Model of Teacher – Student Interaction Based on Students’ Uniqueness in Elementary School (Benchmarking to Sto. Rosario Montessori School Philippine)

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Abstract
The uniqueness of learning in elementary school in Sto. Rosario Montessori School Philippines Using the k-12 curriculum, by imitating the United States model, namely the Cooperative Learning model and the Communicative Learning approach. The purpose of this study is to design a teacher-student interaction model for basic education in Indonesia. This model is designed with the benchmarking Sto. Rosario Montessori School, Philippines. This research approach uses a qualitative approach. With the research method of level 1 R&D studies. Then qualitative data processing and data analysis were carried out. Data analysis gives meaning to the data from observations, interviews, documentation, and literature studies that have been collected so that they get a very important meaning in a study. Analyzing qualitative data can be done by reducing data, displaying data, and data conclusions. The result of this research is the design of the teacher-student interaction model for elementary school students which contains the philosophy, concepts, mechanisms and general guidelines for the application of the model. The model in this study uses
cooperative learning and communicative learning. (1) The philosophy of the model "students are unique creatures"; (2) The concept of the model: cases, individual conditions of students and solving cases faced by students; (3) The model mechanism: (a) Mapping of students' conditions; (b) Teacher training on leadership patterns; (c) The teacher classifies the students' condition; (d) implementation of teaching and learning; (4) General instructions for implementing the designed model.

**Keywords:** Model of Teacher – Student; Students’ Uniqueness

INTRODUCTION

One of the most common problems faced by teachers is a passive class (Hasan, 2015), where students tend to avoid interaction with the teacher (Nasution & Casmini, 2020). Teachers’ efforts to be able to interact effectively with students...
in the classroom must use an active learning model (Abidin, 2019; Effendi, 2016; Rosita & Leonard, 2015). Teacher-student interactions ask students questions in the classroom with the hope that students respond to questions from the teacher (Naz et al., 2013; Tofade et al., 2013). But often students do not respond to questions from the teacher even though students understand the question and know the answer. In addition, students often do not want to ask questions to the teacher in class which makes it difficult for teachers to get a response or interaction during class learning (Lodge et al., 2018).

In the learning process the teacher must be good at planning, implementing, and evaluating learning (Maulana et al., 2021; Nidawati, 2020) and the teacher must continue to repeat the cycle by paying attention to aspects that concern students. Aspects that concern students both quantitatively and qualitatively. These aspects need to be considered because changes in each of these aspects greatly affect learning. Things that need to be considered about students are not only in general in groups or levels of learning, but also need to be considered from each individual student. Because, by paying attention to each individual student, general conclusions can be drawn regarding the learning ability of a group or the level of student learning. There are several things that can be considered to know the differences between individuals in terms of learning. There are at least 6 individual differences in students, namely: intellectual development, language skills, background experience, learning styles, talents and interests, personality (Sudjana, 2007:116).

According to UNESCO, the quality of education in Indonesia is still deficient. This is evidenced by UNESCO data (2020) regarding the Human Development Index, which ranks 107 with an HDI value of 0.718, which is the composition of the ranking of achievements in the fields of education, health, and per capita income which shows that the Human Development Index in Indonesia has decreased, especially in the education sector. The low quality of education can also be seen based on the list of education quality according to PISA released on December 13, 2019. The results released, Indonesia obtained a reading score of 72 out of 77 countries; mathematics ranks 72 out of 78 countries; science ranks 70th out of 78 countries. While the Philippines obtained a reading score of 77; math ranked 78; science ranks 75th (PISA, 2018).

The relationship between teachers and students is often one-way; that is, students are only listeners of the material delivered by the teacher (Lasmini, 2016;
Mandaniyati & Sophya, 2017; Sulastri et al., 2015). This causes students to forget the material being studied because they only listen to the teacher’s explanation. Therefore, interaction is significant in learning activities beneficial for students (Fitri et al., 2021; Linton et al., 2014; Liu, 2008; Rosarian & Dirgantoro, 2020). The teacher also received feedback regarding whether the material was acceptable to students or not. Therefore, before explaining the material, a teacher should listen to students’ experiences so that they can be applied in learning methods. In learning activities between teachers and students, there must be interaction. As a teacher, you know what you should do to create a suitable learning environment for educators who can lead students to their goals (Keiler, 2018; Licorish et al., 2018). The teacher’s task as an educator is to try to create an exciting and fun learning atmosphere for students. Teachers as educators do not dominate activities but help create conducive conditions and provide motivation and guidance so that students can develop their potential and creativity through teaching and learning interactions (Puspitarini & Hanif, 2019).

Problems that arise in the learning process are caused by the lack of communication between teachers and students and students with other students, so the interaction process occurs in a vacuum. Teachers are also expected to guide and assist students. Some learning problems that need to be overcome: (a) Lack of student motivation to learn or participate in learning, (b) more and more students are truant during class hours, (c) fights between students, (d) low student achievement, (e) low ethics and manners. A growing body of theoretical support and empirical research suggests that the ability to detect effective interactions in a teaching context may be an essential precursor to consistently demonstrating these skills in the classroom (Jamil et al., 2015).

The implementation plan of the Lessons carried out in Sto. Rosario Montessori School Philippine’s RPP components are very simple, not detailed as in Indonesia. The implementation of learning is the same as in Indonesia starting from the introduction, core, and closing. Regarding learning media, the material is visualized in a more real or concrete form, so that it can convey information messages and foster stimulation of students’ thoughts, feelings, attention, and interest in learning. In terms of learning analysis, there are affective, cognitive, and psychomotor aspects (Salekha et al., 2021).
According to Wentzel, K. R. (2009), previous research found that there was a significant relationship between (1) positive interaction with teacher-student relationship; (2) the positive interaction relationship between teacher-students as well as social and academic relationships in schools; (3) The teacher-student relationship is related to motivation. Teacher-student communication relationship is significant with clarity and consistency can be done by building interpersonal relationships based on trust and (equality) justice (Firdaus et al., 2016).

The uniqueness of learning at the elementary school in Sto. Rosario Montessori School Philippine Using the k-12 curriculum, which means 12 years of compulsory education for primary and secondary schools. The curriculum used imitates the United States model, taking theory first, then taking a license or profession. In addition, the learning model uses the Cooperative Learning model, such as talking sticks and picture and picture, and the Communicative Learning approach.

METHODS

The research approach that the researcher uses is a qualitative approach. According to Moleong (2008) a qualitative approach is a research procedure that produces descriptive, spoken or written data and observable behavior from the subject, carried out in reasonable situations, understanding and interpreting in certain situations according to the researcher’s perspective. With a qualitative approach, researchers can go directly to conduct interviews with respondents, observe, participate in the process, so that they can know in depth the substance under study. This type of research is the first level of R&D with the aim of designing a model to the stage of discovering the concept (Sugiyono, 2013). The stages of this research are (1) Study of the existing condition of teacher-student interaction in basic education in Indonesia, (2) Study model of teacher-student interaction in Sto. Rosario Montessori School as a benchmarking, (3) designing the concept of teacher-student interaction models for basic education in Indonesia, (4) validating the concept of the designed model.

Data collection for the first stage through literature study and classroom observation; the second stage through interviews with the principal and observations in class; Data from the first and second stages were analyzed using
the Milles and Huberman (1984) method. The third stage is through literature study and the results of data that have been analyzed in the first and second stages. The fourth step is expert judgment through the Delphi Technique (2015).

Good data analysis requires data processing that is carried out effectively and efficiently. Data were obtained from various sources including interviews, observations, documentation, literature studies. Then carried out data processing and data analysis qualitatively. Data analysis gives meaning to the data from observations, interviews, documentation, and literature studies that have been collected so that they get a very important meaning in a study. Analyzing qualitative data can be done by reducing data, displaying data, and data conclusions.

RESULTS AND DISCUSSION

The teacher pays little attention to the students’ initial abilities (Cicekci & Sadik, 2019; Hlas et al., 2017; Purwaningrum & Sumardi, 2016). Knowledge of students’ initial abilities is needed by the teacher to establish teaching strategies (Chong et al., 2009; S. Kim et al., 2019), even asking questions requires understanding of students’ initial abilities. To understand the initial abilities of these students the teacher can help students expedite the learning process that is done and minimize the opportunities of difficulties faced by students. Sometimes a certain material requires prerequisite prior knowledge. If this prerequisite knowledge has not been mastered and the teacher has continued on the next material it is certain that students will be consulted by the instructor. This can be detected through student behavior. Students who cannot follow the material being discussed by the teacher tend to behave in “deviant” ways such as: daydreaming, writing or drawing that has nothing to do with the subject matter, talking to themselves or other activities not related to the content of learning.

Lack of approach to students; Teachers don’t pay full attention to students’ uniqueness. Most of teachers serve the students’ with the methods that they like to choose. Teachers think much the media (Gretter & Yadav, 2018). The ideal medias usually also not be implemented. Teachers choose media based on what they like as well as depends on the facilitation that are ready to use or are prepared. The choice of learning media not based on the object study. Instead of
media, the uniqueness of students seldom get attention by the teachers. Teachers like to use delivery method and like to teach than do learn for students (Paul & Jefferson, 2019).

Solution: Try to identify how the environment of students outside of school. For example, a visit to the home of a somewhat problematic student at school. Talk to the parents / guardians to take a way out of the problems that arise. In addition, occasionally invite students to talk, not necessarily merely about the school. Be a good listener so students trust and are open to you (Sari, 2016; Weger et al., 2014). Thus, the teacher can better understand the characteristics of students and know how to deal with them. Teachers should get such a training about how to have good communication; How to be a good servant; How to be a good leader and so on.

Sto. Rosario Montessori School is an educational institution that manages pre-schools, primary schools and junior high schools. As the name implies, this school uses the Montessori concept as a platform in organizing its education. This paper outlines the Montessori concept and the implementation of the concept in Sto. Rosario Montessori School. Montessori Concept: Explanation in Wikipedia states that Montessori is an educational method for children based on child development theory. The hallmark of this method is the emphasis on self-direction activities in children and clinical observation from the teacher. According to the Montessori concept, every child who is educated has an advantage in growing critical thinking, collaborating in teams, and acting more decisively. Every child has freedom in choosing activities, which of course has been arranged in such a way by the educators to foster independence, freedom and order. Teachers, children and the regulated environment create a good learning triangle. Children freely use the existing environment to develop their personality, and interact with the teacher when they need help and / or the direction needed.

According to the Montessori School of Winston–Salem, keywords Montessori as follows: (1) Child Centered, Dr. Montessori’s mantra was “Follow the child.” She knew that children have an innate desire and passion for learning, and that our job as educators is to support this natural process. Our guides (we call our teachers ‘guides’) selectively and carefully design the classroom to foster each child’s independence, autonomy and competence. The child’s freedom to
choose one’s lessons, within limits, nurtures individual initiative and personal responsibility; (2) Individualized Learning, Each child learns at his/her own pace. Through individualized learning within uninterrupted blocks of work, the children follow their passions and natural curiosity. With the support of the meticulously prepared classroom and nurturing guidance, balanced within a structure of freedom and responsibilities, the child develops concentration, inner discipline, internalization of the learning and metacognition (thinking about thinking); (3) Integrated, spiraling curriculum, From toddler through elementary, the children are exposed to interrelated topics repeatedly over time. With each repetition, a new piece of information or complexity is added so the children are brought into an expanded awareness and understanding of the concept. In this way each level of mastery builds on each other, leading the child to continuous new insights, discoveries, competence and confidence; (4) Multi-Age Groupings, students of multi-ages, usually 3-year groupings, are in a classroom community where they naturally learn with and from each other. The atmosphere in the classroom is one of collaboration and cooperation. The older children freely share their knowledge, which not only benefits the younger children, but also deepens the older child’s knowledge and enhances their leadership and confidence; (5) Hands-on Learning, children learn through their senses, they satisfy their natural curiosity by touching and manipulating concrete objects. Because of this, Dr. Montessori created a unique approach to education that is developmentally appropriate, hands-on, interactive and sensory based; (6) C3-year cycle, children experience consistency through their three-year cycle, with their teachers, peers and classroom environment. There are many benefits to this, not the least of which is the deep connections children develop with their teachers. The teachers, in turn, truly and deeply get to know each student, intimately understanding how each child learns best and can provide the appropriate next learning experience at precisely the right moment. The third-year, we call it the capstone year, is the culmination of this learning, a time when the child has internalized these early concrete experiences, creating a strong foundation for the future learning.

The School manager implements the Montessori concept especially in the learning process and also in every activity through habituating each student’s behavior at school. The vision and mission are formulated by the school that is a reflection of the school’s conception. School vision tarakinnar and its mission.
Educational achievements in this school include the achievement of academic abilities and behavior. The question is how to concretely implement the Montessori concept in academic activities and behavioral education. In the learning process in class, the teacher arranges classes in small groups of 3-4 students. For students who lack academic ability and lack of focus in the learning process are seated in the front row close to the teacher. The goal is that students receive intensive monitoring from the teacher. Students sit alternately between men and women with the aim of maintaining class conductivity. This step is an anticipatory step in the occurrence of minor fights between male students and chatting with each other among students who create environmental noise. Every teacher is required to conduct intensive monitoring to students during the learning process.

Figure 1. Illustration of Student Sitting Position during Discussion

Further conceptualized that teachers can support students’ autonomy in three ways (Stefanou et al., 2004). They can offer choices about classroom management or the medium of presentation (i.e., organizational or procedural autonomy support, respectively), which would increase students’ initial and short-lived engagement and sense of well-being. Aligned with Assor et al. (2002), who reported that the provision of these types of choices would not be enough to support students’ autonomous feelings or cognitive engagement (Assor et al., 2002), further proposed that teachers can offer students opportunities to think independently by asking them to generate their own solutions or ideas instead of being recipients of content (i.e., cognitive autonomy support) (Stefanou et al., 2004), which would sufficiently allow students to invest in deep thinking and develop self-reliance while problem solving (J.-I. Kim et al., 2019).
The position of arranging small groups in figure 1, is more often applied when students are interacting with the object of the learning problem, they discuss with their friends for problem solving. Through this pattern, the behavior that is designed from the teacher will be built, for example the occurrence of cooperation, tolerance, and respect for the opinions of others, critical thinking and so forth. In fact, the goal of achieving maximum academic ability.

The pattern in figure 2 is often applied in order to maintain classroom conductivity and give intensive attention to students who lack academic ability and focus on learning. This pattern is also applied when students make presentations. Through this pattern the aim of building good behavior such as the courage to express opinions, respect the opinions of others, confidence and so forth can be realized in addition to academic ability. In this pattern the teacher can clarify student opinions.

The model designed in this study contains a philosophy of teacher-student interaction philosophy, concepts, and mechanisms. The model has not been field tested but has received input or validation from experts.

a. The teacher-student interaction model philosophy

The philosophy of the teacher-student interaction model based on its uniqueness in basic education is that students are unique creatures that differ from one another. In implementing this philosophy teachers must
provide services to students individually according to the uniqueness of students and provide facilitation according to the problems they face.

b. Concept of the model

![Figure 3. Model Concept](image)

The model designed in this research concept is as follows: (1) case; (2) individual student conditions; and (3) completing cases faced by students. The concept of the model is clarified through Figure 3 below.

Case understanding is all the problems faced by students in the learning process to achieve abilities (Hmelo-Silver, 2004; Valente et al., 2020). While the understanding of case completion is a strategy used to solve problems faced by students in their learning so that the problem is solved completely or completely. The condition of individual students is the state of students based on variables of academic ability and learning motivation. Experiential teacher support children’s inner motivational strivings by focusing on three domains: (a) support children’s free initiative, (b) offer a classroom environment that is rich and stimulating, and (c) show sensitive and emotional support towards the student (de Bilde et al., 2015). Classroom mastery goal structure directs students toward improvement and effort rather than toward ability; it consists of a perception that learning is not about repetition but rather about understanding. Mastery goal structures have been positively related to a range of desirable learning characteristics, such as personal mastery goal orientation, classroom and extracurricular (Vedder-Weiss, 2017).
This study divides students into four determinants namely; (a) students who have good academic ability and motivation to learn; (b) students who have good academic abilities but lack motivation to learn; (c) students who lack good academic ability but have good motivation to learn; and (d) students who lack good academic ability and learning motivation. (Figure 4)

![Figure 4. Student Position Based on, Ability and Motivation](image)

The patterns applied by the teacher in interacting with students in the learning process are: (a) Delegating; (b) Motivating; (c) Participating; and (d) Instructing (figure 5).

![Figure 5. Teacher Patterns in Interaction](image)
This research resulted in a Teacher-Student interaction model in accordance with the students’ uniqueness, presented in Figure 6 below.

![Teacher-Student interaction model](image)

**Figure 6. Teacher-Student interaction model that suits the uniqueness of students**

The context in which teachers employ particular forms of discourse matters. When teachers follow these patterns (i.e., teacher initiation, student response, teacher evaluation; to assess students on predetermined answers in monologic instruction such as recitations, the resulting teacher discourse may not effectively facilitate student learning (Wei et al., 2018).

The study which is focused on the “how” teacher leadership, a distributed leadership framework is particularly useful, as it examines leadership as “activities engaged in by leaders, in interaction with others in particular contexts around specific tasks”). Teacher leadership is constituted among the interactions that teacher leaders have with various stakeholders—teachers, principals, administrators, other teacher leaders—“using particular tools and artifacts around particular leadership tasks” in particular situations (classrooms, schools, district) within layers of sociopolitical contexts, which include power relations, professional culture norms, and value systems. EL-focused teacher leaders are often in unique positions to facilitate communication and the flow of information among people in different district, school, and classroom contexts (Esch, 2018).
c. Mechanism of Model Finding

There are four steps in operating this model, namely (1) Mapping the conditions of students based on academic ability and learning motivation, (2) Training of teachers about leadership (teacher leadership patterns in class), (3) Teachers grouping students’ conditions based on the results in step 1, (4) The implementation of learning in small groups and individually.

For the first step, mapping the conditions of students based on academic ability and learning motivation; instruments can be made to measure academic ability. A mathematics teacher for example can make an instrument to measure students’ mathematical abilities according to the level or class in which the student is (say third grade math, and so on).

The instruments compiled can be in the form of statements with a Likert scale 1-4 and categorized into two namely good and not good. For students who have good data analysis results, the determinants are C1 and C2. As for students who lack good academic ability, it will be positioned on the determinants of C3 and C4.

To measure learning motivation, you can use the learning motivation measurement instrument proposed experts or the teacher can collaborate with other teachers who are competent in the field of learning psychology. If you are going to measure learning motivation, of course the meaning of motivation and the definition should be breakdowned into indicators.

Similar to the measurement of students’ academic abilities, the measurement of learning motivation uses a Likert scale with four scores, which are further analyzed and categorized into two categories namely good and lack of motivation. For students who have good motivational data analysis results, they will be in the determinants of C1d and C2. Whereas for students who lack motivation, it will be positioned on the determinants of C3 and C4.

Examples of instruments to measure academic ability and learning motivation are in Figure 7, while the categorization of academic abilities and learning motivation is in Figure 8.
The second step is “Training the teacher on leadership (teacher leadership patterns in the classroom)”. In conducting the training, it can invite mentors who understand the science of leadership. This model emphasizes the situational leadership patterns proposed by Hersey and Blanchard. Something that needs to be prepared in this training is management.

The third step is “The teacher make groups the students’ conditions based on the results in step 1. After the instrument has been prepared for data collection, the data collection can then be done through observation or a questionnaire; of course this is based on situations and conditions. Grouping in the United States is increasingly becoming the “primary strategy by which schools differentiate instruction and curriculum” Further he argues that ability grouping and differentiation come from two distinct understandings of how the needs of diverse learners are best
met. On one hand, the logic of static grouping, they argue, is grounded in “ability” being conceptualized as unidimensional and easily assessed. Differentiated instruction, on the other hand, is conceptualized beyond a set of practices to include a student-centered mind-set grounded in principles of responsive teaching with students’ needs defined by their interests, readiness, and learning profiles developing over time rather than by their performance on a single assessment. In other words, student groupings are not the same (Ardasheva et al., 2019).

The fourth step is ‘The implementation of learning in small groups and individually’. Always classical patern the choice of these devens on the learning output which would be achieved by students.

d. General instructions for applying the designed model

General guidelines for the application of student-teacher interaction models in learning in primary schools contain (1) class identity, (2) teacher identity, (3) student academic ability conditions, (4) conditions of student learning motivation towards certain subjects, (5) maps expected interaction patterns, (6) Appendix instrument for measuring academic ability and learning motivation.

CONCLUSION

Students are unique beings, different from each other, in following the learning process ideally using an individual approach. The teacher is a leader and manager in the classroom, where situational leadership is an option for teachers in interacting with students. The style of the teacher in interacting should be varied so that it is not monotonous and boring, and is required to have the skills to map students’ conditions based on their motivation and interests, academic abilities. Teachers in mapping students’ conditions, teachers must master the science of evaluation and be able to develop mapping instruments. An in-depth study of the ideal teacher interaction indicators must be carried out immediately to contribute to the scientific treasures, especially the sociology of education. For further research, it is recommended to proceed to the model testing phase and model validation, then implement and evaluate and follow up.
REFERENCES


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