concluded that one of the personal attributes a learner should have is a reason and motivation to learn.

Anxiety and attitude to technology are often mentioned as barriers that prevent learners from being involved in technology. Reeves mentions anxiety explicitly as a “variable that needs to be accommodated by an improved instructional design for web-based learning environments” (Reeves, 1999). I understood from the SME interviews that once the learners have developed the individual drive, motivation to learn and the urgency to develop themselves, will eventually cancel out any attitudes or anxieties that may hinder successful e-learning.

4.2.4 Attitude and Individual Differences Influenced by Environment

The previous section emphasised the importance of the individual's responsibility and sense of developing on his/her own, while this section deals with the contributions of the environment to motivate the learner. The most critical aspects have been identified to be the learning content and presentation, infrastructure and access to technology, training strategy (Table 4.13).

Table 4.4 Attitude and Individual Differences on e-Readiness: Environment

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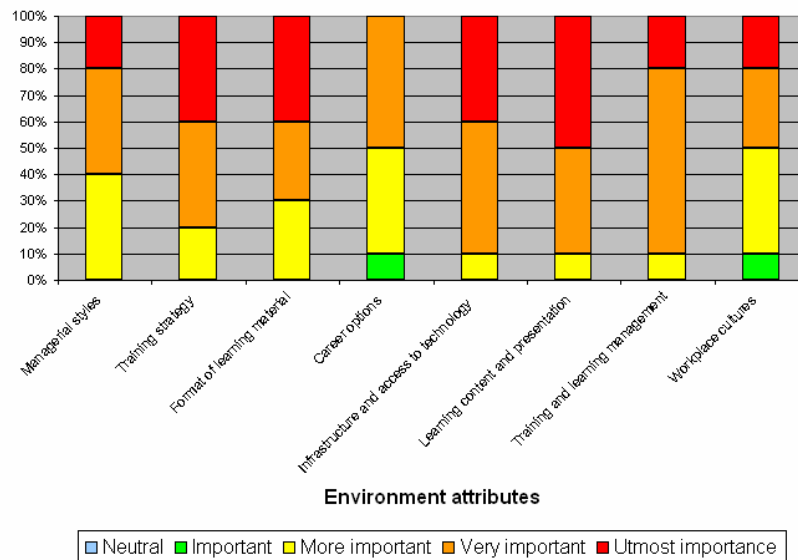
¹⁰ “...hulle maak meer gebruik van geleenthede... en hulle kan dan nou hulle ander ‘pelle’ ook op dieselfde vlak kry...”

¹¹ “...dit hang verskriklik van individue en persoonlikhede af. Sekere individue is net meer geneig om *self directed* te werk”.

Attitude and Individual Differences

<u>Environment attributes</u>					
	Neutral	Important	More important	Very important	Utmost importance
Managerial styles			4	4	2
Training strategy			2	4	4
Format of learning material			3	3	4
Career options		1	4	5	
Infrastructure and access to technology			1	5	4
Learning content and presentation			1	4	5
Training and learning management			1	7	2
Workplace cultures		1	4	3	2

Attitude and Individual Differences



The SMEs described the “environment” mostly to be the organisation where the workers are employed, and highlighted the importance of content and presentation as one of the most important aspects to get individuals e-ready. Learners should understand why they receive training: *Training should resemble the work procedures, and make it easier for all* 1:95 (663:664) and as reiterated by another: *It is important that instructors and instructional designers are aware of the basic infrastructure of the company* 3:19 (80:82). Another respondent’s comment on content: *Relevancy of the training material and content is very important* 2:8(64:65). The SMEs emphasised that the target group should be clearly defined when learning is designed:

One thing I learnt from my first website design is that an informal presentation was much better accepted by the general visitor than when we had a formal, structured website. The informal site drew much more attention – people related easier to this format. I have also learnt that too many hyperlinks confuse the average learner – hyperlinks should be functional, and their purpose must be clear. Most learners prefer simplistic designs with clear objectives. Learners like to get what they need at that time 3:31 (134:142).

The design of the lesson is seen to be important to make the learners receptive to the objectives and the content: ... motivated us to develop the lessons less formal and with the general spoken language as instruction. *The more visual the lessons are, the better the responses* 3:48 (227:231). Another promoted the use of short, chunked lessons: *Keep it short, chunked. Games are a good way to improve*

literacy. Fun makes them look forward to use the computer, and acts as a good motivator 5:6 (31:36). The responsibility of the instructional designer can not be underestimated to make learners open and motivated for e-learning.

Clear objectives goes hand in hand with the relevancy: Several comments by the experts indicated that they regard a clear, relevant and achievable objective to be of utmost importance to get learners “ready” for learning.

- *It's important to look at the worker, the world of his work and his working environment* 1:25 (110:113).
- *Learning has to simulate the working activities*¹² 1:44 (242:243)
- *Relevancy of the training material and content is also very important* 2:8 (64”65). .

It is important that the learning has to be relevant and that the learner identifies with the objectives presented to him.

Relevancy leads to acceptance and buy-in of the learning objective: *I have presented training to 750 learners, a huge number of learners. Many of them were sceptic and queried the new system to be learnt. There was no buy-in, no shared objective* 2:15 (108:111). Supported by another expert: *These exercises need to be relevant and on his level, and acceptable for his cultural values. It is senseless to present him with games or exercises that do not add value* 5:9 (45:47). The same respondent added that the learner needs to understand the impact of knowledge – or the lack thereof on the working environment:

This is a problem, because they don't understand what impact a small error has on the correct execution of the order. This for me needs to be included in the induction course – to inform him/her what impact he/she will have on the work 5:34 (152:156).

Relevancy is believed to be one of the most important motivators for learning. When the learner believes and understands the reasons for the training he may be more motivated and more receptive to become self driven.

The access to technology was another important element highlighted by the group. Most accepted that the infrastructure was probably only available at work:

workplace is for many the only viable option. But then, even at the office, a problem in that: ...despite the availability of technology, learners are not exposed to its everyday use often enough. This causes them to miss out on an opportunity to grow in confidence 3:17 (68:70).

The workplace is seen to be the most probable area where access to technology can be obtained. As one respondent remarked about a study group she supervised: *That caused a lot of frustration... black students did not have access to computers or internet cafes, they had to go to the university...*¹³ 1:15 (52:58). There was consensus that access to technology is important, and it can be accepted that this access can be only be provided by the workplace itself. Most of the participants agreed that the corporate environment provided a sound and solid infrastructure for e-learning.

Attitude can be significantly influenced by the motivation created by the environment. Firstly by presenting the content of the learning in such a way that the learner relates to it, secondly by making

¹² “...die leer moet simuleer wat in die werk verband plaasvind.”

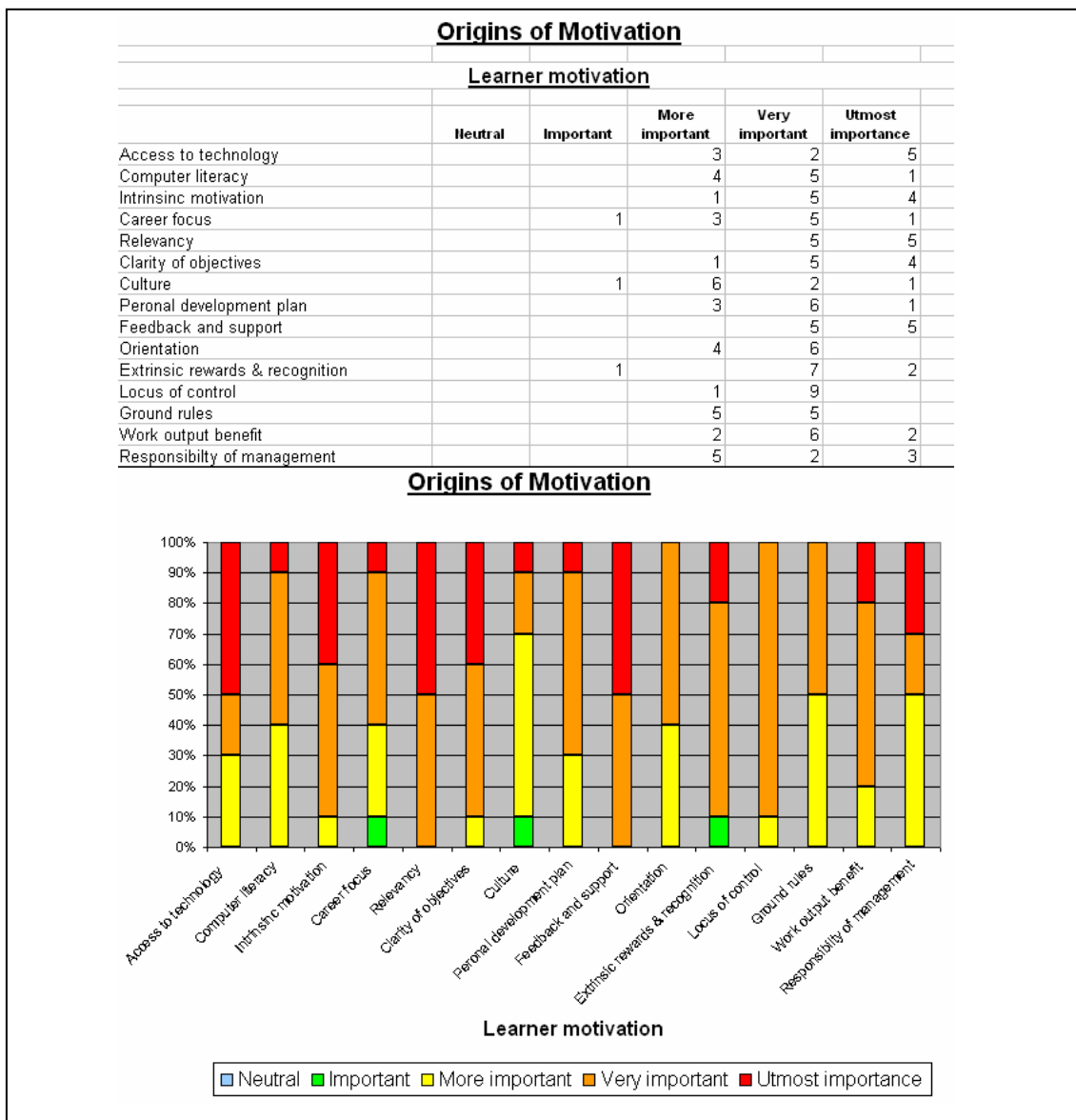
¹³ “Hulle was nie altyd bly ‘n plek gewees, dis nou die swart studente, waar hulle die internet kon oopmaak nie”

the learning relevant and applicable so that the learner understands the benefits of the training, and lastly, by providing a solid platform in the access he/she has to technology.

4.2.5 Origins of Motivation – Personal attributes

Motivation is arguably the single factor that may transform a passive learner to become self-driven and ready for e-learning. The following aspects have been identified by the SMEs to be the most important with regard to an individual’s motivation: relevancy, feedback and support, access to technology, intrinsic motivation, clarity of objectives. Table 4.5 refers to the origins of motivation according to the SMEs.

Table 4.5 Origins of Motivation as Elements of e-Readiness: Personal



Relevancy provides purpose, and may present any learner the perspective he needs to develop a need to grow. Relevancy was one of the elements with the highest frequency during the interviews.

All ten the SMEs regarded relevancy to be of critical importance. *It's important to look at the worker, the world of his work and the working environment* 1:25 (110:113). This was said during a discussion of when e-learning is being planned. The suggestion was that if the worker does not use computers, one must ask yourself if e-learning is a good option. All training has to be directly related to his working environment. As explained by another respondent: *I experience this as the 'first' motivator, only when he/she gains something from the experience, do they stay interested* 3:36 (165:167).

A second element that influences motivation to a huge extent is feedback and support. Especially management support. To create an e-ready workforce, the SMEs are of the opinion that managers should take responsibility and become involved in e-learning. If they understand the demands, the mechanics, they will see to it that the goals and objectives are in place to motivate the learners. Their feedback, encouragement and support are seen to be one of the crucial elements to ensure success of e-learning. *To motivate, one of the most important aspects is feedback, interaction with the students* 4:42 (312:315). One respondent takes the view that managers can lead by example, and get involved in e-learning, but if they do not, how can this motivate the workers to participate? *It is sometimes good practice to present the training to the managers too. Because the initial need comes from the business. Both should be accountable. My manager doesn't, why should I?* 4:39 (285:289). This is supported by the comment: *The moment a student receives feedback and he sees that the facilitator is present and views his work, he will be committed and interested* 4:43 (316:322). The facilitator is believed to be an important key to motivate the learners when doing e-learning.

Origins of motivation, as described by Reeves (1999), refer to different sources that may influence a learner to participate or not to get involved. Instructional designers need to identify these aspects to either use them to the advantage of the learner or know enough about the learner to avoid them. To ensure the necessary motivation for individuals, the SMEs proposed that relevance, access to technology, manager support and feedback should be thoroughly assessed to provide the necessary platform for an e-ready workforce.

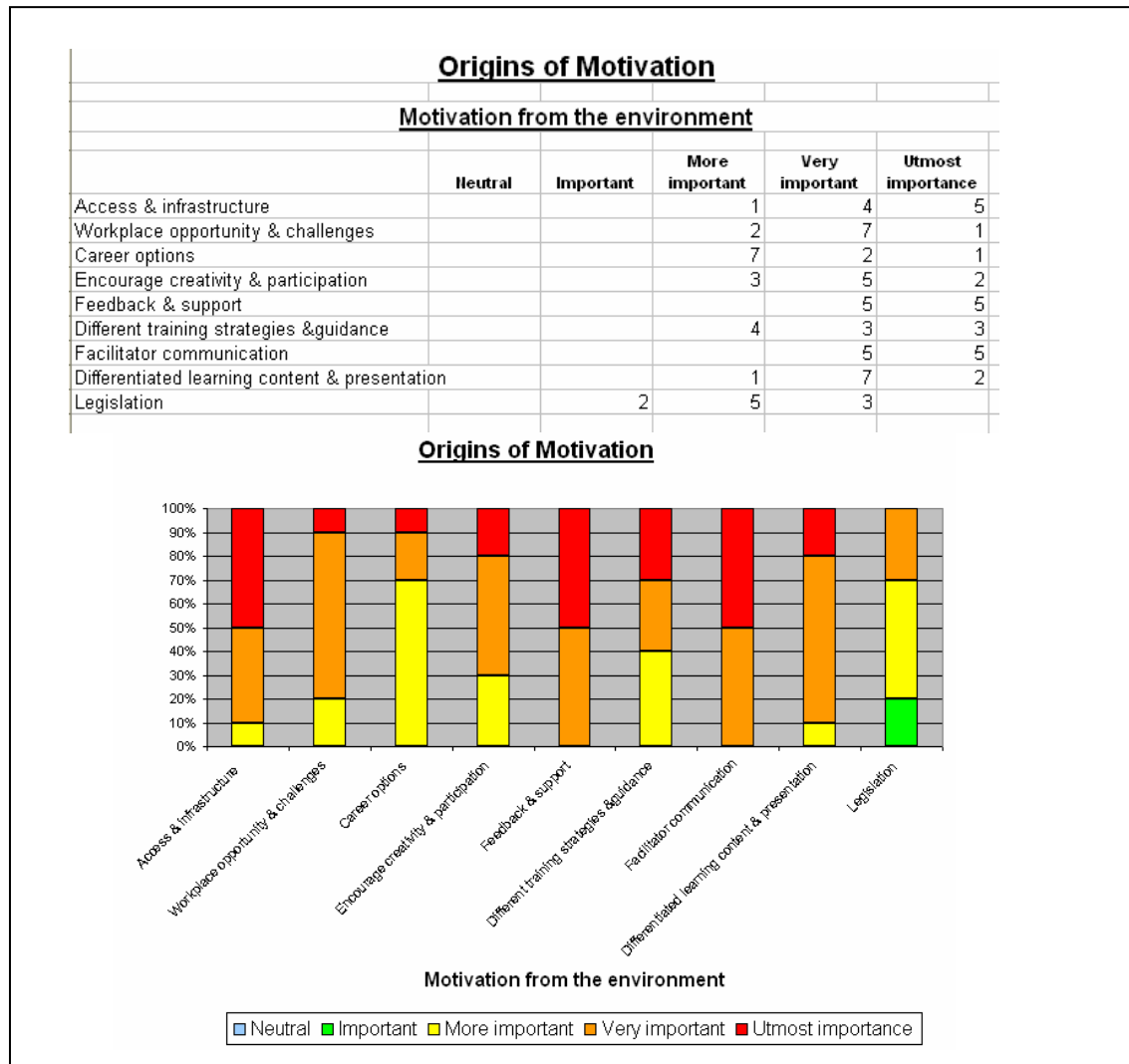
4.2.6 Origins of Motivation Influenced by the Environment

The environment, in the form of the organisation, may motivate the learner by means of facilitator communication, access and infrastructure, differentiated learning content and presentation and workplace opportunity and challenges (Table 4.6) These were the aspects rated highest by the SMEs.

Facilitator communication and feedback suggests that the learner should always be aware of his objectives and informed of his progress. These are the two most important e-readiness elements that the environment can provide to ensure an e-ready community. One respondent related a success story where the senior manager assisted her staff in setting their targets and planned their schedules with them. This co-responsibility is advocated by most of the participants. They believe that motivation can be generated and fuelled by clear objectives, regular feedback: *You can call them mentors, coaches. It does not really matter what terminology you use, but it should start with the need of that*

person 6:48 (305:310). The importance of achievable career plans and clear key-performance indicators are highlighted to guide the workers. Communication in the form of e-mail, telephone, face to face contact is important, as long as the interaction takes place: *Written communication skills are important - for learners and facilitators. In some cases learners should be motivated to communicate in different mediums with one another. e-Mail, face to face, telephonic, etc. 1:93 (647:650).*

Table 4.6 Origins of Motivation as Elements of e-Readiness: Environment



Many regard feedback in the form of an appropriate and timely induction course to inform the learner of training opportunities:

- *You virtually inform him of all the career opportunities within the organisation. That to me is a correct induction course 5:30 (130:134)*
- *Communication obviously is important, let them know you are available, either by phone or mail. Just to put them at ease... 2:7 (56:58).*

Communication is seen to be the instrument to clarify goals and objectives, and to ensure that learners know what are expected of them.

The environment can provide valuable motivators to build an e-ready workforce. From the commentary and views of the SMEs it is evident that organisations, and specifically the way the

management communicates with its workers, plays a major role in setting the scene for the e-readiness of the company. This communication includes putting a career plan and learning path in place, setting achievable objectives and providing the necessary feedback to keep the learner informed of his progress.

Good communication can be seen against the background of the necessary infrastructure as provided by the company. Access to computers and networks will contribute to the motivation and preparedness to get involved with e-learning. If the platform exists and is available, the learner may be motivated to start learning. One respondent argued that facilitators sometimes make the mistake of expecting results while only limited access *exists: the learners simply do not have access to technology, and we even expect them to make use of electronic banking services!*¹⁴ 8:17 (98:103). The lack of access is seen to be a serious barrier to the readiness of the workers:

- *The real barrier is accessibility. The packers in the warehouse don't have access to computers. That is a huge constraint* 5:53 (258:260)
- *Access will always be a problem. Learners do not get enough practice on PC's. Some work areas have very limited access to PC's while others are under used* 3:18 (74:76).

The importance of access is stressed in the following comment:

Access will always be important, and the ideal is that learners should have a PC immediately available to satisfy his/her learning need when necessary. Unfortunately, the people who need this most, have limited access to PC's 3:24 (100:103).

From the interviews it emerged that access to a technological infrastructure is non negotiable, and of the utmost importance for e-learning. From these comments I assumed that if the warehouse workers had access to such an infrastructure, they would be well positioned to be involved in e-learning. If not, the move to involve them in e-learning may be ambitious but futile.

4.2.7 Summary of SME evaluation

I did not discuss all of the ninety nine codes evaluated by the SMEs, but I had the opportunity to obtain an indication what aspects are important when e-learning is planned. Aspects like personal motivation, and attitude appear to be intrinsic in the learner. Some participants argued that it may be too much to ask from a passive learner to be transformed to a self-driven learner who needs to take responsibility for his/her own learning. Others believed that the learner – especially learners from developing communities have been deprived of access and the infrastructure, and need guidance and need to be motivated by the environment before any significant self-driven learning may result. All these are probably true for the warehouse workers who had been exposed to face to face learning in most cases.

I have identified the most important conceptual codes to explore e-readiness, and used these to structure the interviews and observations (Appendix 3.12) with the warehouse workers.

¹⁴ so baie ouens wat net eenvoudig nie toegang tot rekenaars het nie,... maar dan verwag on steeds hulle moet van elektroniese bankdienst kan gebruik maak.

4.3 Emerging theory codes to structure the research for e-Readiness

The previous section identified numerous conceptual codes of e-readiness. It was structured around the three expected input areas according to Reeves' model for www learning, namely cultural habits of mind, origins of motivation and attitudes and individual differences. These conceptual codes of e-readiness as obtained from the SMEs have been used to structure the interviews and observations for the warehouse workers.

I used the guidelines from existing literature with regard to e-readiness to structure my research questions and to categorise the findings of the study. The following preliminary categories (theory codes) have been identified in chapter 2 (par 2.11.8). A community is regarded to be e-ready according to the literature, when they:

- *have access and are connected to an IT infrastructure*
- *have experience of technology*
- *utilise the platform provided by the organisation*
- *are motivated to become self-driven learners*
- *exercise own learning styles and attitude to take responsibility for training*
- *experience a culture of learning and support.*

These categories or theory codes have been identified from several sources and were used to structure and guide the remainder of this study. The conceptual codes of e-readiness as defined by the SMEs are associated to the theory codes identified by the literature. I have structured the interviews and observations with warehouse workers and managers in such a way that the listed theory codes and conceptual theories could be addressed. Figure 4.3 is an adapted version of Schumacher and McMillan (2001) to show that several conceptual codes are related to a theory code, and may also contribute or be associated with some of the others.

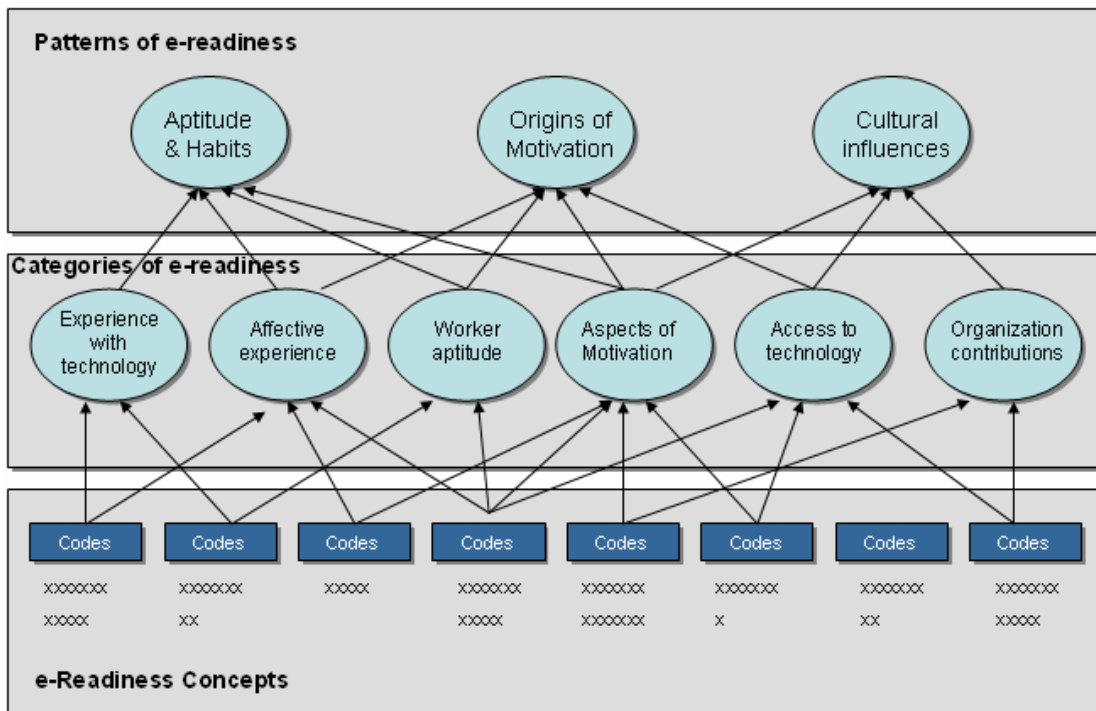


Figure 4.2 Categories of e-readiness (McMillan & Schumacher, 2001, p. 477)

The information gained from the literature has inspired me to construct the following six sub questions during my exploratory research of e-readiness of warehouse workers:

1. What technical experience do the warehouse workers have with technology that may impact their e-readiness?
2. What affective experience do the warehouse workers have with technology that may impact their e-readiness?
3. What aptitudes with regard to the use of the computers can be observed from warehouse workers to imply their e-readiness maturity?
4. What origins of motivation may induce warehouse workers to become e-ready?
5. How does access to technology contribute to the e-readiness of warehouse workers?
6. In what way does the organisation's culture influence the e-maturity of the warehouse workers?

These six sub-questions will be explored in the next chapter and serve as a guide for the remainder of the study.

4.4 Summary

I have consulted readiness assessments from several institutes and authors to conclude with six theory codes of e-readiness. It seemed that similarities occurred on the aspects that were assessed to determine the e-readiness of countries and communities – the differences were mostly related to the purpose of the e-readiness assessments.

I then interviewed eight local subject-matter experts to get each one's own account of what they perceived to be the most important elements to be present for e-learning. With the help of Atlas.ti™ I generated a list of e-readiness elements and categorised the readiness elements in terms of Reeves'

three input areas. The SMEs were then requested to rate the elements in importance. With these SME ratings of e-readiness I was able to generate a list of conceptual codes of e-readiness that were regarded to be important when exploring e-readiness. With the SME conceptual codes of e-readiness and the theory codes as derived from the literature, I constructed six sub-questions to structure interviews, observations and to serve as guidelines to conduct the data analysis. The chapter was concluded with six sub-questions to explore the e-readiness of the warehouse workers. The six theory codes became my guidelines to structure the interviews with both the experts and the warehouse workers to explore the e-readiness of warehouse workers.

Chapter five describes the data analysis and findings from the interviews, observations and questionnaires from the warehouse workers, warehouse managers and SMEs.