Research Article

The Relationship between Attentiveness and Academic Achievement among Undergraduate Students.

Mrs. Santhanalakshmi. K,

Research Scholar, Stella Matutina College of Education, Chennai, Tamil Nadu, India.

ORCID: https://orcid.org/0009-0006-6072-8900

Abstract

The purpose of the present study was to evaluate a hypothesized structural model that reflects the relationship between Attentiveness and Academic Achievement among Undergraduate Students. Attentive students are more likely to achieve goals. An inattentive student makes careless mistakes and low achieve goals. Today's students are more oriented towards modern technologies. Their attention is drawn to things that are full of technical knowledge and entertainment. Students will be able to focus on learning with enthusiasm if they are able to modernize the workshops and communications. The sample of the study consisted of 815 Undergraduate Students in an Arts and Science College from Tiruvallur district. Survey method and stratified sampling was adopted for the study. Attentiveness scale consisting 23 items was developed by the researcher. The result showed that attentiveness had the strongest relationship on academic achievement.

Keywords: Attentiveness, Academic Achievement, Undergraduate Students

Introduction

Today's students are very smart. Their passion goes beyond school. Recent research suggests that some students are low interested in education and are not as enthusiastic about the methods they use. Experts say the teaching system should be adapted to suit the changing student mindset. Attentiveness can be identified early in children, and a recent research study has positive educational outcomes. The idea of teaching attention can be seen today as speed, efficiency and success worthy of inspiration. Multimedia will also increase their technical knowledge. It is appropriate for students to send information and share ideas. Research has reported that combinations of snacks and carbonated beverages that children drink regularly can cause behavioural changes such as high-speed. Creating classroom experiences that grab and hold students' interest is not only good teaching, but also science, **Karen Costa** (July 26,

2016). Meditation, yoga, favourite reading, tasting, going out, having fun will ease the mind and stimulate learning and teaching. Some child development experts suggest a time to focus on a task is shown below the table.

Average Concentration Span

Age	Average Concentration Span
4	8 to 20 mins
5	10 to 25 mins
6	12 to 30 mins
7	14 to 35 mins
8	16 to 40 mins
9	18 to 45 mins
10	20 to 50 mins

The purpose of this research is to focus on these issues **"***The Relationship between Attentiveness and Academic Achievement among Undergraduate Students*" in a college environment. The main objective of the current study is to construct and validate a Structural Equation Model (SEM) of linear relationship among the variables of attentiveness and academic achievement. A Path Model relating attentiveness and academic achievement is hypothesized for validation.

Literature Review

The Relationship between Attentiveness and Academic Achievement have been found in many studies. ***Narmene Hamsho (2017)*** found that academic behaviours and attention contribute to writing fluency for female students. Furthermore, there was a significant difference in the academic behaviours of female students in the current sample and female students in a normative sample. ***Erich Sack (2016)*** found that a technological intervention can help students with Attention Deficit/Hyperactivity Disorder (ADHD)increase their attentiveness and reduce their distractibility. ***Erik Rosegard & Jackson Wilson (2013)*** found a significant difference in exam scores measuring information retention between arousal

(M=13.36, SD=1.5) and no-arousal (M=12.85, SD=1.4) conditions; t (844) =5.20, p < .001. ***Janet Fellowes (2005)*** found there is great individual difference in attentiveness of individual boys, even when there is an overall pattern of higher or lower attentiveness.

Research Method

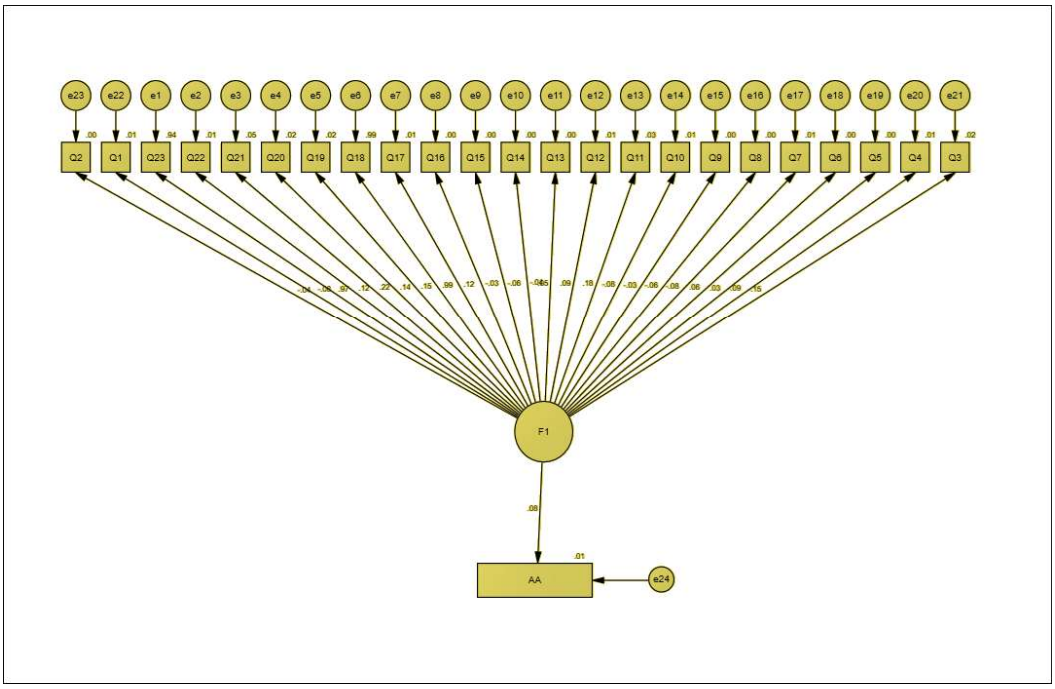
Survey method and Stratified sampling technique was adopted and the sample consisted of 815 undergraduate students in Tiruvallur district. Attentiveness scale consisting of 23 items was developed by researcher and reliability coefficient was found to be 0.76. Students' Academic Achievement marks scored in the previous semester marks. Structural equation modelling analysis technique have been used. Results were then analysed using SEM with AMOS version 7.0.

Analysis and Result

The present study aimed to verify the validity of the study hypothesis, which states "A structural model showing relative contribution of attentiveness and academic achievement hypothesized for validation". The model is built in AMOS, and the diagram is shown below. The standardized parameter estimates are shown in the graph. The structural model was evaluated against five criteria: CMIN/DF > 0.5, GFI (goodness-of-fit index >0.9), NFI (normed fit index > 0.9), CFI (comparative fit index > 0.9), and RMSEA (root mean square error of estimation 0.05- 0.08). The goodness-of-fit test statistics are below. Note the Chi-square test statistic is significant at 0.05, which suggest that the model fitting is only acceptable. Figure 1 the result shows the initial theoretical did not meet the criteria of 0.90 to suggest adequate fit of the model observed data (X^2 = 3820.852, GFI = 0.789, CFI = 0.385, TLI = 0.0321, RMSEA = 0.146). The result showed the initial model did not fit the data. So, the model may need to be modified in order to improve the fit.

Figure 1

The structural equation modelling default model that shows the relationship between attentiveness(F1) and academic achievement (AA).



So, the variable (attentiveness) may need to be modified to improve the fit. Modification Indices report the Change in chi-square value, modification that improve model fit. The latent variable was tested with confirmatory factor analysis (CFA) in the total sample, and the variable (attentiveness) was modified, adjusted and improved using two steps, (1) eliminating unreliable indicators, and (2) adding correlational parameters to the model.

The latent variable (attentiveness) was modified. The fit of the model indicated the following: X2= 749.191, P < 0.05; goodness-of-fit index (GFI)= 0.921; comparative fit index (CFI)= 0.907; Tucker-Lewis Index (TLI)= 0.895; Root means square error (RMSEA)= 0.057. Based on the criteria established for reasonable fitting of the model, the adjusted model resulted in improved fit (show Table 1).

Figure 2.

Modification Structural Equation Model

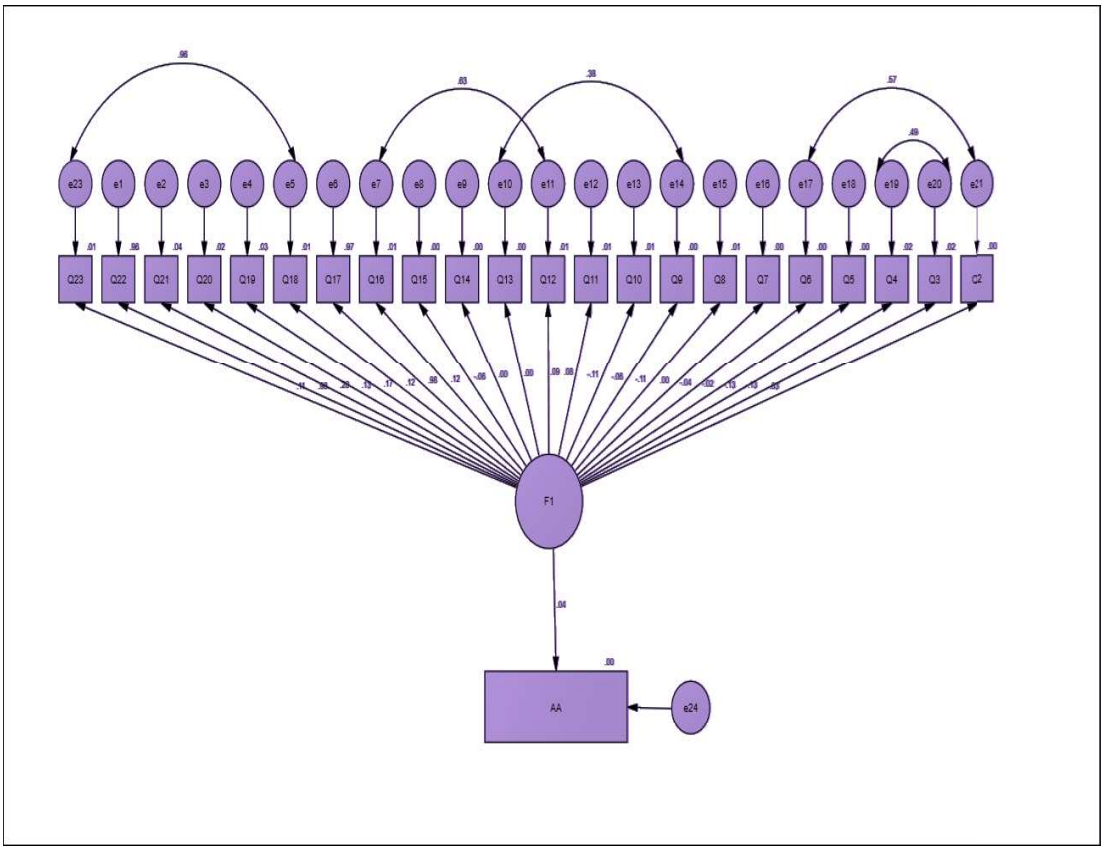


Fig 2 The structural equation modelling proposed model that shows the relationships between the independent variable (F1-Attentiveness) and dependent variable (AA- Academic Achievement).

Table 1

Chi-square and Goodness-of-fit Indices for the Initial and Adjusted Models

Indices	Initial Model	Adjusted Model
X^2	382.852	749.191
DF	209	204
P	< 0.05	< 0.05
CMIN/df	18.282	3.673
GFI	0.789	0.921
AGFI	0.744	0.903

PGFI	0.652	0.743
CFI	0.385	0.907
NFI	0.374	0.877
TLI	0.321	0.895
PCFI	0.349	0.801
RMSEA	0.146	0.057

The adjusted model is presented in figure 2 showing the numerical estimates for each latent factor in the model that indicates the strength of the relationship. The main different between the hypothesized model and adjusted model was the exclusion of items in the measurement model and modifications in some relationships described in the structural model.

Multiple indices were used for the current study in order to assess acceptable model fit relating to direction and significance of the pathways in the analysis. The cut off criteria for acceptable fit of the model for the above-mentioned fit indexes are as follows: CFI ≥ .90, TLI ≥ .90; RMSEA < .06 to .08 with confidence interval.

Table 2

Regression Coefficients for Model Variable

Variables	Regression Weights	S. E	C.R	Standardized Regression Weights	Level of Significance
Academic Achievement ← Attentiveness	3.599	1.568	2.295	0.080	0.022

Table 2 presents a summary of regression coefficients as measures of the relationship between the variables of attentiveness and academic achievement. The relationships between the latent factors indicated that there was a statistically ***significant*** positive on Attentiveness and Academic Achievement of undergraduate students.

Conclusion

In this study, aim to examine "The Relationship between Attentiveness and Academic Achievement among Undergraduate Students" in a College Environment. In the present study,

the result showed that Attentiveness had the strongest relationship on Academic Achievement. Focus is a very complicated process. The class focuses on helping students learn, process information, respect the teacher and put forth their best efforts in the educational setting. Students need to be creative in focusing, and they need to physically and mentally engaged in the work to increase their focus.

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