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## Teachers' Verbal and Nonverbal Communication Strategies in High School Mathematics

**Joanne Echalico- Bermillo**

### Abstract

The study was conducted to determine teachers' verbal and nonverbal communication strategies in teaching Mathematics. It investigated the cognitive and metacognitive strategies used by mathematics teachers, most likely in the initiation, developmental, evaluation, and closure phases. The levels of teachers' nonverbal communication strategies were also examined using a questionnaire adapted from Barrido (1992). Lastly, the concern was on determining the relationship between the teachers' nonverbal communication strategies and the student's achievement in terms of the grade achieved for the grading period.

The study was descriptive research making use of the classroom discourse analysis. Purposive sampling was utilized to select the mathematics teachers with 50 students. The study data were obtained using a video camera, tape recorder, observation notebook, and series of audio-visual recordings and observation of classroom interaction between teachers and students. Every classroom setting was labeled with date, time and year level. Every teacher-participants was assigned a code name. Experts validated the teacher participants' ability to use nonverbal language. The analysis of data involved using statistical tools such as frequency count, mean, standard deviation, Pearson product moment correlation and multiple regression. The system and categorization of analysis was based on Sinclair and Coulthard 1975.

The study revealed that teachers' verbal cognitive-communication strategies utilized were informing, eliciting, marking, and concluding, and the verbal strategies executed were proximity, oculesics, and facial expressions. On the other hand, metacognitive strategies utilized by the teachers included directing, checking, marking, accepting, nominating, evaluating, and bidding goodbye. The nonverbal cues were making the sign of the cross, arms crossing, fixing the things on the table, bowing of the head, standing, moving the eyes from left to right, head nodding, eye contact, eyebrow-raising, smiling, head-tilt-side, lip compressing, eyebrow lowering, hands at the back, pitch high, gaze avoidance and keeping of things.

The different phases of the lesson required various verbal and nonverbal communication strategies. In the initiation phase, the verbal and nonverbal strategies commonly employed were directing, checking, and marking. The nonverbal cues were: raising the brow, smiling, standing, head bowing, gazing down, making the sign of the cross, hands down power grip, widening of the pupils of the eyes, moving the eyes from left to right, one-foot support, holding a pen and gazing at the students. The developmental phase was usually characterized as informing, eliciting, accepting, concluding, and checking. For the nonverbal, they comprised writing on the board, illustrating how to solve, and placing the visual aids on the board. The closure phase use directing, silence and checking. The nonverbal cues shown were roaming around to check students' work and tapping the wrist to check the time. The verbal communication demonstrated the closure phase observed that included silent stress, marking, directing, and bidding goodbye. It used the writing on the board for the assignment, tapping the wrist to check the time, and gathering the books to prepare for the next class.

Moreover, teachers' level of nonverbal communication strategies and the students' grades for the grading period yielded "fair" in the analysis, with an overall weighted mean of 3.48. There was a significant relationship between the nonverbal communication strategies and the students' achievement. Both verbal and nonverbal communication strategies are important in the classroom. It is further suggested that the teachers must develop effective behavior in the classroom because it can improve the students' participation and the liking of the subject. The teachers should show friendliness in the class and effectively utilize verbal and nonverbal cues.

**Keywords:** Verbal communication strategies, nonverbal communication strategies, cognitive strategies, metacognitive strategies, students' achievement.

## 1. Introduction

Teaching is perhaps the only profession where people can have nearly total control over others. Aquino (1997) stressed that the classroom teacher is one of the key persons in the educational enterprise. He/ she is directly involved in the instructional processes in the classroom setting. Through instruction, students become engaged in the planned learning opportunities by which they gain knowledge and understanding, develop habits and skills, and acquire attitudes, appreciation, and values. This rings true in the words of one writer, "teaching is something that takes place only when learning does. No matter what the teacher is doing in his/her class, if his/her students are not learning something significant, he/she is not teaching. When the students fail, the teacher failed even more.'

One of the basic subjects in the secondary curriculum is Mathematics. The learners consider this subject challenging because this is highly cognitive. Therefore, it is a great challenge for Mathematics teachers to devise the crucial art of teaching that ensures students' understanding. According to Ginsburg and Baron (1993), Mathematics cannot simply be written on the child's blank slate of mind. It is not like liquid to be poured into an empty vessel, for a child is not an empty vessel in the first place, and the liquid it changes the composition of what is poured in. In this sense, the teacher should help the child make meaningful connections between informal and formal knowledge in Mathematics.

The use of language is an indispensable element of effective teaching. In Mathematics teaching, how the teacher imparts the lesson, in what language, and the manner of his/her delivery is crucial. The art of using the language in the classroom is the basic premise underlying the teaching of Mathematics, where abstract mathematical concepts and phenomena are to be made plain to the learners. The important function of language is communication. Communication may be intentional or unintentional, involve conventional or unconventional signals, take linguistic or nonlinguistic forms, and may occur in spoken or other modes. Using communication strategies can help the teachers unlock the difficulties of carrying out the different phases of the lessons and can enhance effective teaching. Communication strategies serve as the "knots and bolts" in the classroom. It could be verbal and nonverbal, in the form of gestures, facial expressions, use of symbols, tone and inflection of the voice, and behavior for communicating the message.

This study is anchored on the theory presented by Flanders (1970) that in the classroom setting, there are categories of communication that are to be inclusive of all communication possibilities between teacher and students. Moreover, Sinclair and Coulthard (1975) identified the IRE organization (Initiation-Response-Evaluation) as the canonic structure regulating turn exchange in the classroom. In line with the theories, this study seeks to analyze classroom discourse, including the teachers' verbal and nonverbal communication strategies used in classes. For example, when the teacher wants to emphasize important points, how will he/she convey the ideas clearly and precisely to enable the students to understand the lesson? How will the teacher increase the affective aspect of the students? What communication strategies will he/she use? How does the students' achievement in class using the various nonverbal communication strategies affect learning outcomes?

## 2. Methodology

### The Respondents

The respondents of this study were the second year and fourth year Mathematics teachers with 50 students in the high school department of one of the private schools in Bukidnon, Philippines.

The two teacher-respondents were both females. They were both thirty-one years old and married. Both earned some units towards Master's degree. The language spoken by the teacher-respondents were English, Cebuano, and Tagalog. The second-year Mathematics teacher has 11 years of teaching experience, while the fourth-year teacher has eight years of teaching experience.

### Sampling Design

The respondents were identified through purposive sampling, focusing only on the second and fourth-year high school Mathematics teachers. The researcher, attempting to obtain a sample that appears to be representative of the population, selected the sampling units subjectively.

### Research Instrument

The study data were obtained using the video camera, tape recorder, observation notebook, and a series of audio-visual recordings and observation of classroom interaction between teachers and students.

### Methods and Procedure

The data collection involved four stages 1) preliminary visit of the school and observations of Mathematics classes; 2) orientation of Mathematics teachers; 3) preliminary tape recording and videotaping; and 4) final observation, videotaping, and tape recording of classes.

The researcher first conducted a preliminary visit to the study site and observed the second and fourth-year classes. The preliminary visit was done to get acquainted with the teachers, to know their class schedule, classroom location, and the time allotted for the subject. Furthermore, the preliminary observation of the Mathematics class was done to determine how the instrument can be used for data gathering and to determine how to capture an explicit scene and audible voices of the teachers and students and where the researcher will place herself during the observation.

During the orientation of the teacher respondents, the researcher met and oriented them regarding the study and told them to feel at ease and act/talk naturally during class, as if there was no observer.

After orientation, the researcher and the hired video camera man conducted the preliminary tape recording and videotaping to the teacher-respondents so that the respondents would be used to the presence of the video and tape recorder during the actual classes. It was also done to test the effectiveness of the projected area during the preliminary visit as to where to capture the clear scene for the nonverbal language and an audible voice for the verbal analysis.

The final observation, videotaping, and tape recording were set out from a series of recordings and supplemented by the taking down of the researcher of the classroom interaction and the nonverbal language behavior of the teachers. The class was videotaped and tape-recorded thrice. Fifty minutes were allotted for each class for three consecutive days. The tape recorder with a built-in camera was used to ensure the clearness and loudness of the voices, and the

video camera tripod was placed in one corner unobtrusively situated where nonverbal cues of the teachers were clearly seen. The tape recorder was placed on the teachers' table. The researcher was seated at the back and sometimes moved in front at the right side of the classroom to take notes, paying attention to all classroom interactions.

**Analysis of Data**

The study was descriptive research making use of the classroom discourse analysis. All data collected from the video camera and tape recordings and observations were transcribed, tabulated, and analyzed. In addition, the field notes were used to record all relevant information in classroom-related events, including the nonverbal language behavior of the teachers.

Every classroom setting was labelled with the date, time and year level. Every teacher-respondent was assigned a code name. The second-year teacher was coded as <sup>1</sup>M<sub>2</sub>, <sup>2</sup>M<sub>2</sub>, <sup>3</sup>M<sub>2</sub>, while the fourth-year teacher-respondent was coded as <sup>1</sup>M<sub>4</sub>, <sup>2</sup>M<sub>4</sub>, <sup>3</sup>M<sub>4</sub>. The capital letters assigned represented the subject-mathematics, the superscript represented the number of settings during the actual

videotaping and tape recordings, and the subscript represented the year level taught.

The researcher requested an observer or professional experts in English to answer the questions based on the video to gauge the teacher respondents' ability to use the nonverbal language. Data analysis involved using statistical tools such as frequency count, mean, standard deviation, Pearson product-moment correlation, and multiple regression.

The categorization system of analysis was adapted on Sinclair and Coulthard (1975) found in Table 1. It has four columns, including the nonverbal cues and the strategy type.

In analyzing nonverbal cues, the researcher identified the nonverbal cues by general categories such as kinesics, including facial expressions, gestures, and body stance; paralanguage, proximity, and oculistics. The study of the nonverbal cues needs to be specified as to what specific nonverbal behavior is exhibited by the teacher-respondents. The different codes were assigned, FE for facial expressions, G-gestures, BS- body stance, PL-paralanguage, P-proximity, and O-oculistics.

**Table 1:** Matrix analysis for student-teacher exchange based on Sinclair and Coulthard (1975:40-44).

| Exchanges | Verbal        | Function                                       | Nonverbal Cues | Strategy Type |
|-----------|---------------|--|----------------|---------------|
|           | Accepting     | Shows T has heard the correct answer           |                |               |
|           | Acknowledging | Shows S has understood, intends to react       |                |               |
|           | Asiding       | T talking to himself/herself                   |                |               |
|           | Bidding       | Signals desire to contribute                   |                |               |
|           | Checking      | Check progress                                 |                |               |
|           | Clueing       | Gives extra information                        |                |               |
|           | Commenting    | Exemplifies /expands/justifies/summarizes      |                |               |
|           | Concluding    | Summarizes                                     |                |               |
|           | Directing     | Request action                                 |                |               |
|           | Eliciting     | Requests answer                                |                |               |
|           | Evaluating    | Evaluates                                      |                |               |
|           | Informing     | Provides information                           |                |               |
|           | Looping       | Returns to point before S's answer             |                |               |
|           | Marking       | Marks boundary in discourse                    |                |               |
|           | Metastatement | Explicitly refers to the development of lesson |                |               |
|           | Nominating    | Tells or permits S to contribute               |                |               |
|           | Prompting     | Reinforces directive or elicitation            |                |               |
|           | Reacting      | Provides appropriate reply to directive        |                |               |
|           | Replying      | Provides appropriate reply to elicitation      |                |               |
|           | Silent stress | Highlights marker                              |                |               |
|           | Starting      | Provides information to facilitate response    |                |               |

Legend: T= teacher  
S= student

**3. Results and Discussions**

**Verbal and Nonverbal Strategies Employed**

It can be gleaned from the exchanges that teachers

employed various verbal and nonverbal communication strategies throughout the different lesson phases, depending on the message they wanted to convey.

**Extract 1:**

| Exchanges   | Verbal/Function              | Nonverbal Cues   | Strategy Type |
|---|------------------------------|--|---------------|
| T: Lets pray..Glory be..                              | Directing/request for prayer | G: Making sign of the cross, arm cross, fix on the table<br>O- normal blink of the eyes, gaze down<br>FE: head bow<br>BS: standing | metacognitive |
| S: Good afternoon Maam..<br>T: You may take your seat | Directing/ request action    | FE: head nod<br>O: eye contact   | metacognitive |

|   |  |  |               |
|---|--|--|---------------|
| T: Ok special products and factoring  | Accepting/shows T has heard the correct answer | BS: walking<br>O: gaze avoidance   | cognitive     |
| T: Ok so if there's no problem with the common monomial factoring, let us proceed to the second type of factoring | Marking/marks boundary in discourse            | G: hands at the back<br>O: CLEM  | metacognitive |
| S: four<br>T: hmmm...aahhmm   | Prompting/reinforces elicitation               | FE: head- tilt-side, li<br>compression eyebrow lower<br>G: hands at the back | metacognitive |
| S: three, six<br>T: ok let's go back to the example   | Marking/marks boundary in discourse            | BS: step forward<br>O: one sided gaze  | cognitive     |

The teachers' verbal communication strategies in the cognitive strategies employed were: informing, when the teacher gave information, facts, or opinions about the content or procedure after she conducted a review of the past lesson. As she progressed in her lesson, it was followed by elicitation or questions asked by the teacher about the content or procedure with the intent that the students would answer. It was in the study that the teacher did a series of elicitation. Aside from giving information and eliciting, the teacher also used the marking to mark the boundary in discourse as she shifted her utterance either to divert the topic or return to the point. This was supported by Rivera (2004), which states that cognitive strategies used by the mathematics and science teachers were more of elicitation, giving of information, asking questions, and answering replies based on the lesson's progress.

The nonverbal strategies employed were proximity-getting closer to the students when she talked. She moved her eyes in different directions. Various gestures are shown by holding a pen, writing on the board, illustrating figures on the board, placing visual aids, and leaning her body as she moves. The teacher also lowers and raises her brow during elicitation.

On the other hand, the metacognitive strategies are concerned on the management of the classroom and setting of its goals. In the metacognitive strategies, the verbal

strategies that are employed are directing when the teacher directs the students to start for prayer, followed by the checking of the attendance, marking, accepting the students' replies of the students' query, nominating-calling the students to answer, evaluating the students' answer and the bidding of goodbye signals the end of the class.

The nonverbal behavior shown by the teacher in the metacognitive strategies are the making of the sign of the cross, arms crossing, fixing of the things on the table, bowing of the head, standing, moving the eyes from left to right, head nodding, eye contact, eyebrow raise, smile, head-tilt-side, lip compression, eyebrow lower, hands at the back, pitch high, gaze avoidance, comforting face and keeping of things. In addition, the teacher employs kinesics which includes facial expressions, gestures, body stance, oculosics, and proximity.

Language could be in the form of verbal and nonverbal communication. The verbal and nonverbal communication strategies are inseparable. Barrido (1992) corroborates this by saying "the nonverbal synchronization such as gestures and facial expressions, raising and lowering of the voice and other paralinguistic cues were helpful to facilitate communication."

**Communication Strategies Used in the Phases of the Lesson**

**Extract 2:** Initiation phase.

| Exchanges  | Verbal/Functions                                       | Nonverbal Cues   |
|--|--|--|
| T: Everybody stand up..let us pray   | Directing/request for a prayer                         | FE: one brow raised, smile friendly face<br>BS: standing                         |
| S&T: In the name of the father.<br>T: Hail Mary  | Starting/facilitate prayer                             | FE: head bow, gaze down, make the sign of the cross<br>G: hands down power grip  |
| S: Holy Mary...<br>S&T: In the name of the father...<br>T: Good afternoon, everyone  | Greetings/provides greetings                           | FE: smile<br>O: big pupils   |
| S: Good afternoon Maam Amoy<br>T: Ok, who is absent? Class beadle? Are you all here?   | Checking/checks attendance                             | FE: smile, eyebrow raised<br>O: CLEM<br>BS: one foot support<br>G: holding a pen |
| S: yes Maam...<br>T: So, yesterday if you could still remember we had solving quadratic equations by factoring, right?<br>S: Yes | Marking/marks boundary in discourse<br>Checking/review | FE: smile<br>O: gazing<br>BS: standing   |

|  |                          |  |
|--|--------------------------|--|
| T: any question regarding solving quadratic equations before we will proceed with our new topic?<br>S: No Maam | Checking/checks progress | FE: friendly smile<br>Eyebrow raise<br>O: CLEM |
|--|--------------------------|--|

The most common verbal strategies used are directing as the teacher directs the students to stand up for the prayer, greetings, checking attendance, marking the boundary of discourse, and checking for progress if the students still have some questions regarding the past lessons after a review is conducted. The nonverbal cues are raising the brow, smiling, standing, head bowing, gazing down, making the sign of the cross, hands down power grip, big pupils, moving the eyes from left to right, one-foot support, holding a pen, and gazing. The nonverbal cues that dominate are the oculosics and facial expressions. The initiation phase follows the predictable task executed by directing, greetings, checking, and marking. There are few nonverbal cues since this phase is just to prepare the learners for the developmental phase, or the activities involved are just the preliminary ones. It requires simple tasks with little time allotted, thus requiring only minimal nonverbal and verbal strategies. The nonverbal cues that are usually utilized are eye movement and facial expressions. It is eye movement because the eyes are the most communicative among the nonverbal cues. On the other hand, facial expressions cannot be separated from eye movement. It would be impossible for the eyes to move without the movement of the face.

In the developmental phase, the most utilized verbal communication strategies are informing, eliciting, accepting, concluding, and checking. Much nonverbal is utilized in this phase because this is the giving of information and the bulk of the time is allotted in this phase. The teacher uses various nonverbal cues to be understood well in class. It involves many gestures. It is more on teacher talk rather than students' talk. The students just talked during the reply, which was a very short reply, usually "yes" or "no." Robson (2002) states that it is not unusual for teachers to do as much talking as 70% of the talking, teacher lecturing comprising 50% of the total interaction in the class, and the student talk in the average classroom is about 24% of the total behavior. The evaluation phase utilizes more directing, silence, and checking. The nonverbal cues are the roaming around of the teacher in class to check students' work and tapping her wrist to keep pace with the time so that she can budget the time, thus, executing all the lesson phases. There are fewer verbal communication strategies because the students devote more time to answering the seatwork or exercises.

**Extract 3: Closure phase.**

| Exchanges   | Verbal/Functions   | Nonverbal Cues   |
|---|--|--|
| T: (write assignment on the board)<br><br>Ok everybody stand for the prayer,<br><br>I hope you copied your assignment already<br><br>Who will the prayer? | Silent stress/highlights marker<br><br>Marker/ marks closure<br>Directing/request action<br><br>Concludes/ summarizes<br><br>Eliciting/ requests volunteer | G: writes on the board gleans on the book, tap wrists<br><br>G: rubs hands<br><br>G: pointing on the board<br>FE: lips biting<br>O: CLEM |
| S&T: In the name of the father...   |  | G: making sign of the cross ,head bow, hand cross downward   |
| S: Glory be to the father<br>S& T: As it was in the beginning is now.   |  |  |
| T: Thank you and goodbye class  | Bidding goodbye  | FE: head nod<br>G: keep things on the table  |
| S: Thank you and goodbye Maam   |  |  |

The closure phase is devoted to the silence stress, marking, directing, and bidding goodbye. The nonverbal cues are writing on the board, tapping the wrist to check the time, and keeping her things as she prepares to proceed to her next class. A little nonverbal cue executed for it only requires a simple task. Navora (2005) added that other

closing indicators signal to end are the leave-taking phrase "that's all for today or goodbye class."

**Levels of Teachers' Nonverbal Communication Strategies**

**Table 2:**

| Indicators   | Mean        | SD   | Description             |
|--|-------------|------|-------------------------|
| 1. She looks others directly in the eye when communicating with the students.  | 4.22        | 1.11 | Average/good            |
| 2. She gestures with her hands and arms when communicating.  | 3.83        | 1.34 | Average/good            |
| 3. She turns her body fully towards the person with whom she is speaking.  | 3.5         | 3.5  | Fair                    |
| 4. She uses a pleasant, appropriate tone of voice when speaking to the class.  | 4.33        | .97  | Average/good            |
| 5. She uses a vocal volume that is appropriate when speaking to the class.   | 4.33        | 1.28 | Average/good            |
| When listening to the students, she notices and responds to the students' nonverbal responses such as:   |             |      |                         |
| 6. vocal tone  | 4.06        | .64  | Average/good            |
| 7. eye contact   | 3.78        | .73  | Average/good            |
| 8. facial expressions  | 2.5         | 1.38 | Poor                    |
| 9. posture   | 2.39        | 1.46 | Poor                    |
| 10. gestures   | 2.39        | 1.5  | Poor                    |
| 11. body movement  | 2.33        | 1.61 | Poor                    |
| 12. When listening to the students, she is quiet when students are talking and allows them to express their ideas without interruption.  | 4.17        | .79  | Average/good            |
| 13. When listening to student, she smiles when the student uses humor, and she nods appropriately times.   | 3.44        | 1.62 | Fair                    |
| 14. When listening to the students, she reveals her full support and attention through her nonverbal cues.   | 3.44        | .62  | Fair                    |
| 15. She feels the nonverbal cues she uses when speaking, and those she uses in responding to others when students are speaking, reveals her comfort, poise, and confidence as an effective communicator. | 4.0         | .59  | Average/good            |
| 16. She arrives in class on time.  | 4.83        | .38  | Very good               |
| 17. She dismisses the class on time.   | 5.0         | .00  | Very good               |
| 18. She wears uniforms in class.   | 4.0         | 2.66 | Average/good            |
| 19. She uses some adornment to beautify or decorate herself.   | 3.78        | 1.11 | Average/good            |
| 20. She puts make up to beautify her face.   | 2.22        | .73  | Poor                    |
| 21. She is physically attractive.  | 4.22        | .73  | Average/good            |
| 22. She taps shoulder or touches students during the class.  | .06         | .24  | No ability demonstrated |
| 23. She comes closer to whom she is speaking.  | 3.06        | 1.35 | Fair                    |
| 24. She comes closer when listening to others.   | 3.11        | 1.23 | Fair                    |
| 25. She does various body movements in class.  | 3.94        | 1.51 | Average/good            |
| <b>Overall Average Weighted Mean</b>   | <b>3.48</b> |      | <b>FAIR</b>             |

## Legend:

- 0-.09= No ability demonstrated  
 1.0-1.5=Minimal Ability  
 1.51-2.5=Poor  
 2.51- 3.5= Fair  
 3.51- 4.5= Average/good  
 4.51- 5.5= very good  
 5.51- 6.0= Excellent

The level of nonverbal communication strategies revealed that generally the teacher –respondents exhibited the nonverbal cues in their classes: fairly" with an overall weighted mean of 3.48. In the indicators presented, two nonverbal cues exhibited "very good"; 11 exhibited "average/good"; 5 demonstrated "fair"; 4 demonstrated "poor," and one nonverbal cue was not demonstrated.

Indicators exhibited "very good" are "She arrives in class on time." and "She dismisses the class on time." Buerkel-Rothfuss (1995) observes that teachers who use their time wisely have fewer classroom problems and students' problems. The observance of class time, arrival, and dismissal can control students and make the class interesting. Too much time spent in class can be boring, and it can no longer hold the students' interest. Arriving late in class can lose interest and get tired of waiting when the teacher comes.

### Relationship between the Nonverbal Communication Strategies and Students' Achievement

The nonverbal communication strategies correlated with the grades achieved by the students for the grading period.

Table 3:

| Indicators  | r      | Significance |
|---|--------|--------------|
| 1. She looks others directly in the eye when communicating with the students.                         | .4311  | NS           |
| 2. She gestures with her hands and arms when communicating.   | .1636  | NS           |
| 3. She turns her body fully towards the person with whom she is speaking.                             | .2658  | NS           |
| 4. She uses a pleasant, appropriate tone of voice when speaking to the class.                         | -.2010 | NS           |
| 5. She uses a vocal volume that is appropriate when speaking to the class.                            |        |              |
| When listening to the students, she notices and respond to the students' nonverbal responses such as: | -.3177 | NS           |
| 6. vocal tone   | -.5343 | NS           |
| 7. eye contact  | .0288  | NS           |
| 8. facial expressions   | .5193* | S            |

|  |        |    |
|--|--------|----|
| 9. posture   | .5429* | S  |
| 10. gestures   | .4121  | NS |
| 11. body movement  | .4172  | NS |
| 12. When listening to the students, she is quit when the students are talking and allow them to express their ideas without interruption.  | -.1821 | NS |
| 13. When listening to student, she smiles when the student uses humor, and she nods appropriately times.   | .6506* | S  |
| 14. When listening to the students, she reveals her full support and attention through her nonverbal cues.   | .2029  | NS |
| 15. She feels the nonverbal cues she uses when speaking, and those she uses in responding to others when students are speaking, reveals her comfort, poise, and confidence as an effective communicator. | .3069  | NS |
| 16. She arrives in class on time.  | -.0231 | NS |
| 17. She dismisses the class on time.   | .3775  | NS |
| 18. She wears uniforms in class.   | .6394* | S  |
| 19. She uses some adornment to beautify or decorate herself.   | .1165  | NS |
| 20. She puts make up to beautify her face.   | .4693  | NS |
| 21. She is physically attractive.  | .1307  | NS |
| 22. She taps shoulder or touches students during the class.  | .6198* | S  |
| 23. She comes closer to whom she is speaking.  | .6115* | S  |
| 24. She comes closer when listening to others.   | -.0555 | NS |
| 25. She does various body movements in class.  |        |    |

- Significant at .01

Students' achievement is significantly correlated with the six variables in the nonverbal communication strategies. This would mean that if the teachers will pay attention to the students' nonverbal responses such as the facial expressions and posture, beautify herself, comes closer to whom she is speaking, comes closer when listening to the students, and smiles, when the students use humor and nod her head appropriately then the students' grade, are likely to increase. When the teacher gives attention to the students' nonverbal cues, the teacher cares about the students. In that sense, students would feel a sense of belongingness. On the other hand, if the teacher would beautify herself or use

some adornment to make her look attractive, the students would be more immediate and receptive to the attractive teacher. Oxford (1990) mentions that "appearance sends an important message in the classroom setting. Distance when talking to the students and distance when listening to the students are very important because distance/proximity entails intimacy. Mehrabian (1981) said, "talking with someone close to our body is usually reserved for people we are intimate with, whereas space further away from our body is open to a person less intimate with." The students would feel no gap between the teachers and students to talk freely in class.

**Table 4:** Regression Analysis of the Nonverbal Communication Strategies and students' achievement.

| Indicators  | B         | SEB      | B Weight | t-value | Significance of t |
|---|-----------|----------|----------|---------|-------------------|
| 1. When listening to the student, she smiles when the student uses humor, and she nods appropriately times. | 5.739490  | .818176  | 1.198690 | 7.015   | .0000             |
| 2. She notices and respond to the students' gestures  | 2.596731  | .421674  | .503298  | 6.158   | .0000             |
| 3. She uses a vocal volume that is appropriate when speaking to the class.                                  | 3.200619  | 1.075418 | .530564  | 2.976   | .0116             |
| 4. She looks others directly in the eye when communicating with the students.                               | 2.741039  | .660504  | .394544  | 4.150   | .0013             |
| 5. She uses a pleasant, appropriate tone of voice when speaking to the class.                               | 2.533815  | 1.141984 | .317512  | 2.219   | .0465             |
| Constant  | 24.546323 | 7.239583 |          | 3.391   | .0054             |

The beta values suggested that among the five nonverbal cues, teachers' listening to the student, she smiles when the student uses humor and nods at the appropriate time has the most significant influence (1.198690), followed by the teachers' use of vocal volume appropriately that when speaking to the class (.530564). Next was when the teachers noticed and responded to the students' gestures (.503298); maintaining eye contact (.394544), and the least was using a pleasant, appropriate tone of voice when speaking to class (.317512). These indications would mean that these were the best indicators of nonverbal behavior and contributed to the student's success and failure in the class. Teachers' facial expressions can affect how students feel about the classroom environment. The students perceive the teacher with dull, boring facial expressions when talking as uninteresting. The teacher who uses

approving head nods in response to a students' comment is perceived as friendly and concerned. A teacher who rarely nods or uses more negative head nods than positive stifles teacher-student communication. Not many students volunteer to talk when they realize that their teacher will not respond in an encouraging fashion. When the teacher nods her head, it is a means of stimulating student-teacher interaction and student responses. The teacher's smiles in the class are associated with liking and immediacy. Students would feel more likely to react favorably to the teacher who smiles than those who frown a lot. Eye behavior is a significant indicator of the relationship between student and teacher. Teachers who look at their students are perceived as more animated, interested, and immediate. When the teacher has a loud voice, the students become attentive and can hear well in the class. Teachers'

various tones of voice seemed interesting in the class. If the teacher has a monotone voice, it is projected as boredom. Students find it less interesting. This result supports the findings of McCrosky (1996) revealed that the nonverbal behaviors that have the greatest effect on students are tone of voice, eye contact, and friendly gestures. Smiling, eye contact, and vocal variety give students a more positive image of the teacher and the teaching materials.

#### 4. Conclusion

Language could be in the form of verbal and nonverbal communication. The verbal and nonverbal communication strategies are inseparable. Nonverbal communication strategies always accompany verbal communication strategies. In the classroom situation, the teachers have a bigger responsibility to communicate effectively to attain the goal of learning in the class. The teachers can either turn on or turn off students by their communication.

Both verbal and nonverbal communication strategies are important in the classroom. Therefore, the teachers must receive intensive training in communication, not only the English teachers but also all the teachers teaching in other fields of discipline to enhance their communication strategies. This could somehow help the teachers carry out their responsibilities in class effectively.

Since it is more on teacher talk in the class, the teacher must devise strategies to encourage students' participation in class. The students must not only be passive listeners who have a role of overlapping and interrupting and the giving of short replies such as "yes or no." They must be encouraged to initiate the talk.

It is suggested that the teachers develop effective behavior in the classroom because it can improve the students' participation and the liking of the subject. The teachers should show friendliness in the class and effectively utilize nonverbal cues. Teachers should pay attention to their nonverbal cues especially maintaining eye contact, responding to students' gestures, using vocal volume and pleasant tone of voice in class since they contributed to the success and failure of students' achievement. One step towards improving the positive affective relationship between the students and teachers is through effective nonverbal behaviors; then, the students are likely to listen more, learn more, and have a more positive attitude in school. Effective classroom communication between teachers and students is the key to positive affect on learning.

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