

Effectiveness of Classroom Interaction on its Environment at Primary Level

Amna Gohar¹, Alonso Bezerra de Carvalhoc²

^{1,2}Department of Didactics and Graduate Program in Education, Sao Paulo State University, Marilia Campus, Sao Paulo, Brazil.

amna.gohar@unesp.br¹, alonso.carvalho@unesp.br²

Abstract

This article examines student-teacher interaction and its effectiveness on classroom environment at primary level. The data were collected using qualitative observation technique. Twenty primary teachers participated, and their classes were observed. The results concluded that most of teachers have a positive interaction with students during the lecture. Majority of teachers motivate students to ask questions and involve them in different activities to increase their skills. The students inquire teacher for the solution of their personal and academic issues. Some of the teachers punish students for their mistakes and weaknesses. It is suggested that teachers may motivate the students to engage their self in different class activities. Teachers may give positive feedback for improvement of students in their problem and solve the inter-personal problems.

Keywords: classroom interaction; effectiveness; primary level; Environment

1. Introduction

Student-teacher relationships play important role for students' adjustment in school (Sakineh & Ali, 2020). Teacher-student interaction and academic achievement can be increased effectively by using flipped approach in classroom (Tasai et al., 2020). Classroom environment has great influence on students' engagement and learning that can be fostered by supportive student-teacher interaction (Pöysä et al., 2018). Students-teacher interaction is a linked with different classroom activities such as social learning, collaboration, academic engagement and there is also significant variation in their interactions across classrooms due to immigrants (Valiente et al., 2008; Ortega et al., 2020). It has great influence on students' behavior, positive attitude and grades at school level (Hamre & Pianta, 2001; Soh, 2017). That develops trustful relationship and collaboration between student and teacher (Baker et al., 2014; Brake & Kelly, 2019; Schaap & Bruijn, 2018). Similarly, conflict occurs between student's teacher due to low interaction or neglection which ultimately effects academic and social behavior of students (Hamre & Pianta, 2001; McClain et al., 2015; Hallam et al., 2015; Sakineh & Ali, 2020).

Teachers are a role model for students who can mold student's behavior and learning styles in school (Baker et al., 2008; Soh, 2017). Teacher-student relationships based on trust and care support students learning and academic achievement (Baker et al., 2008; Ibrahim et al., 2019; Brake & Kelly, 2019). That also provides a safe and secure environment for students learning and improving their social and academic skills for lifetime (Silver et al., 2005; Baker et al., 2008; O'Connor et al., 2011). Good teachers have a strong relationship with their students that allow working effectively to improve student's academic growth (Marzano, 2003; Aldrup, et al., 2018). Teachers are organizer of classroom environment so interaction is essential which could somehow change the class atmosphere and students' behaviors (Pianta & Hamre, 2009). So, student-teacher interaction is one of the most vital determinants of classroom climate and discipline, which is related to teacher provenance and student consequences (Jussim & Harber, 2005; Koth et al., 2008; Sakineh & Ali, 2020).

Teacher-student interaction is necessary for suitable learning environment that leads as a commitment towards effective learning in the classroom (Ahmad et al., 2017). It is very significant for teaching, students learning and evaluation process (Douglas et al., 2015). Teacher professionally competency supports students to learn social interaction and academic performance for their professional growth (Kramarski, 2018). According to (Altun, 2013) that teacher should show more flexibility, time or freedom at primary level in order to identify their needs, abilities and skills. Teacher must treat child with love, care and kindness to facilitate them and to improve their learning styles; mentally, socially, emotionally and intellectually (Tabassum, 2018). Positive teacher attitude was associated with high academic performance whereas negative teacher attitude resulted low academic performance (Fraser et al., 2010; Ranka, 2016; Rucinski, et al., 2018). (Baker, 2006) compared the effect of teacher relationship with students However, positive effect was found, that a close teacher relationship was significantly advantaged relative to similarly affected peers who lacked such relationships. Teacher and society can contribute in healthy development of students by support their social and emotional learning (Durlak et al., 2011; Wang et al., 2020). Emotional development of students at lower level is important for their social and professional life (Allen, 2016; Valiente, et al., 2020).

2. Teacher Role and classroom environment

Teachers has the responsibility to make the classroom environment comfortable and efficient for learning to take place, so that students can learn and perform better academically and socially (Javid et al., 2013; Marzita et al., 2014; Ahmad et al., 2017). Research showed that classroom environment as a motivating factor in enhancing the academic performance of middle and secondary school (Akomolafe & Adesua, 2015; Barksdale et al., 2021). Therefore, it has a significant relationship between classroom environment and the academic performance of students. (Cohen, 2011) explored teacher-student interaction is essential in classroom for learning English as a foreign language EFL,that increased opportunities for students' participation in learning. (Nugent, 2009) provided strong argument that

student-teacher interactions act as a catalyst for student's achievement that boost student motivation towards learning in all aspects. Quality student-teacher interaction removes mathematics anxiety and promotes learning in math's class (Semeraro et al., 2020). Teacher-students interaction in classrooms through questions answers technique (Cazden, 2001; Al-Zahrani & Al-Bargi, 2017). The quality of teacher-student interactions is an important determinant for management and positive interaction took place in classroom (Pianta & Hamre, 2009).

2.1. Role of classroom interaction on student's academic achievement

Teacher interactions have significant role in the academic achievement of the students (khan et al., 2017; Kaiser at al., 2017). Classroom interaction has a great influence on students' academic achievement because it strengthens a strong link between individual participation and academic activities (Sedova et al., 2019). It has a key contribution in learning different subjects (Gurevitch, 2001; Marková, 2003; Skidmore & Murakami, 2012; Kennedy, 2014; Skidmore & Murakami, 2016; Everingham, et al., 2017). Teacher engagement and high expectations from students in classroom must be encouraged also teacher training programs need to emphasize the value of classroom management and academic for creating a caring environment for learning (Sandilos, et al., 2017). Classroom management was linked to school satisfaction and student achievement that shows the important role of teachers in students' academic learning and school adjustment (Miller at al., 2017; Aldrup et al., 2018).

Student teacher interaction could affect the teaching and learning process in the schools at every level. Harsh behavior in classroom adversely affects the students learning and class environment. Therefore, the purpose of this study is to analyze the significant interaction of students and teacher and its effect on classroom environment at primary level in order to improve student-teacher relationship.

2.2. Methods and procedure

2.2.1. Design

The data collection process used a qualitative study approach with the administration of observation technique during classroom. The qualitative approach could better explore the current research problem to investigate in a better way. Ethical approval was sought and granted from the relevant schools and teachers. Informed consent was obtained from principal and teachers prior to data collection.

2.2.2. Measures

Observation refers to the perceptions of an individual's behavior by another individual and interpretation and analysis of the perceived behavior by them. Observation is the primary tool for studying the nature and behavior of the human. In the current research work, a formal type of observation was organized regarding date, time, place, name and introduction. For the collection of data, an observation sheet was developed to observe the teacher interaction with in the class and its effect on the class room environment. For the collection of reliable and valid information, the personal visit to the class room was endured for observation and collection of data on the prescribed observation form. All items were positively worded and explored factors such as student's and students-teacher interaction and the level of responsibility they have during the classroom. Also, the extent to which they are actively involved in their learning, the extent to which the interaction plays a role in developing their knowledge and the extent to which they are encouraged to consider their actions/behavior. Each statement in the observation form was multiply optioned as; Frequently, Rarely, Sometimes, Not at all.

2.2.3. Participants of the study

The participants of the study were selected through purposeful criterion convenience sampling. Researcher contacted two primary schools (one boys and other girls' section). The school administration provided contact information of primary teachers who were teaching at primary level in

both schools.

All Male and female government primary schools were taken as a population of the study in Peshawar. The data collection was started at March 2018 by personal visit and finished in May 2018. Firstly, researcher meets the principal of primary school and seeks permission to meet teachers and fix time for observing their classes. The principal allowed us with 10 teachers of boy's section and 10 teachers of girl's section. For the purpose of data collection observations were undergone in running classes of primary schools and to observe the level of teacher student's interaction along with class room environment. Table 1 show that twenty teachers (10 from boys' section and 10 from girls' section) were observed in their respective classes in which 600 students were participated.

3. Data collection and Data Analysis

The data was collected on the observation check list containing various questions related to teacher student's interaction and class room environment. The classes were observed through a complete check list to observe all aspects of classroom. As the data was collected as a qualitative research tool, the analysis was done by adopting a qualitative thematic approach. Qualitative research method is more comfortable by using in research for in depth and detail analysis. Thematic approach was used for the analyzing the collected data from the observation checklist. Researcher develops different themes manually relevant to research objectives on how effective classroom interaction is for learning at primary level. Thematic qualitative approach for data interpretation makes research data more valuable (Castleberry & Nolen, 2018).

3.1. Results

The collection of qualitative data using the observation checklist is presented framed according to research questions. The main theme and major findings of qualitative thematic analysis that explicates the effectiveness of classroom interaction for quality learning. Further the analysis has explained and focused on different aspects as follow.

3.2. Insertion of Images

To insert images in your article, copy the image to clipboard, place the cursor at the insertion point, and click Paste>Paste Special > Picture (Enhances Metafile).

3.3. Teacher punctuality for starting the class

Teacher expressions and behavior plays important role for students' academic learning and achievement. Their facial expressions and attitude have a great effect on students' motivation. Therefore, it was observed that few of teachers enter into the class with bright face, when teacher enters with a courage student feel motivated towards learning. That has good effect on teacher-students interaction at primary level.

3.4. Communication of teachers with students

It was observed that some of the teachers communicate with students before starting lesson. They used humorous sentences, storytelling, previous knowledge to make them comfortable, attentive and interactive for class while few teachers neglect the interaction in class. It was noticed that by interaction at primary level has a positive effect on producing a conducive environment for student learning. Where, teachers almost frequently start their classes from a story or discussing the previous knowledge in contrast to those who rarely or not to start their classes by interaction.

3.5. Teacher asks students about their feelings and interest

It was observed that in the classroom sometimes teacher asks students about their feeling and interest in order to motivate them. Most of the teachers adopt this while few do not take care about it. The researcher mainly focused the level of interaction in classroom by observing their understanding. It was

also observed that how much students are participating and taking part to show their interest in class discussion on different topics. This interaction leads the students to produce a good relationship with teacher and smoothen the learning process.

3.6. Teacher motivates their students towards learning

Motivation appeared to the very promising aspect of the student teacher interaction and for better learning environment in the class. It was observed that some time teachers motivate student in class for developing their interest and make them active for learning. Most of the teachers motivates students to develop their interest in the class by using different approaches (such as discussion and question/answer technique). Teacher uses some verbal and nonverbal actions to get students attention during delivering the lesson while few are just delivering their lectures.

3.7. Individual, pair and Group activities

It was observed during classroom that some teachers do practical work such as individual, pair and group activities that motivate students learning. Practical activities produce a positive interaction among students and also with teacher. Most of the teachers adopt this approach of teaching in the class. It also encourages students to be bold and face the various problems in their academic life. The observed classes reflect such nature of activities with positive remarks for student teacher interaction and better environment.

3.8. Teacher allows students to talk and ask questions

It was observed during the classroom that some time teachers are allowing students to talk and ask questions. Teacher appreciates students to ask questions and not hesitate to participate in the class. Few teachers do not allow their students to talk while most of the teachers allow students to provoke towards learning.

3.9. Teacher gives feedback to improve learning

It was observed that most of the teachers give feedback to the students to improve their learning. Few teachers do not personally reach to every student to give them feedback on their work. It is cleared that positive attitude and optimistic feedback of the teachers towards the questions of their students leads to a better environment. Through which learning take place and improves the students to solve their problem in class. Teacher encouragement and appreciating their students strengthen their interaction and relationship. Students are allowed to ask question related to academic as well as personal matters from teachers.

3.10. Teacher punishes students for their academic weaknesses

The researchers observed that most of the teachers do not punish the students for their academic weakness whereas few teachers punish them like taunting and warn them about the punishment. It was observed in the class that teacher who punished their students for academic weakness that suppress the students and eradicate their interest in participation in the class. On another hand those teachers who did not punish their students, they are motivated, perform their activities, and learn the lesson in group activities and giving a personal interest towards learning.

3.11. Teacher taunt students for their minor mistakes

It was observed that only few teachers taunt the students for their minor mistakes while most of the teachers do not do the same. The taunting of students for their mistakes does the same with students in contrast to those teachers who try to remove their mistakes, motivate them and teach them how to eliminate their mistakes. Taunting by teachers was the most embarrassing moment for students in the class. There must be an alternative way to remove students' mistakes in a positive way which will modify their personality rather than suppressing.

3.12. Teacher solves inter-personal problems of students

It was observed in the class that majority of the teachers try to solve the inter-personal problems of the students in the class. Most of the teacher solving the inter-personal problems of students and do the favor with students accepts few one. Teachers that do not allow themselves to solve the inter-personal problems of the students affect the academic learning and ability of the students in class. It was also observed in the class that teachers who does not favor some students seems much suppressed and not interested even in the very fascinating and attractive activity.

3.13. Students share their personal problems with teacher

It was observed in the class that students share their personal and academic problems with teacher. Due to limit time and lecture sometimes, it was hard for teacher to understand their issue as it needs more attention and time. As a result, it reflects better or depraved interaction between students and teachers.

3.14. Students ask questions from teacher during a lesson

It was observed in the whole class in relation with the other aspects. It was focused in the class by the observant that the majority of students are asking questions from teacher during or at the end of the lesson. The observation revealed that many teachers who appreciate, motivate, and encourage the students within the class, try to eliminate their problems and do not have a taunting nature. That also leads to a positive and conducive environment in the class that allows students to discuss everything with their teacher and produce a better student teacher interaction in the class.

4. Discussion

In the current study, observation indicates that the time of approaching the teacher is considered to be the primary aspect of conducive environment and students learning process in the classroom. According to Guidorzi and Karamperidou, (2020) teacher absenteeism creates a significant barrier to achieving a quality education. Teachers who come frequently on time to the classroom had the better impact over the classroom environment and learning of the students. Trained teacher is more punctual and create cooperative learning environment (Magno, 2019). Their approaching to the classroom on time compelled the students to be attentive and ready for the class with enthusiasm. Research shows that only teacher attendance is not essential but their punctuality, being in the classroom on time, start teaching for the proper duration, and teaching effectively (Guidorzi & Karamperidou, 2020). Teacher has limited time for lesson at school level, effective teacher covers their lecture skillfully in due time by using effective techniques for teaching (Lightbown & Spada, 2020). In contrast to the teachers that comes rarely or sometimes on time to the class indulges the student's interests and adversely affects their ability of learning (Akamolafe & Adesua, 2015; Allen & Hannah, 2016).

Teacher nature and behavior is a primary bridge towards learning and positive student teacher interaction which has a great impact over fruitful learning in the class. Teachers has the responsibility to make the classroom environment comfortable and efficient for learning to take place, so that students can learn and perform better academically and socially (Solmaz et al., 2013; Puteh et al., 2014; Ahmad et al., 2017). Teachers whose attitude was positive leads to effective learning on other hand teachers who do not have the smiley face at starting had adverse impact over all students. Positive teacher attitude was associated with high academic performance whereas negative teacher attitude resulted low academic performance (Fraser et al., 2010; Ranka, 2016; Rucinski, et al., 2018). All the teachers who had a smiley and bright face in the starting of the class attract the attention of the students and creates interactive session in the classroom. Teacher-students interactions is an important determinant for management and positive interaction took place in the classroom (Pianta & Hamre, 2009). Which ultimately become the reason of improving students learning ability and their participation in the class (Baker, 2006).

Communication during lesson is a very essential aspect for learning that takes place by using story telling technique, humorous sentences and providing previous knowledge before starting the formal

lesson in the class. Interaction is important to quality collaboration and creative environment in the classroom (Zhou et al., 2020). A conducive environment for student learning was created by using story telling or discussing the previous knowledge with the students takes their attention in contrast to those who aiming not to start their classes with a story or discussion (Durlak et al., 2011). Creative learning environment has impact on student creativity including their physical environment, learner engagement and the learning climate of the classroom (Richardson & Mishra, 2018).

Teacher asks students about their feeling and interest in order to motivate them to ask questions. Teacher-students interaction form in classrooms through question answer technique (Cazden, 2001; Al-Zahrani & Al-Bargi, 2017). Most of the teachers adopt this approach while few do not take care about it. While during observation the researcher focused the interaction of teachers with students through seeing the level of interaction and their understanding. And also check students' interest by observing their involvement in discussion on different topics. Research has shown that students in classroom with greater levels of open classroom discussion have more positive attitudes (Carrasco & Irribarra, 2018). This interaction leads the students to produce a good relationship with teacher and smoothen the learning process leading to the very good environment in the class in a better way. Student-teacher interaction is one of the most vital determinants of classroom climate and discipline, which is related to teacher attribution and student outcomes (Jussim & Harber, 2005; Koth et al., 2008; Sakineh & Ali, 2020). Interactive environment in classroom creates a learning environment for students as well it takes students and attention and they get their lesson well (Durlak et al., 2011; Hamre & Pianta, 2001).

Motivation appeared to the very promising aspect of the student teacher interaction and for better learning environment in the class. Motivation is a vital component for successful learning. It is an instructional technique that willfully generates and enhances student motivation, maintain their behavior towards learning and protect them from distractive action and tendencies (Dörnyei & Ushioda, 2013). It is a very complex process for teacher to motivate students towards learning, but an attempt is made to motivate students then the lesson achieved well (Lamb, 2017). In this aspect, it was focused that teacher motivates their students through developing their interest by storytelling and talks during lesson in the class. It was observed prior in the starting of the lesson teacher provoke students by asking questions that had a positive impact over the student learning process. During the lecture teacher uses gestures and examples of daily life to explain topics very well, which develop their interest in the lesson and also produce a creative environment in the class and stronger the student teacher interaction. The teacher that sometimes or not motivating their students often fail to produce a conducive and learning environment in the class (Hamre & Pianta, 2001; Baker, 2006; Durlak et al., 2011; Altun, 2013).

Individual and group activities lead to the student's motivation towards learning and produce a quality relation among all the students and with teachers. Student-students interaction has a significant effect on students' achievement in classroom (Kurucay & Inan, 2017). Student-teacher and their interactions about course contents were significant predictors of student satisfaction and learning (Kuo et al., 2014). Students working collaboratively achieved significantly higher than those working individually (Kurucay & Inan, 2017). That encourage students to participate confidently and solve their academic and personal problems (Hmelo-Silver, 2004). It enables students to work in a team to solve their academic and social issues collaboratively. Best approaches for learning that are effective for activity-based learning such as cooperative learning (Johnson & Johnson 2009), team-based learning (Michaelsen et al., 2002), collaborative problem-based learning (Savery, 2015), and collaborative project-based learning (Bell, 2010). Besides all these it also develops critical thinking and better understanding about the lesson. It boosts students learning process and leads to the produce a conducive environment in the class. Class activities build student-teacher interaction and better environment for learning. Active learning refers to the wide range of instructional approaches that actively engage learners in the learning process rather than having them passively receive information from their teacher (Prince, 2004). Short lecture and discussion are essential in framing learning content before group activities and connecting group outputs to the learning content after group activities (Lee, Morrone & Siering, 2018).

Teachers with frequent use of activity approach were able to produce a better learning environment in respect to those who rarely adopt this approach. Group activities have a positive impact on students' academic learning (Lee, Morrone & Siering, 2018). Some teacher gave negative remarks to students and they didn't appreciate student's interaction which affects their learning. Classroom activities and active participation of students in classrooms leads to quality learning and high academics (Kurucay & Inan, 2017; Tabassum, 2018).

Question answer technique is considered best for classroom learning. It allows students to ask and talk in the class through provoking questions which are appreciable. Students who asked more questions during lesson became more diligent, enthusiastic, more active in discussion, creative in solving problems and finding new knowledge (Husni, 2020). It has a positive impact over the learning process of the students but also encourages and motivates them to develop self-confidence and eliminate the hesitation. As a result, it creates a classroom better environment for learning and building confidence in students (Tabassum, 2018; Husni, 2020). Besides this, it also stronger the student teacher relationship because the positive attitude of teachers and optimistic feedback towards the questions creates better learning and conducive structured environment. It is not only about question asking but encourage fruitful classroom interaction, appreciate students learning and academics as well as personal matters which leads the students to improve their potential areas (Hamre & Pianta, 2001; Zhou, Liu, & Liu, 2021).

It was observed in the class that students share their personal and academic problems with teacher. Due to limit time and lecture sometimes, it was hard for teacher to understand their issue as it needs more attention and time. As a result, it reflects better or depraved interaction between students and teachers. Teacher, who appreciates, motivates and encourage students by sharing their problems within the class help to solve students personal and academic problem (Husni, 2020). Teachers must listen to their students in order to eliminate their problems in the class that allow students to discuss anything with their teacher and produce a quality student teacher interaction (Hamre & Pianta, 2001; Baker, 2006; Durlak et al., 2011; Altun, 2013; Tabassum, 2018).

Teachers' attitude towards weak students must be cooperative for their development. The main focused were given to weak students in the classroom because primary level child needs more attention in studies. Teacher must treat child with love, care and kindness to facilitate them and to improve their learning styles; mentally, socially, emotionally and intellectually (Tabassum, 2018). Teacher shouldn't treat child harshly or punish them badly it will suppress the students. Positive teacher attitude was associated with high academic performance whereas negative teacher attitude resulted low academic performance (Fraser et al. 2010; Ranka, 2016; Rucinski, et al., 2018). It was observed that some teachers punish the students for their academic weakness as a result it eradicates their interest in participation in the class in comparison with those who are motivated by teachers to do the activities and learn the lesson in group activities or giving a personal attention to student (Tabassum, 2018). Also taunting of students for their mistakes sounds negative, in contrast to those teachers who try to remove their mistake and teach them how to improve and eliminate it. The main focused were given to class engagements because it is a primary part of to develop students' interest in studies. Negative treatment suppresses students socially and academically (Akomolafe & Adesua, 2015).

It was observed in the class that majority of the teachers try to solve the inter-personal problems of the students in the class. Most of the teacher solving the inter-personal problems of students and do the favor with students accepts few one. Baker, (2006) compared the effect of teacher relationship with students However, positive effect was found, that a close teacher relationship was significantly advantaged relative to similarly affected peers who lacked such relationships. Teachers do not allow themselves to solve the inter-personal problems of the students affect the academic learning and ability of the students in class. Teacher and society can contribute in healthy development of students by support their social and emotional learning (Durlak et al., 2011; McCormick, et al., 2013; Wang et al., 2020). Emotional development of students at lower level is important for their social and

professional life (Allen, 2016; Valiente, et al., 2020). It was also observed in the class that teachers who does not favor some students seems very suppressed and not interested even in the very fascinating and attractive activity (Durlak, et al., 2011; Tabassum, 2018).

5. Conclusion

Interaction between student-teacher is necessary for quality school experiences. That seems an active role of students in the school life. However, the necessary aspects in the classroom for interaction and learning are present or if build upon effectively, may lead to greater student involvement in classrooms and schools. The authors would like to conclude by highlighting some of the limitations of the current study. Firstly, the students selected to participate in the study are primary level from the selected school due to limited time and consent. The class groups were usually selected by the principal, depending on timetables or accessibility. While the findings are presented that Majority of the teacher enters into the class with a positive courage have smile on their face and they communicate very well. They also motivate their students to ask questions about lesson. So, the students easily ask questions during lesson. Teachers involve students in individual, peer and group activities that give a positive feedback for improvement learning. Most teachers start their class on time, and they ask students about their feelings and interest. As well teacher allows students to talk in the class thought provoking questions. They solve inter-personal problems of their students. Few teachers punish students for their academic weaknesses and taunt them. Some of the students share their personal problems with teacher. The results show having positive interactive environment in the class increase student's competency. They interact with teachers to share their problems in order to solve them as well it increases their social skills and confidence level.

Recommendations

Based on conclusion, the following recommendations are made;

- Teachers may come on time and start the class with a great courage and motivation.
- Teachers may communicate with students during class and ask students about their feelings and interest.
- Teachers may motivate the students to learn by asking questions and involve them in individual, Peer and Group activities.
- Teachers may give a positive feedback for improvement of students in their problem areas and also solve the inter-personal problems of students.
- Teachers should not punish students for their academic weaknesses and avoid taunting them for their minor mistakes.

Acknowledgment

The author(s) received no financial support for the research, authorship, and/or publication of this article.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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