

Classroom Management Approach of STE Science Teachers in Region 1 Philippines

Dr. Jordan Hiso Llego

Al- Ghad International College for Applied Medical Sciences

Abstract: Current researches indicate that what teacher does in the classroom significantly influence learning and one of which is classroom management. This study aimed to determine the classroom management approach of STE science teachers in Region 1, Philippines. Further, this study will also look on the influence of demographic profile on the classroom management approach; this includes sex, age, position and length of service. This will help in providing an environment that is more conducive for learning. The findings of this study will also be a baseline data for future studies and may contribute to the scarcity of demographic studies on classroom management. This study used descriptive-quantitative design. This study used total enumeration with 113 respondents. Analysis of data includes: frequency, percentage, Pearson chi-square, Point-biserial and Kendall tau-b. It revealed that most (70.8%) STE science teachers employ student-centered classroom management approach; Pearson chi-square yielded $X^2(1)$, is 0.049 $p= 0.824$ in terms of sex, in terms of age Point-biserial score yielded $(rpb, = 0.116, p= 0.220)$, in terms of position, Kendall tau-b test revealed $(Tb= 0.140, p= 0.104)$ and in terms of length of service Point-biserial score yielded $(rpb, = 0.116, p= 0.220)$, all this revealed that there is no significant association and relationship. In light of the results of this study, the following are concluded: most STE science teachers are able to adapt and employ the advocacy of DepEd in employing cooperative learning through student-centered classroom management approach. Moreover classroom management approach of STE science teachers is not affected by their sex, age, position and length of service.

1. Introduction

Current research indicates that what a teacher does in the classroom significantly influences learning, rapport, and the classroom environment. According to Marzano, R., Marzano, J. and Pickering, D. (2003), there are three factors have the greatest influence on student learning: 1) The teacher's content expertise; 2) The teacher's skill at instructional design and delivery; 3) The teacher's skill in classroom management. In light with reality, teacher's classroom management affects the

motivation and attitude of students. They may hate or love their teacher depending on how they manage their class^[4]. Classroom management approaches could be student-centered or teacher centred. In a poorly managed classroom, effective teaching and learning is hard to achieve. Clutter becomes the norm if students are undisciplined and profane, and no apparent rules and procedures guide behavior (Marzano, R., et. al., 2003)^[4].

In student-centered classroom management approaches, the teacher gets to know his/her students, share their ideas and their management approaches allow them and students to see one another as people (Tok, T., Tok, S. and Dolapçioğlu, S., 2013)^[7]. Person-centered teachers share leadership and teachers and students determine shared norms and begin to establish trust in the classroom (Freiberg and Lamb, 2009)^[1]. According to Garrett, T. (2008), positive student-teacher relationships presumably lessen the need for control and become the foundation for all interaction in the classroom^[3].

In a Teacher-centered classroom management, the teacher is the dominant person in the classroom and has the responsibility of all on-going issues in the classroom; from students' motivation to misbehaviors (Yasar, 2008)^[8]. In a teacher-centered approach critics argue that compliance is more in over initiative and passive learners over active learners (Garrett, T. 2008)^[3].

The Department of Education (DepEd), is advocating in employing cooperative learning in the Philippines as observed by the researcher. Many training-seminars of the department are on this strategy. As claimed by Nevid, J. (2011), traditional lecture mode of instruction needs to be redesigned and increased significant on student involvement^[5]. According to TeacherVision (2016), cooperative learning is an instructional strategy in which students are grouped in small and work together on a common task. This promotes positive interdependence, face-to-face interaction, accountability, group behavior and processing^[6]. Further, cooperative learning is more applicable also in Science, Technology and Engineering (STE) curriculum, for this program is directed in developing students that will contribute in the fields of science, technology and engineering. If this is the advocacy of DepEd, the more appropriate

classroom management approach would be a student-centered approach. According to Ganyaupfu, F. (2013), Teacher-Centered approach does not apply activity based learning to encourage students to learn real life problems based on applied knowledge. Since the teacher controls the transmission and sharing of knowledge, the lecturer may attempt to maximize the delivery of information while minimizing time and effort [2]. Moreover, there is a dearth to literature regarding the influence of demographic profile of teachers on their classroom management approach as well as researches in the Philippines with this topic.

Hence, this study aimed to determine the classroom management approach of STE science teachers in Region 1, Philippines. Further, this study will also look on the influence of demographic profile on the classroom management approach; this includes sex, age, position and length of service. This will help in providing an environment that is more conducive for learning. The findings of this study will also be a baseline data for future studies and may contribute to the scarcity of demographic studies on classroom management.

2. Methods

This study aimed to determine the classroom management approach of STE science teachers and the influence of demographics on their classroom management.

The respondents of the study were the teachers who are teaching science subjects coming from the twelve (12) Public National High Schools identified by the Curriculum and Learning Management Division of DepEd Regional Office 1 that offers Science, Technology and Engineering (STE) curriculum that is solely supervised under DepEd. Moreover, one City School did not participate in this study; the researcher tried to reach the principal but to no avail. Total enumeration sampling was employed in this study to examine the entire population; 113 STE science teachers participated in this study.

A questionnaire was the main instrument utilized in data gathering. The questionnaire on classroom management was adapted from the study of Yasar (2008), Classroom Management Survey. The questionnaire of Yasar was a product of his analysis on classroom management from different literature. However, the scaling was modified to suit the need of this study.

The questionnaire has three parts. Part I covered the profile of the respondents. Part II, is the "Classroom Management Survey". The survey was modified and organized in the form of "It does not define me at all" and "It defines me very well." The survey includes 26 items covering two sub-scales concerning person-centered (1, 19, 21, 23, 27, 28, 2, 4, 6, 11, 13, 17, 18) and teacher-centered (3, 5, 7, 9,

12, 14, 15, 16, 20, 22, 24, 25, 26) classroom management approaches. The highest score among the two with "Describes me very well" identified the classroom management of the respondents.

The questionnaire had undergone face validity: six (6) experts validated the questionnaire; two of which are in the tertiary education Professors, a college dean in a university in Urdaneta City, one of them is currently employed in university of Tabuk in Kingdom of Saudi Arabia as a Lecturer and a former Dean of the College of Nursing in a College in Dagupan City. Another validator is the Dean of School of Teacher Education in one of the Universities in Baguio City. Another validator is a Principal IV in Urdaneta City Schools Division and also a Graduate School Professor in one University in Urdaneta City.

Prior to the actual data gathering a reliability test was last November 2015 conducted to check the internal consistency of the modified instrument and if it is suited for practice in the Philippine setting; this was conducted on teachers who are teaching Science subjects in non-STE schools in Urdaneta City Schools Division. The over-all test yielded Cronbach's alpha score of 0.756 the questionnaire is applicable to the Philippine setting.

Prior to the conduct of the study, the researcher secured permission to administer it from the DepEd Regional Office 1. The researcher complied with the conditions of some schools that are requiring permission to conduct the study in the office of the Schools Division Superintendent.

Actual data collection and retrieval was conducted from February to March 2016 personally by the researcher.

Statistical Package for the Social Science (SPSS) version 22 was used in this study. To answer the classroom management approach of STE science teachers, frequency and percentage was used since the data obtained was dichotomous. To look at the association of classroom management based on STE science teachers' sex Pearson chi-square was used. To see the relationship of classroom management approach of STE science teachers' age and years of experience point-biserial was used, for their position, Kendall's tau-b was utilized.

3. Results and Discussion

Table 1. Distribution of classroom management approach of STE science teachers in region 1 (N=113)

Classroom Management Approach	Frequency	Percentage
Student-centered Approach	80	70.8
Teacher-centered Approach	33	29.2

Table 4.3 delineated the classroom management approach of STE science teachers. It can be viewed that most (70.8%) of the STE science teachers use student-centered approach and some (29.2%) are using teacher-centered approach. This means that science STE teachers choose person-centered approach in managing their classes. This is parallel to Tok, T., et. al. (2013), wherein their study revealed that primary school teachers prefer student-centered classroom management approaches more [7].

Further, it also implicates that some teachers still need to shift from teacher-centered to person-centered approach. According to Tok, T. et. al (2013), there is a need to shift classroom approach, after decades of use, the behaviourist approach has not caused important changes in student behavior, educators are consoled to apply approaches based on constructivist learning principles. Fifty years of research demonstrates that person-centered, pro-social classroom management may provide that alternative [7]. Person-centered approach is more personal and warm hence, it stimulates more student participation and engagement.

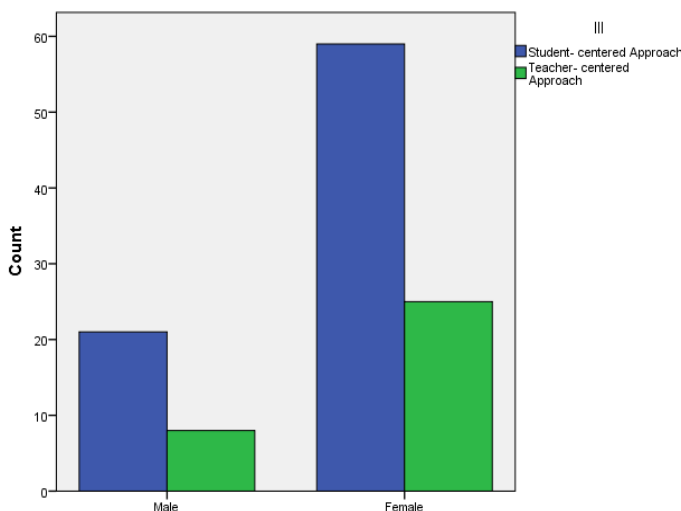


Fig. 1. Classroom management approach preference of STE science teacher

Table 2. Association of Classroom Management and Sex

Variable	X-value	p- value
Sex	0.049	0.824

Table 2, summarizes the association of STE science teachers classroom management in terms of their sex. The test of significant association of classroom management according to sex was tabulated with SPSS v.22. To interpret this table, it must be made clear that the null hypothesis H_0 , was tested at alpha 0.05. At this significance level in SPSS, the H_0 is to be rejected if and only if the p-value is equal to or less than 0.05.

Pearson chi-square yielded ($X^2_{(1)}$, is 0.049 $p=0.824$). Therefore, the null hypothesis is accepted. Therefore, there is no significant association between the classroom management approach of STE science teachers and their sex. Further, both sexes prefer student-centered approach as shown in figure 1.

Table 3. Relationship of STE science teachers' classroom management and their age

Variable	r_{pb} - Value	p-Value (2-tailed)	Decision
Classroom Management Approach	0.116	0.220	Accept H_0

Table 3 summarizes the relationship of STE science teachers' EI and their classroom management approach. In this test of relationship, the researcher coded person-centered approach as 1 and teacher-centered as 2. To interpret this table, it must be made clear that the null hypothesis H_0 was be tested at alpha 0.05. At this significance level in SPSS, the H_0 is to be rejected if and only if the p-value is equal to or less than 0.05.

Point-biserial score yielded (r_{pb} , = 0.116, $p=0.220$). Therefore, the null hypothesis is accepted. There is no significant relationship between classroom management and vice versa and the age of STE science teachers. This implicates that even if age is increasing, the choice of classroom management does not change and vice versa.

Table 4. Relationship of STE science teachers' classroom management and their potion

Variable	T_b - Value	p-Value (2-tailed)	Decision
Classroom Management Approach	0.140	0.104	Accept H_0

Table 4 summarizes the relationship of STE science teachers' EI and their classroom management approach. In this test of relationship, the researcher coded person-centered approach as 1 and teacher-centered as 2. To interpret this table, it must be made clear that the null hypothesis H_0 was be tested at alpha 0.05. At this significance level in SPSS, the H_0 is to be rejected if and only if the p-value is equal to or less than 0.05.

Kendall tau-b test revealed ($T_b=0.140$, $p=0.104$). Therefore, the null hypothesis is accepted. There is no significant relationship between classroom management and vice versa and the age of STE science teachers. This implicates that even if age is increasing, the choice of classroom management does not change and vice versa.

Table 5. Relationship of STE science teachers' classroom management and their length of service

Variable	r_{pb} - Value	p-Value (2-tailed)	Decision
Classroom Management Approach	0.137	0.147	Accept H_0

Table 3 summarizes the relationship of STE science teachers' EI and their classroom management approach. In this test of relationship, the researcher coded person-centered approach as 1 and teacher-centered as 2. To interpret this table, it must be made clear that the null hypothesis H_0 was tested at alpha 0.05. At this significance level in SPSS, the H_0 is to be rejected if and only if the p-value is equal to or less than 0.05.

Point-biserial score yielded ($r_{pb} = 0.116$, $p = 0.220$). Therefore, the null hypothesis is accepted. There is no significant relationship between classroom management and vice versa and the length of experience of STE science teachers. This implicates that even if length of experience is increasing, the choice of classroom management does not change and vice versa.

3.1 Conclusion

In light of the results of this study, the following are concluded: most STE science teachers are able to adapt and employ the advocacy of DepEd in employing cooperative learning through student-centered classroom management approach. Moreover classroom management approach of STE science teachers is not affected by their sex, age, position and length of service.

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5. References

- [1] Freiberg JH, Lamb SM (2009). Dimensions of Person-Centered Classroom Management. Retrieved November 1, 2015 from <http://www.tandfonline.com/doi/full/10.1080/00405840902776228?src=recsys>
- [2] Ganyaupfu, F. (2013). Teaching Methods and Students' Academic Performance. Retrieved October 25, 2015 from [www.ijhssi.org/papers/v2\(9\)/Version-2/E0292029035.pdf](http://www.ijhssi.org/papers/v2(9)/Version-2/E0292029035.pdf)
- [3] Garrett, T., (2008). Student-Centered and Teacher-Centered Classroom Management: A Case Study of Three Elementary Teachers. Retrieved March 21, 2016 from <http://files.eric.ed.gov/fulltext/EJ829018.pdf>
- [4] Marzano, R., Marzano, J. and Pickering, D., (2003). Classroom Management That Works. Retrieved March 21, 2016 from

<http://www.ascd.org/publications/books/103027/chapters/The-Critical-Role-of-Classroom-Management.aspx>

[5] Nevid, J., (2011). Teaching Millennials: Association for Psychological Science. Retrieved March 21, 2016 from <https://www.psychologicalscience.org/observer/teaching-the-millennials#.WNEoi2997IW>

[6] TeacherVison, (2016). Cooperative Learning. Retrived March 21, 2016 from <https://www.teachervision.com/professional-development/cooperative-learning?page=3>

[7] Tok, T., Tok, S., Dolapçioğlu, S. (2013). The relationship between emotional intelligence and classroom management approaches of primary school teachers. Retrieved November 1, 2015 from <http://www.interestjournals.org/ER>

[8] Yasar, S., (2008). Classroom Management Approaches Of Primary School Teachers. Retrieved November 1, 2015 from <https://etd.lib.metu.edu.tr/upload/12610051/index.pdf>