Investigating the tripartite aspects of Transactional Distance

in a Blended Multimedia Adult Literacy Programme.

A mixed-methods study at a food production plant in the Western Cape investigating if Multimedia AET (Adult Education and Training) provision is an effective methodological modality for learning at ABET Level 1.

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Declaration

I, Muhammad Jihaad Abdur-Rahmaan Okkers hereby declare that the work on which this dissertation/thesis is based is my original work (except where acknowledgements, using the Harvard referencing method, indicate otherwise) and that neither the whole work nor any part of it has been, is being, or is to be submitted for another degree in this or any other university.

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Abstract

This study investigates the role of transactional distance in an Adult Basic Education and Training Level One (ABET L1) multimedia, blended learning programme. While empirical research acknowledges that dialogue assumes an important role in mediating the communicative chasm between adult learner and facilitator, how this is mediated through a blended multimedia methodology at ABET L1 , is not clear. This study attempts to investigate some of the complexities in this mediation.

The study focused primarily on the interplay of dialogue in relation to programme structure, learner autonomy, and how these variables influenced adult learning. The study consisted of a cohort sample of 20 ABET Level 1 learners on a blended learning programme at a food production plant in Cape Town. A mixed methods approach incorporating both quantitative and qualitative instruments was used to answer the research questions. A range of data collection instruments, namely a survey, interviews, and observations, was utilized to gather and analyze the data. With a particular focus on dialogue, this approach allowed the study to investigate the influence and interaction of the tripartite variables of Transactional Distance Theory on adult learning at ABET L1 and the scope of transactional distance created by these interactions.

Both quantitative and qualitative findings suggest that in the absence of constructive, meaningful dialogue and scaffolded learning practices, barriers to learning are accentuated in this blended learning environment and results in increased transactional distance. Findings from the data suggest that improved regular face-to-face facilitator contact throughout the programme could avert learner frustration and demotivation and thereby decrease transactional distance. General consensus is that dialogue plays a critical role in mediating adult learning. While multimedia approaches to blended adult learning in South Africa appear to provide appropriate and effective learning methodologies to address adult literacy education, the findings of this research study suggest that the complexity of literacy acquisition, particularly at ABET Level 1, requires much more than technological methods if literacy is to be seen in broader social

and communicative terms. The findings of this study nevertheless remain anticipative that a synergistic and productive codependence can be negotiated between these loci. This particular learning environment could be improved by reassessing the interplay of dialogue, programme structure, and learner autonomy, hereby potentially reducing transactional distance by being cognizant that adult learning is not a homogenous enterprise unmindful of the nature of adult learners and the critical contexts of adult learning.

Glossary

Adult Basic Education and Training [ABET]:Adult basic education and training is the general conceptual foundation towards life long learning and development, comprising of knowledge, skills and attitudes required for social, economic and political participation and transformation applicable to a range of contexts. Abet is flexible, developmental and targeted at the specific needs of particular audiences and ideally, provides access to nationally recognized certificates. National multi-year implementation plan for adult education and training (South African Department of Education, 1997:12)

Information and Communication Technologies [ICT]: An umbrella term that covers all technical means for processing and communicating information. It is most often used to describe digital technologies including methods for communication (communication protocols, transmission techniques, communications equipment, media (communication)), as well as techniques for storing and processing information (computing, data storage, etc.)

Multimedia: Media and content that uses a combination of different content forms. The term can be used as a noun (a medium with multiple content forms) or as an adjective describing a medium as having multiple content forms. The term is used in contrast to media that only use traditional forms of printed or hand-produced material. Multimedia includes a combination of text, audio, still images, animation, video, and interactivity content forms.

Blended learning programme: A learning programme using both traditional face-to-face teaching methods in conjunction with technological methods, e.g. using online resources, computer based learning programmes.

Acronyms

AET: Adult Education and Training.

ABET: Adult Basic Education and Training.

ICT: Information and Communication Technology.

GT: Grounded Theory

MW: Media Works

NGO: Non-Governmental Organization.

SAQA: South African Qualifications Authority

TDT: Transactional Distance Theory.

UWSE : Using, Writing, Speaking English. A literacy advocacy organization operational in the Western Cape in the 1980s and 1990s.

UNESCO: United Nations Educational, Scientific and Cultural Organization.

2. Acknowledgements

I am especially thankful to Associate Prof. Salma Ismail, Prof. Linda Cooper and Dr. Jeanne Gamble for all their knowledge, insights, profound perspectives, academic support, personal encouragement, "tough academic love", and institutional interventions on my behalf, patience and words of encouragement.

This minor dissertation is the major opus of my academic journey, a hopeful validation that though the institutionalized dehumanization which Apartheid represented robbed me of my youth and education, this MEd would assuage the lack of achievement and worth I have felt for too long, and ultimately provide cathartic closure and triumphant celebration to a life taken off course, and cause, by the flawed "Struggle" dictum of " Liberation before Education". I dedicate this dissertation to my wife, Adilah, who has demonstrated patience and support beyond measure, and my children: Azhaar, Athra, Isra and Ijtihad. You all are eternally my motivation and inspiration.

Chapter One: Introduction

We are tangled up in learning and therefore

learning theory may itself be in a tangle'

(Anonymous, 2016)

Adult learning represents a complex network of learning methodologies claiming developmental agendas with functional and vocational outcomes for adult learning. Adult experience of learning is not only influenced by the specific programme content, but importantly too, the context in the learning experience, influenced by the perspective from which it is viewed and dialogical interactions present. From a phenomenographical perspective (Marton, 1981), students' reality is inextricably part of the context of their learning experience and obliges the teacher to endeavor to see the world through the learner's eyes, vis-à-vis systemizing of forms of thought in terms of which people interpret various aspects of their learning. The uncertainty of how ABET Level 1 adult learning is realized in multimedia blended learning environments motivated me to conduct this research in 2016. While the use of ICT in adult learning has become a normative practice in many adult educational settings, my study is premised on issues relevent to adult literacy learning at ABET level 1.

Personal Background and Motivation

My involvement in the the AET environment included facilitating ABET at the following sites of practice: a school for youth at risk in Athlone; ABET facilitator at Pollsmoor Correctional facility teaching correctional service members; and as a facilitator, and subsequently project manager for Media Works in the Western Cape, with a client base of approximately twenty corporate, industry, and civic organisations. My exposure to various adult learning environments over the past 15 years had initially motivated me to engage this topic from largely a personal position, onotologically grounded in Critical Theory and Popular Education discourse. From the onset, this stance placed me oppositional to mutimedia adult learning methodologies. Epistimologically though, it was important to look through theoretical and methodological lenses which would provide objective perspectives and a pragmatic outlook to the study. As noted from Saumarez-Smith (1993), research is not, and never has been a simple or single entity. Rather, it is a complex set of different types and styles of research practice, which can be differentiated but at the same time are interdependent. While personal and professional exposure to adult learning had afforded me the opportunity to gain diverse experiences of AET practices in varied demographic and learning environments, my particular interest and curiosity has been to understand the role and importance of dialogue in blended multimedia adult learning environments. While I tended to be personally predisposed to popular education and critical pedagogy approaches and therefore skeptical of the "banking" (Freire, 1993) approaches multimedia methodologies seemed to represent, it became increasingly important to adopt an a posteriori approach to this study to establish validity, objectivity and authenticity through deriving theoretical deductions and conclusions from empirical study. This required a shift in dialectic in order to locate this study in a more objective academic space. A change in perspective was initially unsettling, as one tends to be averse to having core beliefs challenged, however necessary as conveying ideas from a multiplicity of perspectives challenges all involved in the education process to expand their thinking and discover diverse points of views,

beliefs, positions, and understandings (McLaughlin, 2001). Foley (2001:73) offers descriptive insights regarding adult learning discourse, which are pertinent to my impetus for this study's location when he posits:

> "We learn as we act, and our learning is both tacit and explicit. This is indeed a complex tapestry, difficult to unpick. But just to know that it is complex and needs to be unpicked is important for those of us concerned with understanding and facilitating critical and emancipatory learning. We can then let go of formulas that promise quick results, and get on with the difficult and rewarding work of trying to understand what people are actually learning in the places where they work and live. And, of course, considering the implications of that learning for our educational interventions."

My self-realization, through critical reflection based on background readings for the literature review, concluded that multimedia methods do have a role to play in literacy practices. However, this needed to be studied to ascertain their most effective application within often complex adult literacy education environments such as blended multimedia learning in workpace contexts, and foster insights into learning practices in such environments.

Background information about Media Works

Media Works, as an agency for the delivery of ABET, states on its website that its establishment "arose out of the need for educating the disadvantaged sector of our population" and "multimedia was identified as an important and effective medium for imparting these skills."(Media Works 2019) Here skills are mainly in reference to literacy in English.

From its inception in 1996, Media Works has developed and advocated literacy teaching methodologies based on a blended learning multimedia model. Its primary methodology centres on computer-aided independent learning in conjunction with secondary face to face facilitation. Operationally, adult learners spend a total of 3 hours per week of independent, "self-directed" learning on the computer-aided literacy programme in conjunction with half hour facilitator contact time per week per learner,hereby constituting a blended approach. The programme is structured on a 50-50 ratio, meaning learners are required to spend 50% of the time on the multimedia component of the programme and 50% of the time completing related lessons in a workbook. In the light of Media Works being an agency, and dedicated advocate, of blended multimedia literacy teaching methods for the delivery of AET (Adult Education and Training) since 1996, and considering my involvement with this methodology both as facilitator and project manager from 2008 to 2014, a study of its methodology was an apt choice in researching the effectiveness of blended multimedia literacy programmes in an AET environment and more specifically to examine the efficacy of this multimedia literacy approach for blended adult learning from a dialogical learning perspective. Media Works, as an AET service provider, focuses on education programmes geared at meeting functional literacy needs of adults in conformity with the South African government's National Skills Development Plan's (SAQA, 2019) strategy policies. The primary focus of the Media Works' programme is to improve competencies in the fundamental learning areas of Communication in English and Numeracy. Adult learners complete a baseline literacy assessment which,

after moderation, determines learner specific AET levels. AET training in Communication and Numeracy is offered ,as per the National Qualification Framework (NQF),from AET Level 1 (the equivalency of Grades 1 to 3) up to AET Level 4 /NQF Level 1 (or the equivalency of Grade 9). Media Works currently has over 3000 clients nationally which include governmental, corporate, private sector, industrial, non-government organizations, schools and other training institutions with a combined student database in excess of 1 000 000 adult learners (Media Works 2019).

Statement of Problem

This study intends to examine the role of dialogue and the extent of transactional distance in in the Media Works multimedia blended adult literacy programme considering Media Works' view that "multimedia is an important and effective medium for *facilitating* literacy" (Media Works 2019). Conflicted with this assertion, and adding to the rationale for this study, is Van Joolingan & de Jong (1991) and Baker's (1994) concerns that we do not have sufficient knowledge regarding the relationships between theory, empirical knowledge and implementation of learning environments within the computer-based learning milieu. These concerns remain contemporaneously relevant to ABET Level 1 blended learning programmes, noting that no substantive research has been conducted over the past 20 years within this particular domain to plot these relationships, and track progressive and productive developments on this particular literacy landscape. Collis , Knezek, Miyashita, Pelgrum, Plomp, and Sakamoto's (1996: 117) view, though dated, that there is "no simple answer about how best to use computers in education" also remains relevent in relation to understanding the use of ICT in basic literacy education . While exponential strides have been made in computer-based tuition over several decades, views like those of Collis'et al. (1996) remain important to consider when investigating this research topic as these advancements have mainly been in adult learning at much higher literacy and educational levels. This considered, an interest in adding to the body of knowledge related to multimedia use at ABET L1 was fostered. While students are now more frequently engaged in the meaningful use of computers (Castro Sánchez and Alemán, 2011), Roblyer (2005:192) calls for , "a more organized and persuasive body of evidence on technology's benefits to classroom practice". And while Lowther and others (2008) have stated that three important characteristics are needed to develop good quality teaching and learning with ICT: autonomy, capability, and creativity, these developmental characteristics are unclear for adult learners constructing literacy competencies at ABET Level 1, especially when accessing information from different sources, assessing different learning resources, and interpreting and internalizing information. Tezci's (2011a) concern that

technology integration will not have the desired outcomes without student-centered classroom practices, and ICT integration in education cannot be implemented in isolation, are concerns of this study too, considering that student-centeredness requires a participatory approach and dialogical engagement, elements (as mentioned before) which are unclear when a blended multimedia methodology is used in an ABE environment. Noting the above, this research study focusses on a blended multimedia approach intended for ABET Level 1 learners, as this is the gateway to productive, functional, and vocational literacy within ABET system. Historically, popular education approaches have focussed primarily on dialogical teaching and learning practices requiring participatory and person-centred methods. While computers may play a supportive role in such programmes, their augmentation of dialogical learning and "learner-centredness" in adult pedagogy remains enigmatic. On the other hand, multimedia approaches generally assume content-centred, prescriptive methods and tend to promote "literalcy"(Bahruth, 2004:511). Here literalcy is defined as the literacy produced by programmes that are predicated upon controlled and partial definitions of literacy. While these two pedagogical paradigms seemed hypothetically opposed, this study intends investigating the role of dialogue in adult learning and the influence of multimedia learning on dialogue by focussing mainly on the interplay between dialogical learning, multimedia programme structure and learner autonomy in Media Works' blended approach as operationalised by its multimedia literacy programme. The problem statement arises: Does dialogical learning assume a role in the Media Works' multimedia blended methodology for facilitating the acquisition of literacy competencies at ABET Level 1?

Purpose of the Study

Adult Education and Training (AET) remains an integral part of recourse for the educational and vocational inequalities of a historically, socicially, and economically fragmented South Africa. The post Apartheid trajectory of adult education in South Africa was elucidated by Harley, Aitchison, Lyster and Land's (1996) comprehensive study entitled "*A Survey of ABE in South Africa in the 90s*" and Prinsloo and Breier's (1996) research, "*The Social uses of literacy: theory and practice in contemporary South Africa*". As illustrated by these studies, a critical objective of AET in contemporary South Africa had been, and still remains, to augment vocational skills development capacity for previously disadvantaged individuals within a post-Apartheid democratic dispensation through which sustainable socio-economic foundations can be built. These studies (Harley et al's (1996) and Prinsloo and Breier (1996)) estimated that approximately 12.1 million adults lacked a basic education, viz. Grade 9. Almost 7.5 million adults lacked functional literacy, viz. Grade 7. Expanding the their data, demographics revealed that, using less than nine years of schooling and a cut-off age of 15 years of age, an estimated 12 million adults had not received a full general education (i.e. 45% of adults). Of these, 2.9 million (11% of adults) were totally illiterate. Taking a Standard 5 (Grade 7) level as a elementary indicator of functional literacy, there were 7.4 million adults who fell into this category. However, it was known that figures regarding achieved formal education levels or self-reported literacy levels were not particularly good predictors of actual functional literacy. These estimates undervalued the number of low literates and illiterates in South African society, particularly as the demands of a complex industrial economy meant that non-standardized and poor categorization of literacy made accurate classification difficult. Variations in basic education levels also existed within the categories of race, sex, and geographical location. Race was, and still remains, the single most dominant variable determining educational level in South Africa. These studies also revealed that approximately 33% of Africans, 26% of Coloureds, 12% of Indians, and only 1% of Whites were functionally illiterate. The gender variances were small, nonetheless in favour of males.

Not withstanding the magnitude of the literacy problem, government's initial ABET rollout was fraught with delays, poor implementation, unprofessionalism, and corruption. Aitchison (1996a, 1996b) frankly asserted that it had the nature of a fiasco. Within this tumultuous environment, the decline of literacy education providers like like UWSE in the Western Cape, due to funding problems, saw private sector providers, like Media Works, enter the adult education "market" as a commercial entity who developed and focused on multimedia literacy programmes geared at the need for the new citizen and the new work order (Jansen and Christie, 1999). While Jansen and Christie (1999) further noted that educational reforms since the end of legal Apartheid in 1994 had been lodged clearly and consistently within powerful economistic rationales as the overriding motivation for "transforming" apartheid education, it must not be forgotten that literacy is considered a basic and fundamental human right, and the adoption and adaption of literacy practices which effectively facilitate social and economic reformation and redress is imperative as a critical crossfield outcome of adult learning , beyond purely economistic rationales. The UNESCO statement regarding literacy notably articulates that:

> "Literacy is a fundamental human right and the foundation for lifelong learning. It is fully essential to social and human development in its ability to transform lives. For individual, families, and societies alike, it is an instrument of empowerment to improve one's health, one's income, and one's relationship with the world." [https:/www.en.unesco.org/themes/literacy]

Searle states that 'understanding the relationship between learning and technology is all about understanding context' Searle (2008:2), it is anticipated that the findings of this research project could inform a contextual understanding of blended multimedia adult literacy programme development and a reevaluation of the efficacy of blended multimedia modalities from a programme development and end-user delivery perspective. Through these evaluation objectives, in conjunction with empirical

findings, it is anticipated that a revised understanding can be proposed regarding the role of dialogue in multimedia AET programmes through insights related to the extent of transactional distance created in this programme. This said, the study remains cognisant of the notion that multimedia methodologies cannot be wholly dismissed as an ineffectual tool in adult learning, but rather should be adapted as an integrated element of productive literacy interventions. Cook (2001) notes that computational mediums can play a role in educational programmes and the use of human expertise in learning programmes should be modulated rather than transferred to computers as a starting point in interactive media design. Cook's view seems even more pertinent in contempory computer-based learning environments with the exponential development and utilization of innovative software and ITC approaches to adult learning. As a subset of research objectives,the research study furthermore anticipates findings related to the interplay of multimedia literacy methodologies and facilitator support augmented by dialogical teaching and learning practices and whether on the dialogic presence-absence continuum, adult learning experiences and intended outcomes are influenced. The focus of this study is therefore not to attempt to dismiss the role of multimedia in literacy learning and teaching, but rather investigate whether dialogue can,or should, assume a more important role in multimedia literacy practices, and how this influences tansactional distance in adult learning. The research has therefore been underpinned by the core objectives of seeking enlightenment, programme improvement, programme clarification, and programme development (Owen, 1993).

Research Questions

The general problematic and rationale for this study is located in the espousal of multimedia AET technologies being methodologically proficient and educationally inclusive for the requirements of adult learning in workplace contexts. The assertion that the Media Works multimedia blended learning programme is " the pinnacle of adult education methodology" (Media Works 2019) represented by training programmes "that incorporate the very latest teaching philosophies and methodologies" (Media Works 2019) prompted my interest in studying the the validity of these bold statements regarding methodological proficiency and educational inclusivity from the triangulated perspective of the tripartite constructs of programme structure, dialogue, and learner autonomy as espoused by Moore's (1993) Transactional Distance Theory. The research aims to focus on adult learning at ABET level 1 as this literacy level represents a critical juncture in any AET articulation pathway towards functional, occupational, developmental or critical literacy, or an often complex permutation of several of the aforementioned learning pathway objectives. As historically disadvantaged adult learners seek solutions to the debilitating effects of illiteracy and semi-literacy, adult learning needs to be seen as more than just learning the word, but more importantly learning the world. Therefore adult learning, which could be misconstrued as a simple endeavour, is subsumed by complex aspirations hopeful of social, economic, political, vocational, and personal empowerment and validation. Understanding the complexities of adult learning requires rigor and genuine enquiry into the multifactorial phenomenon of adult learning in order to add to this body of knowledge that constantly attempts to make sense of adult learning.

The main and sub research questions for this study are:

Main Research Question: What role does dialogic learning assume in a blended learning, multimedia ABET Level 1 programme?

Sub Research Question One: What is the nature of transactional distance in the Media

Works programme resulting from the interplay of the tripartite variables of TDT?

Sub Research Question Two: How does the Media Works programme adequately accommodate dialogical and participatory adult learning?

To answer these questions, a mixed method approach will be used, incorporating both qualitative and quantitative instruments using TDT as a theoretical framework. TDT is explained in the subsequent section.

Transactional Distance Theory (TDT)- An introduction.

The Transactional Distance Theory initially related to distance learning but however was refined over several decades from Moore's early work in 1972 on independent learning to revision of the theory up until 2007, which could then be applied to eLearning and blended-learning approaches.

The tripartite constructs of dialogue, structure, and autonomy, constituting the core tenets of TDT, therefore evolved to be an educational theory that delineates critical concepts of distance learning, online learning and blended multimedia learning. Since its first publications (Moore, 1972, 1973), the theory has influenced discourse and practice on the adult education landscape (Gokool-Ramdoo, 2008; Saba, 2005). The theory enables the analysis of education that is both "a program in which the sole or principal form of communication is through technology" and where "technology-mediated communication is ancillary to the classroom" (Moore 2007:91) The theory stems from the concept of "transaction," which is considered by many scholars to be the most evolved level of inquiry, compared to self-action and interaction (Dewey & Bentley, 1946), and the interplay among the environment, the individuals and the patterns of behaviors in a learning environment (Boyd & Apps, 1980). Transactional distance is defined as the "interplay of teachers and learners in environments that have the special characteristics of their being spatially separate from one another" (Moore 2007:91). Moore goes on to define the three interrelated characteristics of transactional distance as: the programme's structure; the dialogue that the teacher and learners exchange; and the learners' autonomy. Furthermore, these three constructs are derived from the analysis of (1) curricula of the learning program; (2) communication between teachers and learners; and (3) the role of learners in deciding what, how, and how much to learn. (Shearer, 2007). Aptly, transactional distance is defined as the extent of psychological separation between the learner and the instructor. Basically, the inverse relationship between structure and dialogue means that as structure increases, transactional distance increases. However, as dialogue increases, transactional distance

decreases (Refer to Figure 1, below). This hypothesis has been verified in several studies including that of Saba (1988), Saba & Shearer (1994), and the studies outlined below in the literature review.

The relationship between dialogue and structure.

Transactional distance is characteristically measured on a continuum of dialogue and structure (Refer to Figure 1 below). The more structure in an educational programme, the less dialogue there will be, and vice versa. In effect, a highly structured course will give little opportunity to challenge concepts and explore congruent or tangential paths, while dialogue will inevitably result in departure from structured, anticipated outcomes and result in new, unanticipated learning outcomes.

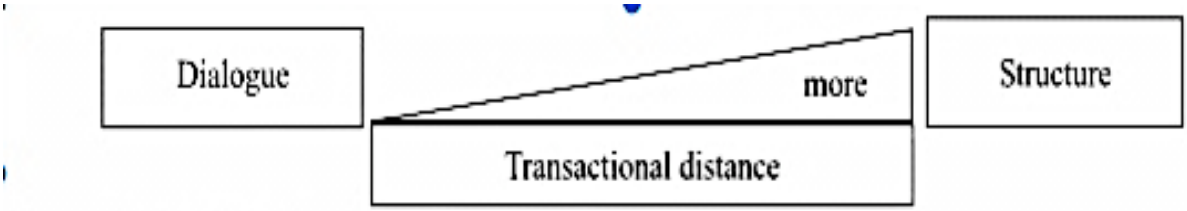

Figure 1. Relationship between dialogue and structure

(Moore, 2006 a)

Furthermore, Moore (1997) illustrated four transactional distance scenarios based on the presence or absence of dialogue (D) and structure (S), ranging from –D–S, –D+S, +D+S, to +D–S. Considering the combinations of variables that are relative and continuous rather than absolute, homogenous, or dichotomous, there could well be interminable types of learning and teaching permutations.

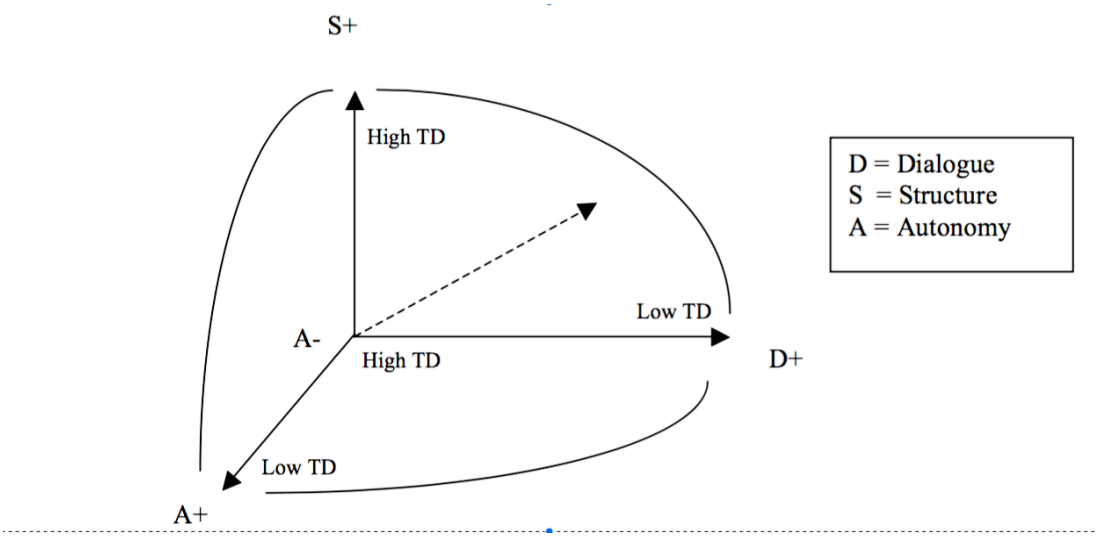

Figure 2 : Relational dynamics between dialogue, structure, and autonomy in Transactional Distance Theory. (Moore, 2006 a)

Transactional Distance: Content and context

Michael Moore's Transactional Distance Theory explains that it is transactional distance, rather than physical distance, which is of principal significance in any educational transaction (Moore & Kearsley, 1996). This interaction is influenced by "structure, dialogue, and autonomy," which occur on a spectrum of more or less perceived distance dependent upon the relationship between the variables involved. The assertion that transactional distance, representing a psychological rather than geographical distance between learners and the teacher is transacted through a proportionality of dialogue, structure (course design), and learner autonomy (Moore & Kearsley, 2005), provides an evaluative platform on which to assess these design elements based on text and contextual structure. Moore (1991) suggested that dialogue (D) and structure (S) are inversely related. High levels of structure (+S) combined with limited or low levels of dialogue (−D) contribute to high transactional distance. Increasing dialogue (+D) then becomes a major implication for design, though this is influenced by the third variable, namely, learner autonomy (A). Refer to Figure 3. Additionally, for each type, learner autonomy can vary widely from complete autonomy (AAA) to no freedom (NNN), even though the right balance is necessary for productive learning outcomes. Important to note, these psychological and communication spaces, which create the potential for misunderstandings, is the transactional distance. Even face-to-face and blended learning environments have transactional distance due to variables amongst communication spaces. Therefore, to overcome transactional distance through appropriate structuring of instruction and appropriate use of dialogue is very demanding. It requires the engagement of many different skills and it requires that these skills are systematically organized and implemented. It requires changes in the traditional role of teachers and provides the basis for selecting media for instruction" (Moore, 1997). Garrison (2000) stresses that learner autonomy (A) is a subjective variable as it may refer to personal autonomy or autonomy associated with the learning materials themselves. Both high and low transactional distance may be acceptable

depending on the characteristics of the learners and their level of autonomy (Kanuka, Collett, & Caswell, 2002). Moore (1977) had previously acknowledged the possibility of both high dialogue and high structure (+D+S) (as in correspondence programmes), and of low dialogue and low structure (−D−S) (as in self-directed independent study programmes), hereby noting that high structure and high dialogue can reduce transactional distance (Moore, 1993). Moore furthermore suggested more structure should be preferred over less structure, arguing that the right balance between structure and dialogue is dependent on the educational sophistication of the learner and the subject content (Moore, 2004).

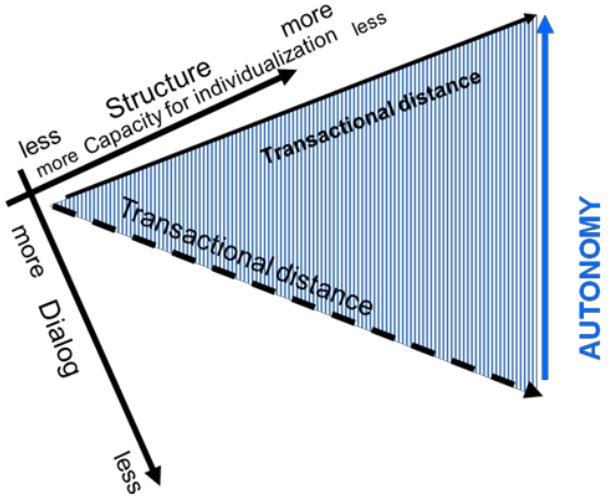

Figure 3. Autonomy and Transactional Distance (Moore, 2006 a)

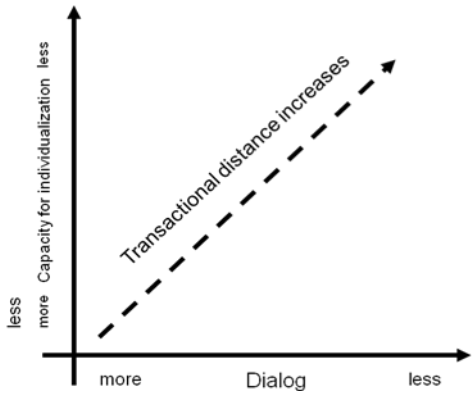

Figure 4. Dialogue, Structure and Transactional Distance (Moore, 2006 b)

Moore does not hypothesize that structure or dialogue is more important than the other, rather each may be more appropriate in specific educational settings and contexts. However, the reciprocal relationship between them at any given point is immutable. A third variable of the theory suggests that more autonomous learners, displaying self-directed learning aptitudes, are more amenable to structure while less autonomous learners benefit more from dialogical teaching and learning. Moore equates less autonomy with more teacher control. Experimental evidence based on predictions of a system dynamics model correlated with discourse analysis, appears to confirm that the theory is substantially correct (Saba & Shearer, 1994). However, there may be some grounds for exceptions and there is a "fuzziness" in his formulation (Dron, 2004) that allows for different interpretations depending on whether transactional distance is considered as a two by two matrix, a single continuum or distinct clusters (Garrison, 2000). In this study, structure and dialogue is primarily characterized as two variables on a single continuum in conjunction with the added variable of autonomous learning characterized by a reciprocal relationship between the three variables. The study looks at the degree(s) of this reciprocity with a specific focus on dialogue in relation to programme structure.

Moore's (1980) theory of transactional distance has been instrumental in structuring a theoretical framework to help understand adult learning (and teaching) outside the traditional classroom environment and beyond the proliferation of synchronous and asynchronous communication technologies over the last two decades.

Situating Transactional Distance Theory in e-learning.

With the advancements and developments in ICT learning technologies, there has been a resurgent interest in Transactional Distance Theory. In the 1990s, studies of synchronous electronic interaction empirically confirmed conceptual premises associated with transactional distance (e.g., Bischoff, Bisconer, Kooker, & Woods, 1996; Bunker, Gayol, Nti, & Reidell, 1996; Saba & Shearer, 1994). While certain researchers' criticisms persist, premised on the notion that TDT is incapable of explaining processes, predicting events, and correlating transactional distance with learning outcomes (Chen, 2001a, 2001b; Chen & Willits, 1998; Cookson & Chang, 1995; Gorsky & Caspi, 2005a), others have seen the merits of transactional distance in education discourse.

Several studies have focused on the relationship between dialogue and structure. Murphy and Cifuentes (2001:298).) note that '[a] delicate balance between course structure and dialogue of the instructor and learners is critical for online learner success'. Shea, et al. (2003) and Stein et al.(2005) have validated the central role of structure in student satisfaction and perceived learning in online learning environments. Importantly, these studies' findings have suggested that high structure and high dialogue can reduce transactional distance. Wikeley and Muschamp (2004:125) argue, with reference to e-learning environments, that 'whilst dialogue needs to be increased, it is better achieved by tightening the structure to allow greater adaptability of content through careful moderation by tutors'.

Other studies have explored the role of interaction as identified in Moore's (1989) proposition of three forms of transactional interaction, namely learner–instructor interaction; learner–content interaction; and learner–learner interaction. In addition, Moore's definition of dialogue as interaction between teacher and learner is distinguished from other forms of interaction (Moore, 1991, 1993). In fact, it is dialogue, opposed to interaction that he uses to postulate the inverse relationship with structure in relation to transactional distance. To the equation, Hillman, Willis, and

Gunawardena (1994) added learner–interface interaction to the other forms of interaction identified by Moore in order to accommodate the characteristics of electronic teaching. For example, Lemone (2005) examined the effects of these four variables on ICT-based learning and demonstrated how cultural influences affected transactional issues relating to these four variables in a study involving Nepali and Icelandic students.

Dron, Seidel, and Litten's (2004) study illustrates the inverse relationship between dialogue and structure in a blended learning environment. Dron (2005, 2006, 2007a, 2007b) introduced transactional control theory into the fray of TDT which analyses dialogue and structure in terms of transactional control in e-learning discourse. Dron (2007b) explained that transactional control theory does not aim to replace transactional distance theory as it says nothing significant of the psychological gap between learner and teacher, but it helps to explain some of its dynamics. Dron identified an anomaly in the 'law' of transactional distance in virtual learning environments, noting that structure was generated through dialogue to create an environment that has both high structure and high dialogue at the same time (Dron, 2004).

Considerations regarding DIALOGUE

Dialogue, defined as interactions between students and/or instructors that are positive, purposeful, constructive, valued, and help with student understanding (Moore, 1997), is reliant on the type and frequency of communications media used for the minimization of transactional distance in its practice (Moore & Kearsley, 2005). For example, conferencing podia would help facilitate more dialogue than recorded media (Moore, 1997). Additionally, dialogue is influenced by course content, the level and quality of learner, and teacher participation (Moore, 1997). In 1983 Moore described dialogue as "...the extent to which, in any educational programme, learner and educator are able to respond to each other. This is determined by the content or subject-matter which is studied, by the educational philosophy of the educator and learner, and by the environmental factors, the most important of which is the medium of communications." (p. 157). In a later work in 1993 Moore expands the definition to include learner-to-learner interactions and to include the idea of the creation of knowledge. Moore (1993:24) states, "A dialogue is purposeful, constructive and valued by each party. Each party in a dialogue is a respectful and active listener; each is a contributor, and builds on the contributions of the other party or parties...the direction of a dialogue in an educational relationship is towards the improved understanding of the student". In Transactional Distance Theory, dialogue therefore describes the interaction between instructor and student when the instructor is actively instructing and the student is responding to the instruction. The nature and extent of the dialogue is influenced by several factors including: course structure, course content, instructor personality, student personality and environmental influences (Moore, 1991). Swan (2001) reports that psychological distance between learners and teacher may be lessened – and thus learning increased – by a teacher's giving praise, asking for viewpoints, use of humor as well as non-verbal responses such as eye contact and facial expressions, all of which may manifest differently in a blended learning environment. Capella's (2015) research recommendations for instructors is to incorporate frequent communication with

learners into instructional design as well as keeping learners apprised of their performance via timely and clear feedback. The former is an interesting recommendation given that Moore (1993) does not focus on the frequency of dialogue but rather on the quality. Ekwunife-Orakwue and Teng (2014) and Kassandrinou et al. (2014) seem to suggest that frequency of in-person communications may lessen transactional distance.

Considerations regarding STRUCTURE

In 1980, Moore described structure as "...the extent to which the objectives, implementation procedures, and evaluation procedures of a teaching program are prepared, or can be adapted, to meet specific objectives, implementation plans, and evaluation methods of individual students. Structure is a measure of the educational program's responsiveness to the learner's individual needs." (p. 21). In TDT, structure therefore refers to the flexibility or rigidity of a distance education course's educational objectives, teaching strategies and evaluation methods (Moore, 1991). Structure is contingent upon providing an appropriate level of dialogue and adequately structured learning materials. In practice this becomes an extremely complex matter, because what is appropriate varies according to content, context, level of instruction, and learner characteristics, in particular the productive nature of autonomy learners demonstrate. Much time and creative effort, as well as understanding of the characteristics of the learner demographic, have to be devoted to identifying the extent of structure needed in any programme, and in designing appropriately structured presentations and interactions. Structure is operationalized through the mechanisms of structured courses, geared with clear expectations, concrete deadlines with some flexibility, outlines of course requirements, time sheets, and study guides (Cavanaugh and Clark, 2007). Structure should ideally use course content and design elements that facilitate implementation of a variety of communications media for instructional delivery (Moore, 1997; Moore & Kearsley, 2005). A structure may be rigid or flexible regarding instruction and evaluation, as well as how it accommodates, or responds to, learner needs (Moore, 1997). Moore adds that pre-determined content promotes a rigid structure. Incorporating dialogue would help to create a looser structure, which in turn decreases transactional distance (Moore, 1997; Moore & Kearsley, 2005). According to Moore (1997), transactional distance concerns can be addressed by better presentation of information, supporting learner motivation, stimulating analysis and criticism, and giving advice and council.

Regarding the selection and integration of communications media, Moore (1997) cautions that due consideration should be paid to presentation, motivation, analytic and critical development, application and evaluation, and learner support. A combination of media that incorporates dialogue and structure will provide learner support and reduce transactional distance.

Considerations regarding AUTONOMY

Bandura (1977) refers to autonomy as self-efficacy characterized by a set of perceived capabilities or expectations, which determine an initial onset of behavior that ultimately, affects performance. Learner autonomy forms the third fundamental variable of Moore's (2007) Theory of Transactional Distance describes autonomy as "...the extent to which in the learning-teaching relationship, it is the learner rather than the teacher who determines the goals, the learning procedures and resources, and the evaluation decisions of the learning program" (Moore, 1984:85). The theory explains that as transactional distance increases, so does learner autonomy. Autonomy refers to the role of the learner, rather than the facilitator, plays in defining educational goals, learning procedures, resource utilization, and evaluation decisions. However it can be argued that learner autonomy is inter-reliant on influences from both teacher and learner and cannot be seen as mutually exclusive. This is evident in blended and hybrid courses that utilize both face-to-face and online methods for delivery of course material, where students interact with instructors both face-to-face and online (Caruth & Caruth, 2013). Learner autonomy is often difficult and complex to assess and qualify when it becomes unclear whether autonomy represents the learner's personal autonomy or the autonomy associated with the learning programme or even peer influence (Yamashita, 2015). TDT is premised on the assertion that the level of autonomy is highly dependent on each student's individual characteristics. However such characteristics are difficult to measure. Furthermore, according to Moore (1997) and Moore & Kearsley (2005), learner autonomy with regard to the extent to which the learner determines learning goals, experiences, and evaluation, is increased with stricter structure and fewer opportunities for dialogue. This is a contentious point, as research has not concluded that learner autonomy is positively influenced by more structure (+S) and less dialogue (-D), although Moore insists that autonomy allows learners to be independent and share responsibility for their own learning.

Qualifying Dialogue and Understanding

Moore (1993) views dialogue as purposeful, constructive and valued by each party. Each party in a dialogue is a respectful and active listener; each is a contributor, and builds on the contributions of the other party or parties. Critically, the direction of dialogue in an educational relationship is towards the improved understanding of the student. According to Moore (1993:24), "there can be negative or neutral interactions", but dialogue, by implication, should lead to improved student understanding. Gathered from this study, this is a highly contentious point, especially from the view of ABET Level 1. Productive and purposeful dialogue can be gauged by a student's improved understanding, for instance as a result of the facilitator-student conversation. Without the productive and purposeful outcomes of dialogue manifesting itself, the facilitator-student exchange can merely be termed as interaction. Such exchanges constitute unequal dialogue.

Quantifying Transactional Distance and Misunderstanding

Moore (1993:23) defines transactional distance as "a psychological and communications space to be crossed, a space of potential misunderstanding between the inputs of instructor and those of the learner". Transactional distance can therefore be measured as "student misunderstanding," quantified as the initial value of transactional distance with 100% representing the potential for misunderstanding facing every student in any education programme, course, or transaction implying that a student may subsequently learn nothing at all. To illustrate this point, the following initial conditions prior to some facilitator-learner conversation are assumed: actual learner understanding = 0%; potential for student misunderstanding (transactional distance) = 100%. If, at the end of the assumed conversation, actual student misunderstanding is still 100%, then the transactions were "interactions," lacking the "positive potentials" necessitating "dialogue." Using this empirical procedure, the extent of transactional distance is equivalent to the extent of student misunderstanding, measured as a percentage. This formulaic rubric was used in the survey data analysis to gain additional insights, and add a rudimentary quantitative dimension to the research study.

Dialogic Teaching

While not an element of TDT, dialogic teaching is an important dynamic that adds depth to understanding adult learning. The effectiveness of dialogue in adult learning is proportionate to the facilitative and complementary role dialogic teaching assumes in the learning environment. Dialogic teaching is a form of instruction that stimulates thinking and learning. Dialogic teaching builds upon a long tradition of theoretical and empirical work on the role of dialogue in learning and teaching. The significance of dialogue in education has been researched in multiple disciplinary fields like psycholinguistics, socio-linguistics, classroom research, discourse analysts, and cognitive and cultural psychology. From a cognitive and cultural psychology perspective, Vygotsky (1978:6) stressed the "social origins of language and thinking" and viewed "the relation between the individual and the society as a dialectical process" (p. 126). Alexander (2004) notes that learning environments often view talk as a means of learning rather than an objective of learning and fail to integrate talk effectively in developing literacy. He draws educators attention to dialogic teaching which taps into a didactic repertoire of three kinds of classroom talk, namely: rote, recitation and instruction / exposition. In addition, dialogic teaching requires, though less universally used: discussion (the exchange of ideas with a view to sharing information and solving problems) and scaffolded dialogue (achieving common understanding through structured and cumulative questioning and discussion.) The two groups are not mutually exclusive, and the argument is not that rote learning, recitation and instruction should be principal, but rather augmented by discussion and scaffolded dialogue, hereby making for cognitively challenging communication in the adult learning environment. Fielding (2001) goes on to interpret dialogical teaching as being acquiescent to more imaginative, radical or democratic relationships with other interpretations seeing dialogical teaching as more reciprocal or collaborative associations (Tennant, 2006; Alexander, 2006a & b).

Defining Blended Learning

Bluic et al. (2007) introduced "blended learning" as terminology into educational discourse. The term is relatively new in educational practice with very few references to the term predating the year 2000, but subsequently the terminology has been used extensively in adult education literature. According to Horton (2006), blended learning refers to the integration of various training models, in accordance with specific learning outcomes, which involves combining e-learning with face-to-face learning and teaching methods. The term "blended" traditionally meant instructor-led training supplemented with other electronic formats (Bersin, 2004). Noting that blended-learning approaches have become widespread (Allen & Seaman, 2006), several studies (Dron, Seidel, and Litten (2004), Wheeler (2007), Benson and Samarawickrema (2009) have been conducted on the interplay between blended learning and transactional distance.

The term "blended learning" has taken on a multitude of meanings that accumulate as a murkiness of general meaning thereby casting some doubts about its conceptual integrity (Oliver & Trigwell, 2005). Mixing technology-enhanced learning experiences with other, more traditional, learning experiences would have been seen as "normal practice" in the mainstream of developments in computer-assisted learning, yet this integration was nonetheless seen as a core challenge (Draper, Brown, Henderson, & McAteer, 1996; Rushby, 1979), and contemporaneously still remains a challenge. Allen, Seaman & Garrett (2007) postulate that the idea of 'blended learning' really only makes sense if one looks at the recent history of corporate training and makes the contrast with forms of 'e-learning' that were intended to dispense entirely of the costs and inflexibilities of 'conventional' face-to-face learning. This view is significant when viewing the Media Works marketing strategy which promises clients to "partner with your organization to gain an in-depth understanding of your business needs and align their customized AET recommendations to meet your organization's unique requirements" (Media Works 2018), and further stating "AET implementation must be relevant, customized and professionally managed" (Media Works 2018). Contrary to

this business model, Bluic et al. (2007) make a salient point relevant to this study when they state that reflection and research on blended learning needs to focus more carefully on issues of integration, and to choose conceptual tools and methods that will help arrive at a better working knowledge of how to help students integrate the various learning experiences that come their way. While Media Works claims a "learner centric" (Media Works 2018) approach, this research study aims, in the light of Media Works' promise to meet organizations' "unique requirements", to investigate the benefits such a promise holds for adult learners, especially adult learning in non-traditional settings, and the range of factors that affect their learning (Chambers, 2002). Evans (1994) notes the impact on learning of the broader contexts of students' lives, including social and educational background, money, gender, power, work, play, time, and age. From a constructivist perspective, the world is seen as being separate from the student (Marton & Booth, 1997) but the individual or social construction of meaning that is involved in learning is conceptualized as occurring best through contextualized real-world tasks because, as noted from Jonassen (1999:217), 'knowledge is individually constructed and socially co-constructed by learners based on their interpretations of experiences in the world'. These views are further supported by Laurillard's (2002) conversational framework for technology-based learning. In this study blended learning mainly refers to a combination of didactic teaching and the use of different types of media and tools.

Chapter 2: Literature Review

In Chapter I, the purpose of the study is introduced, concepts defined, the conceptual framework, statement of the problem, research questions, significance of the study and the challenges of the study are outlined. From examination of the literature related to the relationship between multimedia learning and teaching modalities and dialogical teaching and learning, it is apparent that prior research, using TDT as a conceptual lens and theoretical filter, has validated (e.g.: Saba & Shearer, 1994 and Horzum, 2011, 2015) while others (e.g.: Gorsky& Caspi, 2005) have challenged the validity and relevance of TDT as educational theory. Gorsky& Caspi (2005) frankly argue that TDT may actually be a tautology where dialogue alone determines transactional distance. However, what differentiates this study from other studies using TDT is its focus on the relationship between computer-based blended multimedia learning, and dialogue at ABET Level 1 in which ICT innovation and intergration is pivotal to the adult literacy training environment in South Africa.

While the literature refers to distance education scholars like Keegan (1986), Rumble(1986), Saba (1988), and Peters (2007) using the theory of transactional distance, both formally and informally as a theoretical framework, these researchers have found transactional distance theory's three constructs, namely dialogue, structure and autonomy, to be often prescriptive, and therefore limiting and rigid, in that these constructs offer limited understanding of the dynamics and complexities of distance education and e-learning. While distance education and e-learning represents an extensive, complex and evolving domain within education discourse and practice, the conceptual constructs of TDT have proven useful and insightful to several other studies, including this study. While the aforementioned studies may be argued to be somewhat dated, more recent studies have been framed from a TDT perspective and have concluded that TDT is a useful theoretical lens and analytical tool.

For example, the studies of Horzum (2011,2015) both use, and validate, Moore's

Transitional Distance Theory. While Horzum's (2011) first study specifically looked at whether transactional distance was affected by differences in gender in a blended learning environment, his findings validate Moore's original theory, in that dialogue and structure are inversely related. His 2011 study consists of responses of 197 blended learning students using his self-designed measurement tool structured as a 38 item self-report instrument. With regard to autonomy, his particular findings found, contrary to Moore's original theory, no correlation between the variable of autonomy and the other two variables, namely dialogue and (programme) structure. Horzum's second study (2015), consisting of 205 student participants, examined the relationship between interaction, structure, social presence and course satisfaction in online learning from a TDT perspective. This research also validated Moore's TDT by firstly finding a negative correlation between interaction and structure. Secondly, interaction, as a utility of dialogue, was a positive indicator of social presence. Thirdly, social presence was found to be a positive indicator of course satisfaction. Horzum's (2015) findings conclude: to increase overall course satisfaction, online courses should be designed to maximize social presence with a focus on increasing dialogue and reducing structure.

Other studies have used TDT and found it useful and relevant (Flowers, White, & Raynor, 2012; Hauser, Paul, Bradley, & Jeffrey, 2012; Horzum, 2011; Horzum, 2015; Joo, Andrés & Shearer, 2014; Larkin & Jamieson-Proctor, 2015; Wallace, Grinnell, Carey, and Carey's (2006). While the focus and outcomes of these studies are varied, the common theoretical thread woven through them is that TDT is valid as a legitimate and reliable theory.

Hauser, Paul, Bradley, and Jeffrey's (2012) study examined the relationship between computer self-efficacy and anxiety's impact on performance using transactional distance as a theoretical framework. The study (Hauser et al., 2012) found a direct relationship between transactional distance and computer anxiety and suggested an inverse relationship between computer anxiety and computer self-efficacy and a positive relationship between computer self-efficacy and performance. Therefore, an

increase in transactional distance resulted in an increase in anxiety leading to lower computer self-efficacy and eventually lower levels of performance.

Joo, Andrés, and Shearer's (2014) design-based case study for an online course found evidence supporting Moore's transactional distance theory. Their study concluded that lower levels of perceived transactional distance significantly correlated with positive academic outcomes.

Wallace, Grinnell, Carey, and Carey's (2006) study looked at the impact of different levels of transactional distance on academic outcomes in an online course for two different groups of adult learners. Group 1's course consisted of high structure and high dialogue, resulting in low transactional distance. Group 2's course consisted of low structure and low dialogue, which resulted in higher transactional distance. Wallace et al. (2006) found lower transactional distance equated to notably better final examination scores. Conversely, high transactional distance resulted in poorer results.

Larkin and Jamieson-Proctor's (2015) qualitative study examines the impact of course design changes to an online mathematics course utilizing transactional distance as a theoretical framework. The course was changed by increasing both dialogue and structure. Larkin and Jamieson-Proctor's (2015) findings conclude that high levels of dialogue and high structure increased the students' general attitude toward mathematics and content knowledge.

Flowers, White, and Raynor (2012) used transactional distance theory in a qualitative study to evaluate the impact of using virtual labs in an introductory web-enhanced biology course. Flowers, White, and Raynor (2012) found that there were low levels of interaction between students and teachers and between other students although students reported higher content knowledge and higher levels of technology utilization. Flowers, White, & Raynor (2012) concluded in their research that promoting teacher student interactions before, during and after instruction helped mitigate an increase in transactional distance amongst students.

Critical Stances regarding Transactional Distance Theory

Critics of TDT include Gorsky and Caspi (2005) who reviewed six published empirical studies in an attempt to validate Moore's (2003) theory of transactional distance. Gorsky and Caspi (2005) concluded that three of the studies supported the theory of transactional distance but required construct validity (Bunker, Gayol, Nti & Reidell, 1996; Saba & Shearer, 1994). With regards to the other three empirical studies, Gorsky and Caspi (2005) conclude that there was only limited support for TDT (Chen & Willits, 1998; Chen, 2001a; Chen, 2001b). Notwithstanding a high level of face validity, Gorsky & Caspi (2005) concluded that TDT is not a valid scientific theory based on their belief that the variables involved were ambiguous, the theory lacked operational definitions, and the fundamental premise of transactional distance theory was dependent merely on an inverse relationship between transactional distance and dialogue. Refuting this position, Gokool-Ramdoo (2008) argues that TDT is a "global" theory and is instrumental in the discourse of education and potentially useful in explicating organizational, pedagogical and policy issues within the realm of education.

From the previously mentioned studies, it can be understood that Transactional Distance Theory and its constructs of structure, dialogue and autonomy offer a valid, relevant, and reliable theoretical framework to study the transactional distance in blended multimedia adult education. In pursuit of understanding the dynamics and complexities involved in adult learning discourse, TDT provides critical apparatus in a toolbox of theoretics to construct meaning and understanding of key relationships between adult learning and course design and the role of dialogue in adult learning that ultimately affects, and enhances, adult learning efficacy on the blended multimedia adult learning landscape.

A Philosophical Critique of Dialogue

Martin Buber (1965:184) posits that "*the basic movement of genuine dialogue, and thus of education itself, is a truly reciprocal conversation in which teacher and students are full partners*". Accordingly, Buber maintains that teacher-students relations are based on honesty, equality, openness and mutual respect. Furthermore, genuine dialogue is situated within the teacher-students' "betweeness," or what Buber terms the reality of the "interhuman" (p. 184). Both Bruner (1966) and Rogers (1969) emphasize the importance and necessity of dialogue between teacher and student. Bruner (1966) advocated Socratic learning where instructor and student engaged in an active dialogue and the task of the teacher was to translate information into a format appropriate for the student's current state of understanding. Rogers (1969) postulated the centrality of the inter-personal relationship (dialogue) in the facilitation of learning juxtaposed with the need to provide freedom in educational environments. These preceding views place Moore's definition of dialogue decisively in the philosophical tradition of *Humanism*, which presents as a problem considering that philosophical approaches to dialogue are highly idealized and prescriptive. Such prescription dictates how people should relate to each other and what outcomes should result from dialogue. They do not explore what real dialogues look like, sound like, and how they work, or fail to work, in real situated learning environments.

Conceptual Definition of Dialogue and its role in adult learning in post Apartheid South Africa

Dialogue as a concept assumes open participation and a series of interactions with positive outcomes that are purposeful, constructive, and valued interactions by each party leading to improved mutual understanding. Dialogic interactions subsume alternating statements (including questions, responses, redirections, and statement building) with anticipated positive outcomes, even after such interactions include disagreement and misunderstanding. The direction of dialogue in an educational exchange or transaction is guided by a semblance of discovery and improved knowledge, insight, and tolerance of the participants in dialogical exchange. Noting these assumptions, in a reconciliatory post Apartheid South Africa, the notion of dialogical teaching and learning has profound importance in the process of seeking remediation for the social and economic inequalities of Apartheid South Africa and its potentiality to augment a sustainable socio-economic future for South Africa's marginalised within a democratic dispensation. Bohm (2009) suggests that the purpose of dialogue is to discover or re-establish a genuine and creative collective consciousness. Hereby can be extrapolated that the process of dialogue could be synonymous with a process of nation-building necessitating the emergence of a social consciousness which is based on the development of a common meaning which is constantly transforming through the process of dialogue. From this perspective, dialogical interaction has a critical role to play in fostering adult (lifelong) learning, not only for social coherence and articulation, but also economic development in a largely fragmented and polarised post-Apartheid society. Literacy, as a basic and fundamental right, needs to be engaged from a perspective which expedites social, political, and economic development and redress. Literacy programmes therefore need to be effective vehicles for the acquisition of social and vocational skills for socio-economic growth and therefore cannot be incapacitated by reductionist pedagogical strategies (Jansen & Christie, 1999). Relevant too, to this study is an evaluation of the role of dialogue in

adult literacy learning and whether dialogue adds literacy currency to blended multimedia adult learning or if its absence, or underrepresentation, latently constitutes a "reductionist pedagogical" strategy .

The South African adult education context could benefit from enquiry into the dialogial role teachers/facilitators, as literacy agents, play in the blended multimedia adult learning mileiu and to what extent this influences dialogic adult learning . Knight (1995) notes that a teacher plays an important role in mediating a student's learning, acting as a go-between or guide for the learners as they engage with various elements of text and context in the learning experience which include engagement with peer learners, facilitator(s), learning resources, and media. While Media Works claims to have seemlessly implemented an intergrated 'teacher-learner-programme' methodology , this research study aims to examine the extent of this self-proclaimed "intergratedness" and the role of dialogue from a TD theoretical perspective and gain an investigative glimpse into the bold assertions of its approach could be gained and insights regarding its footprint in a complex South African adult learning environment. Moore (2007) understood that dialogue is critical in building relationships between teachers and students, because it has an edifying effect on knowledge by allowing role-players to build on each other's comments until the dialogue meets the needs of the dialogue initiators. Additionally, dialogue is directly affected by the structure of a course and the environmental medium in which the course is designed. Specifically, the nature of utilizing synchronous or asynchronous communication technology plays a vital role in determining the ability to interact and thus allows dialogue to increase or decrease relative to the intended structure of the course design.

Multimedia pedagogy- Freirian insights

Multimedia pedagogy, utilized as a vehicle for adult literacy teaching and learning, can easily be seen as incongruent with Critical Theory models which are primarily based on dialogical, consultative, participatory and contextual engagement in the adult learning environment. Adult learning using multimedia methodologies and modalities could potentially be viewed, from the Freirian metaphor, as a "banking system of education" and analogously, the computer could be seen as an Automated Teller Machine (ATM) in this "banking" conception of education. As Freire (1993:63) articulates,

> "liberating education consists of acts of cognition, not transferals of information. It is a learning situation in which the cognizable object (far from being the end of the cognitive act) intermediates the cognitive actors -- teacher on the one hand and students on the other. Accordingly, the practice of problem-posing education entails at the outset that the teacher-student contradiction to be resolved. Dialogical relations -- indispensable to the capacity of cognitive actors to cooperate in perceiving the same cognizable object --are otherwise impossible."

Freirian discourse adds to the contentions of this research study: 1) Does the Media Works multimedia approach to adult learning resolve this teacher-student polemic? 2) Is dialogue adequately integrated into the Media Works programme considering the meaningful role dialogical problem-posing education assumes in adult learning as opposed to merely "transferals of information" (Freire, 1993:63). Dialogue between teacher and student is important in promoting learning (Vygotsky, 1978; Elson & Cook, 1990; Freire, 1993). Elson and Cook (1990) further elaborate by stating that at some point, guidance is received through interaction between student and teacher. Laurillard (1993) insists that the adaptive role of the teacher in the learning process needs to cater

for the different histories of learning of students which in turn require different learning interventions, a role which Laurillard maintains cannot be substituted by multimedia learning resources and media such as CD-ROMs and online databases. Freire alerts adult educators to the fact that technological advancement has given birth to a series of myths, including the myth that technology and science provides comprehensive answers to human development and educators should assume scientific and technological pedagogic methods even though the complexity and variability of adult learning cannot ne framed solely in technological or scientific terms (Freire and Macedo, 1987).

This research study has been theoretically positioned between a hypothesised contention between critical pedagogical approaches (which generally advocates a person centred, consultative, participatory and contextualised approach) and ICT methodological approaches (often presenting as a content-centred, prescriptive and generic approach to adult learning). This study was born out of an interest in investigating this dichotomy. The MW approach posits a blended learning methodology intergrating dialogical and multimedia methodologies. Averting polarization, this research hopes to add to a workable understanding of the two positions and recommend a revised allocation of resources. Critical pedagogical views are often anchored in the views and insights of Paulo Freire , yet when framed within an argument oppositional to multimedia literacy conventions, Freirian discouse appears to be anachronistic. This is because the literacy environment in Freire's time was not as technologically driven as contemporary literacy environments. This accounts for the limited literature, concerning the role of ICT in popular education, during Freire's academic lifetime. In the debate between ICT/multi media and critical pedagogy approaches, Freirian thought however serves as an orientating undercurrent in contemporary discourse on this topic. Freirian thought cannot be dismissed as contemporanously insignificant. Freire and Macedo (1987) notes that literacy programmes generally give people access to predetermined and pre-established discourse while silencing their own voices resulting in a "culture of silence". One could

then hypothesize that there could possibly be a "silencing" embedded in multimedia approaches to literacy learning. Within a world dominated by technology, the role that adult educators play and the methods they use are critical considerations in enabling learners to make sense of an ever-evolving world. Educators are asked not to deny the importance of technology, but rather advised not to reduce learning to a technological learning and understanding of the world. From the Freirian view, the role of adult education should not be approached as a mere technical skill to be acquired but rather a collective activity that strives for social and political transformation. Literacy is seen as part of the process of becoming self-critical about the historically constructed nature of one's experience. According to Freire, when an individual has the ability to name his or her life and social experiences it empowers them to understand the broader complexities of the world around him. Cognizant of Freirian thought, the study aims to explore the extent of collaboration between blended multimedia methodologies and, in particular, problem- posing dialogue which intends to transform the teacher-student relationship. The burden of proof lies with computer based literacy programmes, as they could potentially present as a barrier to learning in such broader learning contexts.

The polemic of schooling versus education: A metaphor for adult learning.

Kanpol (1994) interestingly looks at the polemic of schooling versus education which serves as a metaphor in the context of this research. He refers to schooling as a socially efficient system of management and control through rigid school structure in conjunction with a standardised curriculum which in its rigidity, limits dialogical engagement. Schooling's basic underlying assumption is preparing students for the role of homo-economis (economic man) in the market economy. Kanpol's conception of schooling correlates with the Media Works conception of learning : having a purely extrinsic motivation to learn based on individualistic achievement. Achievement is attained through a system of rote learning and rigid teaching methodologies. Oppositionally, education presupposes intrinsic motivation which is fostered through dialogical learning and teaching in the learning environment. Other theoretical perspectives like critical bricolage and multicultural education (Giroux, 1988) show an appreciation for this Kanpolian view, noting the important role dialogue plays in social transformation within educational environments. Directly related to adult learning, Kanpol (1994) looks at traditional literacy versus critical literacy, defining traditional literacy as technical and functional mastery in the basics of reading, writing and mathematics, while Giroux (1988) sees teachers and learners becoming transformative intellectuals and thereby critical citizens. However, whether critical citizenry is attainableleable while adult learning is predisposed to the systems of traditional literacy geared at progression through levels defined by institutionally constructed schooling milestones, is open to investigation. Ideally, adult learning should be engaging learners in connecting texts to contexts, thereby making knowledge more relevant to learning.

CHAPTER 3: Research Design and Methodology

This chapter outlines the research methodology used for this research study and how it has guided data collection, analysis, and findings. Fundamental background, principles, and considerations key to Transactional Distance Theory (TDT) are provided. The following sections describe the data collection phases for this study the chapter concludes by explaining the presentation of data analysis and findings.

A mixed approach was used to conduct the research for this study incorporating quantitative and qualitative field methods, which consisted of a preliminary survey followed by semi-structured interviews. The study was conducted at a food processing and production plant in Cape Town, South Africa in October 2017 with a random sample of 20 ABET L1 learners. As mentioned previously, there has been a considerable amount of research carried out into the role of multimedia in adult education yet the influence of a blended multimedia methodological approach on ABET level 1 learning has not been investigated from such a research perspective. Quantitative data was principally used in a supplemental capacity. Data was primarily gathered from the qualitative component of the research in order to inform findings. The qualitative characteristics of the study supported the following outcomes:

- The research study required a natural or 'organic' setting in order to learn more about how ABET level 1 learners respond to and interact with the multimedia literacy programme from a dialogical, structural, and autonomy perspective.
- The research process was improved by the ability to examine unfolding events as expressed by the interviewees and researcher observations. Additional variables and observational data could be accommodated in the design flexibility afforded by a qualitative approach.

- Even with a small sample size, qualitative methods allowed for an in depth approach and description of subjects and settings (Neuman, 2006) which in turn yields rich information relevant to a research study.

- Qualitative methods allowed exploration, explanation, description, and illustration of behavior and interactions so as to gain a better understanding of them, and thereby inform the research objectives.

To better inform the research study, the common research objectives have included elements of description, exploration and discovery. The qualitative approach allowed for learners to be expressive so latent aspects of their learning could be explored, examined and incorporated into the interviewing process. For example, I could probe views or feeling expressed by participants in an informal way prior to the actual interviews. Because the sample size was relatively small, I was concerned that the collected data would not adequately inform the analysis and findings. However, qualitative methods allowed for good quality, descriptive, and reflective data to be collected even with a small sample size and thereby reach acceptable data saturation. Data saturation was determined by *base size,* allowing incoming information to be weighed against information already obtained. By using all the data collection events (i.e. interviews) as a base size, saturation was reached by default, as no other data was available to consider. The qualitative approach also allowed me to approach the responses from different perspectives, for example, in exploratory and descriptive ways, which added depth of understanding and clarity of evaluation regarding the experiences and challenges of the participants.

As prescribed by a mixed methods approach, multiple forms of data collection was used which included collecting narrative data from interviews, as a semi-structured instrument, and a survey, as a quantitative close-ended structured instrument. A semi-structured questionnaire was principally used in order to create a non-threatening environment to engage the respondents and to create a more conversational rather than interrogatory setting. The asymmetric qualitative interviewing structure of semi-

structured interviews provided a balance between the scripted questions and rigidity of question order often associated with structured interviews, and the free-flowing conversational approach of unstructured interviews (Patton, 2002). Semi-structured interviews allowed reordering of questions during the interviewing phase.

Importantly too, semi-structured interviews allowed adjustment of the level of language to accommodate for different levels of language proficiency considering that the majority of respondents were second language English speakers. For explication, the dialogical characteristics of semi-structured interviews allowed the interviewer to not only pose questions, but also answer questions and make clarifications, and adapt questions as situations required without compromising validity and reliability. This enhanced the process and allowed for addition or deletion of probing questions in the interviews between subjects.

The interview questionnaire was designed and presented in this way, as the learners were apprehensive about being interviewed. For all of the participants, this was the first time being interviewed and therefore it was anticipated that a structured questionnaire, characterized by inflexibility, would have overwhelmed the learners. The preliminary survey followed by the semi-structured questionnaire struck a balance between the interviewing being neither too formal nor too informal. Where applicable, certain quantitative data collection methods were incorporated into the questionnaire, for example collation of demographic data. The findings were particularistic with an in-depth understanding from respondents' framed results and possibly generalizable as framed by the researcher's results (Johnson and Christensen, 2004).

Observant that qualitative research is inductive in nature and therefore the researcher builds abstractions, concepts, hypotheses, and theories from details (Merriam,1988, Creswell, 1994), questioning was designed to "evolve" as certain comments or topics emerged which prompted additional probing and enquiry. While not incorporated into the questioning regime, such comments and topics were relegated to observational status and later assisted in informing the content of the thematic analyses. Minor

grammatical errors in the questionnaire were noted during and after the interviews. A note was made of these errors to see if they caused confusion during the interviews. It was concluded that they were minor and had no impact on clarity and understanding.

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Data collection

Twenty ABET Level 1 learners were interviewed at the food processing plant over a period of two weeks. Seventeen participants were male and three participants were female. Fourteen participants were Coloured and six participants were Black. The participants ranged in age from between 18 and 55 years old. Education levels ranged from unschooled or self schooled to between grades 4 to 6. (Refer to Appendix 2 for learner demographics). In order to organize and structure the data, all data and notes gathered during the interviews were typed up, paraphrased where applicable, and summarized so that it could be more workable during processing.

Preparations for data collection

During the data collection phase, important preliminary aspects were addressed which were critical to the procedure. The first was the detailed planning of the process, including the survey and interviews. Efficient planning minimized any disruption to the interviewing procedure. To prepare, I rehearsed the questions to be asked using simpler language so as not to confuse or intimidate interviewees. I also considered potential and anticipated deviances and anomalies during interviews and planned contingencies for unintentional scenarios. The ABET venue as the site of the study provided an environment which was familiar for the ABET Level 1 learners. Learners were comfortable and accustomed to this learning environment at the site of practice and therefore it was suitable to conduct the interviews here. The venue's setting had a 'naturalizing' effect on the interviewing process, as interviewees felt at ease and safe in this environment and therefore more receptive to giving open and reliable responses to the interview questionnaire. I visited the site previously and was satisfied with it as a good research venue for conducting the interviews. It had good lighting and ventilation, which made it comfortable. It was soundproof which minimized any distractions from outside during the interviews and created a semblance of privacy and confidentiality. The venue was secure and could not be easily accessed by other ABET learners who could potentially cause a distraction or intrusion of the interviews. I structured the interviewing timetable to coincide with the facilitation timetable as the participants were accustomed to the facilitation timetable and would therefore come to the interviews with no delay or deviation. The facilitator briefed the participants regarding the times for the interviews in advance and the planned maximum time of 25 minutes allocated per survey questionnaire and 45 minutes per interview questionnaire so that they could mentally prepare and avail themselves. The HR manager agreed to additional time if required as we both noticed that the questionnaire seemed somewhat lengthy and would in all probability require more time than allocated. The surveys and questionnaires were done on different, but consecutive, days. First the surveys were conducted then the interviews.

Participants were made aware that management was in agreement with these arrangements so as not to cause stress in any way. All material and stationery for the interviews were accessible to eliminate fumbling during the process thereby creating an organized environment and preventing potential data errors resulting from disorganization. The interviews were structured in a way that gave participants enough time to reflect on the questions and answer adequately. I conducted 2 mock interviews at another ABET site to gauge a comfortable time needed to complete an interview. I added an additional 15 minutes to provide for any contingencies. This proved helpful during the actual interviews, as the whole procedure, and data integrity, could have been compromised if inadequate time was allocated for interviewing. I personally conducted the interviews, as I wanted to maintain the reliability of the research and gain first-hand and in-depth insights into the views, opinions and concerns of the participants. By conducting the interviews myself, I could have greater control in applying methods, monitoring data and commenting on findings during the study. Data collection was exploratory, so it did not rely on a random sample nor were the results intended to be generalizable across a large population. Purposive sampling was used, as it was low cost, convenient, non-time consuming, and ideal for the exploratory research design elements of this study.

Challenges

This research study has presented with several challenges, which are outlined below:

Questionnaire design

The questionnaire did not incorporate components such as numeric variables and images (e.g.: snapshots of computer lessons), which could have aided in prompting more insightful responses from participants and better comprehension of findings.

Participant responses

The participants have possibly under-reported certain responses in the interviews that they might have deemed "problematic" or compromising to their participation on the programme and/or might be viewed negatively by "the powers that be" by answering in a specific way (Donaldson & Grant- Vallone, 2002). Such responses were unexpected as particpants were promised confideniality prior to commencement of the interviews. As the interviewing process progressed, trust began to increase and there were indications that subsequent responses were more open and honest.

Language

Language barriers impacted on the gathering and interpretation of data. The interviewer was an English first language speaker and the majority of interviewees (85%) were English second and third language speakers. This resulted in some participants not being as responsive as anticipated. This could be due to lack of understanding or a limited ability or inclination to respond. These language barriers were largely overcome by allowing respondents time and space to express themselves in Afrikaans or Xhosa when they had difficulty expressing themselves in English. This was anticipated as English second language learners often have difficulty with the

receptive (the comprehension aspects of language) and expressive (the communicative aspects of language) competencies of a second language due to a limited, and limiting, exposure to the language. Two of my colleagues were commissioned to transcribe audio recordings. Participants were told that it was more important to express what they were feeling and thinking than to use "correct" English. This put them at ease and subsequently resulted in frank, expressive and insightful responses. Noting that Lambert (cited in Donald et al, 2006) refers to second language learning as "subtractive bilingualism" manifesting as a learning barrier, so too has "second language questioning" initially manifested as a barrier impeding data collection. Here subtractive means that less value is placed on the importance of the learner's home language in formal learning (Donald et al, 2006:196). The counter-measures I took largely averted the language barrier of "subtractive bilingualism", evident during data collection. Operationally, attaching value to the importance of the participants' home language(s) in data collection by giving them an authentic, organic voice to express their responses to the questionnaire helped in the reliability and validity of data (Welch and Piekkari, 2006). When anticipating a language barrier with Xhosa speakers, I asked a Xhosa-speaking colleague to accompany me to assist with translating. In addition, it should be stressed that although the questionnaire was structured using English grammar and vocabulary that might have been difficult for interviewees to fully comprehend, a concerted effort was made to ask the questions in the simplest terms possible without compromising the validity and reliability of the questionnaire. As interviewer , I speak Afrikaans as a second language and therefore did not have any difficulty in translating parts of the questionnaire for interviewing clarity, or understand responses when interviewees used Afrikaans as a medium of expression.

Researcher Bias

I felt that my personal affinity to critical theory had marginally influenced the data collection process. During interviews, I sometimes felt that I paid, to a minor degree, disproportionate attention to participants whose comments and sentiments, directly or indirectly, supported my own philosophical, ontological and epistemological views regarding adult education. Those who demonstrated a preference for face-to-face dialogical learning and teaching over the multimedia approach sometimes got more attention and enquiry from me. However, I addressed and limited these biases by following up with information gathering conversation with those participants who had expressed more interest in, and attached more importance to, multimedia in their learning. Hereby, I obtained meaningful data related to their motivation and preferences resulting in a more balanced pool of responses. I have also minimized researcher bias through a process of critical reflection regarding my objectives for doing this research, the need for impartiality to ensure the integrity if the research, the need for the participants experiential and reflective voices to resonate over mine, and a need to challenge my own views and the objective meanings I attach to them.

Selection Bias

Due to the ABET learner demographics at the plant, selection bias (Cortes, et al., 1998) could not be avoided. Both race and gender underrepresentation is noted in the research cohort. Of the 20 participants, only 3 were female and 4 were Black (3 male and 1 female). Stratified random sampling was not possible in order for proper randomization. Consequently, a degree of distortion of the analysis was anticipated that might have a biasing effect on the findings and conclusions.

Ethical Research Considerations

Several ethical considerations were factored into the research project. As researcher, I took responsibility to make a careful evaluation if the study's ethical acceptability. Noting that qualitative research often gathers in-depth and personal information from ordinary people, it was important to adopt an ethical code of conduct and appropriate ethical protocols for the research study. Often illiteracy and semi-literacy is viewed not only personally, but socially too, as "shameful" and a prejudiced indicator of "lack of intelligence", or schooling, or indicative of a dysfunctional social upbringing. This is often true for ABET level 1 learners who often carry such social stigma. Ethical research therefore requires fair, perceptive, respectful and empathetic treatment of research participants irrespective of the qualitative research method used. I explained to participants the purpose and methods to be used for the study and the risks and demands involved in participating in the study (Best & Kahn, 2006). Ethical considerations were explained in a way that all participants could understand. I made sure that each of them understood the interviewing process and particular purpose of the research study. They were reassured that the findings would be strictly confidential and non-incriminating. I explained that the research findings would be revealed to them and discussed with them, to which they agreed. I assured them that none of the findings of the research would or could be used to penalize or retrench them. This was a concern as they valued the job security they enjoyed and did not want this to be compromised in any way by their involvement in the research.

I made sure that the interview participants were aware of their options for confidentiality before the interview began. It was explained that while I got to know their identities during the interviewing process, when the research is written up, they had the unilateral right to have their identities kept confidential. The interview participant where assured of full confidentiality and if mention needed to be made, pseudonyms would be used. In addition, participants were informed that they have the right to partial confidentiality, if agreed, where they would be referred to by title or position without disclosure of names. Research participants were given full autonomy,

informed by an explanation of the research study, and the right to make the decision to participate or not. They were assured of the right to end participation at any time and for any reason without explanation or compulsion. If at any time they felt uncomfortable answering a question, they had the right decline any questions they did not wish to answer.

Consent was obtained from research participants before the interviews began. Interview participants were requested to sign a consent form that stated that they understood their rights as research participants and that, by signing the form, they were giving their consent to be interviewed. Furthermore, the interview participants were asked for permission when audio recordings were planned. Six participants declined audio recordings. A note was made of this and their right to decline respected. In addition, I consulted with stakeholders including the Media Works branch manager and research participants' employers. All parties were satisfied that ethical standards would be maintained. Stakeholders were informed that by the nature of the research, none of the participants would be harmed or misled in any way. The following was done to practically assure all relevant stakeholders that ethical standards would be maintained:

- Role-players, which included senior and line management, were briefed regarding the scope and purpose of this research project. This was done either telephonically or via e-mail. Telephonic conversations were followed up with a written confirmation via e-mail to outline what was agreed upon and also to thank the relevant stakeholder for the support and opportunity to conduct the research. The social media platform, Whatsapp, was also initially used as a tool for communication.
- The respective human resources departments were contacted telephonically for a briefing and subsequent meetings requested for permission to conduct the interviews. On acceptance, and e-mail confirmation was sent outlining the purpose and methods employed for the research project and any other

conditions agreed upon like the research being conducted discreetly and confidentially, and non-disruptive to the participants' work or learning schedules. It was clarified that the name of the company and the names of any staff members would not be used as part of this research study or any other such study. They were also informed that the research report would be accessible to them, if requested.

- The Media Works branch manager was informed about the research project. I assured her that the information would only be utilized for academic purposes and would not be placed in the public domain. Furthermore I assured her that the scope of the research was small and aimed at specific aspects of the programme without making generalized deductions about the effectiveness of the Media Works programme.

By doing the above, three important ethical issues were addressed, namely, protection of participants from harm, ensuring confidentiality of research data and non-deception of participants and stakeholders. I was satisfied that all relevant ethical considerations were taken to safeguard the validity and integrity of the research

Observations

Guided by Berger's (2012) view that observation is a qualitative research technique that provides the opportunity to study people in real life situations, useful data could be collected for research purposes. Furthermore, observation allowed for the researcher to be included in environments where behavior remained relatively natural and thereby contributed to higher external validity. Observation allowed inclusion in the lives of those being studied while maintaining a professional distance that allowed adequate observation for data collection. Observation enabled me to gain knowledge of the target group and setting, helped determine which additional questions to ask, and was an unobtrusive way of obtaining information about individuals, group dynamics, and communicative dynamics. Furthermore, it promoted an in-depth understanding of phenomena, settings, and the behaviors of participants in those situations. Some anticipated disadvantages included the risk of bias, observer effect, or selective perception whereby internalizing the views of the study cohorts could disorient the researcher to the research objectives and possibly negatively affecting research validity.. Mahtani et al. (2018) cautions that observer bias is any kind of systematic discrepancy from the truth during the process of observing and recording information for a study. I initially went to the ABET site six times and observed the learners in their naturalized learning environment for half hour at a time, which familiarized the participants with my presence prior to data collection. Engaging, as a mode of observation, was used informally and afforded me the opportunity to get to know the participants better prior to interviewing them. I kept the atmosphere somewhat formal, as I did not want to become too familiar with the learners, as I feared that this would negatively influence my professional engagement with them later in the interviewing process. From the brief conversations with 14 learners, I could gather from several different comments made by them, some in jest, what their sentiments regarding the Media Works programme were. For instance, one learner commented that,

"*You need to become a doctor before you can do the ABET programme*".

From this quotation I inferred that this particular learner was experiencing difficulty with the programme. The observations gathered from such comments and other related observations proved useful in data analysis by providing clarity regarding participants' sentiments and views about the ABET programme. Observations were recorded by means of note/ memo taking and several audio recordings. A reflective journal was kept for this purpose. Observations were done for the duration of the research and proved very useful. Unstructured observations, for example observing learners complete lessons on the computer, were also helpful to add depth of understanding and insights to challenges and barriers to their learning.

The Survey

Twenty ABET Level 1 learners partook in a survey in the first week of the research commencing. This was the first phase of the research. All surveys were completed in 2 ½ days. The survey was intended to broaden the analysis of the research data and intended as a supplementary and supportive quantitative appendage to the interviewing regime. The survey served as a useful auxiliary instrument as it averted a lengthy interview questionnaire and added meaningful data to the mixed method approach data repository.

Interviews

Twenty ABET L1 participants were interviewed using a semi-structured questionnaire in the later part of the first week and the whole of the complete second week. Semi-structured interviewing was used as a qualitative data collection instrument primarily for narrative reporting including contextual description, categories, themes and supporting respondent quotes. All interviews were concluded at the end of the second week. The interviews varied in length between 30 and 40 minutes depending on learner articulation and/or extra exploratory questions that were posed. An additional 15 minutes per interview was agreed upon with the company after explaining to the human resource management that it was anticipated that some participants might take longer to complete the questionnaire than others. The interviews were conducted in English and took place in the ABET training room at the food processing plant. I observed that some participants were nervous during the interviewing. I tried my best to put them at ease to ensure a 'free flow' of views. Close-ended questions were used at the beginning of the questionnaire, not only to gather biographical information, but also to help learners to ease into the interviewing process. The questionnaire was structured in a specific way in order to obtain in-depth information concerning the influence of the multimedia literacy approach on their learning. To inform findings, gathering information related to learner attitudes towards the programme was important. Collected data was primary research data as it was gathered first-hand. In order to organize and structure the data, all data and notes gathered during the interviews were typed up, paraphrased where applicable, and summarized so that it could be more workable during processing. While mixed method research often uses other research studies to analyze data, this was not critical in this study and only served as a guideline. Data collection was guided by the guidelines for reliability and validity as advocated by Maykut and Morehouse (1994) and Seale (2004), which ensured the integrity of the research, Consistency in data collection avoided prejudicing the process and participants. Validity was maintained by the degree to which outcomes were accurate and grounded in the data.

Audio Recordings

A cellular phone was used to record selected interviews. While recordings were not a standard practice in the study, they were used as a supportive data collection tool especially when participants were inarticulate and hereby I could go back to clarify, via the audio recordings, what had been said. Recordings were later transcribed to obtain information pertinent to the data analysis. A cellular phone was used as it was less obtrusive and intrusive, and therefore less intimidating and a lesser distraction, than an unfamiliar, professional recording device. These recordings were attached to the written and transcribed interview questionnaires completed by all participants. Participants who did not want to be recorded were asked to clarify sections of their interviews that were incoherent.

Data Analysis

Grounded Theory (GT) (Glaser, 1992 and Strauss & Corbin, 1998) methods were adapted for data analysis as the intent was not to generate theory from data by inductive means as anticipated from GT research. TDT already provided a theoretical framework and its constructs of dialogue, structure and autonomy provided analytical hooks on which to probe and interpret the data. In analyzing the thick data, I used two general strategies: thematic coding (Boyatzis, 1998) and theoretical propositioning (Braun and Clark, 2019). Theoretical propositioning was based on the research questions, theoretical hypotheses, and the literature review to guide the analysis. Thematic analysis was used, as it is useful in identifying themes and patterns with both implicit and explicit meanings for informing analyses. The data was coded and arranged into themes by assigning conceptual labels, or codes to the data. Coding was used to identify items of analytic interest in the data and these were tagged with coding labels (Boyatzis, 1998). Extracted data from the interviews created a data depository, which in turn formed the basis for data analysis. Several codes were grouped into more abstract categories for further analysis.

Thematic coding specifically relating to TDT was codified and categorized by using the theory's constructs of structure, dialogue and learner autonomy as conceptual coding "hooks". The analysis of the data entailed focusing on specific data and ignoring irrelevant data hereby aiding the process of allocating data to predefined codes and codified themes. Thematic analysis served to explore questions about participants' perspectives, factors and social processes which influenced particular phenomena, explicit and implicit norms, and 'rules' which governed particular practices (Braun and Clark, 2019). Coding and thematic propositioning procedures are outlined below.

Data Coding

Data was coded to identify patterns and themes by categorizing the thick data using the three primary theoretical constructs of TD Theory: (1) dialogue (communication between teachers and learners); (2) Structure (curricula of the learning programme); and (3) Autonomy (the role of learners as autonomous agents). Regarding the curricula, only the first 20 lessons corresponding in the workbook and on the computer were used for analysis. Codes and themes overlapped during analyses of the role of these three variables in adult learning. This meant that while one variable was analyzed, the other variables to varying degrees had an influence on the particular variable being analyzed. This overlapping resulted in data source triangulation that further informed findings related to the role of dialogue in adult learning. Noting that triangulation refers to the use of multiple methods or data sources in qualitative research to develop a comprehensive understanding of phenomena (Patton, 1999), the variables structure and autonomy served as data sources to observe the potential role and significance of dialogue in the Media Works programme. While Denzin (1978) and Patton (1999) identify four types of triangulation, only data source triangulation was used in an adapted way for the purpose of this research. Two out of the three variable of TDT, namely programme structure and learner autonomy, were used as baseline loci to inform data permeation relating to the role of dialogue in adult learning. The amount of coded data permeation/ incursion in these loci would indicate not only the role of dialogue as an independent variable in adult learning, but also the extent of its influence on programme structure and learner autonomy. The objective of this adapted triangulated approach was to increase confidence in the findings through the validation of a proposition (namely, the role of dialogue in adult learning) using additional measures (Bryman, n.d.). The combination of findings from more than one perspective provides a more comprehensive picture of the results than one approach could do alone (Tashakkori and Teddle, 2003).

I read through the data in the survey and questionnaires several times to get insight into the underlying themes and patterns emerging from the surveys and interviews.

Once identified, these themes and patterns were colour-coded in order to link and categorize them. Coding took the form of categorizing the text using the following color codes, as tabulated below in Figure 5:

	CATEGORY	COLOR CODE	POSITIVE VALUE CODING	NEGATIVE VALUE CODING
VARIABLE 1	DIALOGUE		+ D	-D
VARIABLE 2	PROGRAMME STRUCTURE		+S	-S
VARIABLE 3	LEARNER AUTONOMY		+A	-A
	COMMENTS, OBSERVATIONS AND NOTES [CON]		CON+	CON-

Figure 5. Coding Rubric for Dialogue, Structure, Autonomy and Observations.

Codes and themes were identified based on participants' views and experiences on the ABET programme. For example, appendices 3 and 4 show different codes and emerging themes highlighted in the survey and interview questionnaires. Besides assigning color codes to the text analysis, variables were graded as positive or negative to evaluatively weight the texts for analysis. The frequency of shared units of meaning (Babbie, 2004) in the different areas of analysis provided graphic and numerical representations of the variables in different analytical categories (Refer to Figures 6,7, and 8 below). A similar coding structure was used for the quantitative component of the research in order to code and schematize the data. In the interviews, numerical variables and statistical relationships were extrapolated from an aggregate response potential of 420 responses for dialogue; 300 responses for programme structure; and 300 responses for learner

autonomy. In the survey, numerical variables and statistical relationships were extrapolated from an aggregate response potential of 260 responses for dialogue; 280 responses for programme structure; and 220 responses for learner autonomy. The tabulated analyses below, recorded as units of meaning, reflect data from the combination of both survey and interviewing data collection. This would potentially mean a combined aggregate of 680 responses for dialogue; 580 responses for programme structure; and 520 responses for learner autonomy.

Deliberations regarding Dialogue

The table below shows the frequency of responses, in the interviews, for the three variables and included is the positive and negative weighting relating to the coded data in the survey. The majority of the responses were positively inclined to dialogue (+D) in the ABET blended learning programme. A minority (15%) said that dialogue did not have a decisive influence on their learning. This minority was inclined to be in the +A (positive for autonomy) cohort as autonomy was related to self-study and independent learning and therefore a limited (learner-determined) need for facilitation. The –A (negative for autonomy) cohort expressed a fear of failure; a dislike for doing ABET; lack of self-motivation as they could not see the tangible benefits of the programme and therefore did not feel like completing. These were the main reasons in the findings.

	+D	-D	+S	-S	+A	-A
Dialogue	529	117				
Structure			26	61		
Autonomy					19	62

Figure 6. Units of Meaning in Dialogue

The majority of participants (75%+) communicated that learning would have been very difficult without dialogue ("*Saampraat*" [Speaking together] as some participants termed it.). The facilitator assisted learners with both content and contextual understanding of their learning. The dialogue between facilitator and learners took place predominantly during facilitation time. Most learners said that they were under the impression that the facilitator would only be there to mark and rectify workbooks, however the facilitator was engaged in significant dialogue with them about the course work, and eventually they built a trust relationship which added value to their learning. Interviewee A said,

> *" Mr. Petersen became like a friend and did not only make me understand the work better but other things around me too. I enjoyed the*

class mostly because I could talk to him about the schoolwork and many other problems in my life". (Interviewee A, 2017)

Learners appreciated the extra effort the facilitator put in to make them understand the course work. Many (8 learners) expressed the view that they were tempted to drop out had it not been for the encouragement and support of the facilitator. Participant B:

"I just wanted to give up because the work was too much and I did not understand many things. I feel very stupid".

All the Black learners experienced greater language barriers to learning than the Coloured learners, which was understandable because English was generally a third spoken language for them, particularly in their work environment. From observations, the facilitator used Afrikaans as a bridging language, between Xhosa and English, as learners predominantly spoke Afrikaans at work so they could understand lesson instructions better when explained in Afrikaans first. For example, Xoliso* said:

" I did not understand what "example" meant but then the Mister (the facilitator) said it is the same like "voorbeeld"(Afrikaans for example) which I understand because my line manager, Mr X., always uses this word to explain things to us." (Interviewee B, 2017)

**Participant consented to using his name in the study*

Two participants felt that they would have coped fine working independently on the programme but the facilitator's dialogic approach improved their learning experience and thus contributed to overall understanding. They said that they did not expect help as they were told the computer would teach them and the facilitator would only come in to mark their workbooks and rectify any mistakes. They expected the facilitator to be a passive role-player in their learning.

Only one learner felt that dialogue with the facilitator was unnecessary and only helped on exceptional occasions when she did not understand or fully grasp the coursework.

This being said, with further enquiry the learner said that when she did not occasionally understand, she appreciated the facilitator's input, as she would not have easily understood or figured out the correct answers. One participant insisted that he preferred working alone and coped better on his own. He felt that the facilitator's input was unnecessary and the dialogue during class and facilitation time caused a disturbance.

Dialogue in the class and during one-on-one interactions generally created a supportive and encouraging environment, which was noted from comments and observations. Participant C said:

> *"I got to know myself better and my ABET friends too. We had fun together learning new things."* (Interviewee C, 2017)

General consensus amongst learners was that the facilitator was very understanding, encouraging and supportive both during individual time and when the facilitator organized group sessions for remedial interventions. These interventions were not part of the programme structure of the Media Works programme and remained unendorsed by Media Works, as expressed by its national implementation manger. Learners felt that they could speak to the facilitator about anything that bothered them, even issues that were work unrelated. Findings indicate that the facilitator was not only supportive with regard to the ABET programme but he also assumed a counseling function which positively encouraged learners to continue on the programme. The facilitator created what learners called an "Each One, Teach One" classroom chat, hereby promoting a participative learning environment whereby dialogic learning and teaching practices became commonplace in the learning environment. As one learner stated:

> *"Yes, the facilitator set up ground rules like we are all here to learn from each other. Also there is a rule like only if you know everything then you can make fun of those who know nothing. Here we learn that nobody*

> *knows everything, not even the facilitator, and nobody knows nothing so we are not scared to speak".* (Interviewee D, 2017)

From observational discussions, most learners did not complete their formal schooling due to social issues, which impacted on their lives. While social issues persisted into adult life, the facilitator helped learners keep focused and encouraged them to complete their ABET course. Participant E said:

> *"Sometimes I really didn't feel like doing ABET work but coming to class helped me unpack and unwind".* (Interviewee E, 2017)

The majority of learners (16 learners) concurred that face-to-face interaction with the facilitator had a much more significant impact on their learning than just learning from the computer and completing lessons in their workbooks, and while time was limited to half an hour per learner, they gained substantial benefit from the facilitator's insights, knowledge and sympathetic ear to their personal issues often affecting their lives, learning and progress. As Peter M. said:

> *"Yes, I like to tell him how my children teach me and I ask him if they are right because sometimes I don't know or think they are making a joke. I am happy because he told me they know the work and they teach me well".* (Interviewee F, 2017)

Some learners said they felt shy to ask questions in class for fear of seeming "stupid". Several participants (6 learners) also said that having conversations with the facilitator and him encouraging them to speak more often in class about different aspects of learning and general knowledge and their experiences helped them to learn better. This practice had encouraged them to speak and enquire more frequently outside the learning environment. A good example would be public libraries considering that the

facilitator encouraged all learners to join a public library. In probing conversation, most participants said that they felt more confident, and proud, to enquire about different topics and books at the library. An unplanned learning outcome of this was a fostering of the habit of enquiry for life long learning. The facilitator gave them his cell number and told them to send him a message or call him if they have any enquiries or experienced any problems. He set a time for between 6 pm and 7 pm at night. (This was confirmed with the facilitator). Media Works management would not have approved of this arrangement, as it was not part of the programme structure or facilitation conventions. The MW national implementation manager corroborated this. This was confirmed with the facilitator as he had contacted the branch manager who said that company protocol dictated no personal , "out–of-class" contact with learners as this was deemed "unprofessional". From the findings, it can be empirically affirmed that dialogue is a central factor in learner participation, progression and motivation on the ABET programme and the facilitator creates dialogic agency for adult learners which positively influences their learning and interest in lifelong learning. Some additional responses from participants to support this include:

Participant G: " I have never spoken so much English in my life and now I learn more just by speaking to others on ABET, like Mr. Petersen and the other students! "(Interviewee G, 2017)

Participant H: " I always hated English at school but now I like it more and more the more and more I learn and speak. "(Interviewee H, 2017)

Participant I: " I was always scared to speak but now the ABET has given me confidence to say what is on my mind. "(Interviewee I, 2017)

Deliberations regarding Programme Structure

Programme structure is the second variable investigated in this study. Structure is defined as "a measure of the educational program's responsiveness to the learner's individual needs" Moore (1980:21). Senge (1993:40) further states that, "in any system, structure is a key determinant of behavior". Findings in this study suggest that the regimented structural nature of the ABET programme lead to structural barriers to learning caused by a number of interrelated issues, which included:

- 15 learners felt frustration with the rigid nature of the programme. (75%)
- 7 learners expressed confusion regarding lesson progression. (35%)
- 12 learners felt there was a lack of remedial recourse. (60%)
- 17 learners felt there was insufficient access to information and facilitation. (85%)

Closer analysis of participant responses (with reference to Figure 7 below) indicates that the majority of responses regarding the programme structure were negative(-S), which was mainly attributed to the issues and concerns outlined above. Positive views (+S) were interrelated to facilitator interventions and communications with learners (+D), which promoted positive dialogue and as observed by the researcher, meaningful and productive learning.

	+S	-S	+D	-D	+A	-A
Structure	91	374				
Dialogue			81	24		
Autonomy					63	51

Figure 7. Units of Meaning in Structure

The positive autonomy (+A) of 7 participants, related to self-motivation and self

(independent) learning helped avert the negatively perceived impact programme structure had on their learning. They could work independently and productively navigate around most issues they experienced with the structural aspects of the ABET programme. This variance in the findings revealed that these learners were technologically savvy, skills that seemed to have been learnt as a result of personal mastery of electronic gadgets and games in a technological community of practice. As a result, these learners could find additional resources to supplement and often times substitute the systematized ABET learning regimen. Such resources as Google, Wikipedia and other Internet and cellphone applications were mentioned as learning resources. According to these learners, the programme did not play a significant role in their learning and to a large extent online resources became substitutions for the "shortcomings" of the programme, hereby resulting in a paucity of engagement with programme structure. Such actions were observed in class as some of the learners would look for answers on their cellphones while completing either computer or workbook lessons. On several occasions during some of their lessons, the facilitator was asked to assist them either on the computer, in their workbooks, or on their cellphones. It was observed that although they showed a propensity for self-directed learning, there were times that they depended on dialogue with the facilitator for assistance.

Most learners (17 learners) have never used a computer before and therefore found the computer-based programme intimidating, initially. While all learners have mastered use of the mouse, this had been but one of many programme challenges facing ABET learners. One learner said:

> *" I was scared. The mouse was very difficult in the beginning. I still get confused about where to click sometimes. I cannot find old lessons sometimes. I make mistakes and click the wrong stuff also."*
> (Interviewee J, 2017)

Learners said that the work in the workbook was easier to understand. With further enquiry, it was gathered that it was not so much the computer-based tutorials and lessons that made the progression to workbook activities easier, but the facilitation time in which problems and corrections were discussed and explained. Even with revision done by learners themselves during independent learning time, most learners still did not understand what was required and depended on facilitation time for clarification. From observations, the facilitator could easily explain what seemed very difficult on the computer in simple terms. It seemed like the programme design has been overcomplicated as questions could have been structured in simpler ways and tutorials explained more coherently for learners to understand. Learners generally felt that the programme needed to be reviewed so that the balance of programme engagement would incline more to dialogical interactions (i.e.: additional facilitation time) as support and remediation for better comprehension, progression, and motivation. Participant K said:

> *"I don't think any of us can complete the ABET if the facilitator does not come to help us".* (Interviewee K, 2017)

During exploratory conversation, learners expressed that the ABET programme was an inflexible system of learning. For example, the programme was structured on rigid timeframes with limited time to complete lessons before having to progress to subsequent lessons. However, they felt optimistic that increasing facilitation time was not an unreasonable or unachievable expectation. Most learners (16 learners) said that working in the workbook was easier than working on the computer. They tried going directly to the workbook lessons but realized that most of the workbook lessons were dependent on mastering computer lessons first before progressing to the workbook. This resulted in frustration. They said the only help at these times came from the facilitator or some learners would try to explain to family members at home the difficulties they experienced. Assistance at home proved marginally helpful and most learners waited for facilitation time to discuss challenges and problems at ABET class.

Deliberations regarding Autonomy

The third variable, autonomy, is explained as "...the extent to which in the learning-teaching relationship, it is the learner rather than the teacher who determines the goals, the learning procedures and resources, and the evaluation decisions of the learning programme." (Moore, 1984:85).

Variables	+A	-A	+D	-D	+S	-S
Autonomy	53	259				
Dialogue			61	17		
Structure					32	49

Figure 8. Units of Meaning in Autonomy

The relationship between autonomy and other variables was found to be weak (-A) as illustrated in Figure 8. The findings of the study indicate a contrary position to Moore's (1972) theoretical assumptions regarding autonomy, as outlined in the literature review. By taking into consideration this study's findings, it can be suggested that autonomy is not an integral variable in blended learning environments at ABET Level 1. Often ABET level 1 learners do not have practice in active learning skills, such as organizing and controlling their own learning, and the motivation needed to be autonomous learners (Yukselturk and Yildirim, 2008). They often have had negative experiences in the schooling system and as a result have fewer learning skills than traditional students (Carpentieri, 2014). Learners said they face many challenges, from work and family responsibilities to issues with access to learning resources, which makes learning difficult and makes them feel like they are not in charge of their own learning. While Saba & Shearer (1994) supported the theory's variables regarding dialogue and structure, the impact of learner autonomy was less clear. As shown in Figure 3 above, it could be argued that if learners have a high level of learner autonomy they do not need high levels of dialogue or structure to succeed in the educational environment. Thus, with a high level of learner autonomy one could have low structure and low dialogue

and still have low transactional distance. However, there is much work that needs to be done to form well-defined conceptual definitions around this variable. (Dron, 2005 and Shearer, 2009)

Most participants (16 participants) expressed that they were motivated based on personal views, that the ABET programme would lead to better opportunities in the company like salary increases or promotions. Just by the fact of participation on the programme, the 13 participants felt motivated to complete further studies like higher ABET levels, vocational courses, and self-study enrichment courses. A key motivator was to make their families proud and create better job related opportunities for themselves. Another motivating factor for autonomous learning was based on the desire of learners to complete their "schooling". To a degree, learner autonomy was negatively influenced by the notion that poor ABET performance or "dropping off" the ABET programme would result in consequences like demotions or retrenchments. Participant L said:

> *" I was scared if I did not do it they will fire me, I make sure I am always at class even if I don't feel like it or don't understand the work".*
> (Interviewee L, 2017)

As reflected in demographic data related to level of schooling, it was gauged that several participants had done other programmes, for example in-house work-related training, vocational courses via training service providers, or online self-study programmes like an educational application called *Khan's Academy*. This indicated a positive motivation for autonomous learning. Many participants (55%) expressed that they liked the idea of working independently but they often did not know how, and not being able to work through lessons on there own was difficult due to the challenges with the computer programme. Participants felt that the dialogical approach to learning played a key role for them to try their best to excel and hereby contributing to autonomous learning practices.

Thematic Coding

Themes were extrapolated from the units of meaning of the coded data. These units of meaning obtained from the interview questionnaires and corroborated by quantified data from the surveys disclosed the following views held by the majority of participants (>75%):

- Dialogical facilitation is key to them understanding the content of the programme.

- Remedial recourse is largely dependent on facilitator assistance and interventions.

- They would prefer more interaction with the facilitator and less interaction with the computer programme because they felt that they benefit from the personal contact and assistance, especially when they don't understand while completing computer and workbook-based lessons.

- Several design aspects of the programme impede their learning. For example, the accent and tone of the narrator on the computer is often not clearly understood by them.
- They would spend more time on the computer programme if reading, writing, and speaking components were explained more clearly, tutorials more accessible, and remedial functionality was adequate and user-friendly.

- Their autonomy was linked to facilitator motivation and external factors, like family encouragement, more than being intrinsically influenced by the ABET programme.

Chapter 4: Findings

Findings related to thematic analysis suggested early into data analysis that participants encountered several challenges when working on the multi-media literacy programme, including limited facilitator support and dialogue. Data supporting these findings indicate that approximately seventy five percent of the ABET Level 1 learners often experienced difficulty and frustration in using the Media Works blended multimedia programme. The majority of responses from the twenty ABET Level 1 participants have shown to generally corroborate the theoretic hypothesis underpinning this research, as will be clarified below.

A key finding supports the research assumption that blended multi-media adult learning approaches may need additional dialogical integration and strategies so that blended adult learning practices could be more effectual in mediating the acquisition of literacy competencies, in particular for ABET Level 1 learners. Findings regarding dialogue, would suggest appropriate tools like scaffolding to support and enhance learner progress and development. Considering that the fundamental premise of scaffolding is to build on existing knowledge within the learning environment, this could be beneficial to blended learning approaches. However, findings indicate that scaffolding would prove challenging in the current blended multimedia environment considering that in building on the scaffolding that resources provide, frequent and meaningful communication between facilitator and the learner would be required, a communicative regimen which is lacking in the current programme structure. Findings further indicate that ABET level 1 learners require a particularly strong need for connection with, and encouragement from, their facilitator due to the barriers to learning they face, which hinges on weak literacy skills. They therefore need stronger support to overcome these barriers and weaknesses. Findings show that adding dialogical currency to the adult learning environment would require multiple modes of

learner-teacher communication, for example reflective activities within the ambit of learners' current literacy level. More than seventy percent of learners suggested that the blended learning ratio should be adjusted to accommodate for more facilitation time. Findings indicate that the majority of participants felt that they needed more facilitation time as each of them only sees the facilitator for half an hour per week for face-to-face instruction and intervention. Generally there was consensus that 1 hour per learner per week (as opposed to ½ hour per learner per week) and 2½ hours computer-workbook time (as opposed to 3 hour per learner per week) would positively benefit their learning as it would afford more dialogic teaching and learning time. In addition, the conjunctive transition from computer lessons to corresponding workbook lessons often proved difficult as there was confusion about how to transition from computer lessons to corresponding workbook lessons. One of the issues was the interface of the computer lessons and the workbook lessons looked somewhat different and this caused confusion. Learners expressed that this split was disproportionate as they felt more computer and facilitation time was needed before continuing with workbook lessons. Random observations of attempted lessons in their workbooks indicated that they did not fully understand the work on the computer and the computer-based tutorials before progressing to the workbook lessons. When learners did not understand the work as explained on the computer, learning ground to a halt, as there was no other remedial assistance for learners besides the facilitator. Learners expressed their frustration and discouragement, which impacts on meaningful and productive learning. These concerns are articulated by Daiute and Rivalland (2000:4) as

> "*the lack of understanding the value of texts and the ability to evaluate and make use of texts within appropriate contexts*".

From the findings, the text-context contention was observed when the multimedia programme taught the sounding and writing of simple sentences but no further examples and practice was given or contextualization of the text to daily life experiences. As an example the sentence *"John has a white house with a green roof"* had no

contextual value to learners so it did not stimulate talking points, which in turn could encourage dialogue or further enquiry. This was one of the observations while learners worked on the computer. It was also observed that a few learners expressed personal anecdotal narratives related to their prior and experiential learning which the facilitator then acknowledged and contextualized to their current learning. Dialogue provided a discursive platform to contextualize and articulate learning from both an educative and experiential perspective. It was observed that computer-based learning on the ABET programme proved to be counterintuitive to participatory learning, which requires facilitator involvement as an essential interaction to mediate the complexities of linking text with context and exploring and explaining the relationship between text and context. Mercer and Fisher (1997a) propose that the teacher becomes the main defining influence, as a critical agent of dialogue on the structure and outcome of a computer-based activity. This view can be supported noting the challenges adult learners experienced. The reasons for ABET learners preferring more communicative and collaborative time with the facilitator and less time on the computer as per the findings, include:

1) The computer programme is not interactive enough to address revision and remediation needs and challenges.
2) Technological, linguistic and communicative barriers exist between the multimedia literacy programme and learners. Learners have expresses that they often do not understand the instructions given in the tutorials on the multimedia literacy programme due to the complexity of language used by the narrator on the computer programme. Even the tone of voice of the narrator proved a hindrance for some learners. Noting that literacy needs to be negotiated on multi-logical levels, the computer based literacy programme did not seem to address these dynamics at play.

Maturania and Varela's (quoted in Bauerfeld. 1993:141) view the function language to be:

> "denotative, as if something were transferred from organism to organism. When it is recognized that language is connotative and not denotative, and that its function is to orientate the orientee without regard for the cognitive domain of the orienteer, it becomes apparent that there is no transmission of information through language".

Considering this view, findings suggest that the programme largely addresses literacy learning in a linear, and prescriptive way and therefore participants subsequently felt that the facilitator was more competent, and experienced to deal with them on different and interrelated social, cognitive and educational levels. Participants expressed that they do like to use the computer programme but would possibly derive more benefit from it if was presented in a more user-friendly way and content materials were more relevant and sensitive to their learning styles. Most of the ABET learners remained optimistic about the usefullness of the overall programme but felt that increasing student-student and student-facilitator dialogue would improve their learning. These concerns are warranted considering that the journey to functional literacy is a complex one, requiring dialogical interaction and support throughout the process to mediate its smooth transition. Often efficient communication relies not on how much can be said, but on how much can be unsaid (Seely Brown & Duguid, 2000), interpreted as the latent aspects of learning which multimedia programmes cannot easily decipher.

Findings further indicated that learner attitudes towards the teaching and learning methodologies had a marked negative influence on their desire to learn when factoring in learners not fully understanding the content of the programme and contextualization of their learning within the broader social and learning environment. As Punch (2005) notes, behaviors are often shaped by interpretations and beliefs as strongly as by 'objective' events. Even the source of the information, the social status of the person who conveys the information, and the acceptance and beliefs of others in the group has

been shown to shape peoples attitudes and choices and thereby influencing the participants' commitment towards the programme and their learning.

Chapter 5: Conclusion

Both quantitative and qualitative findings suggest that in the absence of constructive, meaningful dialogue and scaffolded learning practices, barriers to learning are accentuated in this blended learning environment. Findings from the interviews suggest that improved and revised regular face-to-face facilitator contact throughout the programme could potentially avert learner stagnation, frustration, demotivation, and reduce transactional distance. While technological approaches to blended adult learning appear to be a suitable and proficient way to negotiate the movement from illiteracy or semi-literacy to higher levels of literacy, and instructional technology is a force that can transform education because of the power of e-learning to individualize, personalize and differentiate instruction (Cavanaugh and others, 2004), the outcomes of this research study suggest that the complexity of literacy acquisition at ABET Level 1 requires much more than technological approaches and solutions in the South African adult literacy context. In a general context, e-learning can be defined as a system based on formalized teaching in conjunction with the assistance of electronic resources. Literacy is more than just the acquisition of language; rather language needs to be seen in broader social and communicative terms. As Freire (1993) posits, dialogue is the encounter between men, mediated by the world, in order to name the world. From the findings, The Media Works literacy programme seems to be orientated towards knowledge "as something out there, waiting to be discovered" and "an immutable commodity to be grasped for some indefinable benefit" (Gadamer and Glen-Doepel, 1979:43). Academic literature nevertheless remains anticipative that a synergistic codependence can be negotiated between these loci. In this research, the importance of addressing the learning and teaching contexts in blended multimedia adult learning design suggest, among other considerations, cogitating the separation between adult learners, and facilitator and adult learners, relational to the transactional distance

involved. The learning environment could then be improved by addressing the interplay of dialogue, structure, and learner autonomy, appropriate for adult learners and the learning context in order to reduce transactional distance. Additionally, the above ideas in a broader range of contexts, particularly drawing on empirical evidence, may provide useful insights for blended multimedia adult learning. Although the theory remains open to critique (Gorsky & Caspi, 2005a), the variables on which it is based are intuitively relevant to adult learning, which is not a homogenous enterprise unmindful of the nature of adult learners and the critical and complex contexts of adult learning.

Chapter 6: Discussion and Considerations

While the topic of basic literacy seems like a simple subject, it presents with complex issues in the multimedia blended learning environment. Finding suggest scaffolded learning practices and resources would promote meaningful communication between facilitator and the learner, and enhance productive and progressive engagement with the programme's structural features. To this end, scaffolding for learners can be achieved in the following ways:

- Assisting adult learners to clarify their views;
- Assisting adult learners to organize and analyze information;
- Facilitating the integration of new knowledge; and
- Promoting critical thinking.

The abovementioned scaffolding methods (Inspiration 2016), as incorporated features of dialogic learning, in conjunction with multimedia learning tools would promote optimal adult learning. The wealth of experiential learning adult learners bring to the learning environment could effectively enhance their learning through connecting their experiences with new knowledge. Their experiential knowledge in conjunction with "new knowledge" learning could facilitate a collaborative and contextually relevant negotiation of their learning in complex learning environments. Too often, adult learners feel, or are made to feel, that they have nothing meaningful to contribute to their own learning. This is potentially averted when facilitators assume an active role in the learning process through increased and focused dialogical interaction. Without this type of support, the concern is raised that electronic literacy will further disadvantage the already disadvantaged, giving rise to an information underclass (Rivaland 2000).

Wegerif and Scrimshaw (1997) posits that the socio-educational perspective is centrally concerned with the role of computers in supporting the talk between teachers and learners that carries the development of understanding in the classroom. This view juxtaposes multimedia and critical pedagogy methods in a potentially productive relationship. Labbo (2000) notes that the computer (programme) alone does not necessarily scaffold learning and whilst a learning model based only on computer-aided instruction may please administrators, it is far removed from authentic learning.

The multifaceted, interdisciplinary construct that we often loosely define as an "adult learning programme" comprises of a complex, interdependent educational ecosystem of learning and teaching practices with internal and external dynamics often very dissimilar from the sum of its components or what is unexpected or anticipated by the programme's structure and projected outcomes. The movement from structure to dialogue and back again can be regulated by structural mechanisms in blended multimedia adult literacy programmes, but seldom fully controlled. A locus of control arises at least in part from the interactions within the system itself and the need to cater for multiple learning styles hereby implying alternative perspectives on the resources, multiple resources catering for different needs, or an adaptive "hypermedia approach" (Brusilovsky, 2001), the sum of which would narrow the chasm between traditional, dialogic learning and multimedia learning approaches. One cannot however expect 'genuine dialogue' defined as 'a truly reciprocal conversation in which teacher and students are full partners' (Buber, 1965:184), in the current situated blended learning environment, but a more proportionate dispensation of dialogic education, accommodative of adult learners learning needs with a lean towards more authenticity, would go a long way to bridge the polarization between the principally prescriptive programme-centered nature of multimedia methods and the principally participatory learner-centered approach of, dialogical learning. Programme structural adjustments, extrapolated from the findings of the research could include:

- ✓ Focused lessons that break instruction and activities into shorter modules with

expanded opportunities for feedback, checks for understanding, and reinforcement.

- ✓ Visual learning tools could promote opportunities for adult learners to integrate information and concepts. From the educational games used as learning aids on the ABET computer programme, it was observed that the more opportunities learners got to manipulate the visuals themselves, the more effective these interactive tools and activities had become for learner understanding.

- ✓ Easy access to resources, not only programme learning resources but also additional resources to supplement learning. This would mean providing clear, simple ways for adult learners to access a larger resource bank to enhance and support their learning. The ABET programme provides resources but these resources are largely irrelevant to active learning, learner experience and prior knowledge. Such uncontextualized learning resources prove to be unusable and uninspiring to learners. The availability of more contextually meaningful resources and activities would provide more opportunities for adult learners to deepen and expand their learning.

- ✓ Increased learner-facilitator communication requiring multiple ways for learners and facilitators to engage in purposeful dialogue would result in additional facilitator- adult learner support and, ipso facto, increased levels of independent learning, self-esteem, and self-motivation.

- ✓ Peer-to-peer interaction, while not part of the present programme design structure, can exert a positive influence and play a purposeful role in adult learning by employing integrated design tools and opportunities for peer-to-peer interactions. By learning from and with peers, adult learners not only deepen

and expand the scope of their learning but also develop additional support systems for managing their learning.

These learning strategies could prove useful in creating supportive learning environments to assist adult learners to acquire the skills they need for beneficial progression and achievement. Programme design utilizing multimedia technologies and methodologies should factor in adult learners' unique learning, scaffolding, and support needs. Programmes like the Media Works programme seem to assume that its programme structure is adequate and proficient enough to orientate, support, educate, and motivate adult learners to learn effectively. However, this research study has proven many of these assertions to the contrary.

Lastly, one of the most discussed issues in educational contexts has been the role of autonomy in enhancing learner experiences and academic performance (Derrick & Carr, 2003). However, this ideal is challenging to negotiate in the ABET level 1 learning environment where findings have shown that the majority of adult learners have a dependency on programme structure and facilitation conventions and interventions and consequently find comfort within these parameters, thereby diminishing the need to take ownership of there own learning. This study revealed that learner autonomy generally took a back seat role in adult learning, however adult learners can nevertheless still be encouraged to develop autonomy in their learning by:

- Identifying their own learning needs
- Setting learning goals to address these needs
- Identifying resources (human, as well as material) to help them achieve their learning goals
- Applying appropriate and purposeful learning strategies
- Periodically self-evaluating the outcomes of their learning

Even a rudimentary blueprint related to the above suggestions would suffice to encourage and bolster learner autonomy and create a semblance of ownership and

control for their learning, ultimately building confidence. This should manifest as learners problem-solving for themselves instead of a dependence on facilitator intervention to solve their literacy and language concerns. It is anticipated that amidst learning opportunities that are socialized and contextualized, as opposed to fixed and inflexible, a higher degree of learner autonomy would become evident and contribute to transforming the ABET level 1 environment.

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Appendixes

Appendix 1: Media Works ABET Brochure

Media Works
Accelerated Learning Programmes

ACCELERATE

Eliminating Illiteracy

one company at a time

If you are reading this, you are taking for granted something that millions of South Africans can't – literacy. This handicap cripples the South African workforce from the ground up. The gift of literacy is yours to give and ours deliver. Media Works, experts in Adult Education and Training (previously ABET), have the solution. Our flagship adult literacy programme, **Accelerate**, is breaking new ground in AET as we successfully educate thousands of adults annually.

Accelerate is the culmination of 15 years of Adult Education and Training programme development, expertise and passion. **Accelerate** represents the pinnacle of adult training methodology, based on the current SAQA Unit Standards. A robust training programme that incorporates the very latest teaching philosophies and methodologies, **Accelerate** rejuvenates traditional Adult Education and Training.

At a Glance

Locally developed, the content is culturally sensitive and relevant – promoting greater learner empathy, high retention and measurable success. Our holistic approach to education ensures that our learners are not just equipped with basic literacy and mathematics skills, but that they also develop the life skills necessary to apply their knowledge to their roles within your company.

Powered by Media Works

Media Works is the expert in Adult Education and Training (previously ABET). Established in South Africa in 1996 we have a **national footprint** specialising in the provision of NQF (National Qualifications Framework) Level 1 training.

Our **outstanding track record** is undeniable and our client list is impressive. However, it is our passion for the provision of fundamental human skills that is the driving force behind our business. Media Works does not simply educate; it builds, enlightens and ignites fires in people.

Accelerate
POWERED BY MEDIA WORKS

Appendix 2: Learner Demographic Chart

APPENDIX 2

General demographic information

20 research participants

Race	White	Coloured	Indian	Black	Other
	0	6	0	14	0
Age	18-25	26-35	36-45	46-55	56+
	2	11	3	4	0
Gender	Male	Female			
	17	3			

Education Level

E.g: What was your highest level of schooling/education before participating the ABET programme?

Education Level	Unschooled/ self - schooled	Grade R or equivalency	Grades 1-3 or equivalency	Grades 4-6 or equivalency
	2	5	11	2

Which other learning programmes have you completed beside the ABET programme? (After school or at work)

Training/ Post-Schooling	In-house Informal	In-house Formal	Vocational	Night school	Correspondence /Online
	Non-certified, e.g.: First aid, Production line procedures.	Certified, e.g.: SAP training, ISO 9001, Hyster driver's license.	Any self improvement / vocational training to enhance work efficacy	WCED Classes after hours/ Educational NGOs.	Any online vocational course, e.g.: cellphone/tablet app (Khan Academy), etc.
	15	6	3	2	5

Note: Some research participants were doing more than one course concurrently.

Appendix 3: Transcribed and coded Interview questionnaire (Page 1)

#7

CODED INTERVIEW SCHEDULE

Qualitative Interview Questions For ABET Level One Learners.

Exploratory questions' responses are summaries from the common responses of research participants as THEMATIC ANALYSES.

Name : Martin ANON?

DIALOGUE

1 What age group do you belong to? Or give your age if you feel comfortable.

1

Age group	18-25	26-35	36-45	46+55
			✔	

2 How long have you been working at the company?

2 Approximately 2½ years

3 What is your highest school standard completed?

3 Grade 2 (Dropped out due to having to work for family.)

4 How did you hear about the ABET programme?

4 From Ms. X, (HR manager) at the company.

+A

5 Did you decide to do it yourself?

5 Yes, I wanted to do the programme myself. I thought it would help me to read.

6 Does the talk with the facilitator help you to understand better and make better decisions about your learning?

6 I like talking and asking questions so I like talking to him. I asked him what he thought about the programme when I started and he gave me his own view..... +D

-A

7 Do you reach a better understanding by dialogue / talking/ discussion?

7 I don't like reading really so I like to talk to learn stuff. I always ask my friends and family to help me understand stuff. Mr. Petersen is like a friend; I can speak to so I most time ask him about difficult school stuff. +D +D

8 Does the facilitator encourage you to ask questions and provide explanations?

8 Yes, he likes speaking and I like speaking. While he marks my book we speak about school stuff and things that bother me, like even personal stuff. (Reaching common understandings through dialogue.) +D

NB

9 Does your facilitator encourage you to speak in class and express yourself freely?

9 I speak a lot in class but he likes to tell me to be focused. He is not rude; I understand that we must talk about stuff that helps us understand the lessons. +D

10 Do you have group discussions in class?

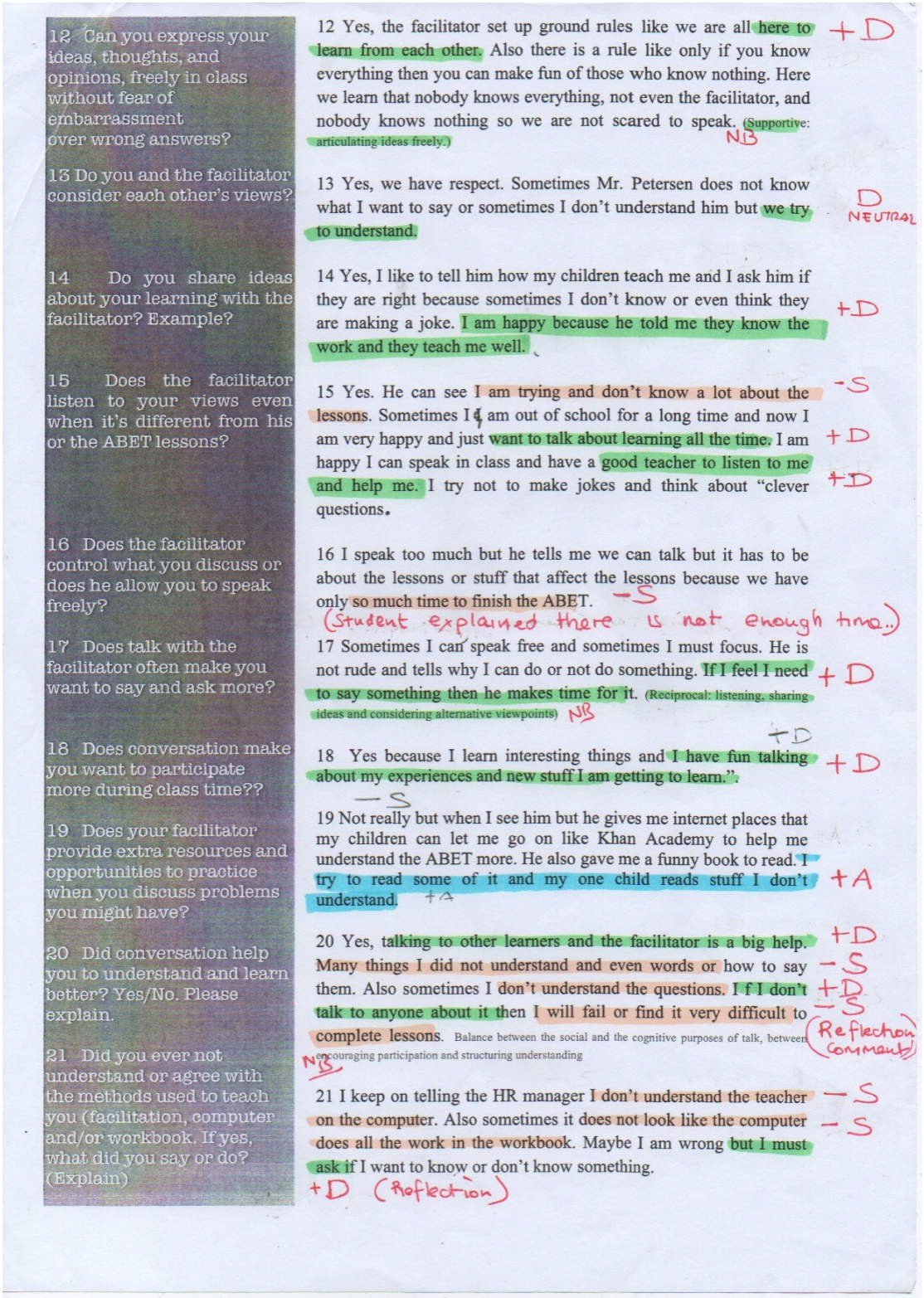
10 Yes, when a few of us don't understand the lessons we talk about it together. He makes a special time for us to talk about problems. +D

11 Do you prefer to speak alone with the facilitator or during class discussions?

11 Sometimes because sometimes I think I will sound stupid. Most times I like class discussions because we all learn from one another. +D

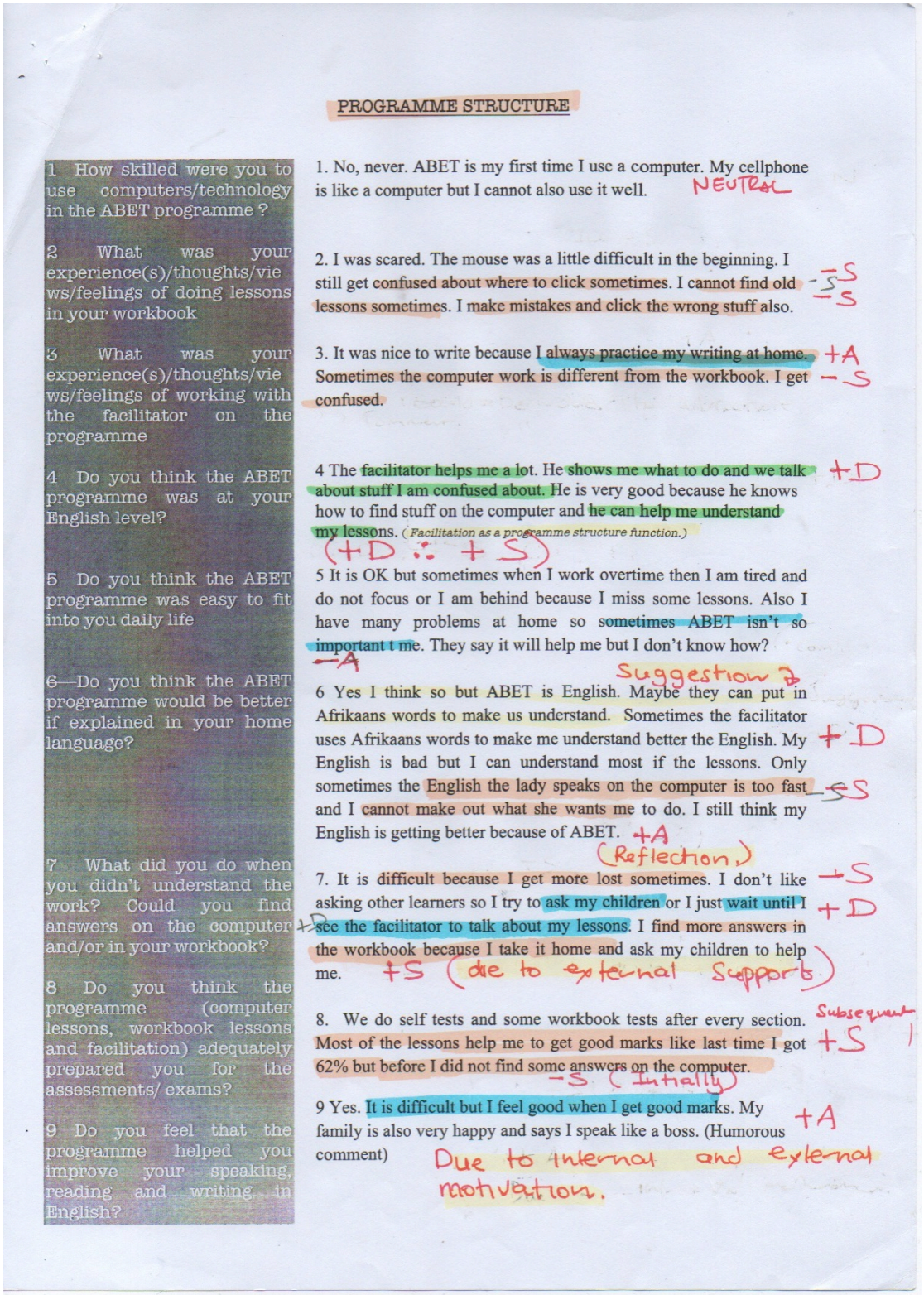
(Different contexts of talk – whole class, collective (facilitator-led) group, collaborative (learner-led) group, individual) NB

Transcribed and coded Interview questionnaire (Page 2)



12 Can you express your ideas, thoughts, and opinions, freely in class without fear of embarrassment over wrong answers?	12 Yes, the facilitator set up ground rules like we are all here to learn from each other. Also there is a rule like only if you know everything then you can make fun of those who know nothing. Here we learn that nobody knows everything, not even the facilitator, and nobody knows nothing so we are not scared to speak. (Supportive: articulating ideas freely.) +D NB
13 Do you and the facilitator consider each other's views?	13 Yes, we have respect. Sometimes Mr. Petersen does not know what I want to say or sometimes I don't understand him but we try to understand. D NEUTRAL
14 Do you share ideas about your learning with the facilitator? Example?	14 Yes, I like to tell him how my children teach me and I ask him if they are right because sometimes I don't know or even think they are making a joke. I am happy because he told me they know the work and they teach me well. +D
15 Does the facilitator listen to your views even when it's different from his or the ABET lessons?	15 Yes. He can see I am trying and don't know a lot about the lessons. Sometimes I am out of school for a long time and now I am very happy and just want to talk about learning all the time. I am happy I can speak in class and have a good teacher to listen to me and help me. I try not to make jokes and think about "clever questions. -S +D +D
16 Does the facilitator control what you discuss or does he allow you to speak freely?	16 I speak too much but he tells me we can talk but it has to be about the lessons or stuff that affect the lessons because we have only so much time to finish the ABET. -S (Student explained there is not enough time..)
17 Does talk with the facilitator often make you want to say and ask more?	17 Sometimes I can speak free and sometimes I must focus. He is not rude and tells why I can do or not do something. If I feel I need to say something then he makes time for it. (Reciprocal: listening, sharing ideas and considering alternative viewpoints) NB +D
18 Does conversation make you want to participate more during class time??	18 Yes because I learn interesting things and I have fun talking about my experiences and new stuff I am getting to learn.". +D
19 Does your facilitator provide extra resources and opportunities to practice when you discuss problems you might have?	— S 19 Not really but when I see him but he gives me internet places that my children can let me go on like Khan Academy to help me understand the ABET more. He also gave me a funny book to read. I try to read some of it and my one child reads stuff I don't understand. +A +A
20 Did conversation help you to understand and learn better? Yes/No. Please explain.	20 Yes, talking to other learners and the facilitator is a big help. Many things I did not understand and even words or how to say them. Also sometimes I don't understand the questions. I f I don't talk to anyone about it then I will fail or find it very difficult to complete lessons. Balance between the social and the cognitive purposes of talk, between encouraging participation and structuring understanding +D -S +D -S (Reflection comment) NB
21 Did you ever not understand or agree with the methods used to teach you (facilitation, computer and/or workbook. If yes, what did you say or do? (Explain)	21 I keep on telling the HR manager I don't understand the teacher on the computer. Also sometimes it does not look like the computer does all the work in the workbook. Maybe I am wrong but I must ask if I want to know or don't know something. — S — S +D (Reflection)

Transcribed and coded Interview questionnaire (Page 3)

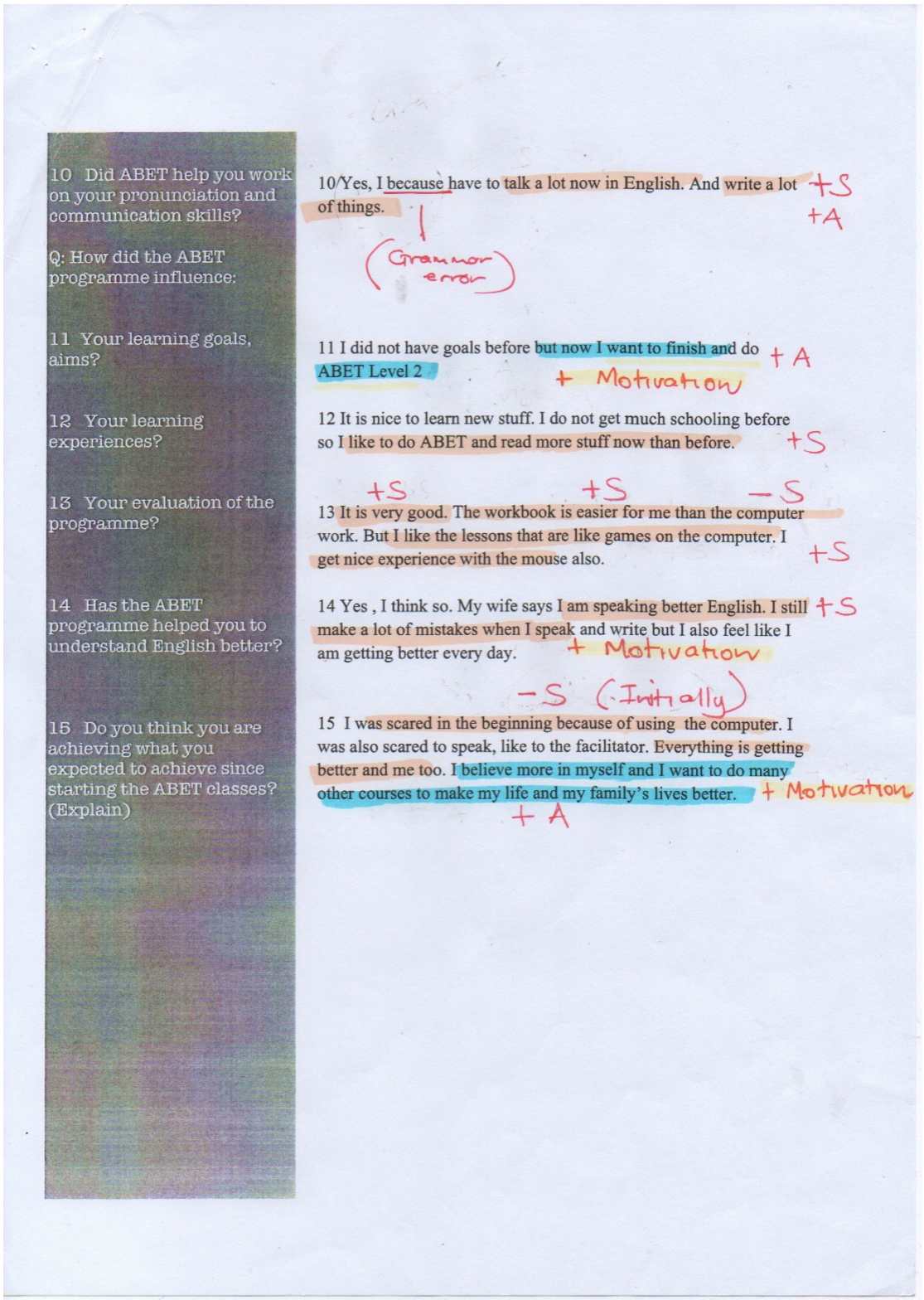


PROGRAMME STRUCTURE

1 How skilled were you to use computers/technology in the ABET programme ?	1. No, never. ABET is my first time I use a computer. My cellphone is like a computer but I cannot also use it well. NEUTRAL
2 What was your experience(s)/thoughts/views/feelings of doing lessons in your workbook	2. I was scared. The mouse was a little difficult in the beginning. I still get confused about where to click sometimes. I cannot find old lessons sometimes. I make mistakes and click the wrong stuff also. −S −S
3 What was your experience(s)/thoughts/views/feelings of working with the facilitator on the programme	3. It was nice to write because I always practice my writing at home. Sometimes the computer work is different from the workbook. I get confused. +A −S
4 Do you think the ABET programme was at your English level?	4 The facilitator helps me a lot. He shows me what to do and we talk about stuff I am confused about. He is very good because he knows how to find stuff on the computer and he can help me understand my lessons. (*Facilitation as a programme structure function.*) +D (+D ∴ +S)
5 Do you think the ABET programme was easy to fit into you daily life	5 It is OK but sometimes when I work overtime then I am tired and do not focus or I am behind because I miss some lessons. Also I have many problems at home so sometimes ABET isn't so important t me. They say it will help me but I don't know how? −A
6—Do you think the ABET programme would be better if explained in your home language?	Suggestion ? 6 Yes I think so but ABET is English. Maybe they can put in Afrikaans words to make us understand. Sometimes the facilitator uses Afrikaans words to make me understand better the English. My English is bad but I can understand most if the lessons. Only sometimes the English the lady speaks on the computer is too fast and I cannot make out what she wants me to do. I still think my English is getting better because of ABET. +D −S +A (Reflection)
7 What did you do when you didn't understand the work? Could you find answers on the computer and/or in your workbook?	7. It is difficult because I get more lost sometimes. I don't like asking other learners so I try to ask my children or I just wait until I see the facilitator to talk about my lessons. I find more answers in the workbook because I take it home and ask my children to help me. −S +D +S (due to external Support)
8 Do you think the programme (computer lessons, workbook lessons and facilitation) adequately prepared you for the assessments/ exams?	8. We do self tests and some workbook tests after every section. Most of the lessons help me to get good marks like last time I got 62% but before I did not find some answers on the computer. Subsequent +S −S (Initially)
9 Do you feel that the programme helped you improve your speaking, reading and writing in English?	9 Yes. It is difficult but I feel good when I get good marks. My family is also very happy and says I speak like a boss. (Humorous comment) +A Due to internal and external motivation.

Transcribed

and coded Interview questionnaire (Page 4)



10 Did ABET help you work on your pronunciation and communication skills?

Q: How did the ABET programme influence:

11 Your learning goals, aims?

12 Your learning experiences?

13 Your evaluation of the programme?

14 Has the ABET programme helped you to understand English better?

15 Do you think you are achieving what you expected to achieve since starting the ABET classes? (Explain)

10/Yes, I because have to talk a lot now in English. And write a lot of things. +S +A

(Grammar error)

11 I did not have goals before but now I want to finish and do ABET Level 2 + A

+ Motivation

12 It is nice to learn new stuff. I do not get much schooling before so I like to do ABET and read more stuff now than before. +S

+S +S −S

13 It is very good. The workbook is easier for me than the computer work. But I like the lessons that are like games on the computer. I get nice experience with the mouse also. +S

14 Yes , I think so. My wife says I am speaking better English. I still make a lot of mistakes when I speak and write but I also feel like I am getting better every day. +S

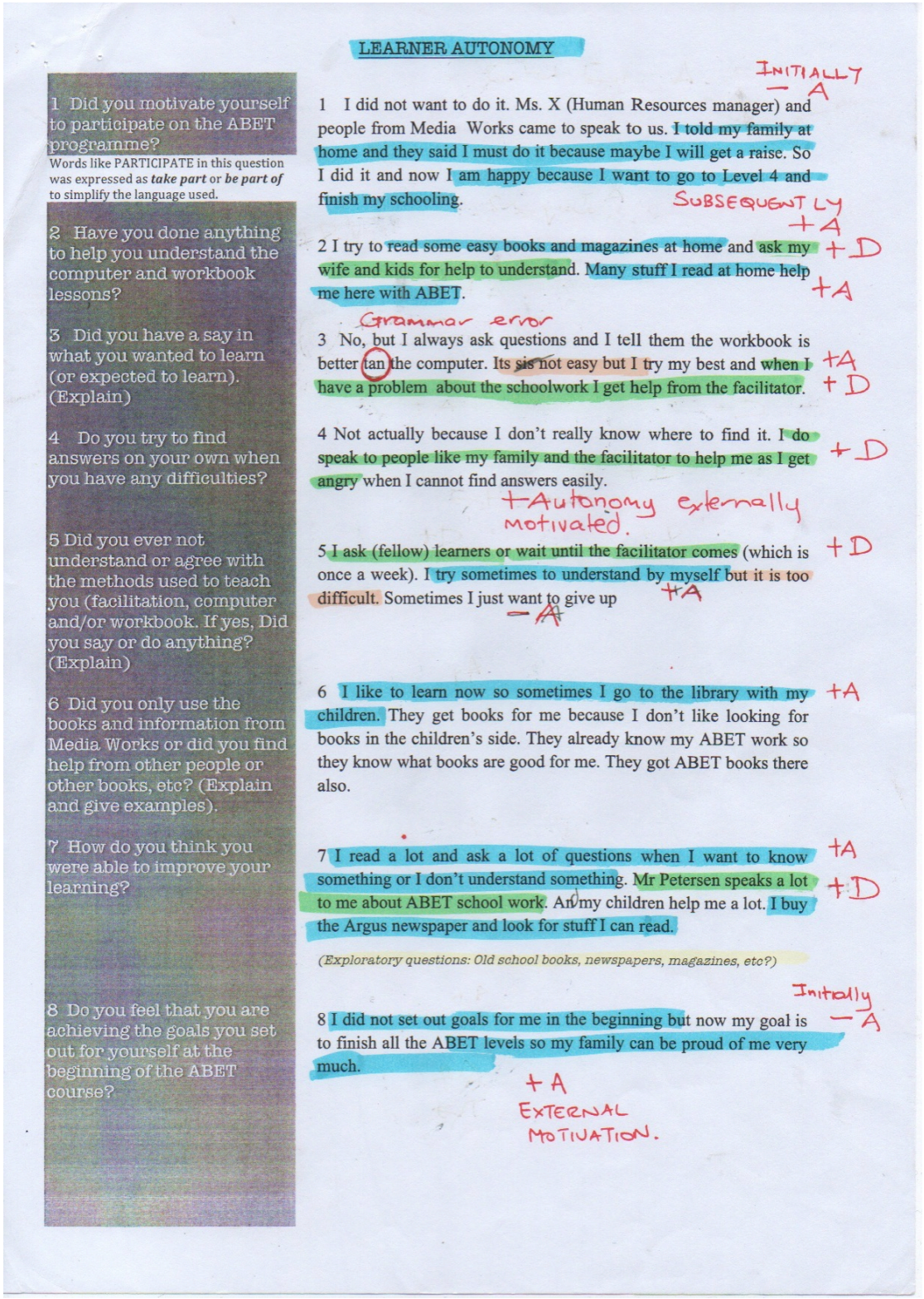
+ Motivation

−S (Initially)

15 I was scared in the beginning because of using the computer. I was also scared to speak, like to the facilitator. Everything is getting better and me too. I believe more in myself and I want to do many other courses to make my life and my family's lives better. + Motivation

+ A

Transcribed and coded Interview questionnaire (Page 5)



LEARNER AUTONOMY

1 Did you motivate yourself to participate on the ABET programme?
Words like PARTICIPATE in this question was expressed as ***take part*** or ***be part of*** to simplify the language used.

2 Have you done anything to help you understand the computer and workbook lessons?

3 Did you have a say in what you wanted to learn (or expected to learn). (Explain)

4 Do you try to find answers on your own when you have any difficulties?

5 Did you ever not understand or agree with the methods used to teach you (facilitation, computer and/or workbook. If yes, Did you say or do anything? (Explain)

6 Did you only use the books and information from Media Works or did you find help from other people or other books, etc? (Explain and give examples).

7 How do you think you were able to improve your learning?

8 Do you feel that you are achieving the goals you set out for yourself at the beginning of the ABET course?

INITIALLY −A

1 I did not want to do it. Ms. X (Human Resources manager) and people from Media Works came to speak to us. I told my family at home and they said I must do it because maybe I will get a raise. So I did it and now I am happy because I want to go to Level 4 and finish my schooling.

SUBSEQUENTLY +A

2 I try to read some easy books and magazines at home and ask my wife and kids for help to understand. Many stuff I read at home help me here with ABET. +D +A

Grammar error

3 No, but I always ask questions and I tell them the workbook is better tan the computer. Its sis not easy but I try my best and when I have a problem about the schoolwork I get help from the facilitator. +A +D

4 Not actually because I don't really know where to find it. I do speak to people like my family and the facilitator to help me as I get angry when I cannot find answers easily. +D

+Autonomy externally motivated.

5 I ask (fellow) learners or wait until the facilitator comes (which is once a week). I try sometimes to understand by myself but it is too difficult. Sometimes I just want to give up +D +A −A

6 I like to learn now so sometimes I go to the library with my children. They get books for me because I don't like looking for books in the children's side. They already know my ABET work so they know what books are good for me. They got ABET books there also. +A

7 I read a lot and ask a lot of questions when I want to know something or I don't understand something. Mr Petersen speaks a lot to me about ABET school work. An my children help me a lot. I buy the Argus newspaper and look for stuff I can read. +A +D

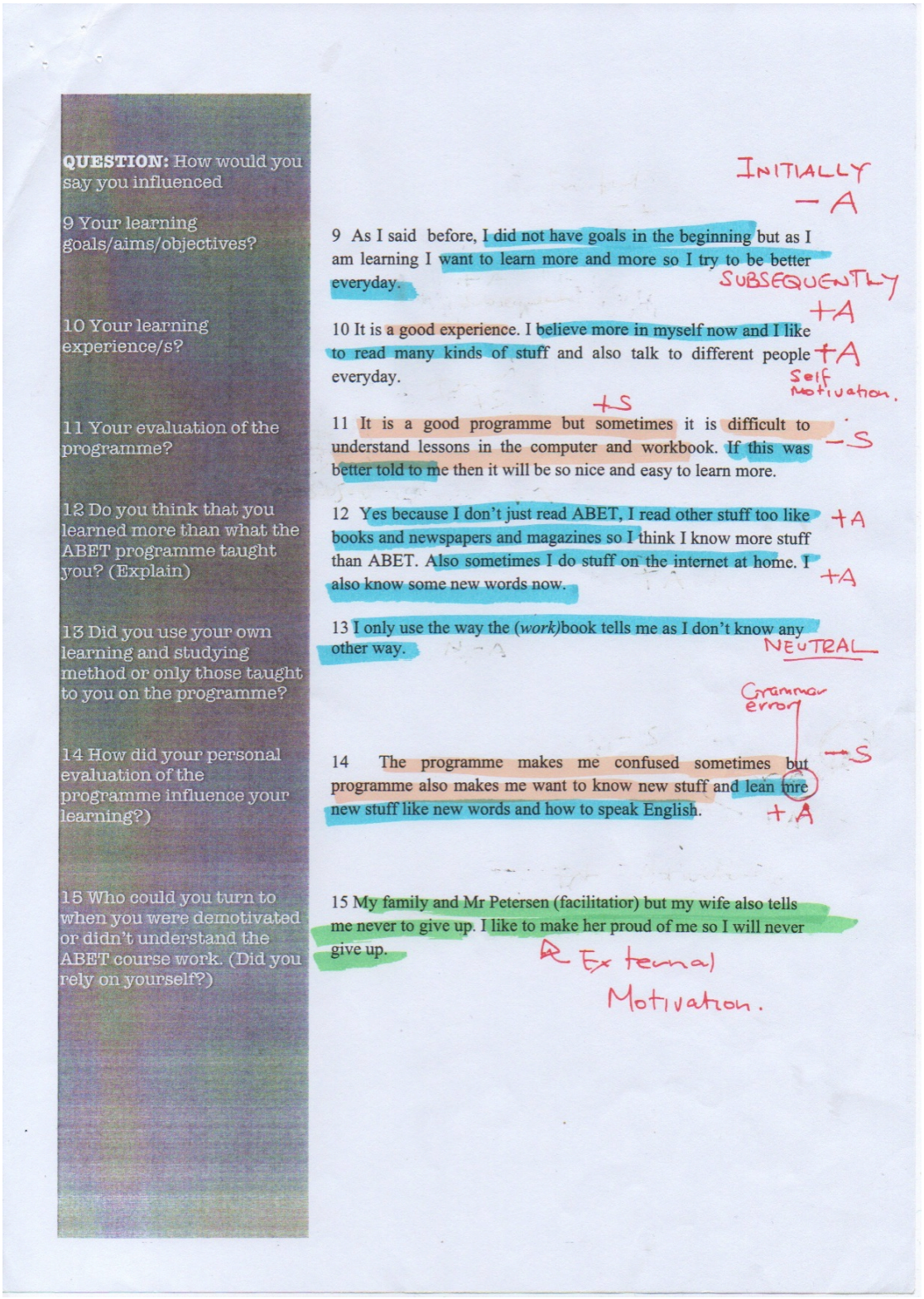
(Exploratory questions: Old school books, newspapers, magazines, etc?)

Initally −A

8 I did not set out goals for me in the beginning but now my goal is to finish all the ABET levels so my family can be proud of me very much.

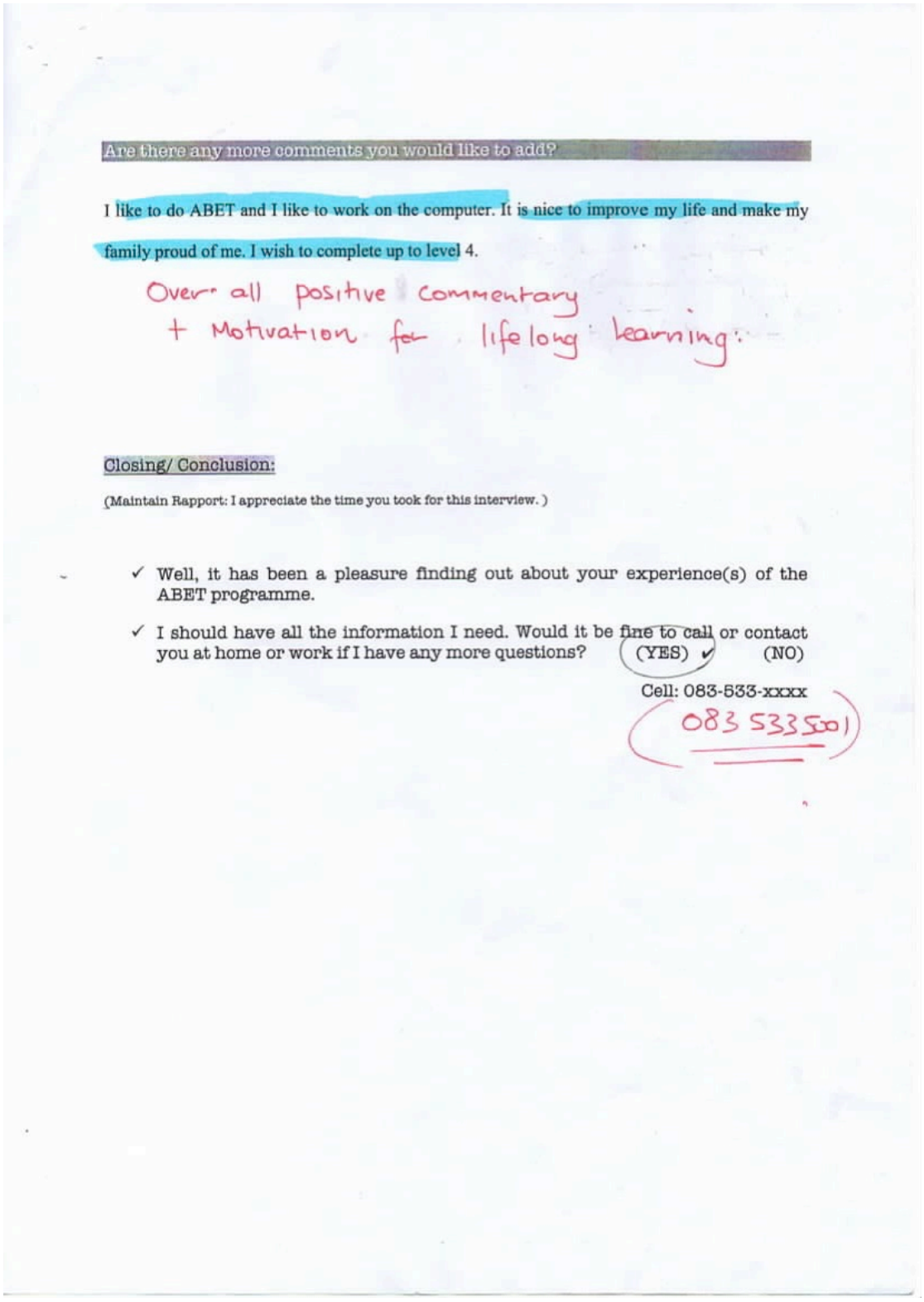
+A EXTERNAL MOTIVATION.

Transcribed and coded Interview questionnaire (Page 6)



QUESTION: How would you say you influenced	
9 Your learning goals/aims/objectives?	9 As I said before, I did not have goals in the beginning but as I am learning I want to learn more and more so I try to be better everyday.
10 Your learning experience/s?	10 It is a good experience. I believe more in myself now and I like to read many kinds of stuff and also talk to different people everyday.
11 Your evaluation of the programme?	11 It is a good programme but sometimes it is difficult to understand lessons in the computer and workbook. If this was better told to me then it will be so nice and easy to learn more.
12 Do you think that you learned more than what the ABET programme taught you? (Explain)	12 Yes because I don't just read ABET, I read other stuff too like books and newspapers and magazines so I think I know more stuff than ABET. Also sometimes I do stuff on the internet at home. I also know some new words now.
13 Did you use your own learning and studying method or only those taught to you on the programme?	13 I only use the way the (*work)*book tells me as I don't know any other way.
14 How did your personal evaluation of the programme influence your learning?)	14 The programme makes me confused sometimes but programme also makes me want to know new stuff and lean mre new stuff like new words and how to speak English.
15 Who could you turn to when you were demotivated or didn't understand the ABET course work. (Did you rely on yourself?)	15 My family and Mr Petersen (facilitatior) but my wife also tells me never to give up. I like to make her proud of me so I will never give up.

Transcribed and coded Interview questionnaire (Page 7)



Are there any more comments you would like to add?

I like to do ABET and I like to work on the computer. It is nice to improve my life and make my family proud of me. I wish to complete up to level 4.

Over all positive commentary + Motivation for lifelong learning.

Closing/ Conclusion:

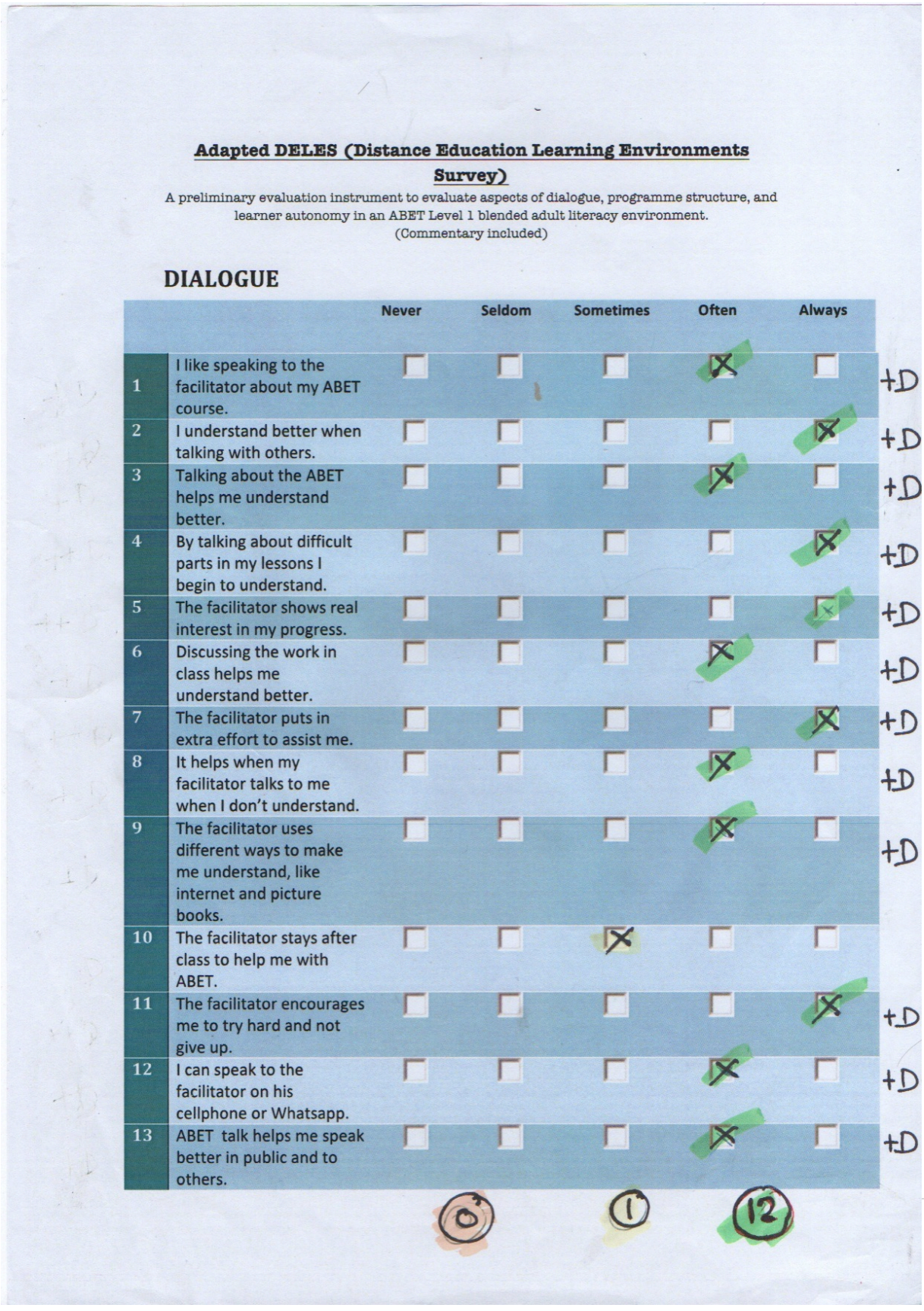
(Maintain Rapport: I appreciate the time you took for this interview.)

- ✓ Well, it has been a pleasure finding out about your experience(s) of the ABET programme.
- ✓ I should have all the information I need. Would it be fine to call or contact you at home or work if I have any more questions? (YES) ✓ (NO)

Cell: 083-533-xxxx

083 533 5001

Appendix 4: Sample colour coded Survey Questionnaire (Page 1)



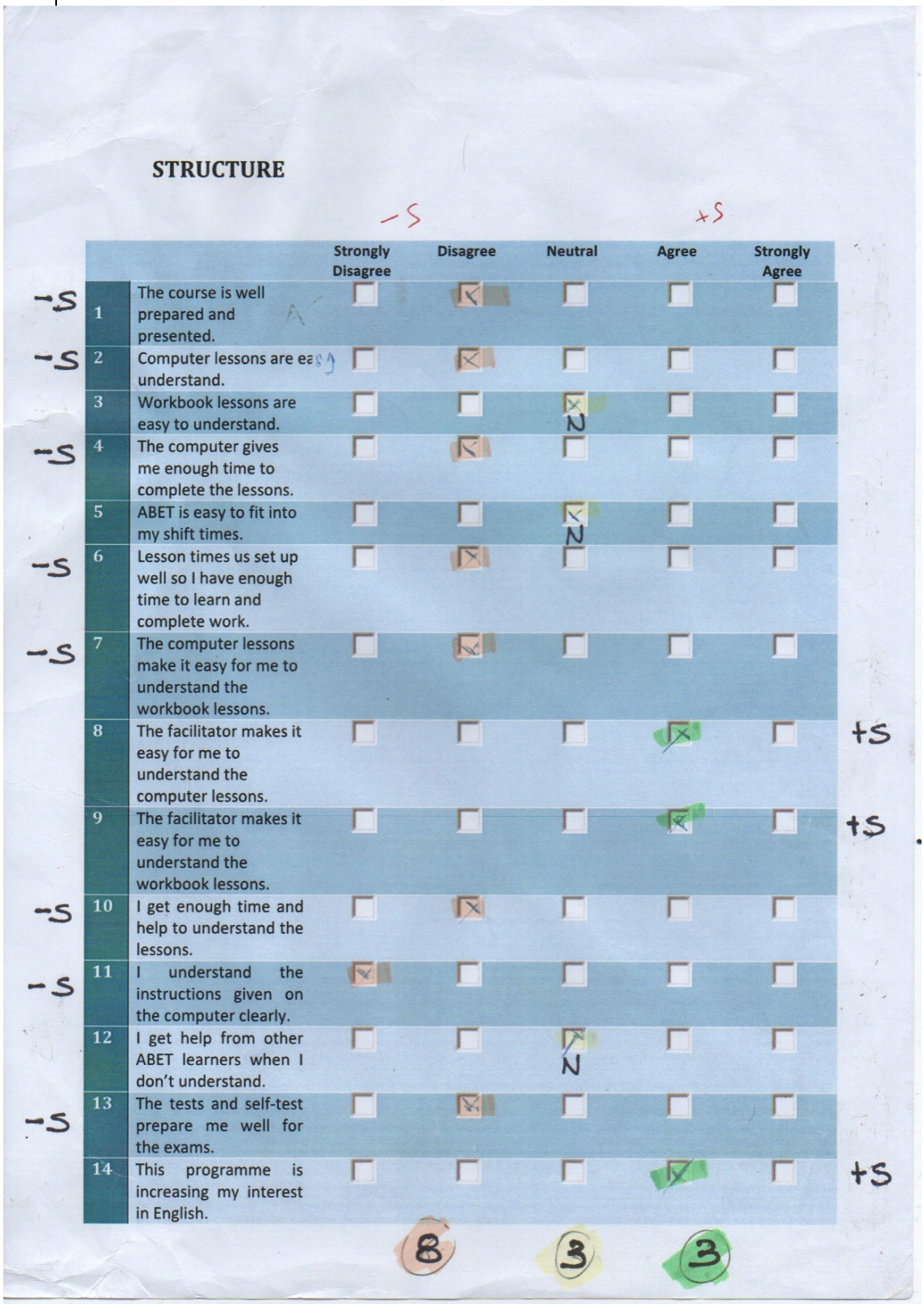
Adapted DELES (Distance Education Learning Environments Survey)

A preliminary evaluation instrument to evaluate aspects of dialogue, programme structure, and learner autonomy in an ABET Level 1 blended adult literacy environment.
(Commentary included)

DIALOGUE

		Never	Seldom	Sometimes	Often	Always	
1	I like speaking to the facilitator about my ABET course.	☐	☐	☐	☒	☐	+D
2	I understand better when talking with others.	☐	☐	☐	☐	☒	+D
3	Talking about the ABET helps me understand better.	☐	☐	☐	☒	☐	+D
4	By talking about difficult parts in my lessons I begin to understand.	☐	☐	☐	☐	☒	+D
5	The facilitator shows real interest in my progress.	☐	☐	☐	☐	☒	+D
6	Discussing the work in class helps me understand better.	☐	☐	☐	☒	☐	+D
7	The facilitator puts in extra effort to assist me.	☐	☐	☐	☐	☒	+D
8	It helps when my facilitator talks to me when I don't understand.	☐	☐	☐	☒	☐	+D
9	The facilitator uses different ways to make me understand, like internet and picture books.	☐	☐	☐	☒	☐	+D
10	The facilitator stays after class to help me with ABET.	☐	☐	☒	☐	☐	
11	The facilitator encourages me to try hard and not give up.	☐	☐	☐	☐	☒	+D
12	I can speak to the facilitator on his cellphone or Whatsapp.	☐	☐	☐	☒	☐	+D
13	ABET talk helps me speak better in public and to others.	☐	☐	☐	☒	☐	+D
		0		1	12		

Sample colour coded Survey Questionnaire (Page 2)

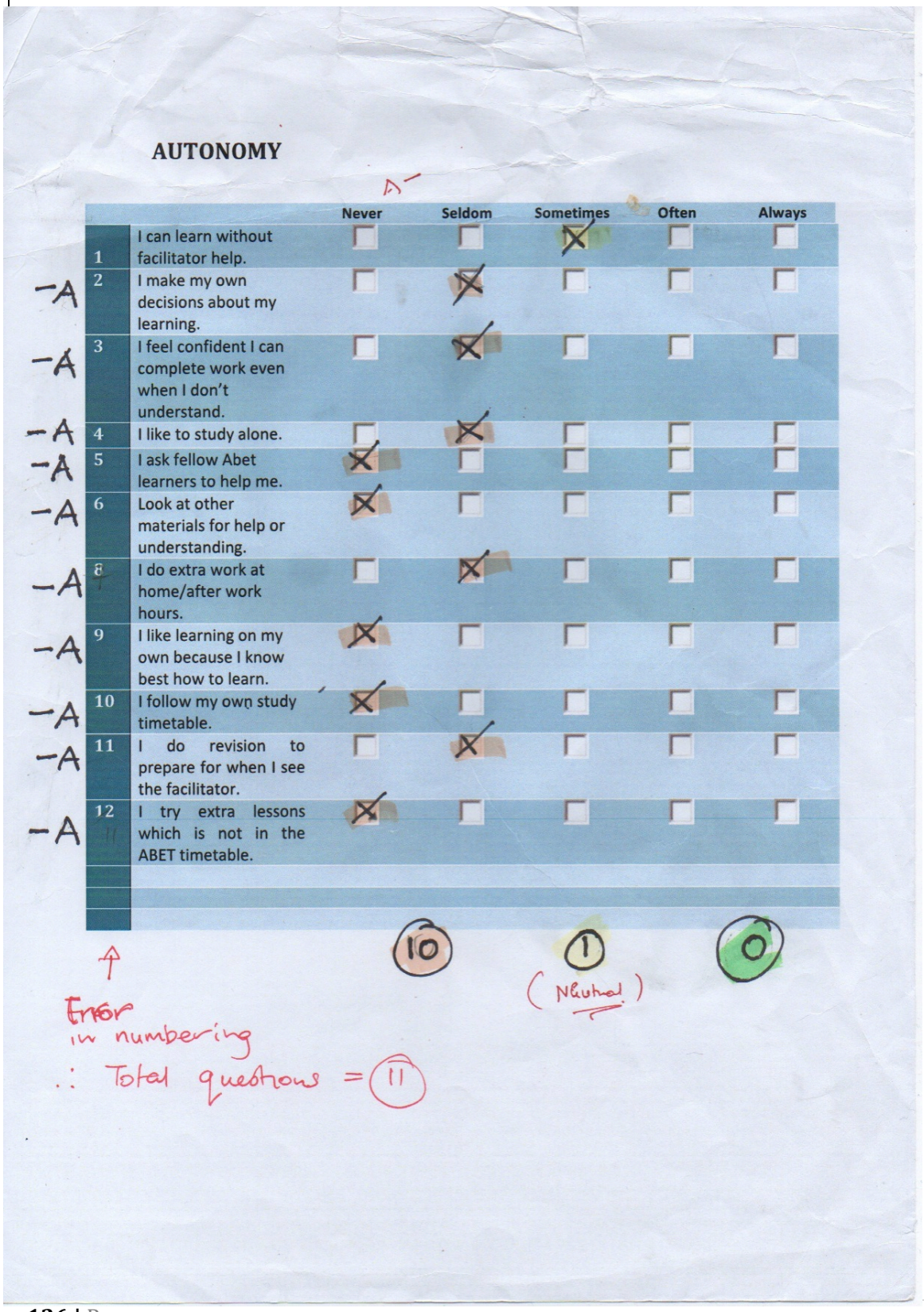


STRUCTURE

-S +S

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
-S	1	The course is well prepared and presented.		X			
-S	2	Computer lessons are ea[illegible] understand.		X			
	3	Workbook lessons are easy to understand.			X N		
-S	4	The computer gives me enough time to complete the lessons.		X			
	5	ABET is easy to fit into my shift times.			X N		
-S	6	Lesson times us set up well so I have enough time to learn and complete work.		X			
-S	7	The computer lessons make it easy for me to understand the workbook lessons.		X			
	8	The facilitator makes it easy for me to understand the computer lessons.			X		+S
	9	The facilitator makes it easy for me to understand the workbook lessons.			X		+S
-S	10	I get enough time and help to understand the lessons.		X			
-S	11	I understand the instructions given on the computer clearly.	X				
	12	I get help from other ABET learners when I don't understand.			X N		
-S	13	The tests and self-test prepare me well for the exams.		X			
	14	This programme is increasing my interest in English.			X		+S
			8	3	3		

Sample colour coded Survey Questionnaire (Page 3)



AUTONOMY

		Never	Seldom	Sometimes	Often	Always
	1 I can learn without facilitator help.	☐	☐	☒	☐	☐
-A	2 I make my own decisions about my learning.	☐	☒	☐	☐	☐
-A	3 I feel confident I can complete work even when I don't understand.	☐	☒	☐	☐	☐
-A	4 I like to study alone.	☐	☒	☐	☐	☐
-A	5 I ask fellow Abet learners to help me.	☒	☐	☐	☐	☐
-A	6 Look at other materials for help or understanding.	☒	☐	☐	☐	☐
-A	8 I do extra work at home/after work hours.	☐	☒	☐	☐	☐
-A	9 I like learning on my own because I know best how to learn.	☒	☐	☐	☐	☐
-A	10 I follow my own study timetable.	☒	☐	☐	☐	☐
-A	11 I do revision to prepare for when I see the facilitator.	☐	☒	☐	☐	☐
-A	12 I try extra lessons which is not in the ABET timetable.	☒	☐	☐	☐	☐
		10		1 (Neutral)		0

Error in numbering

∴ Total questions = 11

Appendix 5: Learner Consent Form (Page 1)

LEARNER CONSENT FORM

for research to be conducted at [redacted]:

(A qualiative research study to determine the role of dialogic learning in the multimedia adult literacy programme at [redacted])

Thank you for agreeing to listen to me. My name is Muhammad Okkers. I am a student at UCT studying for a masters degree in adult education. I would like to study whether the ABET programme gives you enough time, space, and support to express your opinions, question what and how you learn and discuss your learning with others, including your facilitator in order for you to understand and learn better. I would appreciate it if you would agree to be part in my research as an ABET Level 1 learner. Before you decide, I would like to explain to you a few things and guarentee you the following:

What will happen in this study?

I will have an interview with you and if possible observe you in class as you do your lessons on the computer and when the facilitator is there to mark your workbooks and assist you with your ABET work. During the interview I will ask you questions about your experience of being on the ABET programme and how you find learning by using the computer. Anything you say will be only between us (confidential)and no information with your name on it will be given to the company, the service provider or anyone else involved in my research study. Anything you say or feel regarding the ABET programme will not be discussed with anyone at the company. The information gathered from you will not be used against you in any way.

The interview will take approximately a half an hour of your time, or just a bit more, which with be during work hours. Mr [redacted] (HR Manager) agrees with

this so no need to worry. I will sit in your class a few times and take some notes about what I see/ observe. I might record your interview either with a audio or video recorder if you agree. If you don't agree, this is your right and it wont be a problem at all.

What will happen with the information?

All the information I collect will be confidential/private. Noone besides you and me (Muhammad Okkers) will be able to look at any of the information collected. My final report will be anonomys meaning that no one, including yourself, who particiated in my study will be mentioned in the report by name. In this way it will be not be possible to identify your views/opinions in the report. The report will be handed in to the university (University of Cape Town) in order to complete my degree and a copy will also be given to your company. You are also entitled to a copy of the report.

Voluntary

Your participation is entirely voluntary. There will be no consequences if you decide you do not want to participate.

Benefits and harms

I will collect information about your views, experiences and opinions. It should not cause you any distress or harm. If at any time you wish to stop the interview because you feel uncomfortable with the questions asked , you are free to do so. The benefits of my research is that it might help to improve the ABET programme to make learning easier and more interesting.

If you have any further questions about my study you can contact me, Muhammad Okkers, on 083-533-5001 or my supervisor, Dr. Salma Ismail at

Learner Consent Form (Page 3)

the University of Cape Town on 021-650-3253 or email me at: okkmuh001@myuct.ac.za or salma.ismail@uct.ac.za

If you are willing to participate, can you please indicate below that you have understood what the study is about and that you are willing to participate in the study.

Thank you.

MJ Okkers.

_____	_____	___/_____/2016
Name	Signature	Date

Appendix 6: Email requesting permission to conduct research at the ABET site of practice (Page 1)

[
Good day [redacted]

I hope you are well. Thank you for meeting with me the other day to discuss the option of conducting research at [redacted] as part of my Masters studies at UCT. As requested, this email outlines the purpose of my research which, as you have mentioned, will have to be discussed with Mr [redacted] and other relevant HR management for consideration. Just to recap: I am registered to complete a Masters degree by December 2014. My research proposal submitted to UCT entails investigating the role of dialogue in multimedia Adult Education and Training programmes with a focus on learner experience. My research interest in the role of dialogue in adult learning and dialogic learning and teaching which espouses that learning and teaching should be amongst other considerations collective, reciprocal and supportive.

Dialogic learning aims to create pedagogic spaces for adult learners to question, discuss and debate, within an adult learning context. This includes issues pertinent to their occupational, personal and social lives within and beyond the classroom milieu. I intend to investigate ABET Level 1 learners opinions and experiences of their learning from a dialogical and participatory learning perspective in a multimedia adult learning environment.

My research will be minimally intrusive and will require approximately 10 visits to each of your site at [redacted] to conduct data collection activities. In total I will need to interview 20 learners. This will require:

Semi-structured one-on-one interviews of approximately 45 minutes or less with ABET Level 1 learners. (These interviews can be conducted at your convenience and subject to learner availability or be arranged with learners to be conducted after hours.)
In addition I will conduct a survey questionnaire which will take approximately 20 minutes with each learner.

The purpose of the research is to solely investigate the role dialogue played in multimedia adult learning. Of importance is the didactic dynamics at play and although the role-players inform the research findings, there isn't a need or requisite to divulge role-player responsibilities ,responses, opinions or experiences.

Important to note in consideration of my request is :

As per standard research protocol and UCT's stringent ethics requirements, anonymity, and confidentiality will be maintained throughout the research process and beyond. Staff members, adult learners, facilitators, or any other role-players in my research study will NOT be referred to by name or be alluded to in any revealing

Email requesting permission to conduct research at the ABET site of practice (Page 2)

or incriminating way.

Furthermore, your company will not be named, nor its locations, primary operation or business be revealed at any stage of or at conclusion of my research study.

When we met, you mentioned that your workload does not allow you to be intimately involved in my data collection regime and this is fully understandable and definitely not my expectation. All I request is permission and access to conduct data collection. As you are aware, I am quite familiar with all PenBev sites and my presence will be minimally intrusive beyond just gaining access to past ABET Level 1 learners, obtaining their consent for their participation in my research and finally culminating in conducting interviews with each of them. At our meeting you requested that I obtain ABET Level 1 learner names as this would be difficult for you to do as records have been either archived or disposed of. To this end I have been able to obtain ABET Level 1 learner names that I could approach to be interviewed. Please find these names below.

1 Jeremy [redacted]
2 Mfuneko [redacted]
3 Mzok[redacted] Mzimk[redacted]
4 Marshall B[redacted]
5 [redacted] Jonas
6 Wayne [redacted]
7 Ryan [redacted]
8 Charlton K[redacted]
9 [redacted]on Sy[redacted]
10 Jimmy Le [redacted]
11 Faizel [redacted]
12 Charmaine [redacted]
13 Cheryl [redacted]
14 [redacted] Allie
15 M[redacted]i Pendu
16 [redacted] Erasmus
17 [redacted] Adriaanse
18 Shirley [redacted]
19 Andrew [redacted]
20 Tyro[redacted]utc[redacted]

I anticipate that my request will be considered favorably. The intention ultimately is to contribute to the complex body of knowledge known as adult education; elucidate on matters affecting and influencing adult education provision and adult learning. My hope is that my research would add substantive value to understanding the educational needs of adult learners so that the best AET pathway can be plotted

Email requesting permission to conduct research at the ABET site of practice (Page 3)

which will be beneficial and productive to all parties involved in adult literacy education.

Your kind consideration would be highly appreciated.

Muhammad J. Okkers

MEd (Adult Education) Candidate [UCT]

okkmuh001@myuct.ac.za