



Attitude, Learning Style, and Commitment on Academic Performance of Students in Research: A Structural Equation Model

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Abstract

Academic performance is a substantial element in determining students' achievement. The foremost goal of this research was to generate a model that best fits the academic performance of the students. Three exogenous variables were utilized to generate the best-fit model: attitude, learning style, and academic commitment. Data were gathered from the 145 fourth-year BTVTED students. Descriptive-causal and structural equation models were utilized as the design of this study. This study adjusted its tools and used online platforms to collect data in order to account for the pandemic's challenges. Initially, analysis using descriptive statistical tools namely mean, the standard deviation was utilized followed by the inferential analysis of data such as Pearson r, multiple regression analysis, and structural equation modeling (SEM). Results revealed that attitude towards research, learning style and commitment among the BTVTED students is oftentimes observed. While academic performance, students' grades revealed that it is very satisfactory. Moreover, a positive and significant correlation was revealed between the exogenous and endogenous variables. The test of influence result revealed that all the exogenous variables significantly influence academic performance. The best-fit model reveals that attitude and commitment are significantly influencing academic performance. Additionally, research usefulness, research anxiety, positive attitude, and research difficulty are the remaining domains of attitude. Commitment retains the following as its indicators: investment and meaningfulness. While the endogenous variable academic performance maintains its indicators: Technology for Research 1 and Technology for Research 2. Hence, in improving the academic performance among students, it should be accompanied by attitude and commitment.

Keywords: *attitude, learning style, commitment, academic performance, research, structural equation modeling, Philippines*

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Introduction

Academic performance is determined by continuous assessment or cumulative grade point average and indicates how well a student, instructor, or institution has met their short- or long-term educational objectives (Tadese et al., 2022). However, several issues have been exposed concerning an undesirable extent of academic performance of students. For instance, absence of high desires and clear objectives, the presence of intellectual misunderstandings and weak emotions, the disturbance of values in life, personal traits and weak ability, lack of parental guidance, financial problems, unjustified assessments, outdated educational materials and ineffective educational management practices of teachers (Wu & Xin 2019).

Students must dedicate a significant time in studying in order to graduate with good academic performance. Students with good academic performance are more likely to have better employment benefits, higher incomes, higher levels of self-confidence and self-esteem, lower levels of anxiety and depression, and lower rates of substance addiction (Tadese et al., 2022). Moreover, having a good academic performance gives the students a sense of accomplishment to motivate themselves to continue doing their best and they have better job opportunities that leads to higher earnings (Mautushi, 2022).

Although there are existing studies that link academic performance to different factors, numerous inquiries have been conducted advancing our understanding about academic performance. However, the researcher has not come across a study that create a causal model on academic performance of students through attitude, learning style, and commitment within the local settings. Hence, the researcher finds the urgency to conduct this study to fill the gap in the literature covering these subjects, especially in the local context. Therefore, the ultimate objective of this scientific inquiry is to create a causal model on academic performance of students through attitude, learning style, and commitment. The results of this study are expected to contribute to the identification of elements that are present in the workplace and contribute to the ongoing efforts in raising academic performance of the students in higher education institution, and they may contribute to the construction of an epistemology of educational practice.

Methodology

The quantitative non-experimental research design was fundamentally used by the researcher. This study uses structural equation modelling (SEM). This method is employed to examine and deal with complex structural relationships. Further, it examined the structural link between measured variables and latent variables (Rashid, 2020). These methods were used to create a best fit model on academic performance of students in research seeing attitude, learning style, and commitment as exogenous variables.

Findings

The results for the students' attitude are presented, examined, and interpreted. The overall mean for attitude was 3.80 and a standard deviation of 0.77. The learning style had an overall mean of 3.96 and a standard deviation of 0.69. The academic commitment had an overall mean of 4.08 and a standard deviation of 0.70. The academic performance had an overall mean of 86.40 and a standard deviation of 3.72. The findings about the significance of the association between attitude and academic performance with an overall calculated r-value of .780 and a p-value of .000. The findings about the significance of the association between learning style and academic performance with an overall calculated r-value of .809 and a p-value of .000. The findings about the significance of the association between commitment and academic performance with an overall calculated r-value of .791 and a p-value of .000.

Moreover, examining the unstandardized beta coefficients is necessary to identify which among the exogenous variables significantly influence academic performance. The attitude towards academic performance computed a beta of .444. Learning style towards academic performance generated a beta of .301. Commitment to academic performance exposed a beta of .431. Therefore, attitude is the best influencer of students' academic performance.

The modified model six, which is the model that satisfies all the allowed ranges of the indices, illustrates the relationship between attitude and commitment and their direct impact on academic performance. Model six was found to have indices that displays a very good fit as indicated by p-value = .162, CMIN/DF = 1.340, p-close = .474 and RMSEA = .049, while the indices of the following generated NFI .973, TLI .988, and CFI .993. All of the indices had values more than 0.95, which satisfied the criteria for the goodness of fit measures.

Conclusion

The result of attitude towards research of students revealed a high level. Therefore, students must continue to be engaged, enthusiastic, and motivated in the research process. The level of learning styles of the students was high. Hence, students must be ready to absorb the knowledge when it is presented in a way that matches with their chosen learning technique. Commitment of the students was high. Therefore, students must continue to be dedicated, persistent, and engaged in their academic endeavors. Academic performance of the students revealed a high performance. Hence, students must satisfy the academic demands of their schoolwork successfully and effectively. Attitude, learning style, and commitment were all positively correlated with academic performance of students in research. Also, all these exogenous variables are significantly influencing the endogenous variable, which is the academic performance. Hence, any variances in students' research outcomes must be influenced by the attitude, learning style, and commitment. The result revealed that exogenous variable that best influence academic performance was attitude. Therefore, attitude impacts how a student approaches their academics and the degree of effort they put in. The model best fits for academic performance of students in research illustrates the relationship between attitude and commitment and their direct impact on academic performance. Therefore, students' research outcomes were highly influenced by the linkage between attitude and commitment.

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