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Perception of Pupils on the Teaching Styles of their Mathematics Teachers

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Abstract
This study aimed to determine the perception of grade 6 pupils of La Carlota South Elementary School I on the teaching styles of their Mathematics teachers to know the most effective teaching styles of teachers suited to the learners for the improvement of academic performance specifically, in mathematics subject. This is quantitative research with a sample size of 158 grade six pupils determined through the G Power Analysis. The data collection used a questionnaire about pupils' perception of the teaching styles of their Mathematics teachers. In analyzing the data of the study, frequency, percentage, mean and standard deviation, and T-test were utilized. The feature findings in the study were; there is a significant difference in the authority or lecture teaching styles of their Mathematics teachers in terms of sex. Based on the study's findings, teachers should use different teaching styles or combinations of two or more to improve academic performance in classroom instruction. Research shows that no teaching style is effective for all objectives and disciplines. Teachers have a dominant or preferred teaching style in which they will often mix elements of other styles. Most teachers possess a blend of all five teaching styles; The authority or lecture teacher style, demonstrator or coach style, facilitator or activity style, delegator or group style, and hybrid or blended style. The authority or lecture style has the traditional teacher features, is not flexible, and the classroom routines are essential. Students are not provided with opportunities for creative and versatile thinking. The teacher has a specific status among the students. However, studies have proved that teachers prefer more than one style while teaching examined how the five styles were distributed among various academic disciplines.

Keywords: Pupil's Perception, Teaching Styles, Academic Performance, Mathematics

Introduction

As traditional teaching styles evolve with the advent of differentiated instruction, more and more teachers are adjusting their approach depending on their pupils' learning needs. To improve the academic performance of all pupils, teachers need to help pupils develop effective learning strategies. As research suggests, the effective use of learning strategies can greatly improve pupil achievement (Protheroe & Clarke, 2008) [10]. Pupils may choose inappropriate learning strategies or may approach learning with few strategies and use only these ineffective strategies while tackling a task even when their methods repeatedly lead to failures. For this reason, Pressley & Harris (2006) suggested that educators can implement "strategies instruction" as a useful approach to teaching learning strategies. Strategies instruction can be embedded in content-area classes; it can be a part of the teaching-learning process. Personal behaviors and characteristics in the teaching-learning process indicate the way educators teach (Grasha, 1996) [4] and show that various teaching styles exist. Teachers vary in how they manage their classes, how they interact with their pupils and they view their roles as educators.

When classroom teachers show pupils how to select and use appropriate strategies, they display their preferred teaching styles. Thus, teaching styles affect not only instructional strategies adopted by teachers but also pupils learning abilities. Instead of relying on their preferred teaching style, teachers should understand that one style of instruction may not meet the needs of all pupils. Pupils differ in the way they approach the learning process and deal with various learning activities (Callahan, Clark & Kellough, 2002) [1].

One good way to have teachers consider individual learning differences and recognize the need to modify their teaching style

is to have them learn from the pupil's perspective. Although it is not the teacher's job to entertain pupils, it is vital to engage them in the learning process. Selecting a style that addresses the needs of diverse pupils at different learning levels begins with a personal inventory a self-evaluation of the teacher's strengths and weaknesses. As they develop their teaching styles and integrate them with effective classroom management skills, teachers will learn what works best for their personalities and curriculum Grasha, (2005) [6], a noted professor of psychology developed the classic five teaching styles.

Furthermore, Grasha (2005) [6] relayed the dynamics of the relationship between teachers and learning in classrooms, also Teaching with Style, which guides teachers and as a tool to help colleagues, administrators, and pupils to systematically evaluate a teacher's effectiveness in the classroom. It is understood that schools must use a consistent, formal approach in evaluating a teacher's classroom performance and recognize that any system designed to help teachers improve their instructional skills requires a simple classification system.

Thus, this study would like to determine the different teaching style that fits pupils' needs in teaching mathematics subject.

Statement of the problem

1. What is the profile of grade six pupils in terms of sex?
2. What is the pupils' perception of the teaching style of their mathematics teachers in terms of authority or lecture style; demonstrator or coach style; facilitator or activity style; delegator or group style; and hybrid or blended style?
3. Is there a significant difference in the pupils' perception of their mathematics teachers' different teaching styles when grouped according to sex?

Theoretical framework

The theory that underlies this study was the primary educational learning theories: behaviorism, cognitive, constructivism, humanism, and connectivism. Understanding learning theories can result in a variety of outcomes, from improving communication between students and teachers to determining what students learn. Teaching and learning may appear to be a universal experience. After all, everyone goes to school and learns more or less the same thing. The concept of this study was to identify the teaching styles of the mathematics teachers of the grade six pupils through pupils' perceptions. First, it will be determined whether the participant's sex is male or female. Finally, the results of the study will be used to determine the most effective teaching styles to improve pupils' academic performance specifically in mathematics subject.

As the prolific number of educational theorists in learning suggests, there's an impressive variety of educational approaches to the art and science of teaching. Many of them have been pioneered by educational theorists who've studied the science of learning to determine what works best and for whom.

Firstly, Behaviorism Theory refers to learning based on a system of routines that "drill" information into a student's memory bank, as well as positive feedback from teachers and an educational institution itself. If students do an excellent job, they receive positive reinforcement and are signaled out for recognition. As Simply Psychology puts it: "Behaviorism is only concerned with observable stimulus-response behaviors, as they can be studied in a systematic and observable manner" (LearningDctr., 2010) [8].

Secondly, Cognitivism Theory was developed in the 1950s, this theory moves away from behaviorism to focus on the mind's role in learning. According to the International Bureau of Education: "In cognitive psychology, learning is understood as the acquisition of knowledge: the learner is an information-processor who absorbs information, undertakes cognitive operations on it and stocks it in memory." Learning relies on both external factors (like information or data) and the internal thought process (LearningDctr., 2010) [8].

Thirdly, Humanism Theory refers to the understanding that people are inherently good, humanism focuses on creating an environment conducive to self-actualization. In doing so, learners' needs are met and they are then free to determine their own goals while the teacher assists in meeting those learning goals. A "learner-centric approach" in which the potential is the focus rather than the method or materials.

Fourthly, Connectivism Theory is strongly influenced by technology, connectivism focuses on a learner's ability to frequently source and update accurate information. Knowing how and where to find the best information is as important as the information itself. Informed by the digital age, connectivism departs from constructivism by identifying and remediating gaps in knowledge (Siemens and Tittenberger, 2009) [12].

Scope and limitation

This study assessed the perception of 158 Grade six pupils on the teaching styles of their mathematics teachers as the basis for appropriate pedagogy styles of teachers and teaching styles teachers used for the improvement of classroom instruction in the La Carlota South Elementary School I for the school year 2020-2021.

Review of related literature

Effective learning in the classroom depends on the teacher's ability to maintain the interest that brought students to the course in the first place (Erickson, 2008). Not all students are motivated by the same values, needs, desires, and wants. Some students are motivated by the approval of others or by overcoming challenges. Teachers must recognize the diversity and complexity in the classroom, be it ethnicity, gender, culture, language abilities, or interests. Getting students to work and learn in class is largely influenced in all these areas. Classroom diversity exists not only among students and their peers but may be also exacerbated by language and cultural differences between teachers and students.

Furthermore, Tomlinson (2012) [13] advocated differentiated instruction and was a pioneer in the development of learning-based teaching styles. If Grasha (2002) [5] laid the groundwork for 20th-century teachers to adopt styles tailored to match their personalities and strengths, Tomlinson has advanced this theme into the 21st century by focusing on differentiated instruction.

The majority of teachers use lecture methods to teach mathematics whereas, these subjects demand practical work. There are many excuses for not adopting modern methods of teaching, the most important is that majority of the teachers have argued that the curriculum is broad and the working environment is not conducive. Many teachers use the direct

teaching method as it is considered the simplest, and one can cover large amounts of material in a short period. However, this is not the most effective teaching method to teach all students, especially younger ones, who often need a more engaging, hands-on strategy to learn effectively.

Researchers indicate that teaching is a complex process that requires proper teaching styles, to inculcate knowledge in the minds of the students and to transfer knowledge to the next generation. The purpose of teaching styles in mathematics is to help students develop and extend concepts in mathematics they can use, to understand the world they live in, solve problems, and communicate what they now know. Humans are by nature makers of meaning. The challenge of effective "teaching" is to help students achieve genuine and sophisticated understandings that help them function effectively and independently in an increasingly complex world. Our access to knowledge is increasing at a truly exceptional rate and daily, requiring learners to process and evaluate knowledge, not just acquire it. According to most mathematics teachers they said, when they are using Showing Method demonstration, observation) in teaching, it helps the students to understand it better and faster than the other method.

Moreover, the facilitator-teacher style is flexible in interactions with the students, presents choices, and leads the way. It allows the students to take responsibility, creates cooperative learning occasions, and acts as an active listener, and the delegator teacher style creates a student-based teaching environment, struggles to develop student potential, and contributes to the student's perception of themselves as independent learners; it gives the students duties and responsibilities. However, studies have proved that teachers prefer more than one style while teaching (cited in Üredi, 2006) [14].

In the group of expert/facilitative/personal model teaching styles "teachers are in the role of designing opportunities for learning that emphasize collaborative and self-directed experiences (Grasha, 1994). Similar results were found by (Üredi 2006, et.al) [14] who researched Turkish teachers` teaching styles and motivation. Helping students understand better in the classroom is one of the primary concerns of every teacher Teachers need to motivate students how to learn.

Furthermore, teachers need to vary teaching styles and techniques so as not to cause boredom to the students in the classroom. Research made by Lucas (1990) [9], Weinert, and Kluwe (1987) shows that several styles could be employed by teachers to encourage students to become self-motivated independent learners. As identified, teachers must give frequent positive feedback that supports students' beliefs that they can do well; ensure opportunities for students' success by assigning tasks that are either too easy or too difficult; help students find personal meaning and value in the material, and help students feel that they are valued members of a learning community. According to Brock (1976), Cashin (1979) [2], and Lucas (1990) [9], it is necessary for teachers to work from students' strengths and interests by finding out why students are in their class and what are their expectations.

Therefore, it is important to take into consideration students' needs and interests to focus instruction that applies to different groups of students with different levels. Grasha (1996) [4] identified five teaching styles in his teaching style models based on what he regarded as metaphors of role models. The five styles are demonstrator or coach, authority or lecture, hybrid or blended, facilitator, and delegator styles. Although it may seem appropriate to place teachers into one of the five categories of teaching styles, Grasha (1996) [4] emphasized that everyone who teaches possesses each of the five teaching styles to vary degrees.

Therefore, he identified the four clusters of teaching styles that are dominant among teachers. These clusters are Cluster 1 (coach or demonstrator/lecture or authority/hybrid or blended style), Cluster 2 (hybrid or blended /demonstrator or coach/ lecture/ authority style), Cluster 3 (facilitator/hybrid or blended/demonstrator or coach style), and Cluster 4 (delegator/facilitator/demonstrator or coach style). According to Grasha (1996) [4], each cluster of teaching styles conveys a distinguished message to the students, and this helps to create the mood of the class. Research on teaching styles does not come in a standardized and uniformly labeled package.

Methodology

This study utilized the descriptive evaluative survey method. Descriptive research is a type of quantitative research that involves making a careful description of educational phenomena (Gall, Gall, & Borge 2007) [3]. The researcher chose this design to determine the perception of grade 6 pupils on the teaching styles of their mathematics teachers. This study also utilized the primary data taken from the survey questionnaire provided by the researcher.

Participants of the study

The participants of this study were the grade 6 pupils of La Carlota South Elementary School I who were officially enrolled in the academic year 2018-2019. There was 263 grade 6 participants. The sample size was 158 with a 5% margin of error and 80% power. The sample was completed using G Power Analysis. The participants were allocated proportionally.

Research Instrument

This study utilized a researcher-made survey questionnaire with two parts. The first part was the participants' profiles according to sex. On sex, pupils were classified as male or female.

Part II was on the level of perception of grade 6 Pupils on the teaching styles of mathematics teachers which consisted of 20 questions. The items were stated on a five-point scale in which the participants indicated their chosen answer, by placing a checkmark in the space provided by the participant for every item given. The researcher instrument has undergone context validation by three research experts. The instrument was subjected to a validity test using Good and Scates Criteria. The validity index obtained was (3.61) confirming a higher level of validity. The juries rated the validation as follows 3.53, 3.61, and 3.68. The reliability test was conducted utilizing 20 participants coming from another school. The response was subject to Cronbach's Alpha and obtained an r-Coefficient of (0.820) suggesting that the instrument was highly reliable.

Data gathering procedure

A request letter for permit and approval to conduct the survey was sent to the Schools Division Superintendent of the Division of La Carlota City. A furnished copy was given to the principal of La Carlota South Elementary School 1 to

communicate the purpose, date, and mechanics of the survey to be conducted. The researcher personally conducted the study to ensure the confidentiality of the responses. Schedule visits to the research locale and set appointments for the data gathering were set before the actual data gathering. Retrieval of the survey questionnaires was done right after the survey ensuring its completeness. Data gathered were collated, tabulated, and analyzed.

Statistical treatment

The Statistical Package for Social Sciences (SPSS) was used for data analysis and interpretation as well as manual statistical computation was done for rechecking purposes; For the first statement of the problem frequency and percentage were used in getting the profile of the participants. For problem number 2, the mean was used in determining the teaching styles of the teachers. Lastly, for problem number 3, a T-test in testing two means was used at an alpha level of 5% to determine the significant difference in the perception of the grade 6 pupils on the teaching styles of teachers in terms of sex.

Results and discussions

On the profile of the participants, the majority of the participants are male 80 or 50.6%, and female 78 or 49.4% of the total participants. Whereas most of the teachers utilized the hybrid or blended teaching style with a mean of 3.73 which is interpreted as utilized often, the teaching style of teachers as facilitator or activity with a mean of 3.67 which is interpreted as utilized often by the teachers, authority or lecture style of teaching with a mean of 3.50 which is often, demonstrator or coach teaching style with a mean of 3.23 as sometimes and delegator or group teaching style with a mean of 3.07 as utilized sometimes by teachers. Lastly, the significant difference showed that the perception of the participants on the teaching styles of teachers in terms of sex using the 0.05 level of significance showed that Authority or Lecture Style, $t(156)=2.059$, $p=.041$ exhibits a significant difference while other teaching styles showed no significant difference.

Conclusions and recommendations

The data showed that there are more male than female participants. The teaching styles of the teachers showed that most of the teachers utilized the hybrid or blended teaching style which is interpreted as utilized often, the teaching style of teachers as facilitator or activity which is interpreted as utilized often by the teachers, authority or lecture style of teaching which is often, demonstrator or coach teaching style as sometimes and delegator or group teaching style as utilized sometimes by teachers.

The difference in the perception of the participants on the teaching styles of teachers in terms of sex showed that Authority or Lecture Style exhibits a significant difference. Other teaching styles showed no significant difference.

Hence, the following recommendations were formulated: The administrators should provide training, SLAC sessions, and seminars to teachers to enhance their skills for the improvement of the academic performance of the pupils, and be supportive of the needs of the teachers for the betterment of the institution. While teachers should use not only one teaching style but two or more styles for the pupils to be motivated in their studies. Teachers must attend seminars and training as well as SLAC sessions for professional development and to encourage pupils to learn and at the same time enjoying to learn. Teachers should be well-rounded individuals so that they can give all that they have in terms of providing learning to the pupils. The parents must assure that their children are given quality education and extra attention for the betterment of their children. Parents should involve themselves in the education of their children not only by sending their children to school but seeing to it that they are learning. Parents should provide for the needs of their children to become competent individuals in the future. For the pupils, this will help them to be a productive-individuals in the field of learning. Pupils should study hard for him to become better citizens of our country because youth are the future of our nation. Pupils must become knowledgeable enough that they could possess character and be determined enough that could help them reach their dream or goal in life.

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