

THE DESIGN OF AN ADULT LEARNING PROGRAMME: A THEORY-GUIDED EVALUATION OF LEARNING NEEDS

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Abstract

The learning design in programmes for adult learners in higher education does not usually make provision for the specific characteristics and learning needs of adults. The question that directed the evaluation study undertaken was whether the learning design in a specific programme reflected the learning needs of the predominantly adult learners in the programme. Adult learning principles incorporated in an integrated four-part model provided a theoretical framework for the research. The results suggested that some of the learning needs/preferences of the adult respondents were addressed but cautioned leaders that certain areas of the learning design in the programme needed improvement.

Keywords: adult learning, higher education, South Africa, learning design, andragogy

1. INTRODUCTION

In a comprehensive review on higher education in South Africa, Buchler, Castle, Osman and Walters. (2007: 152) point out that more than 50% of students in higher education in South Africa are older than 23 years of age (legislative definition of a mature age learner in South Africa) with 80% of these students enrolled in undergraduate courses. Despite this number, their specific learning needs and characteristics are not regularly researched and seldom taken into account in the design of programmes (Buchler et al. 2007: 125). Even programmes specifically designed for adults lack evidence that lecturers are sufficiently prepared to address the needs of this target population which “raises questions about the quality of programmes being offered to adults in pedagogical and curriculum terms” (Buchler et al. 2007: 148).

The Bachelor of Management Leadership (BML) programme was launched at the Business School of a South African university in 1999 to address the educational needs of working adults who have no formal education in specifically the management and leadership sciences. After presenting the programme for more than a decade, it was necessary to determine if the learning design met the learning needs of the enrolled adults (especially because the programme design was based on an American model), and secondly, to determine if the curriculum was still relevant. An evaluation study was undertaken to determine the learning needs and preferences of the adult learners. Two questions directed this study:

1. What are the generally accepted learning needs of adults and the applicable learning principles that should direct the learning design of an adult learning programme?
2. Does the BML programme provide sufficiently for the learning needs of the adults in the programme?

The first question in the study was addressed carrying out a literature review, which provided a theoretical framework, which guided the subsequent evaluation study. This article presents a brief overview of perspectives gained. The Four-lens Model of Kiely, Sandmann and Truluck. (2004), which incorporates most of the recognised learning principles in the field of adult education, serves as a point of departure. The evaluation of the BML programme, is aimed at determining the learning needs and preferences of the adult learners in the programme and whether the programme provides sufficiently for these needs (compared to literature). In this way, possible areas for improvement in the specific programme could be identified.

2. THEORETICAL FRAMEWORK FOR EVALUATING THE LEARNING NEEDS IN AN ADULT LEARNING PROGRAMME

The literature on adult learning is extensive and provides rich but varying perspectives on the field. The major foundational viewpoints on adult learning incorporate perspectives related to andragogy, self-directed learning, transformational learning theory and situated cognition. The main learning principles linked to these concepts are briefly explained below.

- Knowles identified six assumptions underlying andragogy (a concept that refers to the methods used to teach adults) that impact on the way adults is taught. These are 1) the self-concept of the adult (self-direction in terms of learning needs), 2) prior experiences of the learner, 3) readiness to learn (to fulfil a need), 4) orientation to learning (problem-centred), 5) need to know (value of learning must be seen), and 6) motivation to learn (Knowles, Holton & Swanson 2005: 68).
- Self-directed learning can be studied from two perspectives, as proposed by the Personal Responsibility Orientation Model of Brockett and Hiemstra (in Merriam & Brockett 2007: 138). The first (or traditional) view, held by Tough and Knowles (in Merriam & Brockett 2007: 138), sees self-directed learning in the context of actively involving the adult in the teaching and learning process. A second (related) dimension is to focus on learner self-direction where the adult takes responsibility for the learning (Merriam & Brockett 2007: 138-140).

- Transformational learning theory focuses on providing opportunities for adult students to question their assumptions, and consists of four main components: experience, critical reflection, reflective discourse and action (Mezirow 2003: 58-61). The transformational learning process in the teaching and learning environment starts with learners critically examining their existing experiences, followed by a critical reflection on their own beliefs and assumptions, which usually involves a collaborative setting with a diverse group of students. The goal of reflective discourse is constructive debates to assist the individual in attaining a new level of understanding.
- Situated cognition is an emerging concept in the field of adult learning and focuses on the importance of real-life experiences in the learning process (Merriam & Brockett 2007: 155). Wilson (1993: 77-78) distinguishes three elements, namely learning as a social activity, learning and cognition depending on the tools employed, and interaction with the situation. Creating learning opportunities also needs to be embedded in a context relevant to the students.

Despite the widespread application of the above principles in adult education, scholars such as Brookfield (1995: 1) and Cercone (2008: 142) draw attention to the fact that there is no comprehensive model of adult learning applicable to different adult learning situations. Both Brookfield, and Pratt and Associates (1998: 4), also caution against a single viewpoint of adult learning and argue for a range of perspectives that recognise much needed diversity in adult learning. In response, several scholars in the field embarked on developing models that could assist educators in understanding the different approaches to, and perspectives on, adult learning. These models incorporate many of the acknowledged perspectives on adult learning and provide guidelines, which could be applied in evaluating adult learning programmes. Merriam and Caffarella (1999), for example, developed a conceptual framework that incorporates three main areas of research on adult learning, namely the adult learner, the context where learning takes place, and the learning processes adults engage in. Kiely et al. (2004: 18) expand on the three-part framework to include four areas (or 'lenses') relevant to adult learning, referring to the model as the Four-lens Model. The four lenses not only represent the three areas identified by Merriam and Caffarella, but also include the educator as an additional (fourth) contributor. While each lens provides a different perspective on adult learning, Kiely et al. (2004: 18-19) point out that the four lenses should be seen as complementary and informing each other to provide a holistic view of adult learning.

The Four-lens Model was deemed most appropriate as theoretical point of departure for this study. Choosing this integrated model is substantiated in the brief description of each 'lens' below and in figure 1, which can be regarded as a customised version of the model. It indicates the directives inherently provided by the model for evaluating an adult learning programme.

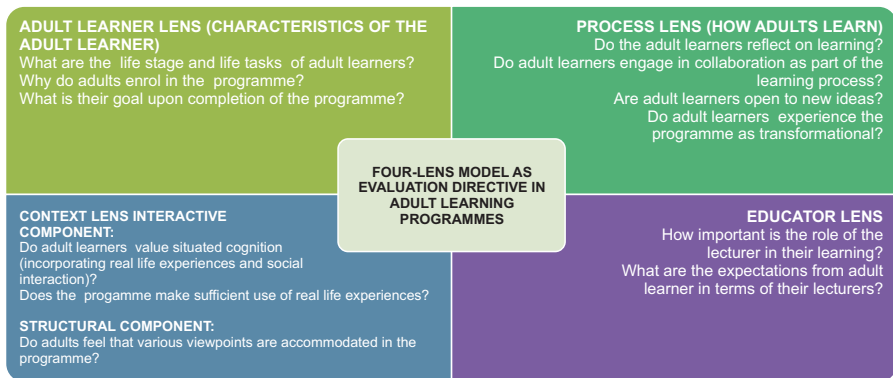


Figure 1: Four-lens Model as evaluation directive in an adult learning programme Source: Customised by authors from Kiely et al. (2004: 19)

The first lens focuses on the **adult learner**. Kiely et al. (2004: 20) emphasise that determining the needs of students is good practice in teaching, especially in adult learning. The adult learners want to participate actively in determining their own needs. This lens clearly focuses on the individual adult student. To determine their learning needs, a variety of factors need to be taken into consideration, among others andragogical principles, the motives for learning, the developmental tasks and life stages of the adults, self-direction as well as possible barriers that could influence participation in the programme (Kiely et al. 2004: 20). Thus, an evaluation questionnaire would include questions relating to students' motivation for learning, current life stages, and tasks students are confronted with in pursuing formal education (see figure 1).

The **process lens** focuses on how students learn. The most important theory associated with this lens would be Mezirow's transformational learning theory. In line with Mezirow's work, Kiely et al. (2004: 22-23) emphasise the ideal conditions for effective discourse, which could be useful to adult educators, to take place. These include factors such as **openness** to new points of view, **opportunities to collaborate** in an environment free from intimidation or coercion and an **opportunity to reflect** (Mezirow 2003: 58-61) (see figure 1).

According to Kiely et al. (2004:24) the **context lens** further supports how adult students learn. Where the adult learner and the process lens focus more on the individual student, the context lens focuses on the social interaction that informs and shapes learning. Kiely et al. adopted the interactive and structural dimensions of adult learning, identified by Caffarella and Merriam, under the context lens. The interactive dimension, which suggests that one needs to understand the relationship between the adult learner, the social surroundings and the physical setting, refers to situated cognition.

Relevant questions in the context of the BML programme would be to determine if students in the programme **value situated cognition** as indicated in the literature (in particular collaboration, interaction and the application to real-life experiences), and if it is important to students, whether the programme makes enough **use of real-life situations**. The structural dimension refers to “how relationships of power affect the ability of adult learners” (Gravett 2005: 43). The focus is not only on the interaction between students during the learning process, but how the macro environment (political and social situations) influence thinking regarding race, culture, gender, class, etc. It would be important to determine if students think that the BML programme **accommodates various viewpoints** and provides a voice to diverse groupings such as previously marginalised groups (see figure 1).

The **educator lens** creates awareness within the educator regarding their “set of beliefs, values and assumptions” and way of teaching (Kiely et al. 2004:26). The educator needs to create a learning environment conducive to sharing, but challenging enough to encourage critical reflection and a reconsideration of who the student is (developmentally focused, conducive for transformational learning). The learning situation should be learner-centred, situated in real life, and adult learners, in particular, need to be regarded as partners in the learning process. In an evaluation, the educator lens could be used to obtain students' views on the importance of the lecturer and their expectations of their lecturers (figure 1).

The above perspectives from literature, as incorporated in the customised Four-lens Model, provided valuable directives for evaluating the learning needs of adults in a learning programme, and were incorporated in the questionnaire that formed the basis of the evaluation study of the BML programme.

3. METHODOLOGY

An evaluation study design was used to investigate whether the needs of adults were taken into consideration whilst compiling the BML programme. This type of evaluation focuses on identifying the needs of the specific population as a first step to effective programme planning and programme evaluation (Babbie & Mouton 2001: 340). Non-probability, convenience sampling was applied to target all enrolled students (N=393). Two hundred and forty one (61%) respondents completed the questionnaire, which is regarded as a good representation (Babbie & Mouton 2001: 261). The questionnaire, informed by the Four-lens Model of Kiely et al., was developed to gather mainly quantitative data, with a few open-ended questions as enrichment. A four-point Likert scale ranging from 'strongly agree' to 'strongly disagree' was used to rate statements relevant to the four lenses. The open-ended questions allowed respondents to elaborate on the reasons why they enrolled and to reflect on their current learning needs.

To analyse the four-point Likert scale questions, the categorical values were changed to a factor value (FV). In describing the results, the strongly disagree and disagree responses were grouped together to create an overall disagreement FV; the same was done with the strongly agree and agree responses. A $FV < 0.5$ (<50%) indicated that the majority of respondents disagreed, while a $FV > 0.5$ (>50%) indicated agreement with a statement.

4. RESULTS AND DISCUSSION

The results are presented and discussed according to the four lenses, namely the adult learner, the context, the process, and the educator, commencing with results relating to the adult learner lens.

4.1 Adult learner lens

The questions informed by the adult learner lens in relation to the BML programme, aimed to establish the life stage and tasks of BML students, their motivation and goal for enrolling in the programme (see figure 1).

Regarding the current life stage of adults in the programme, most of the respondents (97%) are in their middle adulthood (31-50 years of age), with a considerable percentage (44%) older than 41 years of age (figure 2).

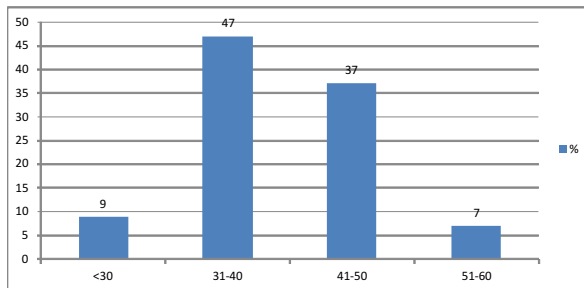


Figure 2: Age of BML students.

From an adult development perspective, the main life task during middle adulthood would be redefining their identity (Knowles et al. 2005: 224) The majority of students in the programme (97.51%) indicated having developed since their enrolment confirming the personal development perspective of the programme that could support students in this transitory period. The andragogical characteristics of adult learners include their current responsibilities, namely work responsibilities (97%), family obligations (91.6%), maintaining a home (86.1%), supporting children financially (66.3%) and community obligations (53.5%). This confirms that the life situation of adults is different from mainstream students. One respondent not only commented on the various responsibilities, but also provided a sense of the self-directedness of adults regarding lecturer support.

An undertone that should alert leaders in the programme on how adult students want to be treated:

Understand that I already have a full schedule filled up with work and no social activities, and when I have a problem do not treat me as a student that's trying to find an easy way of an assignment. I do this because I want to and not because I'm forced by a parent. I will therefore give my best, but if I have a problem, treat me like an adult.

Regarding the reasons for enrolling, three main themes were identified: acquisition of competencies (32.04%), development in various areas (46.13%), reasons related to specific characteristics of the programme (14.79%), and other (7.04%) (table 1). Almost half of the respondents (46.13%) enrolled to develop in a specific area. Other reasons were obtaining a formal qualification (13.38%), career advancement (13.73%), and personal development (16.49%). Table 1 indicates the relevance of what students are currently doing in the workplace and the need for further development in that area (implicating the readiness to learn). These include development of knowledge in the field (11.27%), followed by the development of skills (10.21%), while 10.56% indicated that they are currently in a management position and need to manage their subordinates better. With 81% of respondents in a management position, ranging from junior to senior management, their orientation to learning, as identified by Knowles et al., is evident.

Table 1: Reasons for enrolling in the BML

Reason for enrolling in programme (N= 284)	Number of responses	%
Theme 1: Acquisition of competencies	91	32.04*
Currently in the position and need to manage better	30	10.56
Development of knowledge in the field	32	11.27
Development of skills in management and leadership	29	10.21
Theme 2: Development	131	46.13*
To obtain a formal qualification	38	13.38
Promotion, career opportunities	39	13.73
Stepping stone to a future educational path	10	3.52
Personal development	44	16.49
Theme 3: Characteristics of the programme	42	14.79*
Flexibility in delivery	22	7.75
Relevance of the programme	4	1.41
Programme design	10	3.52
Accommodate adult learners	3	1.06
Integration of theory and practice	3	1.06
Other reasons for enrolment	20	7.04*
Compliance	10	3.52
Company enrolled student	8	2.82
Friends encouraged student to enrol	2	0.70

The percentage under the theme is the sum of the subheadings under that theme

One of the principles of andragogy is the motivation to learn. According to Knowles et al. (2005: 68), both internal and external motivators can support learning, although internal motivators are preferred from an andragogical perspective. From both theme 1 and theme 2 most of the reasons are related to the respondents' work, which can be regarded as external motivators. Andragogy was critiqued, amongst others from Merriam (2004: 203) who challenged the validity of the assumption that adults are always internally motivated to learn. Although 17% indicated that they enrolled for personal development, most respondents enrolled due to a need identified in the workplace, either a lack of managerial skills or stagnation in their careers.

In determining the goal of formal education for the students, it seems that respondents are required by their situation in the workplace to pursue formal education, either to address the lack of managerial skills as indicated in theme 1: acquisition of competencies (34%) or addressing opportunities for promotion (14%) part of theme 2. A small number of responses (20%) pursue formal education for personal development and to obtain further academic qualifications. While the goal for these adults is development and growth, the work environment often influences their goals (Merriam & Brockett 2007: 29). This confirms the critique against andragogy that it does not consider the context in which learning takes place (Merriam 2004: 203).

The contribution of the adult learner lens confirms the value of andragogy because even though the validity of the assumptions are questioned, it provides a better understanding of adult learners enrolled in the BML programme and using this in the learning situation (Merriam & Brockett 2007: 137). The findings related to the characteristics of adults in the BML programme provided mixed results in support of the andragogical principles, namely that the respondents have a problem-centred orientation to learning; they bring a wide range of life experiences to the learning environment, and in contrast, are mostly externally motivated to learn. Although respondents felt that the characteristics of the programme (table 1, theme 3) support them as adults from the qualitative responses, frustration regarding lecturers understanding their situation was evident, confirming the importance of the context when thinking about the adult learner.

4.2 Learning process lens

Four aspects regarding the learning process are addressed in this section – the adult principles related to critical reflection, opportunities for collaboration, openness to ideas and the transformative nature of the BML programme. Respondents were firstly requested to indicate if they reflected on learning in the BML programme (figure 3). The majority reported that they reflect on the academic content to ensure relevance and application to their own work environment (96.85% with relation to the first statement shown in the figure and 98.14% with regard to the second statement). This is further illustrated by a comment from one of the students:

Lecturers must be supportive and LISTEN without jumping to conclusions. Often, because one piece of information makes me think of six other things, the formulation of my question may not always be straightforward. Lecturers should have the patience to answer such questions, thereby linking up my existing knowledge and guiding me to a place of contextualisation.

Schon (in Merriam & Brockett 2007: 174) identified this as reflection-on-action that took place after the experience in an attempt to evaluate the experience and to decide how to do things differently. However, according to Mezirow, this would be regarded as content reflection and not critical reflection. Mezirow indicates that collaboration with others will lead to an adaptation of thinking, behaviour and skills, the core of critical reflection (Merriam, Caffarella & Baumgartner. 2007:144-149).

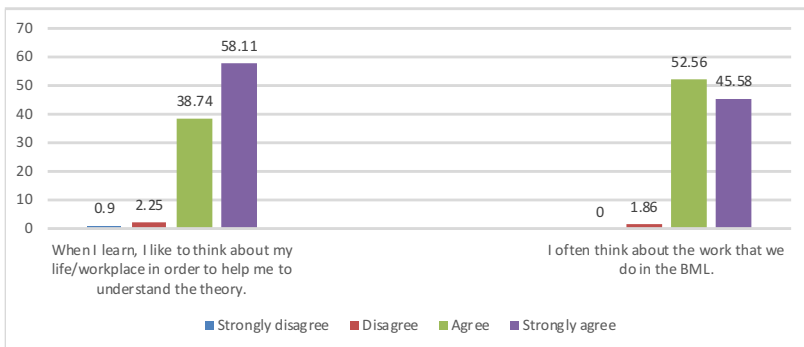


Figure 3: Reflection on learning

Regarding **collaboration**, students were requested to indicate how they learn best (figure 4) and the majority (82%) indicated that they prefer to be engaged through activities and discussions, while 18% prefer a lecture. More than half of the respondents prefer to engage in activities where they can reflect on the work – assignments (30%) and discussions (25%) (figure 4).

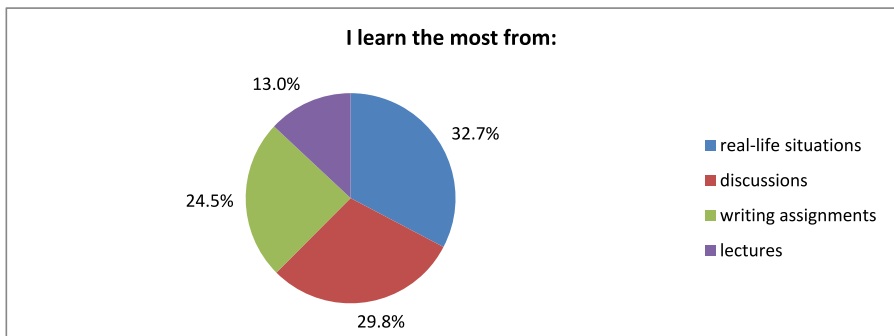


Figure 4: Preference for learning activities

Two further questions were posed to respondents to try to establish their preference to collaborate with each other. Respondents reported that they not only engage with fellow students (58.7%) on the work covered in the BML programme, but also with colleagues at work (62.4%) and with family and friends (20%). Almost a third of the respondents indicated that they liked to reflect on the work on their own. In reaction to an open-ended question on what respondents expect from a lecturer in order to assist in their learning, several respondents indicated that the lecturer should create interactive sessions with discussions or debates, confirming the need identified by Mezirow, that students need opportunities for collaboration and critical discourse.

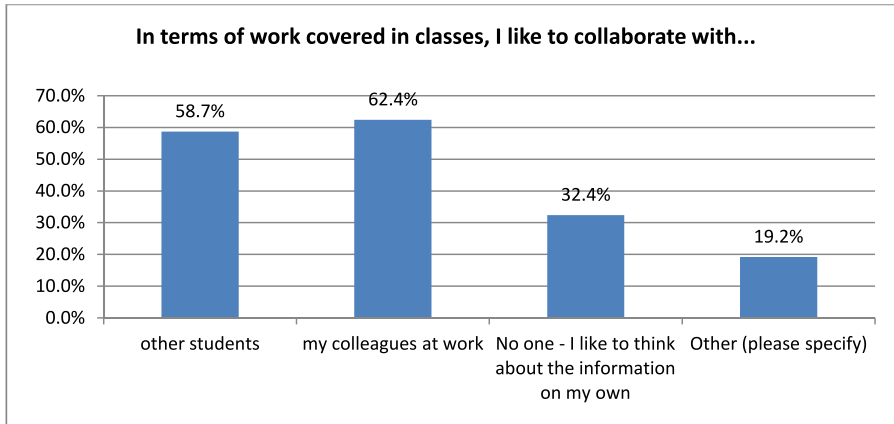


Figure 5: Collaboration preferences

On **openness of ideas** (figure 6), the majority of respondents indicated that they will engage with students if they disagree with them, are open to ideas that are different from their own, and that they approach these differences in a respectful manner (99%). Students are seemingly willing to change their opinion after engaging with other students on issues, indicating the first steps in perspective transformation. This may support the notion of Mezirow (2003: 58-63) that adult learners engage with others to obtain a higher level of understanding and not necessarily to disagree. The results confirm that respondents are open to new ideas, willing to collaborate, and reflect on previous experience, which can be regarded as evidence of content (thinking about the experience) and process reflection (thinking about ways to deal with the experience). However, it is difficult to establish if premise reflection, on beliefs, assumptions and values about the experiences took place (Merriam et al. 2007: 145).

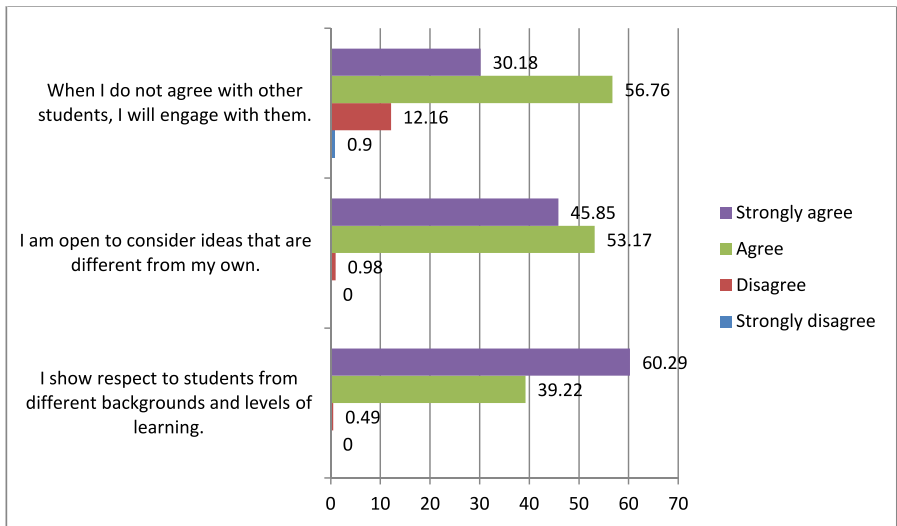


Figure 6: Openness to new ideas

Two questions were posed to determine if respondents believe that learning in the BML programme has changed their attitude and opinion (indications of a transformative process). The results (figure 7) seemingly confirm a change in attitude and opinion. The goal of transformational learning is to reach a new level of understanding through collaboration and critical reflection. Respondents indicated a change in their thinking, even though it would be difficult to determine whether they have reached a new level of learning, thus indicating transformation in this regard.

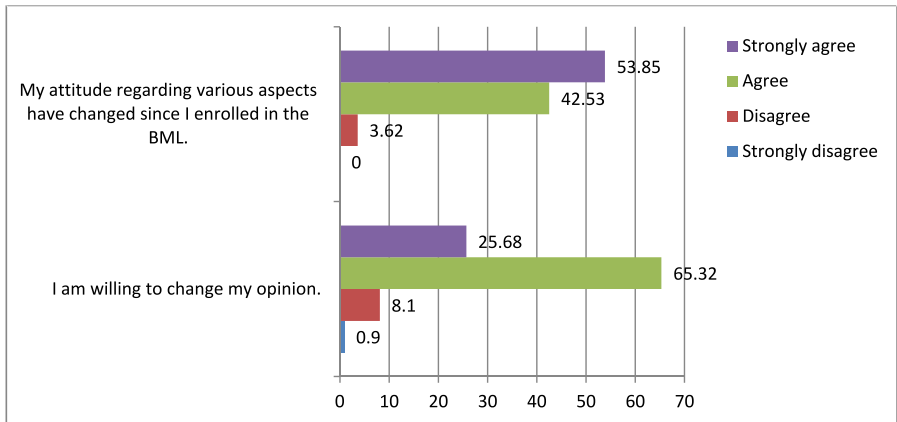


Figure 7: Indications of the possible transformational nature of the BML programme

Respondents seem to support the principles of adult learning relevant to the process lens in terms of content and process reflection. Respondents identified the need for collaboration and were open to new ideas. This is an excellent basis for further development of critical reflection and transformation. Lecturers should create opportunities for collaboration to support not only reflection but also the exploration of critical reflection to develop higher levels of thinking. The type of support that lecturers could offer is indicated in the frustration of one student who commented:

Consider your academic level and background. Sometimes I find the discussions to be at a higher level and I struggle to keep up. I then have to follow up with other students for further clarity. Not necessarily BML students but others from other institutions or professionals at work.

This comment confirms the finding that there are indications of transformative learning among students, but that respondents have not necessarily reached these higher levels of thinking or are not used to it and find it challenging.

4.3 Context in which learning takes place

In considering the interactive dimension of the context lens, it was important to determine if students valued situated cognition and if they felt that their real-life experiences were incorporated in the programme. In relation to the structural dimension, respondents had to indicate whether they felt valued and that their views were appreciated in the programme.

Figure 4 provides some ideas on situated cognition, where respondents were requested to indicate which type of learning activity they learned most from. A third (32.7%) indicated a preference for real-life situations, while 30% indicated discussions and a quarter preferred writing assignments. When respondents were requested to indicate their preference regarding learning activities (table 2), most respondents selected the application of information to real-life situations (66.7%) followed with 56.4% indicating discussing the information with other students.

Table 2: Preference for learning activities

Type of learning activity (N = 204)	Number of responses	%
Application of information to a real-life situation	136	66.7
Discussing information with other students	115	56.4
Listening to lectures	112	54.9
Doing research on a topic	100	49
Practising skills	84	41.2
Reading material	77	37.7
Summarising information	64	31.4
Watching video's	43	21.1
Writing an essay on a topic	36	17.6
Keeping a journal	19	9.3

**Percentage adds up to more than 100% because respondents could choose more than one option*

To explore the components of situated cognition further, respondents were requested to indicate their preferences related to prior knowledge and using real-life experiences (figure 8). The high level of agreement with all the statements convincingly confirmed adult learners' need to be involved in learning that reflects real-life experience, as advocated by situated cognition.

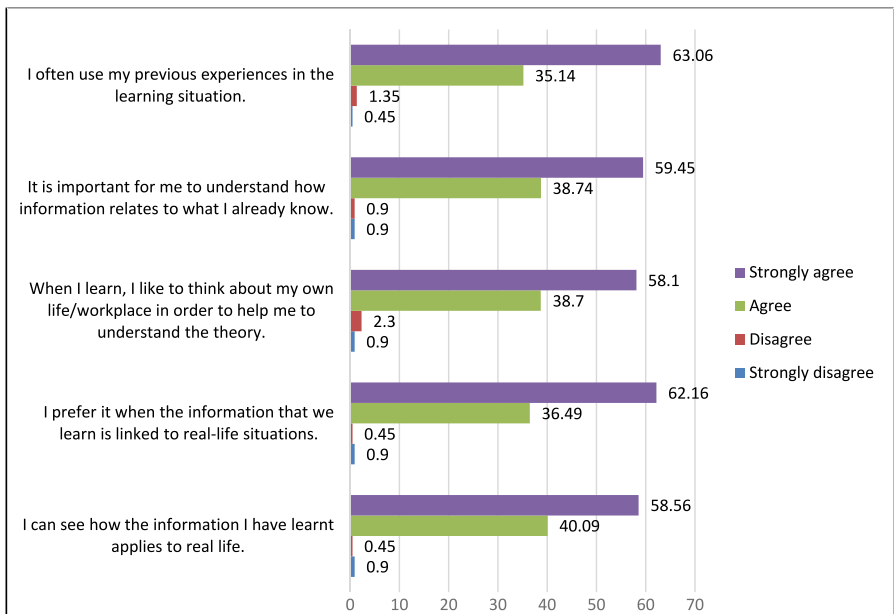


Figure 8: Preferences for situated cognition

From a structural dimension and given the history of South Africa and the diverse student complement, it was important to determine whether students felt that their viewpoints were accommodated and that they were given a voice in the programme. Comparing the responses on the questions in figures 5 and 6, one detects an underlying respect for fellow students and a willingness to change opinions and attitudes. However, some qualitative responses indicate a lack of support for diverse viewpoints:

Understand my environment and appreciate it. Have an interest in what I am doing and to give support to where I am failing. Listen more to my input and then critique. Allow me to form my own opinions.

Regarding the interactive dimension, respondents acknowledged the dimensions identified in situated cognition, namely the importance of real-life experiences and the social interaction. However, more could be done in the BML programme to provide more opportunities for social interaction (collaboration) and the application of theory to real-life situations (see table 2). This area for possible improvement was also identified in the section on the process lens. Seen from the structural dimension, lecturers should appreciate and understand students' backgrounds. Innovative activities in this regard should form an integral part of the learning design of every module.

4.4 The educator

Within the dimension of the educator lens, the lecturer's importance in student learning and their expectations of lecturers were addressed. To determine the importance of the lecturer in the BML programme, respondents were asked to rate the statement reflected in figure 9.

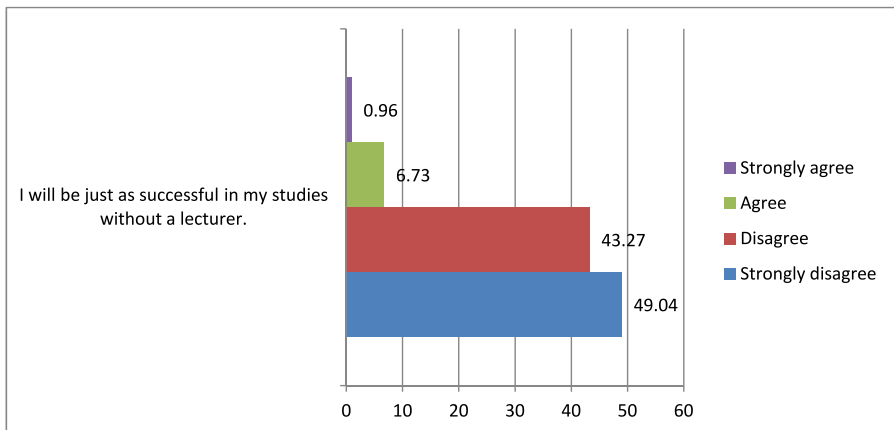


Figure 9: Importance of the lecturer in the BML programme

The majority of respondents (92.31%) disagreed with the statement, implying that they think that the lecturer plays an important role in their success, which confirmed the importance of the role of the lecturer in the learning process of adult learners.

Regarding expectations from lecturers in the BML programme (table 3), an open-ended question was posed to respondents (table 3). The majority of respondents identified providing support to students (24%) and applying the theory to real-life situations (20%) as expectations that they held. Other aspects that were identified under other lenses are also evident here, namely provide more opportunities for interaction (9%) and show an understanding of the context of the students (9%).

Table 3: Expectations from lecturers

Expectations from lecturers to assist learning (N=180)	No of responses	%
Provide more support when needed	44	24
Apply the theory to real-life situations	36	20
Explain to understand better	24	13
Suggestions regarding the teaching process	20	11
Show understanding of the context of the students	3	2
Provide more interaction	17	9
Provide suggestions regarding assessment	11	6
Provide more feedback	10	6
Suggestions regarding lecturer characteristics	9	5
Currently satisfied with what lecturers do	6	3

The majority of comments regarding more support indicated that support must be provided when students requested it – probably pointing to self-directedness as identified by Knowles et al. From this perspective, the availability of lecturers beyond scheduled teaching is important to adult learners.

Other comments included specific suggestions such as more interaction, more feedback, and suggestions regarding assessment.

The study clearly provided a strong indication that the students enrolled in the BML programme display the characteristics and needs of adult learning in all four dimensions of the Four-lens Model. The BML programme is designed to accommodate the needs of adults and in terms of the curriculum, emphasises personal development (adult learner lens) and creating an appreciation for diversity (structural dimension of the context lens). However, the results of the study indicate that the majority of the areas that need improvement involve the classroom where the interaction between the educator and the adult learner takes place. Although the results implied that many adult learning principles are applied, it is evident that the teaching situation, in particular, needs improvement.

From the perspective of an adult learner lens, lecturers can be more accommodating by understanding the range of other responsibilities adult students have to cope with while studying and that most of them are externally motivated to study. From a process lens perspective, more opportunities for collaboration and engagement among students are needed. Although reflection is achieved, more opportunities need to be created for critical reflection and ultimately transformative learning to take place where fixed assumptions about reality are challenged. The evaluation also pointed to a need for the inclusion of prior and real-life experiences in the collaboration (context lens) – including experiences such as “sharing our stories”.

Despite previous training in terms of teaching adults in the BML programme, it seems as if lecturers easily revert to methods of teaching younger students. They need to be continuously sensitised about the learning needs of adult learners.

5. CONCLUSION

The dual aim of the research reported in this article was firstly, to determine whether the characteristics of learning needs of adult students in a specific context (the BML programme) corresponded with adult learning theory and, secondly to determine possible areas for improvement in the design of learning in the programme. To achieve this dual aim adult learning principles were incorporated in a four-part model (known as the Four-lens Model of Kiely et al.) to serve as a theoretical framework which was further customised to direct the evaluation study. The four dimensions (lenses) of the selected model (i.e. the adult learner, the context, the process and the educator), guided the organisation of the findings to ensure a sound theory-guided evaluation.

The evaluation indicated that the majority of students in the BML programme display typical characteristics and learning needs of adults as identified in the literature. On a programme level, the BML programme seems to accommodate the needs of adults satisfactorily in terms of the flexibility of delivery, the curriculum content, the emphasis on personal development and creating appreciation for diversity. From a learning design perspective, however, adults indicated that more could be done to accommodate their needs, especially regarding their interaction with the lecturers. They also need more understanding in accommodating their numerous life tasks while studying and showed specific needs regarding interaction and collaboration, explanation, support, and linking of tasks and presentations to real-life experiences in the classroom situation.

Applying the Four-lens Model highlighted its flexibility and suggested possible customisation by other adult learning programmes for research and development purposes.

However, refinement of some of the questions indicated as part of the evaluation model (figure 1) is recommended in order to more accurately measure specific adult learning characteristics and preferences in a programme. The questionnaire developed as evaluation instrument in this study also revealed shortcomings. The questions related to reflection and changes in thinking patterns/assumptions, for example (see figure 3), were not sufficient to measure the extent of involvement in critical reflection and reflective discourse, and thus the levels of transformative learning according to Mezirow.

The evaluation of the BML programme was valuable in guiding programme leaders in their efforts to continuously improve and adapt the learning design in the programme where needed. It alerted lecturers about the characteristics and needs of adult learners, and provided a basis for future training. The first step would, however, be to investigate the identified shortcomings of the learning design as applicable to every module in the BML programme. In this way, the Business School can ascertain that the programme sustains its role as launching pad for new and better management and leadership in the workplace.

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