Reflection on formative assessment education essay

For my reflection on learning I am going to discuss writing assignment 01. I feel that I did a pretty good job with writing assignment 01, however, there's always room for improvement. The easiest part of the assignment was ofcause the multiple choice questions which I answered using mostly the general knowledge that I have gathered over past few years of studying Business Management; the second part of the assignment was to write a literature review which was a more challenging task to accomplish. Academic writing is not an easy task and often takes years to master fully. So at this stage, I wanted to be well on my way to becoming a better writer and a researcher.

I believe that I have improved on both my academic writing and organizational skills. After going through week 4's content, I had set goals for myself to become better at organizing information, such as sourcing literature and writing about the information. I had hoped to have a better understanding of what a literature review is in order to incorporate this knowledge into my paper, as well as improve on my own ideas, and I feel like I have done that. According to Badenhorst (2010, p. 16) " Writing is currency in academia. It doesn't matter how many ideas we have. If we can't transform those ideas into something material, we have nothing worth trading." Therefore, I had also wanted to be clearer when coming up with ideas in a concise, logical and integrated manner so that the person reading could easily follow my argument and understand what I am trying to say. And once again, I feel that I have done just that too.

The general feedback that I got on my first assignment was positive. Some of suggestions that I had received from you were, " Very good review. Evidence

that the literature was studied and integrated in to the review. You should review the APA style referencing. As you cited some of the references wrong in the text. Always cite correctly." So I went back to revise the document that was given to us in the beginning of this module, namely, An Abridged Guide to the APA Referencing Style. I have learned that when citing a paraphrase within the text of an assignment, the surname of the author followed by a comma and the year of publication should be given wholly or partly in round brackets. If referencing a direct quote a comma and page number after the year should be added. I am now more comfortable with using the APA style referencing and hopefully won't be repeating the same silly mistakes I made in this assignment.

References:

Badenhorst, C. (2010). Productive writing – becoming a prolific academic writer. Pretoria: Van Schaik Publishers.

Reflection on learning in Assignment 02

I believe assignment 02 was a real chance for me to test my knowledge and ability to reach the outcomes of the module. I say this because of the nature of this assignment. In general I used to perceive multiple choice types of questions as an opportunity to gain easy extra marks. However, few questions in, I soon realized that assignment 02 was one of the most challenging assignments that I had to complete this year. That is why I was relieved and pleasantly surprised upon the release of the final marks. According to the results, I have gotten 42 correct and 8 incorrect answers. Looking back on the assignment 02, I feel as though I was well-equipped in the majority of the questions in the assignment, especially on answering the

questions relating to quantitative and qualitative designs, due to thoroughly going through the work in Week 6, 7, 8, 9 and 10.

I feel like my weak point in the multiple choice assignment was that I may have fallen for the distracters. The reason why I have gotten some of the questions wrong is because I struggled in interpreting the idea of the text and choosing one correct answer. Also, most of the questions that I got incorrect had to do with either sampling or data collection. After this assignment I have learned the importance to have a good understanding of measurement process, like levels of measurement, reliability and validity. Researchers need to understand the values they attach to the information they collect. I believe that the tools I learned in this module have made me develop as a researcher and better prepared me for the future.

2. 2 Weekly self-evaluations

Include the two qualitative questions as self-reflections here for any three weeks of your choice. In addition to including the content that you provided during the specific weeks, also add a further reflection on how you feel about your answers at this point in time, now that you look back at these reflections:

Nr

Week

Self-reflections

1A

2

Describe how you are finding this section of the module and the way in which it was presented.

What did you like and what helped you to understand the material? On the other hand were there things that you did not understand properly in the way they were presented. How do you think we can improve our presentation and activities around this part of the work for this module?

1B

2

2A

4

Based on this week's chapter, which content did you find easy to understand? What helped you to understand the material?

What sections did you not understand properly? How do you think we can improve our presentation and activities around this part of the work for this module? In one or two paragraphs, explain the extent to which you are comfortable with your knowledge and understanding of the content of this introductory chapter

2B

4

3A

7

In one or two paragraphs, tell us how challenging you found the content of this week's work?

Are you coping with the workload each week? What are you doing to help reach the targeted learning goals each week?

3B

7

2. 3 Reflection on the value of research

As an honours student, an employee or employer in an organization, or a citizen of a country, you must make many decisions every day. Good, informed decisions require knowledge. What are the sources of our knowledge? Some of it is acquired through formal education in honours and masters programs in social work, or from attending on-going education programs. It may come from reading articles in professional journals, textbooks, or through online searches. It may also come from senior level experts who have been successful social workers for many years. Factually, much of the knowledge derived from these sources has one characteristic in common – it is all derived from doing good research (Bryman & Bell 2007, p. 4).

Conducting research is the most reliable method of acquiring new knowledge about business and learning. Alternative ways of knowing such as common

sense, intuition, authority and tradition, have proven less useful for advancing our understanding of the complex process of learning (Mallick 1999, p. 5). In the last 40 to 50 years, the value of research has attained a great deal of respectability amongst educators, politicians, business people, and other who often turn to researchers in the quest for reliable and valid information for making decisions (Mallick 1999, p. 3).

By teaching students the best ways to conduct research, they will be equipped to acquire the knowledge needed for making good, informed decisions in whatever social system level they may become employees or even potential employers. However, understanding how research should be conducted has a second benefit as it allows social workers or citizens of the country to critically and knowledgeably evaluate the research methods of others (e. g. leaders, politicians) and, thus, assess the credibility of the findings and recommendations that they generate.

References:

Bryman, A., Bell, E. (2007). Business Research Methods, Oxford University Press, New York

Mallick, K. (1999). Researching Education: Perspectives and Techniques, Routledge, London

1. 0 Introduction

Nowadays, almost all curricula in the social studies contain at least one course in statistics. So given the importance of this discipline as a basic knowledge to understand the modern world, it is necessary to do some form

of a research on the student's attitude to statistics, as this could be an obstacle or an advantage in their learning process. From school, to home, to the workplace, statistics have become a part of our everyday life. In many circles, computer knowledge and competence in statistics is perceived as essential skills.

In the beginning of their studies, many of the students are still not fully aware that they are required to study research methodology and statistics as an entire module in order to complete their degree. The emphasis placed on statistics and research related skills without a doubt virtually always surprise them. Some of the students even develop a phobia or an anxiety towards this academic subject that they tend to feel nervous and uncomfortable when they are required to deal with statistics and research related problems.

In order to get a thorough understanding about Unisa's students' attitude towards research methods and statistics, this research will aim at investigating the factors influencing their attitude, by looking at anxiety, self-efficacy they put into studying statistics as well as their academic achievement.

2. 0 Literature review

In order to understand the implications of this research, an explanation of the key variables found in the literature review must first be discussed.

2. 1 Students' attitudes toward statistics

The readiness of students to start courses in statistics can, apart from mathematical and intellectual ability, also be viewed in terms of emotional

and attitudinal factors (Coetzee 2010, p. 1). Attitude toward statistics can be defined as a combination of a students' attitude toward the use of statistics in their field of study and the students' attitudes towards the statistics course (Coetzee 2010, p. 1). Although some students show a positive attitude toward statistics, evidence reveals that unfavourable responses far outweigh any favourable responses (Coetzee 2011, p1). Perepiczka et al. (2011) has reported that students often enter statistics courses with negative views or later develop negative feelings regarding the subject matter of statistics (p. 100).

According to Perepiczka et al. (2011), statistics courses are regarded by most students as an obstacle to obtaining their degree. These same students often delay taking their statistic courses until they cannot postpone it further. Researchers also found that students' negative attitudes toward statistics is an influencing factor in low student performance in statistics courses (Perepiczka et al., 2011, p. 101).

2. 2 Statistics Anxiety

In this study statistics anxiety is one of the three factors that influence students' attitude towards statistics. Researchers documented a large amount of information on statistics anxiety over the years. For example, there are multiple definitions of statistics anxiety available in the literature. Elliot and Dweck (2005) defined statistics anxiety as the feeling of anxiety encountered when taking a statistics course or doing statistical analysis (p. 243). According to Onwuegbuzie, DaRos, and Ryan (1997) statistics anxiety refers to the apprehension that occurs as a result of encountering statistics in any form at any level (p. 28).

The existing literature also identifies situation specific nature of statistics anxiety, ranging in intensity from mild to severe. While the mild form of statistics anxiety may induce only minor discomfort, severe forms can result in nervousness, panic and worry (Alauddin & Butler, 2004, p. 202). According to Onwuegbuzie (2000), majority of graduate students in the social sciences appeared to experience high levels of statistics anxiety, and it was found to be higher among female graduate students in comparison to their male colleagues. Statistics anxiety may be a critical factor in influencing and attaining a student's academic and professional goals.

Baloglu (2003) identified three categories of variables, situational, dispositional, and environmental, that are related to statistics anxiety (p. 856). Situational experiences are factors that surround the student, which includes previous statistics experiences.

Dispositional experiences are intrapersonal factors that include psychological and emotional characteristics made up of issues such as perfectionism and perception of abilities at developmental stages in life (Baloglu, 2003, p. 856). Environmental experiences are interpersonal factors related to the classroom experience (Onwuegbuzie & Daly, 1999), which can include the student's experiences with the professor.

2. 3 Self-Efficacy to Learn Statistics

Perepiczka et al. (2011) defines general self-efficacy as " one's judgments of his or her capabilities to organize and carry out courses of action required to attain specific types of performances". In other words self-efficacy to learn statistics is a person's confidence in his or her ability to successfully learn

statistical skills necessary in a statistics course. Perepiczka stated that self-efficacy beliefs are manifested from four primary sources, which include the following: personal accomplishments, vicarious learning experiences, verbal persuasion, and emotional arousal. These primary sources lay the foundation for building the concept of self-efficacy to learn statistics.

There is a lot of information available on self-ability or self-efficacy related to academic achievement (Balogu, 2003, p. 858). However, little is known specifically about self-efficacy to learn statistics. Perepiczka (2011) investigated whether self-efficacy to learn statistics is related to performance in a statistics course and whether self-efficacy to learn statistics increased during a 12-week introductory statistics course. One hundred and three students from a large university partook in the survey. Perepiczka (2011) stated that there was a positive relationship between statistics self-efficacy and academic achievement as well as an increase in self-efficacy to learn statistics over the duration of the course.

2. 4 Relationship between Attitude and Academic Achievement

There are indeed numerous researches conducted on testing the relationship between attitude and academic achievement. Based on the previous literature, there is a general agreement that attitude could be regarded as a significant determinant of one's academic achievement. Most of these researches illustrated the more positive one's attitude towards an academic subject, the higher the possibility for him/her to perform well academically (Lilian, 2012, p. 156). The same applies vice-versa, students that previously

have been performing well in mathematics field, generally have a more positive attitude towards statistics.

In a research conducted in the U. S, the academics studied the relationship between students' attitudes and academic achievement in college mathematics by inviting 218 freshmen to complete a set of questionnaire. The result indicated that students' attitudes were highly correlated with their achievement in college calculus (Lilian, 2012, p. 156). In another longitudinal study also conducted in the U. S., the researchers assessed the relationship between attitude towards mathematics and achievement in mathematics. It was found that attitude had a powerful influence on students' academic achievement (Lilian, 2012, p. 156).

3. 0 Problem statement

Statistics at a tertiary level is often a daunting task facing students undertaking these courses. This attitude amongst students have been shown to directly influence their motivation to study, achievement in statistic modules, and overall enrolment in statistics courses that are not compulsory, especially in the final year of undergraduate degrees and postgraduate years of study.

Students' attitude towards statistics is essentially either positive or negative, but remains a multifactorial issue. The most common factors that are assessed are preconceptions about statistics, environmental factors (e. g. age, gender, etc.), previous mathematical experience, mathematical aptitude, beliefs, interests, the number of years elapsed since students' last statistics course etc.

Students with a negative attitude tend to focus only on the method of assessment which only serves to increase their test anxiety.

Since students' attitudes toward examinations and other non-cognitive factors can affect their performance levels in statistics courses (Onwuegbuzie, 2000), Students also view some forms of assessment as more anxiety inducing than others, thus affecting their performance in the assessments. A programme of assessment also should include means for determining students' impressions of the relevance and fairness of the assessment process (Onwuegbuzie, 2000) to determine what can be done to reduce assessment anxiety.

Students' with positive attitudes towards statistics tend to have a higher performance in statistics courses than students with negative attitudes. With this in mind, it would be an excellent idea for lecturers teaching statistical courses to promote a positive attitude towards statistics, not only as a professional tool, but also a something that can be used every day as a central skill. It might also be plausible that the first goal in teaching statistics should be to reduce the fear of statistics before introducing the course work (Coetzee 2010, p. 2).

4. 0 Objectives of the research

This study primarily has two main objectives. First, the current research intends to test whether attitude is significantly related to anxiety and self-efficacy. Second, the study aims to test whether attitude serves as a mediated factor between anxiety, self-efficacy and academic achievement.

From the specified research objectives, the following research questions are derived:

What is the graduate student attitude toward statistics?

What is the graduate student self-efficacy level?

What is the graduate student statistics anxiety?

What is the graduate student level of academic achievement?

Does attitude play a role in affecting students' academic effort?

Does self-efficacy play a role in affecting students' academic attitude?

Does students' academic attitude play a role in affecting their academic achievement?

Does attitude play a mediating role between anxiety, self-efficacy and academic achievement?

What is the extent of the relationship, if any, between graduate students' self-efficacy to learn statistics and statistics anxiety and the attitude towards statistics?

5. 0 Method of investigation

5. 1 Research design

In the current research, quantitative research method will be implemented. Concerning the primary data collection method, self-completed questionnaire will be used because it is comparatively timesaving and has

the benefit of collecting responses from a large group of subjects with a relatively low cost.

5. 2 Sampling

Students of both the genders will constitute the population of this study. The study population will consist of all honours students registered for a course in research methodology at a distance education institution in 2012 (N = 2340).

The primary reason for targeting students registered for this subject is due to the fact that all of them have almost completed the research methods and statistics course; hence it will be easier for them to answer the survey questions.

Concerning the sampling method, convenience sampling and snowball sampling will be used in the process of selecting samples from the target population. Regarding convenience sampling, it is a sampling method in which samples are selected on the basis of easy availability. Since I as the researcher am also an honours student at a distance education institution I can easily approach students studying the same course via online forums, email, etc. After distributing the questionnaires to those students that i personally will come in touch with, I will then invite the respondents to further recruit or encourage the subjects from among their acquaintances to fill out the questionnaire to boost participation, and this is known as the snowball sampling.

5. 3 Data collection & Ethical considerations

An introductory letter explaining the purpose of the study will go with each questionnaire. The participants will also be assured in the letter about the confidentiality and the non-disclosure of information that they will provide. Additionally, respondents will not be required to provide sensitive or detailed personal information, like their full name. Instead, respondents will only need to indicate their gender, race, major and year of study. In order to further guarantee anonymity, and so there is no way for a researcher to identify which questionnaire belongs to which respondent, further measures will be implemented. Participants will not be required to hand in the questionnaire to the researcher directly but to put the completed questionnaires in a collection pile.

The questionnaires will be made up of some open and closed questions as well as some multiple choice questions. Also, a meeting with the respondents will be arranged at the selected Unisa venue. At this session the objective of the study will briefly be explained and any questions that the respondents might have will be answered. The respondents will then be encouraged to complete the questionnaire during the meeting. If a participant requests a removal from the study at any time, he or she will be removed immediately.

5. 4 Data analysis

As one of the main aims of this research is to establish weather a relationship exists between students' attitude towards statistics with respect to statistics anxiety, self-efficacy as well as academic performance, correlational analyses will be conducted. Correlational studies are those in

which an attempt is made to relate two or more variables to each other. However, there is a caution by researchers that a correlation between variables does not necessarily allow us to claim that the values of one variable cause changes in the values of another variable (Linden, 1982, p. 17). A simple linear regression analysis will be computed in order to determine which variables predicted students' attitudes towards statistics. In this analysis, a single variable depends on or is influenced by one or more variables (Linden, 1982, p. 17).

In analysing the relationship between the variables, reliability test will be conducted to estimate the reliability of the scales adopted in the current study. Descriptive statistics will be used to show the demographic characteristics of the respondents. And finally, the multiple regression analyses will be used to estimate the prediction power of statistics anxiety and self-efficacy on attitude; and the prediction power of attitude, self-efficacy, and statistics anxiety on academic achievement.

6. 0 Conclusion

The present research further supports that there is a direct relationship between attitude, anxiety, and self-efficacy and academic achievement as suggested in past literature. It is detected that attitude has a direct effect on academic achievement while self-efficacy also has a direct effect on academic achievement.

Researching predictors of graduate students' statistical self-efficacy beliefs is important to identifying possible barriers to professional growth and development. Exploring how statistical self-efficacy beliefs relate to

predicting future academic expectations, performance, effort, persistence, and course selection also is important to explore as a means of promoting professional development (Perepiczka et al., 2011, p. 106).

Teaching graduate students how to reduce their anxiety and improve their attitude will likely enhance their value of statistics and further encourage their professional development in the profession that requires work with statistics.