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VIRTUAL SYMPOSIUM ON TEACHING & LEARNING (VSTL) 2020

Redefining the Practice of Teaching and Learning

E-PROCEEDING

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INTRODUCTION

The very first Virtual Symposium on Teaching and Learning 2020 has been organised by the Academy of Language Studies, UiTM Cawangan Johor Kampus Pasir Gudang in collaboration with Unit Penulisan dan Penerbitan, BPJIA UiTM Cawangan Johor Kampus Pasir Gudang.

This symposium has provided an opportunity for researchers and educators to share their ideas and insights in the name of education. This symposium has also provided a platform for the exchange of knowledge and expertise in relevant fields and promoted exploration of potential collaboration for future research.

This event has the goal to bring academicians and researchers in education together from across the globe.

Researchers and authors have been invited to submit original high-quality extended abstracts. Papers are solicited on, but not limited to:

- a. E-Learning
- b. Innovation and Creativity in Teaching and Learning
- c. Assessment and Evaluation in Teaching and Learning
- d. Best Practices in Teaching and Learning
- e. Others (related to Teaching and Learning)

All accepted extended abstracts have been presented by participants on the symposium day via Google Meet.

All accepted, registered and presented extended abstracts have been published in this e-proceeding with e-ISBN. Authors of selected extended abstracts will be invited after the symposium to submit a full paper for Scopus-indexed Journals/ a special issue in the Insight Journal UiTM Cawangan Johor. Best Papers and Best Presentations have also been awarded in this event.

FOREWORD BY ASSISTANT RECTOR



Dr. Haryana binti Mohd Hairi

Assistant Rector, UiTM Pasir Gudang

Assalamualaikum wbt and good day everyone.

I am pleased to welcome all of you to the Virtual Symposium on Teaching and Learning, VSTL, 2020. Congratulations for your participation, fruitful sharing session and discussion for the symposium.

Today, we have witnessed educators across institutions, disciplines and expertise, coming together to share the insights, experience, and practices in teaching and learning. I bet that everyone has had your fair share of not only getting inputs and ideas from others, but also share your own perspectives in the field of teaching and learning.

Ladies and gentlemen,

VSTL 2020 is one of the many virtual academic get-togethers, which could have been organized in the conventional way, with face-to-face meetings and sessions. However, considering the many aspects in our current situation, with the seemingly unending COVID-19 fiasco, this symposium is successfully done on a virtual platform today without neglecting the ultimate purpose of such programs. I believe that all of us today have gained so many positive inputs for various aspects in teaching and learning even without physically meeting each other, which is no less than if the program is done conventionally.

It is high time that such an event took place to highlight the remarkable contribution, in which “the new norm” of teaching and learning took place in our current education situation. I am proud to know that, through a glance at the list of presentations planned for today, reveals the amazing diversity of these areas. Congratulations to all of you.

COVID-19 pandemic has not only changed our way of teaching and learning, but also forced us to become more creative and innovative. In some cases, we could not meet our students face to face, and had to use virtual methods, as how we met today to carry out our duty as teachers and educators. This can be easy for some of us, but a mounting task for others. However, the responsibility of educating our learners still needs to be carried out, in one way or the other, no matter how challenging it is. Thus, the purpose of this symposium is for us to

not only share the traditional practices but also new methods and techniques in online or distance learning.

I hope that VSTL 2020 has been a good platform to inspire us, the educators to try out new teaching techniques and the experts to share their insight and valuable knowledge in this area. This could also be the route to a unique opportunity to share and exchange with counterparts from different specialties the advancements in your field. I also hope that our meeting will not stop today and can promote exploration of potential collaboration for future research.

Ladies and gentlemen,

On behalf of the committees and UiTM Cawangan Johor, I would like to thank all of you for your support and I hope that you have had fruitful and rewarding exchanges from this program. I would like to also congratulate the Academy of Language Studies, UiTM Cawangan Johor, Kampus Pasir Gudang for organizing the symposium, together with Unit Penulisan dan Penerbitan of BPJIA, UiTM Cawangan Johor Kampus Pasir Gudang. It is my hope to see more programs such as this in the future.

Before I end my speech, I would like to share a quote by Phil Collins;

“In learning you will teach, and in teaching you will learn”. May all of us here never stop learning, and continue inspiring the learners, and each other in our jihad to share and value the knowledge that we have.

I hereby officiate the closing ceremony and announcement of awards of Virtual Symposium on Teaching and Learning 2020.

All the best to everyone, and may all our effort be blessed. Thank you.

Factors Influencing Student Achievement in DEP30013 Communication System Fundamentals

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Abstract

The purpose of this research is to identify the factors that influence students' achievement in DEP30013 Communication System Fundamentals course at the Department of Electrical Engineering, Sultan Haji Ahmad Shah Polytechnic (POLISAS). These factors are student interest, student attitude, student learning methods, polytechnic environment and lecturer teaching. The study population is 120 people comprising third semester students who have taken this course in June Session 2019. The study sample of 35 people was taken at random. The instrument used was a questionnaire. The data collected were analyzed descriptively using Statistical Package for Social Science (SPSS) version 26.0. From the five factors studied, it was found that the mean for the lecturer's teaching factor was the highest at 4.51. Followed by attitude factor (4.39), polytechnic environmental factor (4.36), interest factor (4.27) and student learning method factor (4.25). Based on the research findings, the study found that the teaching factors of lecturers most influence student achievement.

Keywords: Student Achievement Factors

Introduction

The DEP30013 Communication System Fundamentals course is a compulsory core course for all third semester students who follow the Diploma in Electronic Engineering (Communication) and Diploma in Electrical and Electronic Engineering programs at the Department of Electrical Engineering, POLISAS. This course is credit hours under this department's diploma programme framework which is 3 credit hours.

Problem Statement

Several internal and external factors can affect a student's excellent achievement in a course. There are many studies that have been conducted on the factors influencing students' achievement. Among the studies conducted by Ahmad, Nurul and Saifullizam (2005) found that the factors influencing the achievement of diploma students in three polytechnics in mastering the subject of Electronic System 1 are factors of attitude, environmental factors and lecturer teaching factors. A study conducted by Muhamad Abdillah and Haleefa (2011) found that the factors of student interest, attitude of students, teachers and facilities of Reka Cipta subjects in schools can influence students' excellent achievement in Reka Cipta subjects.

Research Objectives

The objectives of the research are as follow:

- i. Identify the level of interest factor in the Communication System Fundamentals course.
- ii. Identify the level of attitude factor in the Communication System Fundamentals course.
- iii. Identify the level of factor of student learning methods on Communication System Fundamentals course
- iv. Identify the level of environmental factors of the polytechnic on the

- Communication System Fundamentals course
- v. Identify the level of teaching factors of lecturers on the Communication System Fundamentals

Research Questions

The research questions are:

- i. What factors have the highest levels?
- ii. What factors have the lowest levels?

Literature Review

According to Omdin (1996), interest is an important factor as a motivator for students to be active in learning activities. Ismail (1992) supports the statement by stating that interest in something or activity will encourage a student to explore further.

In the attitude factor, the findings of previous studies as conducted by Zainun (1991), Masita (2002) and Chong (2003) found that attitude influences student achievement in Mathematics. Pupils who are high on Mathematics will usually complete the work given in the allotted time, attend classes, are eager to learn, ask if there are any doubts and so on. With such an attitude will definitely improve the achievement of the student.

In terms of learning methods, according to Cooper and Foy (1996), more study time does not necessarily provide excellent success. This may be because they do not pay attention to what they read.

Mok Soon Sang (1996) states that a conducive physical learning environment is an important factor in improving the effectiveness of teaching and learning in the learning environment. The physical factors of the place of study include the physical atmosphere in the place of study and the surrounding area.

According to Atan (1993), the teaching style used in the teaching and learning process has a great impact on students' interest and understanding in a single subject taught. In turn these two elements can motivate a person to progress in their studies. The factors that influence students' achievement in polytechnics need to be identified and further action taken as it is important to produce excellent graduates and contribute their ideas to develop society and the country in the future.

Methodology

This research uses a questionnaire instrument. Questionnaire technique is a popular data collection technique by holding questions or items that make it easier for respondents to give answers (Mohamad Najib, 2003). The use of questionnaires is a data collection tool that is widely used by researchers. This is due to the fact that questionnaires are able to collect and collect data in a structured and standardized manner. In addition, the instrument is easy to administer, saving the researcher's time, mind and money during data collection. The questionnaire of this study consists of the items related to the factors that influence student achievement in the course of Communication System Fundamentals. These factors are divided into five types, namely interests, attitudes, student learning methods, polytechnic environment and lecturers' teaching. The questionnaires consist of 24 items in the form of a 5-point Likert scale in the table 1 below:

Table 1
Likert Scale

Method	Scale
Very satisfied	5
Satisfied	4
Neutral	3
Unsatisfied	2
Very Unsatisfied	1

Data Analysis

The data of this research consists of two parts, namely Part A is about the Student Achievement and Part B is about the items related to the factors that influence students' achievement in the course of Communication System Fundamentals.

Part A Table 2 shows the achievements of the respondents in the Communication System Fundamentals course. The level of honors achievement recorded the highest value of 51.4%. Meanwhile, the second highest passing achievement level is 40% and the excellent level is only 8.6%.

Table 2
Student Achievement

Grade	Frequency (N)	Percent (%)	Percent (%)	Level of Achievement
A	3	8.6	8.6	Excellent
A-	7	20	51.4	Credit
B+	7	20		
B	4	11.4		
B-	4	11.4	40	Pass
C+	5	14.3		
C	2	5.7		
C-	2	5.7		
D+	1	2.9		

Part B described the data obtained were analyzed descriptively by obtaining a mean value using SPSS 26.0. To facilitate the process of data analysis, researchers have used the interpretation of the mean score presented by Wiersma (1995) as a reference to the interpretation of the mean score as in the table 3 below.

Table 3
Score Interpretation Min

Mean Score	Level
1.00 – 2.33	Low
2.34 – 3.67	Moderate
3.68 – 5.00	High

Student Interest Factors

Table 4
Mean Analysis of Interest Factors

Factor	N	Min	Level of Interpretation
Interest	35	4.27	High

Table 4 shows the results of mean analysis of items related to interest factors. The mean value of the interest factor is 4.27 and this value is high.

Student Attitude Factors

Table 5
Mean Analysis of Attitude Factors

Factor	N	Min	Level of Interpretation
Student Attitude	35	4.39	High

Table 5 shows the results of the mean analysis of the items related to attitude factors. The mean value of the attitude factor is also high at 4.39.

Student Learning Method Factors

Table 6
Mean Analysis of Student Learning Method Factors

Factor	N	Min	Level of Interpretation
Student learning method	35	4.25	High

Table 6 shows the results of the mean analysis of the items related to the factors of student learning methods. The mean value is 4.25 and this value is high.

Polytechnic Environmental Factors

Table 7
Mean Analysis of Polytechnic Environmental Factors

Factor	N	Min	Level of Interpretation
Polytechnic Environmental	35	4.36	High

Table 7 shows the results of the mean analysis of items related to polytechnic environmental factors. The mean value is 4.36 and this value is high.

Lecturer Teaching Factors

Table 8
Mean Analysis of Lecturer Teaching Factors

Factor	N	Min	Level of Interpretation
Lecturer Teaching	35	4.51	High

Table 8 shows the results of the mean analysis of the items related to the teaching factors of the lecturers. The mean value is 4.51 and this value is the highest.

Research Findings and Conclusion

Of all the aspects studied, the teaching factor of lecturers recorded the highest mean level of 4.51. Then followed by attitude factor 4.39, polytechnic environmental factor 4.36 and interest factor 4.27. The student learning method factor recorded the lowest mean level of 4.25. Overall, all factors have high mean value interpretations.

The results of this research can be concluded that the teaching factor of lecturers is the factor that most influences the excellent achievement of students in Communication System Fundamentals course. While the factor of student learning method recorded the lowest mean value, and this shows the least influence on student outstanding achievement. The results of this study are supported by Muhamad Abdillah and Haleefa (2011) who found that the teacher factor recorded the highest mean value.

In this regard, the teaching of lecturers needs to be further enhanced so that the achievement of excellent students will increase further in the future. In addition, students' attitude towards this course should also be given attention by always providing advice and motivation. Therefore, the final result can conclude as a figure 1 Mean scores and level of interpretation factor.

Research Recommendations

This research examines the factors that influence the outstanding achievement of students in the DEP30013 Communication System Fundamentals course. This study is also limited to third semester

students who follow the Diploma in Electronic Engineering (Communication) and Diploma in Electrical and Electronic Engineering programs in the Department of Electrical Engineering, POLISAS June 2019 session. However, further research can be conducted by expanding the population involving all polytechnic students.

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