

The Classroom Social Environment: A Case Study on Engineering Technology Students', FTK, UTeM

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ABSTRACT: *One of the main factors that can affect the academic lifestyle of the students and also their result is the classroom social environment. In order to obtain a positive classroom social environment, the role of lecturer is very important, such as promoting achievement goal and also providing support to the students. The objective of this study is to understand and examine the engineering technology students' perceptions towards promoting performance goal and support from mathematics lecturers for the classroom social environment at the Faculty of Engineering Technology (FTK), Universiti Teknikal Malaysia Melaka. A set of questionnaire that covers questions regarding students' perceptions towards promoting performance goals and also support by mathematics lecturers was distributed to 177 second year students from four different departments taking mathematics subject. From the findings, a conclusion was drawn regarding their perceptions towards promoting performance goal and lecturer support for the classroom social environment. The result shows that ET students do not have a constant perception towards promoting performance goal; however, lecturer support obtained a good mean score in increasing a positive classroom social environment.*

KEYWORDS – *social environment, achievement goal, performance goal, support, engineering technology*

I. INTRODUCTION

In recent decades, lecturers need to commit and play an important role to build a university community that maximizes student learning and also experiences both within and outside the classroom. The classroom social environment can occur through an exchange of knowledge between lecturers and students and also among peers in a classroom, and this situation can affect the teaching and learning process (Hirschy and Wilson, 2002). Student learning is influenced by educational environment factors as well as individual factors. In particular, the classroom context, in which students spend a great deal of time every day, can be the most powerful predictor of achievement behaviours and academic outcomes (Ohtani et al., 2013). According to Allison and Helen (2001), the classroom social environment is largely related to the role of lecturers and some of the elements are promoting achievement goals and also support by lecturer.

According to Ames (1992), achievement goal has focused on the reasons why students try to succeed and has examined two types of achievement goals, which are learning and performance goals. Learning goals are defined as individuals who seek to increase their competence, to understand or master something new, while performance goals are individuals who seek to gain favourable judgments of their competence or avoid negative evaluations of their competence (Dwech and Leggett, 1988). Students who scored higher on learning goal were likely to cognitively engage in deep strategy while students who scored higher on performance goal orientation were likely to engage in both surface and deep learning strategies (Chan and Lai, 2002).

In Malaysia for instance, parents and policymakers agree that the main element to enhance education standard is to have highly skilled and effective lecturers in the classroom (Arman Hadi et al., 2015). However, this situation is not effective especially to new lecturers in terms of preparation and readiness to deliver their lectures. University lecturers with less teaching experience somehow are less able to control as well as to communicate effectively with the students due to less understanding on their actual needs and demands (Elmore, 2010). According to The all and Franklin (2001), in order to provide feedbacks on learning experiences, the students play a very significant role. All these things are very important in helping lecturer to give full support to the students not just in education but also others. Lecturer support is one of the dimensions of the classroom social environment and it has been defined by characteristics such as caring, friendliness, understanding, dedication and dependability (Skinner and Belmont, 1993). It also refers to the extent to which students believe lecturer value and establish personal relationships with them (Goode now, 1993). Students will get higher level of interest and enjoyment in their class session if they perceive their lecturer as being supportive (Fraser and Fisher, 1982).

The objective of this study is to understand and examine the engineering technology (ET) students' perceptions towards promoting performance goal and support from mathematics lecturers for the classroom social environment at the Faculty of Engineering Technology (FTK), Universiti Teknikal Malaysia Melaka. This study aims to find out whether promotion of performance goal and also support by mathematics lecturers is positive or negative, by looking at the results from students' perceptions. According to Weinstein and Mayer (1985), student perception is an important variable due to its ability in transforming a student's learning style. In order to produce quality teaching and learning process, the students' perceptions can provide reliable and valid information (Cost in et al., 1972). This study focuses on mathematics lecturers because the achievement for mathematics subject itself has become an important issue in the educational system in Malaysia (Wan Zah et al., 2005). Lecturers play an important role to increase students' interest in studying mathematics. This is because students experienced difficulties in studying mathematics since they had to understand the theories and memorize the formulae (Afza et al., 2007). Therefore, support from the mathematics lecturer is very important.

ET education is more towards applied knowledge compared to engineering degree education, which is more on theoretical sciences. An engineer's role is more towards research while the role of ET is more towards field service (Cheshier, 1998). In particular, this study is significant to understand the perceptions of ET students towards promoting performance goal and also support by their mathematics lecturers, since ET program focuses more on application and implementation while pure engineering program focuses more on research and development (Craig et al., 2011). Therefore, the support by lecturer in the classroom is very important since the nature of their studies is more hands-on, and since more two-way communication and discussions are necessary, understanding between lecturers and students are needed. In Malaysia, ET program is one of the new education fields in Malaysia, which was first offered by a public university in June 2011, which is Universiti Teknikal Malaysia Melaka (Yahaya et al., 2012). Student experience in studying mathematics at FTK, UTeM shows that most of the mathematics lecturers have applied both active and passive learning strategies in the processes of teaching and learning (Khairum et al., 2014). According to Khairum et al. (2015), most of the ET students agreed that their mathematics lecturers are promoting interaction in their class and also their classmates play an important role to support each other. However, it does not show the promotion of performance goal and also support by mathematics lecturers in the classroom in order to achieve a positive classroom social environment.

II. METHODOLOGY

Primary data for the study were collected through the use of questionnaires which were conducted and distributed to 177 second year bachelor degree ET students in FTK, UTeM. The sample focuses on students who are taking mathematics subjects from four fields of study, which are electric, electronic, mechanical and manufacturing. This instrument was adopted from a prior study by Allison and Helen (2001). The questions in the questionnaires are focused more on the students' perceptions towards promoting performance goal and also support by mathematics lecturer in order to determine the level of classroom social environment at FTK, UTeM. The survey was conducted by one of the authors during a class session. Students were asked to answer all the questions in the questionnaires. All the 177 questionnaires were collected successfully. The data were then analyzed using Microsoft Excel to obtain the statistical result for each of the questions.

III. RESULTS AND DISCUSSION

The classroom social environment can affect the students' result and also their study life. As discussed previously, the role of lecturers is very important in order to promote the achievement goals. The achievement goals are divided into two types, which are learning and performance goals of the students. Table 1 below shows the descriptive statistics of ET students' perceptions towards their mathematics lecturers in promoting performance goal. This perception is from students from various fields of study, namely electric, electronic, mechanical and manufacturing students under the Bachelor of Engineering Technology programme at FTK, UTeM.

Based on the result that is listed in Table 1 above, it can show that most of the mathematics lecturers point out students who get good grades in the exam as an example to all the students in their class. This is proven the mean perceptions of the students for this statement is higher compared to other statements, which is 4.03 out of 5, but the scale is still in the agreement scale, which is 4. Mathematics lecturers do not always call on smart students more than other students during class session. This is shown by the mean result from the perception of the ET students towards the statement that their math lecturer calls on smart students more than on other students is very low, which is 2.75. This scale falls under disagreement with that statement. It can show that most of mathematics lecturers also call other students in the class session and not just good or smart students. However, FTK mathematics lecturers let the members of the class know which students get the highest scores on a test, since the mean perception of ET students scored a 3.89 out of 5, but is still on the average scale. Result in Table 1 also shows that mathematics lecturers do not point out students who get poor grades as an example to all of class members. This is shown in Table 1 where this statement obtained a mean score of only

2.82 out of 5, which falls under disagreement scale. Likewise, it is also the same thing with the statement that mathematics lecturers let them know which students get the lowest scores on a test, where the mean is only 2.87, which is in the disagreement scale.

Table 1: Students' perceptions towards their mathematics lecturer in promoting performance goal

| STATEMENT | Mean | Std. Dev. |
|---|------|-----------|
| My math lecturer points out students who get good grades as an example to all of us | 4.03 | 1.06 |
| My math lecturer tells us how we compare to other students | 3.66 | 1.21 |
| My math lecturer lets us know which students get the highest scores on a test | 3.89 | 1.29 |
| My math lecturer lets us know which students get the lowest scores on a test | 2.87 | 1.57 |
| My math lecturer points out students who get poor grades as an example to all of us | 2.82 | 1.57 |
| My math lecturer makes it obvious when certain students are not doing well on their math work | 3.12 | 1.47 |
| My math lecturer calls on smart students more than on other students | 2.75 | 1.56 |

As discussed previously, there are two types of achievement goals, which are learning and performance goals, in order to produce good and excellent students in a positive classroom social environment. Besides that, in order to increase positive social environment in class, lecturer support is also important. Table 2 below shows the descriptive statistics of ET students' perceptions towards their mathematics lecturer support during classes.

Table 2: Students' perceptions towards the support from their mathematics lecturers

| STATEMENT | Mean | Std. Dev. |
|--|------|-----------|
| Does your math lecturer respect your opinion? | 4.49 | 0.68 |
| Does your math lecturer really understand how you feel about things? | 4.26 | 0.76 |
| Does your math lecturer try to help you when you are sad or upset? | 4.13 | 0.87 |

Result from Table 2 shows that most of the mathematics lecturers give support to them where all the mean scale for this three statements belong to scale 4, which denotes agreement. ET students agree that their mathematics lecturer always support their opinion in the class where this statement scored a higher mean scale which is 4.49. This also can be affected in terms of mathematics lecturers' understanding about ET students' feelings about anything. If they are sad or upset, their mathematics lecturers try to help them in order to solve this problem. It shows that the relationship between students and their mathematics lecturers is in a very good condition.

IV. CONCLUSION

In order to get a positive classroom social environment, the role of lecturers is very important in terms of promoting achievement goals and also their support to the students. This study focuses on the ET students' perceptions towards promoting performance goals, so the contrast from the result shows the learning goal. As a conclusion for this study, the finding shows that perceptions of the ET students towards their mathematics lecturers on promoting performance goal are not consistent in terms of mean scale as shown in Table 1. It shows that mathematics lecturers are not only focused on performance goal but also apply the concept of learning goal in order to obtain a positive classroom social environment. Mathematics lecturers also give full support to their students and not just only support on academic part but also other parts. This relationship is very important in the classroom so that a positive social environment can be achieved, especially for mathematics subject. Lecturer role is very important from many aspects in order to enhance a positive classroom social environment because it may affect the academic results and future of the students. This is because the classroom social environment has a very strong relationship with academic results as well as the lifestyle of the students.

The results of this study must be interpreted with caution and generalization is limited because the sample only consists of second year ET students. In future, large sample sizes should be collected where students from different years of studies should also be included so that a stronger comparison can be made about the different perceptions towards classroom social environment for the mathematics class session.

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