# THE HUMANISTIC TEACHER: TOWARDS EFFECTIVE TEACHING AND LEARNING PROCESS IN MATHEMATICS CLASSROOMS

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# A PROJECT PAPER SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF MANAGEMENT

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#### **ABSTRACT**

The purpose of this research is to study students' perception on the presence of humanistic values in mathematics teachers and the perceived effect of these values on students' motivation and self-independence. For the purpose of the study, a survey was conducted among 204 students in seven government-assisted schools in the district of Klang. This study hopes to identify factors influencing students' perception that would affect their motivation and self-independence. Consequently the study hopes to provide some insights for policy makers, administrators, and teacher trainers in striving towards excellence in education.

The findings reveal that students perceived humanistic values are present in their mathematics teachers and these values contribute towards the effort of their teachers in instilling motivation and building self-independence among them. The findings also reveal that there is significant difference in the perception of students, by gender and social economic status, towards the presence of the values in mathematics teachers and the effect these values have on instilling motivation and building self-independence in students.

Thus, this study will be valuable to policy makers, educational administrators, teacher trainers, curriculum developers, and educationists in generating caring and humanistic pedagogy in the classroom.

#### APPROVAL PAGE

IN

**MATHEMATICS** 

TITLE OF PROJECT PAPER: THE HUMANISTIC TEACHER: TOWARDS EFFECTIVE TEACHING AND LEARNING **PROCESS CLASSROOMS** NAME OF AUTHOR: ROHANA BINTI ISMAIL The undersigned certify that the above candidate has fulfilled the condition of the project paper prepared in partial fulfillment for the degree of Master of Management. SUPERVISOR: Signature: Name: Assoc. Prof. Dr. Rosnani binti Hashim Date: November 30, 2000 **ENDORSED BY:** Signature: Dr. Junaidah binti Hashim Name: Head, Master of Management Program, IIUM. November 30, 2000 Date:

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#### **DECLARATION**

I hereby declare that this project paper is a result of my own study. Other sources are acknowledged by reference note and bibliography is appended.

Date: November 30, 2000

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#### **CHAPTER ONE**

#### INTRODUCTION

#### **Background of the Study**

Educational administrators' functions are twofold. Not only do they have to ensure that the administration of the institution runs smoothly, they also have to ascertain that the educational goals of the institution are achieved. They have to ensure that the environment is conducive for optimum learning. One of the factors that contribute to effective learning is the quality of the teachers employed. Administrators have to admit that teachers are important in determining the outcome of the learning process and the performance of the institution. Thus, the quality of teachers is important in the selection process to ensure effective learning.

Over the years, learning has been a subject that interests educationists, scientists, and psychologists alike. They have widely researched into the subject matter and came up with a number of learning theories. Three of the most popular learning theories are discussed below namely the behavioral learning theory, cognitivist learning theory, and the humanist learning approach.

According to Schuman (1996), learning is a gradual strengthening of the learned relationship between cue and behavior, driven by a pattern of consequences. With

enough practice, the link between cue and behavior becomes so strong that the time lapse between the occurrences of cue and behavior gets very small. Learning takes place when a predictable connection is established between a cue in the environment (stimulus), a behavior (response), and a consequence (reinforcement). This is the backbone of the behaviorist theory to learning.

The behaviorist theory of learning has its origin in the early twentieth century. Psychologists like Pavlov, Watson, and Thorndike, believe that it is possible to predict and explain the way people learn by studying the behavior of animals. Behaviorists answer the question 'How do people learn?' based on Pavlov's idea of conditioning.

Skinner applied the stimulus-response-reinforcement theory to the way humans acquire knowledge. He viewed knowledge as a form of behavior and learning as a process of habit formation. Behaviorism is based on behavioral changes (Schuman, 1996). It focuses on a new behavioral pattern being repeated until it becomes automatic. The behaviorist theory of learning provides teachers with a set of principles and makes it easy to implement classrooms procedures.

Another theory of learning is cognitivism. It emphasizes on the learner's mental processes and the origin of knowledge both in the short-term and long-term memory. Instead of repetition and drills as proposed by the behaviorists, cognitivists propose teaching learners how to analyze problems and how to think for themselves. Cognitivism is based on the thought process behind the behavior (Schuman, 1996). Changes in behavior are observed, but only as an indicator of what is going on in the

student's head. Cognitivist theory focuses on the students' ability to think, analyze and organize information and the knowledge.

The humanistic theory places great importance on affective and emotional factors and hold the view that success in learning occurs only if the learning environment is conducive, the students are interested in and have a positive attitude towards new information (Citravelu, Sithamparam, and Teh, 1995). Whole learning in its broadest sense is, according to Robinson (1994, pp 34 - 36), "teach[ing] the whole person; mind, body, and emotions." This is what happens in emotional support, and what people have been articulating for many years. Robinson (1994, pp 34 - 36) would say, "... teach to the person (child centered), not to the subject (information centered)".

A Malaysian educator, Sufean Hussin (1993) believes that there is a misconception among students that education is passing examination and an educated person should do well in examinations. This misconception arose due to the practice of emphasizing examination in Malaysia. The acquisition of knowledge is measured by how well students perform in examinations. According to Robinson (1994, pp 34 - 36), "there is a sickness of know-nothingness, the blank, passive-aggressive resistance to learning that is probably stronger in our teachers than it is in our students. We impose meaningless, decontextualized, repetitive, mind-numbing tasks on our students, [and] force them to ingest and regurgitate inert facts that have no relation to their lives".

Robinson (1994) suggests that students should work on projects that disturb and fascinate the mind, creating an atmosphere of fun and tolerance, such as teachers listening to students and learning from them, and similarly, students learning from the

teacher and other classmates. This suggestion requires a focus on students' thinking, feeling, and doing. It is a holistic emphasis on the mind, emotions, and will of each student. It is educating the entire soul.

Thus, this study sets out to ascertain the influence of humanistic mathematics teacher in the teaching-learning process in a few Malaysian classrooms. Findings from previous research (Aspy and Roebuck, 1977; Harbach and Ashbury, 1976) show that successful teachers are those who possess the humanistic values. These teachers have a higher achievement level on instilling motivation and self-independence among students during the teaching and learning process in the classrooms (Aspy and Roebuck, 1983; Aspy, 1969; Aspy and Roebuck, 1977).

In Malaysia, considerable attention has been directed to designing the integrated Mathematics syllabus, producing materials, and formulating methodologies, and very little systematic inquiry has been conducted into identifying strategies that will help teachers prepare themselves to be humanistic in nature. Hence it is important for Mathematics teachers to provide a learning situation in which their students need not be defensive but rather receptive.

#### Statement of the Problem

Many teachers in Malaysia are familiar with the frustrations and pressure of completing the syllabus set by the Malaysian Ministry of Education. The high

expectations of school principals, school boards, and parents further exert pressure on teachers to produce good results, good performances, good discipline, and overall good students. Consequently, teachers became like teaching machines who produce what is expected of them. Under such pressure, teachers may fail to make relevant prescriptions for the building of a thinking, sensitive, and humane individuals. The teachers may just concentrate on finishing the syllabus and preparing their students for examinations.

However, with the implementation of the Integrated Curriculum for Secondary Schools (KBSM), there is a humanistic revolution whereby schools take on the role of producing 'humane individuals'. According to Combs (1975) these individuals can think intellectually, feel deeply, expand their inner-selves, live meaningfully and can continue the process of self-education. Therefore, it is important for teachers to realize that how they teach and how they behave in the classroom are two essential elements necessary for achieving the educational goals.

In fact, teachers need to cater for students' different learning styles, students' feelings, concerns for his well being, and all other aspects of the affective domain which will ultimately contribute to successful learning. Students are more easily influenced by the teachers' attitude and observation than the teachers' knowledge and expertise in the subject matter (Bassette & Smythe, 1979). Bassette and Smythe's (1979) claim is parallel with that of Rogers (1961) who states that the humanistic characteristic can have an effect to the 'fun in learning' and the academic achievements of students.

There is a close relationship between how humanistic the teacher is and how influential the teacher is on students' psychological needs in ensuring effective teaching and learning process in the classroom. By applying humanistic values towards students, the teacher would be able to accomplish their confidence, trust, and also assurance from them. Consequently, the teacher will be more approachable and friendly to the students, hence encouraging a relaxed and conducive atmosphere in the classroom.

In view of the statement above, the researcher intends to survey the extent to which humanistic values are present in Malaysian teachers and to investigate its effectiveness in the teaching-learning process.

#### **Objectives of the Study**

The general aim of this study is to examine students' perception on the extent of the presence of humanistic values in mathematics teachers and its usefulness in the mathematics teaching and learning process.

More specifically, this study attempts to answer the following research questions.

- 1. Do students perceive the presence of humanistic/non humanistic values in their mathematics teachers?
- 2. Do students perceive their mathematics teachers instilling motivation in them?
- 3. Do students perceive their mathematics teachers building self- independence in them?

- 4. Is there any significant difference in students' perception of their mathematics teachers with respect to:
  - a. the presence of humanistic/non humanistic values;
  - b. instilling motivation in students;
  - c. building self-independence in students;

according to students' gender and social economic status groups.

This study on teachers' humanistic values and the application of humanistic approaches is important based on previous findings on the teaching and learning process in the classroom. Previous studies have shown that teaching should exploit students' affective and intellectual resources as fully as possible (Tudor, 1993).

#### **Hypothesis Statement**

Based on the above questions, the following hypothesis will be tested.

- H1: There is no significant difference between the actual and expected means of students' perception of their mathematics teachers with respect to the presence of humanistic/non humanistic values.
- H2: There is no significant difference between the actual and expected means of students' perception of their mathematics teachers with respect to instilling motivation in them.

- H3: There is no significant difference between the actual and expected means of students' perception of their mathematics teachers with respect to building self- independence in them.
- H4: There is no significant difference between male and female students' perception of the mathematics teachers with regard to the presence of humanistic values, instilling motivation, and building self-independence.
- H5: There is no significant difference in perception of students from different social economic status groups of their mathematics teachers with regard to the presence of humanistic values, instilling motivation, and building self- independence.

#### Significance of the Study

The results of the study will reveal the extent to which humanistic values are applied in the mathematics classrooms and the contribution of these values towards the effectiveness of students' learning. This issue is under researched in the Malaysian context. The study could reveal possible relationship between teachers' humanistic values in relation to encouragement, motivation, and self-independence and any relation between humanistic teachers and the effectiveness the students' learning progress. The feedback from the study will be useful to teachers and educators with

regard to sensitizing the teachers to students' need for motivation, and selfindependence, in addition to effective teaching strategies.

This study would also provide insight into how students feel and what do they think of humanistic values in teachers in the classrooms. The feedback will help administrators and teachers design the nation's curriculum according to what they think is most beneficial for the students. The feedback would also contribute in improving the mathematics teachers' effectiveness in the classroom. Policy makers could also formulate and impose policies which optimize teaching and learning outcomes that support humanistic education such as the quality of teachers, school culture, school environment, and classroom management.

#### **Limitations of the Study**

As with any other social science research, this study too had its share of limitations, with some of them beyond the control of the researcher. To begin with the empirical study is only based on students' perspectives. The study depends heavily on the sincerity and genuineness of the response from the students. Critical incidents could influence the responses and thus could affect the result of the study. In view of this, students from a whole class are selected to ensure that both teacher's favorites or otherwise are chosen to participate in this research.

Due to the constraints of time and cost, the study involves only seven schools in Klang, Selangor. The corpus of the study is limited to only seven form four classes

comprising a total of 204 students, from schools in Klang district (one class each from the selected schools). The sample for the empirical study represents a small proportion of the population.

Thus, the result of the study could not be generalized to the Malaysian context. A larger number of schools, urban and rural, covering all the states in Malaysia ought to be included in future studies.

Lastly but not least, the study only covers a small proportion of the wide field of humanistic education in general.

#### **Definition of terms**

#### **Humanistic Education**

Patterson (1973) postulates that there are two aspects of humanistic education. Firstly, teaching of the subject matter in a more humanistic way, that is facilitating learning of subject matter by students. Secondly, is that of educating the non-intellectual or affective aspects of the students, which meant developing persons who understand themselves, who understands others and who can relate to others. In short, humanistic education integrates the subject matter and personal growth dimension into the curriculum.

#### The Humanistic Teacher

According to Patterson (1973), the humanistic teacher is one who exercises the quality of genuineness or authenticity, respect or warmth, and emphatic understanding in the classroom. In support to that, Rogers (1983) postulates that these three qualities of a teacher will help provide the climate for whole person learning. Thus the humanistic teacher is an authentic human being interacting with other human being (the students), with the goal of facilitating human development and personal autonomy.

#### **Effectiveness**

According to Kauchek and Eggen (1993), effective teaching combines human relation skills, judgment, intuition, knowledge of the subject matter, and understanding of learning into one unified activity. This would result in improved learning for students. However, in this research, the term 'effectiveness' focuses only on teachers' human relations skills, judgment, and intuition in which they use to create positive classroom environment. In other words, 'effectiveness' means the success of the teacher in giving encouragement, instilling motivation, building self-confidence, and self-independence in the students that will ultimately lead to improve learning.

#### Teaching and Learning Process in the Classroom

The teaching and learning process refers to the discourse or progression of activities carried out in a classroom. Teachers in the discourse of teaching or conducting a

lesson help to develop students intellectually and cognitively. During this interactive process, teachers are indirectly involved in projecting humanistic values to enhance learning.

#### Humanistic Values

Humanistic values in the study refers to the skills or characteristics of an authentic teacher such as imparting trust, understanding students accurately and unambiguously, influencing and helping students and constructively resolve problems and conflicts with students (Seaberg, 1974).

According to Underhill (1989), humanistic values emphasize the importance of the teachers' sensitivity and skill in helping learners to face psychological and affective issues. Teachers are able to enhance students' learning of a particular topic and provide them with the experiences of being successful in learning.

#### Perception

Perception is defined as someone's ability to see, hear, feel or understand certain matters. Perception will show an individual insight whether to agree or disagree with matters that he/she experiences. In the context of this study, the students' perceptions on aspects pertaining to the mathematics teachers' humanistic/non humanistic values in the mathematics classrooms will be measured.

#### CHAPTER TWO

#### REVIEW OF LITERATURE

In accordance with the National Education Philosophy (EPRD, 1997), the school curriculum encompasses the concept of lifelong education and is geared towards the development of a morally upright person who is intellectually, spiritually, emotionally, and physically balanced. With the implementation of the New Integrated Curriculum for Secondary School (KBSM) in 1988, the syllabus now focuses on this main goal of education. Therefore, the psychological and emotional atmosphere of the classroom is of great importance in determining the success of this goal, which extends not only to the cognitive development but also emphasizes the development of the student as an individual. In order to achieve the aim of making school and classroom a more humane environment, we should look into the proposal of humanistic education. School administrators could also contribute through the availability of conducive school environment and culture that support the National Education Philosophy and KBSM.

Since the implementation of the KBSM, there is a humanistic revolution in which school takes on the role of producing humane individuals who can think intellectually, feel deeply, expand their inner selves, live meaningfully and can continue the process of self-education (Combs, 1975). Therefore, it is important for teachers to realize that

how they teach and how they react in the classroom are two essential elements in achieving the educational goals.

The findings from a study by Darling-Hammond (2000) suggested that policy investments in the quality of teachers may be related to improvements in students' performance. Humanistic is one of the attributes that could improve the quality of teachers and thus be considered when recruiting teachers or evaluating in-service teachers. School administrators could support humanistic approaches in teaching to ensure whole learning takes place in the classrooms.

#### The Characteristics of the Humanistic Teacher

According to Moskowitz (1978), teachers can and do make a difference in the lives of their students. He claims that the characteristics of teachers will influence and affect students' lives either positively or negatively. Hence, it is important to inculcate positive values and characteristics of self-actualization first in teachers so as to enable them to impart these values in their students.

According to Patterson and Purkey (1993), the three basic positive conditions for actualization are genuineness, respect, and empathy. These qualities are similar to the three characteristics of a humanistic teacher as postulated by Patterson (1973) and Rogers (1983). Both of them agree that such characteristics in teachers will help promote the right atmosphere to enhance students' learning process in the classroom. Paterson and Purkey (1993) also support this view by advocating that these