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Classroom Management Approach Preferences of the Diverse Mathematics Learners

ABSTRACT: Classroom management is considered as one of the most important aspects of teaching and a serious concern for teachers. Indigenous and non-indigenous students learn in different manner and need to manage differently. This diversity in learning styles calls for a variety of approaches to classroom management. This study is anchored with the seven primary classroom management approaches: Assertive, Business-Academic, Behavioral-Modification, Group Managerial, Group Guidance, Acceptance, and Success. This is a descriptive correlational research. There were five of R. Likert (1932)-scale questions that correspond in each approach needed to be rated by the freshmen students in State University, who are enrolled in their Mathematics class. H. Cramer (1946) of V was used to determine the association of the most preferred classroom management preferences among indigenous and non-indigenous Mathematics learner. The most preferred Classroom Management Approach of indigenous student is the Business-Academic approach, while the non-indigenous student is the Success approach. The results will help create a positive classroom climate for effective teaching and learning process for better understating in Mathematics appropriate to the indigenous and non-indigenous learners in Mathematics.

KEY WORDS: Indigenous Student; Non-Indigenous Student; Mathematics Learners; Classroom Management Approaches.

INTRODUCTION

Given the increasing diversity of our classrooms, a lack of multicultural competence that novice teachers can exacerbate the difficulties with classroom management. Behavioral concern is the second most significant concern in classroom management (AEU, 2006; Egeberg, McConney & Price, 2016; and Ocampo, Jr., Ocampo & Cruz, 2018); and the most critical competency area for all Professors since they are related to students’ success in Mathematics (Murray, Murr & Rabiner, 2012; Suviste, 2015; and Ocampo, Jr., Ocampo & Cruz, 2018). Good classroom management strongly influences academic learning (Good, & Grouws, 1979; Falsario, Muyong & Nuevaespaña, 2014; and Mastul & Hajilan, 2017). Moreover, teachers most significant job is managing the classroom effectively, which has the largest effect on student achievement (Mulford, 2003;
In a poorly managed classroom, students usually learn less than they should, because of discipline issues (Martin & Sugarman, 1993; Dunne et al., 2007; and Sun & Shek, 2012); while a well-managed classroom provides an environment that can flourish in teaching and learning (Marzano, Marzano & Pickering, 2003; MCUE, 2008; and Hannah, 2013). Classroom management continues to be a serious concern for teachers. The culturally, responsive classroom management practices included the importance and centrality of teachers’ (Milner & Tenore, 2010; Hannah, 2013; and Bailey-Ramos, 2016).

Classroom management principles have implications for the learning progress of all children, especially low-performing, poor, special education, and racial/ethnic minority children (Saphier & Gower, 1997; Dunne et al., 2007; and Hughes & Kwok, 2007). When teachers and students come from different cultural backgrounds culturally influenced, and conflicts are likely to occur (Weinstein, Tomlinson-Clarke & Curran, 2004; Hughes & Kwok, 2007; and Alsubaie, 2015).

CRCM (Culturally Responsive Classroom Management) is a pedagogical approach in running a culturally responsive classrooms that will provide equitable opportunities in the service of social justice (Weinstein, Tomlinson-Clarke & Curran, 2004:27; MCUE, 2008; and Dahlgren, 2015). Aside from psychological factors, classroom management for indigenous students, who are culturally different, is a challenge for some teachers (Mulford, 2003; Parington, 2006; and Belecina & Ocampo, Jr., 2016).

Indigenous learners are at risk of performing poorly on literacy and numeracy (Jorgensen et al., 2010; Santoro et al., 2011; and Lloyd et al., 2015). Aboriginal students in Australia are still underperforming in Mathematics and Science (Abrams, Taylor & Guo, 2013; Sandhu, Kidman & Cooper, 2013; and Klenowski, 2018). Similar in Canada, aboriginal student achievement in K-12 (Kindergarten through 12th Grade) Mathematics courses is significantly lower than those of non-aboriginal students. It is clear that indigenous learners tend to have poorer educational outcomes than non-indigenous learners (cf Neel, 2007; Sterenberg & McDonnell, 2010; and Babaee, 2011).

In the Philippines, Mathematics performance of the indigenous learners, like the Aetas, is lower than the non-indigenous learners. However, these findings of the study showed the poor condition of the Mathematical ability of indigenous learners for some reasons. It, further, point out the effect of classroom management by the teacher to indigenous learners as key factor to their improvement (Ibañez, 2014; Sarra & Ewing, 2014; and Sicat & David, 2016).

Different approaches to classroom management discussed by Allan C. Ornstein (1995), a Professor of education, former Fulbright-Hayes Scholar, in government and education agencies, and author of books on education and social issues provide various ways to handle different types of learners, like assertive, business-academic, behavioral modification, group managerial, group guidance, acceptance, and success approach are grounded in research and are applicable to classrooms. They share common features and differ as to the relative importance of prevention and intervention, degree
of control and supervision (cf Ornstein & Lasley, 1990; Ornstein, 1995; and Ornstein & Levine, 2008).

Instructional effectiveness and classroom management has an interactive relationship that increases the chance students to participate in class discussion and learn more, likewise if the teacher initiates his/her desired classroom management without considering student’s choice may lessen the motivation of students to learn and hamper the accumulation of knowledge (Marzano, Marzano & Pickering, 2003; Maclas & Sánchez, 2015; and Sieberer-Nagler, 2016).

Teachers of indigenous students, who lack cultural competence, often experience problems in the classroom. The culturally, sensitive pedagogy is fairly extensive, focuses primarily on curriculum content, and teaching strategies, but does not really focus on the issue of management, as stated by Steinhardt School of Culture, Education, and Human Development, in 2008 (cf MCUE, 2008; Lewthwaite et al., 2015; and Lloyd et al., 2015).

Nonetheless, through this research, Mathematics Teachers/Professors may purposefully discover how classroom management approach is conducive to learning. They will know some insights on the paramount importance of classroom management approach in teaching Mathematics. Any modifications and improvements brought about by this research may provide the students much efficient way of learning Mathematics through their preferred Classroom Management Approach, since they are the direct recipients of the output. As parents enrolled their children in this institution, through this study, they will come to know that children are given of much quality education (Marzano, Marzano & Pickering, 2003; Maclas & Sánchez, 2015; and Sieberer-Nagler, 2016).

Statement of the Problem and Definition of Terms. The major thrust of this study was to find the association of CMAP (Classroom Management Approach Preferences) of the indigenous and non-indigenous learners in Mathematics. Specifically, it sought to answer the following questions: (1) What is the ethnicity of the respondents?; (2) What is the preferred classroom management approach of the indigenous and non-indigenous learners in Mathematics?; and (3) Is there a significant association between classroom management approach preferences of the indigenous and non-indigenous learners in Mathematics?

Classroom Management – integrates teacher actions to create, implement, and maintain a positive learning environment (Timperley et al., 2007; Egeberg, McConney & Price, 2016; and Brioso, 2017).

Assertive – an assertive teacher takes charge of the classroom immediately, sets the ground rules, and interacts with students in calm yet forceful way (Ornstein & Lasley, 1990: Hughes & Kwok, 2007; and Hannah, 2013).

Business-Academic – a student always wants to involve in a high degree of “time on task” and “academic engage time” (Ornstein & Lasley, 1990; Shelton-Quinn, 2009; and Riffel & Eggleston, 2019).

Behavioral Modification – a teacher employ reinforcement and punishment inside the classroom to control misbehavior (Ornstein & Lasley, 1990; Sun & Shek, 2012; and Mather & Goldstein, 2018).

Group Managerial – responding immediately to group of student misbehavior in order to prevent problems rather than having to deal with them after they emerge (Ornstein & Lasley, 1990; Marzano, Marzano & Pickering, 2003; and Sun & Shek, 2012).

Group Guidance – a student hates to be address in particular by the teacher for misbehaving and mostly prefer in group/general basis in addressing proper disciplinary action (Ornstein & Lasley, 1990; Dunne et al., 2007; and Marciniak, 2015).

Acceptance – some students prefer a warm better learning atmosphere, feeling accepted by their classmates (Ornstein & Lasley, 1990; Osterman, 2000; and Bucholz & Sheffler, 2009).

Success Approach – other students would learn in a more permissive environment, where they can exercise their freedom to choose and to make decisions (Ornstein & Lasley, 1990; Churchill, 2005;

*Indigenous Learners* – refers to a group of people or homogenous societies identified by self-ascription and ascription by others, who have continuously lived as organized community with 100% pure blood of ethnicity (Peralta, 2003; Molintas, 2004; and Reyes, Mina & Asis, 2017).

*Non-Indigenous Learner* – a student who belongs to majority ethnic group and whose parents are both non-indigenous (Lewthwaite et al., 2015; Maestri, 2017; and Klenowski, 2018).

The respondents involved were categorized into two groups among freshman indigenous students coming from eleven ethnic groups: the Kankanaey, Kalanguya, Yogad, Gaddang, Itawes, Itneg, Ibalon, Tuwali, Ayangan, Kalinga, and Ybanag; and the second group are the non-indigenous students. Both types of students are enrolled in a Mathematics in the Modern World class in a State Universities found Northern Luzon, Philippines. See figure 1.

This study is anchored to the principles and arguments on the seven primary classroom management approaches discussed and defined by A.C. Ornstein & T.J. Lasley (1990), in their book entitled *Strategies for Effective Teaching*. The following are: *Assertive, Business-Academic, Behavioral-Modification, Group Managerial, Group Guidance, Acceptance*, and *Success Approaches* (Ornstein & Lasley, 1990). The most preferred classroom management approaches of the indigenous and non-indigenous learners in Mathematics will be revealed and their significant association will be established.

**METHODS**

The major thrust of this study was to find out if there is a significant association between CMAP (Classroom Management Approach Preferences) of the freshmen students who are indigenous and non-indigenous learners in Mathematics. Responses to questions were numeric in nature having the characteristic of a quantitative research; thus, a descriptive method was used in this study, specifically the use of survey and correlation techniques. Correlation techniques were designed to determine the extent to which the different variables are related to each other in the population interest. It ascertains how much variation is caused by one variable in relation to the variation caused by other variable (Williams, 2007; Sarra & Ewing, 2014; and Sullivan, 2018).

The respondents were selected through random sampling, specifically lottery method, of freshmen students enrolled in Mathematics in the modern world. The stratified proportional random sampling was considered with 5% margin of error in each stratum to identify the respondent. There were a total of 165 freshmen: there were 32 indigenous and 133 non-indigenous learners in Mathematics (Williams, 2007; Alvi, 2016; and Hayes, 2020).

This study utilizes an instrument in the form of questionnaire constructed by the researcher with a minimal division adapted to foreign authorities. It contains thirty-
five statements that needed to be rated by the students by R. Likert (1932)-scale by encircling the number that corresponds to their choice. There were five questions that correspond in each classroom management approach. The questions are arranged randomly in order to make the questionnaire unpredictable and free from pattern on responses (Likert, 1932; Carifio & Perla, 2007; and Derrick & White, 2017).

These responses will serve as a basis in identifying the association between CMAP and ethnicity of the learners using Harald Cramér (1946) of V in SPSS (Statistical Package for the Social Sciences). Harald Cramér (1946) of V is a statistical design used to measure the strength of the association between one nominal variable with either another nominal variable, or with an ordinal variable (cf Cramér, 1946; Miller et al., 2002; and Bergsma, 2013).

The questionnaire was developed and undergone validation by experts. The instrument is directly administered at different times the respondents are available. Most of the responses were gathered during their vacant time to ensure academics will not be sacrifice and greater time will be spent in answering the questionnaire. Maximum assistance to every respondent was given by the researchers to those with comprehension difficulty to ensure that all their responses will lead to what they really prefer (Williams, 2007; Bolarinwa, 2015; and Krosnick et al., 2015).

RESULTS AND DISCUSSION

What is the Ethnicity of the Respondents? There were 133 (80.61%) non-indigenous students and 32 (19.39%) indigenous students randomly selected. There were eleven ethnic groups from the 32 respondents. The largest number of respondents came from the ethnic group of Ybanag with 13 (40.63%). While the Gaddang has 4 (12.5%), followed by the Kankanaey with 3 (9.38%), and the Yogad and the Itneg has 2 each (6.25%). The least number with only one respondents were from the ethnic groups of Itawes, Ibalon, Tuwali, Ayangan, Kalinga, Kalanguya, Kankanaey-Itneg, and Gaddang-Ybanag.

The smaller number of indigenous students compared to non-indigenous students was attributed to the fact that they belong to the minor sector of the society having a small population in a certain place and belong to the mainstream.

What is the Preferred Classroom Management Approach of the Indigenous and Non-Indigenous Mathematics Learners? It will be analysed pertaining of: (1) Assertive Approach; (2) Business-Academic Approach; (3) Behavioral Modification Approach; (4) Group Managerial Approach; (5) Group Guidance Approach; (6) Acceptance Approach; (7) Success Approach; and (8) Classroom Management Approach Preference in Mathematics of Freshman Students. Each explanation is as following here:

<table>
<thead>
<tr>
<th>Item #</th>
<th>Items</th>
<th>Indigenous</th>
<th>Non-Indigenous</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The teacher enforces the classroom rules and procedures.</td>
<td>3.13</td>
<td>2.98</td>
<td>3.06</td>
</tr>
<tr>
<td>8</td>
<td>The teacher gives consequences for disobeying rules and communicates these consequences clearly.</td>
<td>2.63</td>
<td>2.78</td>
<td>2.71</td>
</tr>
<tr>
<td>15</td>
<td>The teacher gives warning to students who misbehave and then give sanction if the misbehavior continues.</td>
<td>2.84</td>
<td>3.15</td>
<td>3.00</td>
</tr>
<tr>
<td>22</td>
<td>The teacher displays a strict attitude towards classroom control.</td>
<td>2.56</td>
<td>2.90</td>
<td>2.73</td>
</tr>
<tr>
<td>29</td>
<td>The teacher encourages students’ independence in Mathematics activity.</td>
<td>3.13</td>
<td>3.18</td>
<td>3.16</td>
</tr>
</tbody>
</table>

Table 1: Perception of Students towards Assertive Approach in Managing a Mathematics Class
Firstly, **Assertive Approach.** As seen in table 1, all the respondents rated item #22: *The teacher displays a strict attitude towards classroom control,* with the lowest mean of 2.78 for the non-indigenous students and the second lowest mean with 2.56 by the indigenous students. Item #8: *The teacher gives consequences for disobeying rules and communicates these consequences clearly,* has the lowest mean from indigenous students which is 2.63 and second the lowest mean of 2.78 from the non-indigenous students. This means that both type of freshmen students were not in favor in giving consequences for disobeying classroom rules during their Mathematics class. See table 1.

This is attributed to the fact that most students are not well-convinced with teachers who manage the classroom during Mathematics class in a strict and less permissive manner. Anxiety in Mathematics is also attributed not only in the nature of the subject, but also with the teachers’ behavior towards classroom control. Furthermore, J. Martin & J. Sugarman (1993), and other scholars, revealed that students usually learn less than they should, because of discipline issues (cf Martin & Sugarman, 1993; Sheryl et al., 2014; and Rahimi & Karkami, 2015).

On the other hand, item #29: *The teacher encourages students’ independence in Mathematics activity,* received the highest rating on both indigenous and non-indigenous students with a mean of 3.13 and 3.18 respectively, and a mean of 3.16 as perceived by all the respondents. It can be inferred that most of the students were confident with their solution to a certain type of problem. It may be noted that indigenous students agree with the use of assertive approach in Mathematics class.

However, the combined unweighted and weighted category means for the indigenous and non-indigenous students falls under agree. This is attributed to the fact that students at some point permit the use of a teacher centered set up of classroom during a Mathematics class (cf Mpho, 2018; Ocampo, Jr., Ocampo & Cruz, 2018; and DAE, 2019).

Secondly, **Business-Academic Approach.** Table 2 revealed that all respondents rated item #2: *The teacher emphasizes organization of academic works,* with the highest mean of 3.31 for indigenous students and 3.17 for non-indigenous students. This will affirm the reason that Mathematics being a logical subject must be thought in a systematic way to be understood by learners. See table 2.

Item #9: *The teacher explains clearly to students work assignments, features of the work, standards to be met, and procedures,* on the other hand, received the second highest mean score of 3.13 and 3.16 from indigenous students and non-indigenous students respectively with 3.15 mean score as perceived by all the respondents. Still, this has something to do with the nature of

### Table 2: Perception of Students Towards Business-Academic Approach in Managing a Mathematics Class

<table>
<thead>
<tr>
<th>Item #</th>
<th>Items</th>
<th>Indigenous</th>
<th>Non-Indigenous</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>The teacher emphasizes organization of academic works.</td>
<td>3.31</td>
<td>3.17</td>
<td>3.24</td>
</tr>
<tr>
<td>9</td>
<td>The teacher explains clearly to students work assignments, features of the work, standards to be met, and procedures.</td>
<td>3.13</td>
<td>3.16</td>
<td>3.15</td>
</tr>
<tr>
<td>16</td>
<td>The teacher monitors first the work of the students from time to time in group then in individual basis to encourage students to keep working.</td>
<td>2.97</td>
<td>3.12</td>
<td>3.05</td>
</tr>
<tr>
<td>23</td>
<td>The teacher records strictly every single score obtain by his students.</td>
<td>2.97</td>
<td>2.98</td>
<td>2.98</td>
</tr>
<tr>
<td>30</td>
<td>The teacher gives assignment from time to time to supplement student’s learning.</td>
<td>3.09</td>
<td>2.95</td>
<td>3.02</td>
</tr>
<tr>
<td></td>
<td>Unweighted Category Mean</td>
<td>3.09</td>
<td>3.08</td>
<td>3.09</td>
</tr>
<tr>
<td></td>
<td>Weighted Category Mean</td>
<td>0.60</td>
<td>2.48</td>
<td>1.54</td>
</tr>
<tr>
<td></td>
<td>Remarks</td>
<td>SA</td>
<td>SA</td>
<td>SA</td>
</tr>
</tbody>
</table>
Mathematics as a discipline that even the communication of different types of tasks to the students must be in an orderly manner.

It can be thought that students least preferred for their Professor to focus on their scores in every written work. This is supported by the lowest rate of item #23: The teacher records strictly every single score obtain by his student, among the items under Business-Academic approach with 2.98 mean as perceived by all the respondents. It is one of the lowest items rated by indigenous students as well with only 2.97 mean and second lowest item as perceived by non-indigenous students with 2.98 mean.

Moreover, non-indigenous students are least in favor with Mathematics Professors, who often give assignments in every lesson tackled. This is evident with item #30: The teacher gives assignment from time to time to supplement student’s learning, with 2.95 mean, the lowest among the items rated by the non-indigenous students.

It may be noted that indigenous students strongly agree with the use of Business-Academic approach in a Mathematics class. This was affirmed with the study of Seda Yaşar (2008), and other scholars, that primary school teachers prefer to use student centered management approach rather than teacher-centered approach. That is teachers’ management approaches are consistent with the constructivist instruction (Garrett, 2008; Yaşar, 2008; and Mpho, 2018). There are several management techniques (binders/notebooks, note-taking, and homework policies) proven to be successful in the classroom to increase student motivation, success, and confidence in the classroom (Kobus, Maxwell & Provo, 2008; Igbinoba & Marvelous, 2015; and Mpho, 2018).

Thirdly, Behavioral Modification Approach. As seen in table 3, respondents rated item #17: Teacher gives incentives to students who recite in class such as points, with the highest mean 3.20 as perceived by all the respondents, 3.22 and 3.17 for indigenous and non-indigenous students respectively. This means that even at their freshmen days as college students, they are still encourage to learn by extrinsic motivation, such as extra points for the extra effort they exert on learning Mathematics.

Consequently, the reverse manner of giving point for good behavior, the deduction of points for inappropriate behavior, is perceived by most respondents as least favorable in a Mathematics class. This is reflected by item #31: The teacher deducts points for inappropriate behavior, with the lowest mean score of 2.29 as perceived by all the respondents. It also marked the lowest rating for non-indigenous students with 2.36 mean and second lowest item rated by non-indigenous students with 2.22 mean. See table 3.

It may be noted that both indigenous and non-indigenous students agree with the use of Behavioral Modification approach in a Mathematics class. Furthermore, Behavioral Modification approach has 2.72 unweighted category mean and 1.38 weighted category mean as perceive by all the respondents. This implies that the utilization of Behavioral

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### Table 3:
Perception of Students towards Behavioral Modification Approach in Managing a Mathematics Class

<table>
<thead>
<tr>
<th>Item #</th>
<th>Items</th>
<th>Indigenous</th>
<th>Non-Indigenous</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>The teacher rewards students who listen during math class discussion and punishes those inattentive ones.</td>
<td>2.15</td>
<td>2.54</td>
<td>2.35</td>
</tr>
<tr>
<td>10</td>
<td>The teacher calls inattentive students to recite.</td>
<td>2.75</td>
<td>2.92</td>
<td>2.84</td>
</tr>
<tr>
<td>17</td>
<td>The teacher gives incentives to students who recite in class such as points.</td>
<td>3.22</td>
<td>3.17</td>
<td>3.20</td>
</tr>
<tr>
<td>24</td>
<td>The teacher disregards students past experiences and emphasizes on motivation.</td>
<td>2.91</td>
<td>2.94</td>
<td>2.93</td>
</tr>
<tr>
<td>31</td>
<td>The teacher deducts points for inappropriate behavior.</td>
<td>2.22</td>
<td>2.36</td>
<td>2.29</td>
</tr>
</tbody>
</table>

Unweighted Category Mean: 2.65
Weighted Category Mean: 0.51
Remarks: A A A

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Modification approach in a Mathematics class must be of moderate level.

Novice teachers identified behaviour management as the second most significant concern, after workload as cited by the AEU (Australian Education Union) in 2006, behaviour problems in the classroom as a significant factor in the stress and burnout for both novice and experienced teachers (cf Ingersoll, 2002; Ingersoll & Smith, 2003; and AEU, 2006).

Fourthly, Group Managerial Approach. In table 4, The teacher monitors student’s class work by walking around their seats, item #25, topped all other item with 3.06, 3.11, and 3.09 means as perceived by indigenous students, non-indigenous students, and both category of respondents respectively. This is associated with the fact that students still need assistance from their Mathematics Professor, when solving problems at some point. Mathematics is perceived as difficult subject by many students that’s why the continuous monitoring of the Professor helps them to overcome some difficulties immediately (Dowker, 2004; Belecina & Ocampo, Jr., 2016; Acharya, 2017; Ocampo, Jr., Ocampo & Cruz, 2018; and Li & Schoenfeld, 2019).

On the other hand, item #11: The teacher responds immediately to group student behavior that might be inappropriate or undesirable like creating unnecessary noise, has the mean of 3.00, 3.14 and 3.07 as perceived by indigenous students, non-indigenous students, and both category of respondents respectively. This is attributed to the changing environment of classroom as one move from secondary to tertiary school. Students become mature and understand the conventions of a school as they step on higher education.

Indigenous and non-indigenous students both give the lowest mean to item #32: The teacher always able to meet his students.

Table 4: Perception of Students towards Group Managerial Approach in Managing a Mathematics Class

<table>
<thead>
<tr>
<th>Item#</th>
<th>Items</th>
<th>Indigenous</th>
<th>Non-Indigenous</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>The teacher makes sure that the students understand the topic well before proceeding to the next lesson.</td>
<td>3.06</td>
<td>3.08</td>
<td>3.07</td>
</tr>
<tr>
<td>11</td>
<td>The teacher responds immediately to group student behavior that might be inappropriate or undesirable like creating unnecessary noise.</td>
<td>3.00</td>
<td>3.14</td>
<td>3.07</td>
</tr>
<tr>
<td>18</td>
<td>The teacher avoids interrupting students when they are busy doing work.</td>
<td>2.75</td>
<td>3.08</td>
<td>2.92</td>
</tr>
<tr>
<td>25</td>
<td>The teacher monitors student’s class work by walking around their seats.</td>
<td>3.06</td>
<td>3.11</td>
<td>3.09</td>
</tr>
<tr>
<td>32</td>
<td>The teacher always able to meet his students even if he is busy.</td>
<td>2.72</td>
<td>2.89</td>
<td>2.81</td>
</tr>
</tbody>
</table>

Unweighted Category Mean: 2.92, 3.06, 2.99
Weighted Category Mean: 0.57, 2.47, 1.52
Remarks: A, 3A, A

inappropriate or undesirable like creating unnecessary noise. Item #4 has the mean of 3.06, 3.08, and 3.07 as perceived by indigenous students, non-indigenous students, and both category of respondents respectively.

As mentioned earlier, Mathematics being perceived as a difficult subject by many students needs to be fully understood well by explaining each lesson clearly. There are also lessons in Mathematics that are prerequisite in other topic that’s why moving to the next lesson where students understood the prerequisite is a key to understand the lesson that follows (Dowker, 2004; Belecina & Ocampo, Jr., 2016; Acharya, 2017; Ocampo, Jr., Ocampo & Cruz, 2018; and Li & Schoenfeld, 2019).

Very near to the mean of item #25 is the mean of item #4: The teacher makes sure that the students understand the topic well before proceeding to the next lesson, and item #11: The teacher responds immediately to group student behavior that might be
even if he is busy, with 2.72, 2.89, and 2.81 mean as perceived by indigenous students, non-indigenous students, and both category of respondents respectively. This depicts that it is just fine for the students for their Mathematics Professor to attend first his other obligation, such as meeting and spare that time to them for their vacant to be utilize in other matter, be it academic task or co-curricular in nature (cf Acharya, 2017; Ocampo, Jr., Ocampo & Cruz, 2018; and Li & Schoenfeld, 2019).

As a result the indigenous students agree while the non-indigenous students strongly agree with the use of GMAM (Group Managerial Approach to Mathematics) class. Overall, the respondents strongly agree with the use of Group Managerial approach. This means that students desire for an immediate responding Professor to whatever circumstances inside a Mathematics class (cf Sarra & Ewing, 2014; Juarez et al., 2018; and Mendezabal & Tindowen, 2018).

Fifthly, Group Guidance Approach. Table 5 reveals that item #5: The teacher allows the students to learn to work in group, has the highest mean from the indigenous and non-indigenous students with 3.38 and 3.22 mean respectively and a 3.30 mean from the two category of respondents. Though it is revealed earlier that students are in favour of being independent in Mathematics activity under Assertive approach, there are still instances where students are willing to work in group in order to understand better the nature of a problem and the way to solve it through peer discussions. See table 5.

Item #12: The teacher always sees the root cause of the difficulty of a child by attending to his/her past problems, revealed this fact as it obtained the lowest means of 2.44, 2.89, and 2.67 from the indigenous students, non-indigenous students, and both category of respondents respectively.

The indigenous students agree with the practice of Group Guidance approach to Mathematics class. On the other hand, non-indigenous students are strongly agree. The Group Guidance approach is close to strongly agree, the unweighted and weighted category means, 3.04 and 1.53 means, for both the indigenous and non-indigenous students respectively fall under strongly agree (cf Sarra & Ewing, 2014; Sicat & David, 2016; and Dolatre & Ortiz-Luis, 2019).

Sixthly, Acceptance Approach. Table 6 shows that students mostly in favour with item #6: The teacher gives equal opportunity for students to recite and become involved in instruction, since it has the highest mean of 3.19 as perceived by the indigenous students, 3.29 as perceived by non-indigenous students, and 3.24 as perceive by both category of respondents.

This is supported by the claim that students always strive for self-worth and acceptance from their teachers. Furthermore, they feel that they belong in a class if they are involved in classroom activities and instruction. No one would be isolated from the class if the Professor is an observant of fairness and equality (UNESCO, 2006; Dunne et al., 2007; and Hurst, Wallace &

On the other hand, it can be inferred that both types of respondents are least in favour with item #13: The teacher confronts immediately students who hurt other students, with 2.50 mean as perceived by indigenous students, 2.77 as perceived by non-indigenous students, and 2.64 as perceived by both category of respondents. The indigenous students are agree with the use of Acceptance approach to Mathematics class, while non-indigenous students strongly agree with the use of such approach.

Above all, both categories of respondents strongly agree with the use of Acceptance approach. So, Acceptance approach as widely utilized in classroom management is known to be permissive to students. With this, it is apt to say that students are able to operate and learn under such approach (Ornstein & Lasley, 1990; Osterman, 2000; and Bucholz & Sheffler, 2009).

Seventhly, Success Approach. As seen on table 7, respondents has the highest mean on item #21: The teacher encourages trial and error in solving in order for the students to learn from their mistake, with 3.06 mean as perceived by indigenous students, 3.40 as perceived by non-indigenous students, and 3.23 as perceive by both category of students. This means that although students want their Mathematics Professor to emphasize organization of work as mentioned earlier, it is wiser to allow them solve problems using their desired method, in which they can produce the answer with great ease (cf SEI-DOST & MATHTED, 2011; UNESCO, 2012; and OECD/ADB, 2015).

This is also attributed to the fact that in Success approach, students are allowed to make their own decision in any undertakings such as choosing their own method of solving a problem. The Professor’s task is to direct into positive outcome the failure that might be cause by their choice in order for them to learn from their mistakes (Mulford, 2003; Timperley et al., 2007; and Belecina & Ocampo, Jr., 2016). See table 7.

The indigenous students agree with the use of Success approach, while the non-indigenous students on the other hand strongly agree. Overall, the indigenous and non-indigenous students’ perception toward Success approach lies under strongly agree with 3.07 unweighted category mean and 1.57 weighted category mean. This means that freshmen students wanted their Mathematics Professor to let them decide on any circumstances under their Mathematics class, but be guided by them in understanding with whatever result it might bring (Amato, 2004; Timperley et al., 2007; and Ingvarson et al., 2013).

Eighthly, Classroom Management Approach Preference in Mathematics of Freshman Students. It can be gleaning that the most preferred classroom management approach of indigenous students is the Business-Academic approach with frequency of 11. This is because of the fact stated by

<table>
<thead>
<tr>
<th>Item #</th>
<th>Items</th>
<th>Indigenous</th>
<th>Non-Indigenous</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>The teacher gives equal opportunity for students to recite and become involved in instruction.</td>
<td>3.19</td>
<td>3.29</td>
<td>3.24</td>
</tr>
<tr>
<td>13</td>
<td>The teacher confronts immediately students who hurt other students.</td>
<td>2.50</td>
<td>2.77</td>
<td>2.64</td>
</tr>
<tr>
<td>20</td>
<td>The teacher makes sure that students work with other student.</td>
<td>3.00</td>
<td>3.20</td>
<td>3.10</td>
</tr>
<tr>
<td>27</td>
<td>The teacher considers cultural diversity as one of the major factor in Mathematics proficiency.</td>
<td>3.16</td>
<td>3.09</td>
<td>3.13</td>
</tr>
<tr>
<td>34</td>
<td>The teacher makes students feel confident in Mathematics.</td>
<td>2.97</td>
<td>3.11</td>
<td>3.04</td>
</tr>
</tbody>
</table>

Unweighted Category Mean 2.96 Weighted Category Mean 0.57
Remarks A SA

Table 6:
Perception of Students towards Acceptance Approach in Managing a Mathematics Class
R.K. Crocker & G.M. Brooker (1986), and other scholars, that higher achievement is attained in classrooms that function in a businesslike manner, under high teacher direction, with a minimum of lost time or task disruption (Crocker & Brooker, 1986; Hughes & Kwok, 2007; and Abrams, Taylor & Guo, 2013); while non-indigenous students’ most preferred classroom management approach is the Success approach with frequency of 33. See table 8.

On the other hand, both categories of respondents marked Assertive approach and Behavioral Modification approach as their least preferred Classroom Management Approach. One Indigenous Student preferred Assertive approach, while the same number of respondent from them was tallied on Behavioral Modification approach. The same equal frequency was counted for non-indigenous students with 6 respondents, who preferred Assertive approach and 6 respondents for Behavioral Modification approach.

According to L. Canter & M. Canter (1979), and other scholars, the Assertive approach is appropriate for two types of learners, immature students, and those who profit from repetition as a learning tool. This clearly explains that both categories of freshmen are now on their right level of maturity and self-control that an Assertive type of teacher would not work anymore (Canter & Canter, 1979; Ornstein & Lasley, 1990; Hughes & Kwok, 2007; Hannah, 2013; and Suviste, 2015).

With this, it is apt to claim the hypothesis on the least preferred Classroom Management of indigenous student which is the Assertive approach. However, the hypothesis on the most preferred Classroom Management of indigenous students, Acceptance approach, and the most and least preferred Classroom Management of non-indigenous students, Business-Academic and Success respectively were off beam (cf SEI-DOST & MATHTED, 2011; Suviste, 2015; Acharya, 2017; Brioso, 2017; and Leon, Medina-Garrido & Nunez, 2017).

Moreover, Group Managerial approach is the preference of 4 indigenous students and 20 non-indigenous students; Group Guidance approach with 3 indigenous students and 17 non-indigenous students; Business-Academic approach with 25 non-indigenous students; and Success approach with 7 indigenous students.

Is there a Significant Association between Classroom Management Approach Preferences of the Indigenous and Non-Indigenous Mathematics Learners? Table 9 supports the validity of the data tabulated and interpreted using the SPSS (Statistical Package for the Social Sciences). It has 165 respondents with 100% validity with 0% missing data. This also signifies that the sample size utilized in this study meets the required number of respondents to be processed by the SPSS, particularly the use of Harald Cramér (1946) of V, Cross Tabulation of Classroom Management Approach and the Students

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**Table 7:**

Perception of Students towards Success Approach in Managing a Mathematics Class

<table>
<thead>
<tr>
<th>Item #</th>
<th>Items</th>
<th>Indigenous</th>
<th>Non-Indigenous</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>The teacher allows students use their own solution in solving a problem.</td>
<td>2.84</td>
<td>2.96</td>
<td>2.90</td>
</tr>
<tr>
<td>14</td>
<td>The teacher asks students’ opinion in solving problems to his students.</td>
<td>3.06</td>
<td>3.20</td>
<td>3.13</td>
</tr>
<tr>
<td>21</td>
<td>The teacher encourages trial and error in solving in order for the students to learn from their mistake.</td>
<td>3.06</td>
<td>3.40</td>
<td>3.23</td>
</tr>
<tr>
<td>28</td>
<td>The teacher demands an indefinite solution for a problem.</td>
<td>2.97</td>
<td>3.05</td>
<td>3.01</td>
</tr>
<tr>
<td>35</td>
<td>The teacher allows late students to enter in class.</td>
<td>2.94</td>
<td>3.17</td>
<td>3.06</td>
</tr>
</tbody>
</table>

Unweighted Category Mean: 2.97  
Weighted Category Mean: 0.58  
Remarks: 1.57
Table 8:
Frequency Distribution of Indigenous and Non-Indigenous Students’ Preference in Classroom Management Approach in Mathematics

<table>
<thead>
<tr>
<th>Classroom Management Approach</th>
<th>Frequency</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assertive</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Business-Academic</td>
<td>11</td>
<td>36</td>
</tr>
<tr>
<td>Behavioral Modification</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Group Managerial</td>
<td>4</td>
<td>24</td>
</tr>
<tr>
<td>Group Guidance</td>
<td>3</td>
<td>20</td>
</tr>
<tr>
<td>Acceptance</td>
<td>5</td>
<td>31</td>
</tr>
<tr>
<td>Success</td>
<td>7</td>
<td>40</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>32</strong></td>
<td><strong>165</strong></td>
</tr>
</tbody>
</table>

Table 9:
Case Processing Summary

<table>
<thead>
<tr>
<th>Cases</th>
<th>Valid</th>
<th>Missing</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Percent</td>
<td>N</td>
<td>Percent</td>
</tr>
<tr>
<td>Classroom Management Approach</td>
<td>165</td>
<td>100.0%</td>
<td>0</td>
</tr>
<tr>
<td>and Indigenous and Non-Indigenous Mathematics Learners</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 10:
Relation of Classroom Management Approach of the Indigenous and Non-Indigenous Students

<table>
<thead>
<tr>
<th>Nominal by Nominal</th>
<th>Value</th>
<th>Approx. Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cramer’s V</td>
<td>0.15</td>
<td>0.71</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>165</td>
<td>-</td>
</tr>
</tbody>
</table>

(Jermey B. Tolentino, Classoom Management Approach Preferences)

The value between the two variables is 0.15, means that the level of association between Classroom Management Approach and Ethnicity of Student in the society is weak and minimally acceptable. This means that there is little to nothing in terms of the relationship between the two variables correlated. The Classroom Management Approach preference of a student is not related to their Ethnicity in the Society. This implies that indigenous students in the college level are now capable of learning the way a non-indigenous student learn and they are well adapted to any classroom management to be utilized by their Professor.

In contrary, H.C. Hill, B. Rowan & D.L. Ball (2005); L. Doyle & R. Hill (2008); and other scholars, revealed that indigenous students and non-indigenous students learn in different manner (cf Perso, 2003; Hill, Rowan & Ball, 2005; Doyle & Hill, 2008; Purdie et al., 2011; Sarra & Ewing, 2014; and Aikenhead, 2017).

The level of significance under $p < 0.05$ with 95% confidence interval level is 0.71. Meaning there is no significant relationship between Classroom Management Approach preference, whether indigenous or non-indigenous learner in Mathematics.

CONCLUSION

The most preferred CMA (Classroom Management Approach) of indigenous student is the Business-Academic, while Success approaches for the non-indigenous
Mathematics learners. The least preferred were the Assertive and Behavioral Modification for both the indigenous and non-indigenous learners. Based from the mentioned result, Mathematics Professors must put a little emphasis in the utilization of Assertive and Behavioral Modification approach for these are sets of CMA that places greater emphasis on teacher-centered instructions. Indigenous and non-Indigenous student respondents are both classified as 21st century learners regardless of their cultural sector; therefore, a student-centered approach to classroom management were more appropriate method to used.

Mathematics Professors must place a greater emphasis on Business-Academic approach for indigenous and Success approach for non-indigenous learners. However, there was no significant association between the approaches and the ethnicity of the learners. Mathematics Professors must not consider the isolation of indigenous students in any activity, since their ethnicity does not affect their perception and attainment towards a certain CMA, rather the Professor must instill in his mind that the two types of learners learns in identical manner.¹

References


¹Statement: I, undersigned, declare truthfully that this article is my own academic work. It is not the result of plagiarism, because the sources that I quoted and used in this article are clearly referred in the Bibliography or the References. I am also willing to receive the academic sanctions, if what I declare turns out to be, later on, not in accordance with the actual statement.


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JERRY B. TOLENTINO,
Classroom Management Approach Preferences


