

Classroom Climate and Critical Thinking Skills of Grade 7 and 8 in Philippine Private Schools: An Input to Enhance Instruction

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Abstract

The purpose of the study was to determine the level of classroom climate established in Schools A and B. The study revealed that the promotion of positive classroom climate was an effective tool that may enhance the daily teaching-learning instruction, where incorporation of critical thinking to curriculum implementation can be initiated and mandated. There were two sources of data; 1) self-assessment survey questionnaires on critical thinking skills and on classroom climate given to student-respondents and 2) the learning objectives of lesson plans, which determined the level of thinking in English, Science, Social Studies, and Math. Periodical examinations were also assessed. Item analysis determined the levels of proficiency of each exam in every core subject.

It was found out that promotion of positive classroom climate was a very essential tool wherein expected learning outcome, such as development of critical skills of K to 12 learners, can be instilled to the students. Critical thinking skill is an important attribute of 21st century learners that may equip young graduates upon immersion to the various industries.

Keywords: psychological, physical and social dimensions; cognitive learning domains

Introduction

The Philippine Education System is currently undergoing significant change in response to the new millennium challenge of producing Filipino graduates whose academic and skill competencies are aligned to the needs of the 21st century. The K to 12 Program, simply known as K to 12, is expected to be a long-term reform program to Philippine education. This mandated educational program was approved by President Benigno Simeon Aquino III in May 2010. Its implementation provides opportunities for Filipino learners to acquire mastery of academic concepts, skills and competencies that will better prepare the senior high school graduates to enter higher education and to potentially enter the labor force according to industry demand.

Many of today's youth lack the basic skills to function effectively when they enter the workforce. A common complaint is that entry-level employees lack the reasoning and critical thinking abilities needed to process and refine information. With the modern environment requiring more thinking and problem solving than the jobs of the past, teachers and administrators should emphasize critical thinking in their campuses, in their curricula, and in their practices in order to prepare students to function effectively in today's workforce.

The K to 12 Filipino educators' utmost responsibility is to equip the Filipino learners the mastery of academic concepts and skills-competencies. However, young graduates are not equipped to be problem-solvers and do not have the reasoning abilities to address the daily concerns and conflicts brought about by the complex world of different industries (Hirose, 1992). This is where the necessity of critical thinking skills in a classroom climate comes, which is the very essence of this study.

Statement Of the Proble

This study determined the dimension of classroom climate and critical thinking skills of grades 7 and 8 students in selected Philippine private schools as an input to enhance instruction.

1. What are the dimensions of classroom climate existing in Schools A and B in the core subjects English, Science, Social Studies and Math?
2. What are the levels of critical thinking skills of grades 7 and 8 students in selected schools?
3. To what extent are the critical thinking skills included in the learning objectives in 2013 lesson plans of grades 7 and 8 in the following subjects?
 - a. English
 - b. Science
 - c. Social Studies
 - d. Math
4. How do the content areas of School's A and B in the subjects English, Science, Social Studies and Math comply with the DepEd standards?
5. To what extent were the critical thinking skills of K to 12 learners in the periodical exams in the following core subjects?
 - a. English
 - b. Science
 - c. Social Studies
 - d. Math
6. What are the implications of the findings to the enhancement of instruction?

Objectives Of the Study

The study intended to:

1. Discuss the dimensions of classroom climate that exists in the two selected private schools as perceived by the students;
2. Assess the levels of critical thinking skills of high school students in the two schools;
3. Analyze the extent of implementing of critical thinking skills in the learning objectives of the lesson plans of grades 7 and 8 in English, Science, Math, and Social Studies in the two private schools in AY 2013-2014.
4. Evaluate the assessment of critical thinking skills in the two private schools through the periodical exams in English, Science, Math, and Social Studies; and
5. Synthesize the implications of the findings to the enhancement of instruction.

Conceptual Framework

Figure 1 illustrates that establishing a positive psychological, social and physical climate can be an effective tool that may enhance instruction that can develop the critical thinking skills of learners.

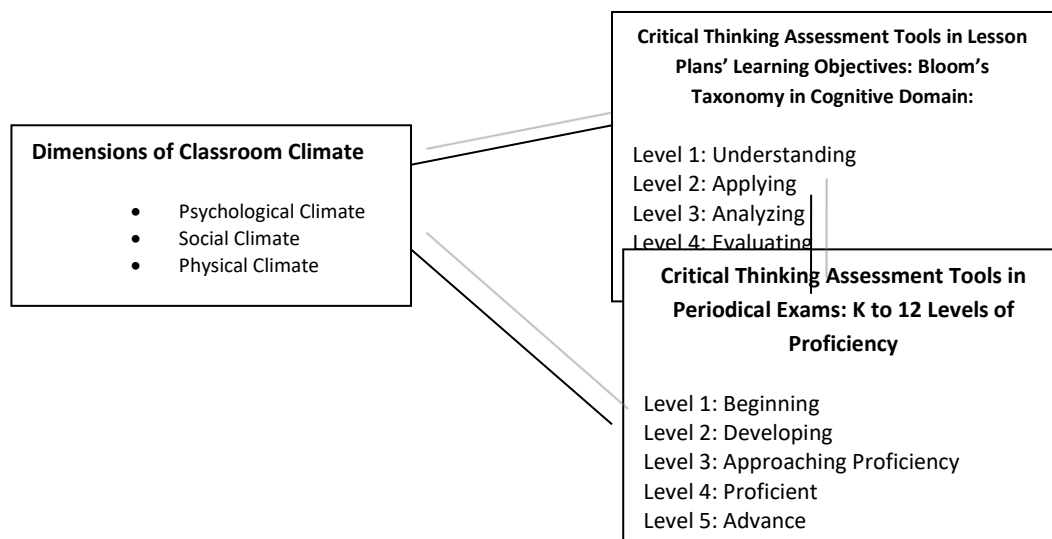


Figure 1: Classroom climate and critical thinking skills of grades 7 and 8

Significance Of the Study

The initial beneficiaries of this study are the academic heads. This will guide the principals to optimize the cognitive potentials of learners by finding the means to enhance classroom climate and critical thinking skills of learners.

This study can be a future reference to researchers, academic heads, and teachers whose concern has something to do with classroom climate and the enhancement of the learners' critical thinking skills.

Teachers are the third beneficiaries of this study. Expected to be catalysts of critical thinking, educators may realize the relevance of developing critical thinking skills as well as the conditions in which this skill can be enhanced. In implementing the thrusts of the K to 12

Program, teachers can promote the development of critical thinking skills as the first attribute of 21st century life-long skills.

The K to 12 learners who are approaching senior high school may also benefit from this study. Hopefully, by the time the learners have earned the 12- year program, the students' sense of critical thinking, with the help of teachers and academic heads, will begin to improve, which can be of great help to learners entering the labor force or preparing for higher studies.

Assumptions / Philosophical Lens of The Study

The constructs used in this study were classroom climate and critical thinking skills of grades 7 and 8 students in two selected private schools in the Philippines. Classroom Climate is the psychological, social and physical environment established in the classroom to facilitate the teaching-learning processes as perceived by students. With the assumptions, this construct can be an essential tool that may enhance instruction which includes the development of critical thinking skills of learners. Critical thinking skill is the dependent construct to classroom climate. There were two sources of data, the primary data were self-assessed questionnaire on classroom climate and critical thinking skills. The secondary data were the learning objectives in the lesson plan in English, Science, Social Studies and Math and periodical examinations of the mentioned core subjects. The researcher used the Cognitive Domain Taxonomy of Education by Benjamin Bloom to measure the levels of thinking integrated to the learning objectives of the lesson plans. The same was used in the item analysis of all the periodical examinations. The K to 12 levels of proficiency was also used to the periodical examinations as a learning outcome of the learners in the core subjects.

Scope And Limitations Of The Study

The researcher conducted this study in School A in Carmona, Cavite and in School B in Calamba, Laguna. The respondents of this study were the students of the secondary department of the two selected private schools in AY 2013-2014 and 2014-2015.

The researcher used the available Quarterly Periodical Examinations, and the lesson plans in English, Math, Science, and Social Studies during SY 2013-2014 as secondary sources of data. Only the students in AY 2013-2014 that were still connected with the schools in AY 2014-2015 were asked to become respondents of this study. They were clustered into eight students per subject area in the administration of questionnaires in English, Science, Social Studies, and Math.

Definition Of Terms

The following terms are defined as used in this study.

Classroom Climate is the psychological, social and physical environment established in the classroom to facilitate the teaching-learning processes as perceived by students.

Psychological Climate pertains to the relationship between teachers and students. It is in this dimension that teachers organize and manage learning activities acceptable by students.

Social Climate pertains to the relationship of learners to co-learners that may promote learning in the classroom

Physical Climate pertains to the structural environment of a classroom which includes the facilities such as tables and chairs, room temperature, ventilation and lighting that may affect the learning conditions of students.

Critical thinking refers to higher forms of thinking in education such as analyzing, evaluating and synthesizing rather than just rote learning; based on the Theory of Taxonomy of Education in Cognitive Domain by Benjamin Bloom.

K to 12 Levels of proficiency measure the students' performance in critical thinking; classified as beginning, developing, approaching proficiency, proficient and advance.

Beginning is the level where the student struggles with his/her understanding as; prerequisite and fundamental knowledge and/or skills have not been acquired or developed adequately to aid understanding.

Developing is the level where the student possesses the minimum knowledge and skills and core understandings, but needs help throughout the performance of authentic tasks.

Approaching Proficiency is the level where the student has developed the fundamental knowledge and skills and core understandings and, with little guidance from the teacher and/or with some assistance from peers, can transfer these understandings through authentic performance tasks.

Proficient is the level where the student has developed the fundamental knowledge and skills and core understandings, and can transfer them independently through authentic performance tasks.

Advanced is the level where the student exceeds the core requirements in terms of knowledge, skills and understandings, and can transfer them automatically and flexibly through authentic performance tasks.

Input Process Output applied in this study was the operational framework.

Output is the final stage in which the researcher determined the implication of the results of classroom climate and the levels of critical thinking.

Review Of Pertinent Literatures

Classroom Climate

Classroom climate can be defined as the mood or atmosphere created by a teacher in his or her classroom, the way the teacher interacts with students, and the way the physical environment is set out (Kumar, 2007). The classroom climate influences the student achievement, students' self-esteem and participation in the lesson. The most important aspect of classroom climate is the relationship between teacher and students. There must be elements of caring, trust, and respect in the interpersonal relationships between teachers and students.

Critical Thinking

This study used the classic Taxonomy of Education in Cognitive Domain of Benjamin Bloom. This includes the recall or recognition of specific facts, procedural patterns, and concepts that serve in the development of intellectual abilities and skills. There are six major categories, starting from the simplest behavior to the most complex. The categories can be thought of as degrees of difficulties. That is the first ones must normally be mastered before the next ones can take place. (Bloom, 1956) The evident behavior is being able to define the 6 levels of Bloom's taxonomy of the cognitive domain: In level 1, involves understanding the meaning, translation, interpolation and interpretations of instructions and problems. In level 2, application of a new concept in a new situation or unprompted use of abstraction is manifested. In level 3, involves analyzing such as separating material or concepts into component parts so that its organizational structure may be understood. In level 4, there is evaluation such as in making judgements about the value of ideas or materials, selecting most effective solution, explaining and justifying a new budget. Finally, in level 5, there is synthesizing which means building a structure or pattern from diverse elements. Learning outcome of K to 12 learners is determined through K to 12 levels of proficiency. At the end of every quarter, the performance of students shall be described in the report card, based on the following levels of proficiency. In the beginning level, the student struggles with his / her understanding; prerequisite and fundamental knowledge have not been acquired. In the developing level, the student at this level possesses the minimum knowledge and skills and core understandings, but needs help throughout the performance tasks. In the approaching proficiency level, the student at this level has developed the fundamental knowledge and skills and core understandings and, with little guidance from the teacher and/or with some assistance from peers, can transfer these understandings through authentic performance tasks. In the proficient level, the student at this level has developed the fundamental knowledge and skills and core understandings, and can transfer them independently through authentic performance tasks. In the advance level, the student at this level exceeds the core requirements in terms of knowledge, skills and

understandings, and can transfer them automatically and flexibly through authentic performance tasks.

Methodology

Research Design: This study used descriptive design to determine if there is a direct relationship between classroom climate and critical thinking skill's development of K to 12 learners

Research Locale: This was conducted in two selected private schools located in Carmona, Cavite and Calamba, Laguna.

Population and and sampling design: There were 64 Grade 7 and 48 Grade 8 student respondents from the said schools. Specifically, the administration of questionnaires were given to grades 7 and 8 students in the regular Science Program in the Secondary Department of School B.

Researcher Instruments: For the primary data, the researcher facilitated the administration of eight sets of questionnaire. The questionnaire on critical thinking was derived from the lesson plan during SY 2013-2014 in which learning objectives were used to determine the levels of thinking of students as a result of students' learning in grades 7 and 8 English, Science, Social Studies and Math. The questionnaire on classroom climate was validated by a guidance counselor and was based on the literature on the dimensions of classroom climate namely: psychological, social and physical climate.

Data Gathering Procedure: The researcher sought for approval from School's A Office of the Vice President for Academic and External Affairs and School's B Office of the Principal for the administration of the questionnaires. The researcher then retrieved the four quarterly examinations in English, Math, Science and Social Studies in SY 2013-2014. The examinations were analyzed thoroughly using item analysis to know the levels of critical thinking skills. Next, the questionnaires on classroom climate and critical thinking skills were given to selected students. Finally, the researcher determined the respondents according to the classroom practices set by the teachers.

Results And Discussions

Classroom Climate

In School A, the overall psychological climate in English, Science, Social Studies and Mathematics in both grades 7 and 8 levels was very positive. The same is true for the overall social climate except for a positive rating in grade 7 English and grade 8 Science. As to the overall physical climate, the overall rating in grades 7 and 8 was positive except for a neutral rating in grade 8 Social Studies and very positive rating in grade 7.

In School B, the overall psychological classroom climate in grade 7 and 8 was very positive except for a positive rating in Social Studies. The overall social climate in grade 7 was very positive except for a positive rating in Social Studies. The overall social climate in grade 8 was positive in the four subjects.

The overall physical classroom climate in grade 7 Social Studies and Mathematics was very positive while the overall physical climate in English and Science was positive. On the other hand, the overall physical climate in grade 8 English and Science was very positive while the overall physical climate in grade 8 Social Studies and Mathematics was positive.

Critical Thinking

The grades 7 and 8 students in School A had a proficient level in English, Science and Social Studies and an advance level of proficiency both in grade 7 and 8 for Mathematics. In School B, the overall level of critical thinking in all core subjects of grades 7 and 8 was proficient, although the students had an advance level in grade 7 Science and Mathematics.

Learning Objectives in the Lesson Plan

In both schools, the critical thinking skills in the highest level (level 5 or synthesis) were integrated to a very great extent in the learning objectives English, Science and Social Studies in grade 8. Level 4 (Evaluation) was integrated to a very extent in grade 8. Level 3 (Analysis) was integrated to a very great extent in grade 7 and 8 English. In Mathematics grade 7 and 8. Level 2 (Application) was evident to a very great extent. Finally, in Social Studies and Science, both schools had Level 1 (Understanding) to a very great extent.

Comparative Analysis of Schools A and B

Schools A and B had less content areas in the subjects English, Science, Social Studies and Mathematics in grades 7 and 8 except in grade 8 Science in School A where all the prescribed DEPED content standards were complied.

Critical Thinking Skills in Periodical Exams

In School A, Level 5 (Synthesis) was integrated to a very great extent in the periodical exams in grade 8 Social Studies. Level 3 (Analysis) was used to a very great extent in grade 8 English and to a great extent in Mathematics. Level 2 (Application) was used to a very great extent in grade 7 Mathematics. Level 2 (Application) was used to a very great extent in grade 7 Mathematics and to a great extent in grade 8 Mathematics.

In School B, Level 5 (Synthesis) and Level 4 (Evaluation) were not evident to a very great extent or great extent in any of the subjects. Level 3 (Analysis) was used to a very great extent in grades 7 and 8 Science and grades 7 and 8 Mathematics; to a great extent in grade 8 Social Studies. Level 2 (Application) was used to a great extent in grades 7 and 8 Mathematics, and grade 7 and 8 English. Finally, Level 1 (Understanding) was not evident to a very great extent nor great extent in any of the subjects.

Research Implications

The implications point to an association between positive classroom climate and proficiency level of critical thinking. Teachers who establish a positive classroom climate give learners the opportunity to optimize their cognitive potentials that could sharpen their critical thinking skills.

Although schools did not comply with the minimum levels of DEPED prescribed content areas in the subjects of English, Science, Social Studies and Mathematics except for the grade 8 Science in School A, the students' Proficiency level in critical thinking was still evident as they have assessed themselves.

The integration of the higher levels of critical thinking in the learning objectives did not translate well in the prepared periodical examinations by the teachers. This could mean that the proper preparation of tests was not strictly observed by the supervisor.

Research Contribution to the Body of Knowledge

Positive classroom climate is an important element that may enhance critical thinking skills of learners. Promoting classroom climate should be an initiative and consciously mandated in the curriculum by the academic heads and teachers. At the heart of curriculum reform through the kind of classroom climate established. Once the ideal classroom climate becomes part of daily teaching-learning process the cognitive potentials may more likely to develop which includes critical thinking.

Conclusions

1. Both Schools A and B are able to provide a conducive classroom climate that is associated with students' self-assessed rating of Proficient level in critical thinking in the core subjects of grades 7 and 8 English, Science, and Social Studies, and advance level in Mathematics in grade 7.
2. Both schools are unable to comply with the minimum content standards of DEPED except for the grade 8 Science in School A.
3. The five levels of critical thinking are integrated in the learning objectives prepared by the teachers in grades 7 and 8 subjects of English, Science, Social Studies and Mathematics in both schools.

4. The teachers are not able to assess the learning objectives in their lesson plans using the five levels of critical thinking in their periodical examinations.
5. There are educational implications of the data on classroom climate and critical thinking in high schools which could be utilized by both schools in the management and supervision of syllabi and periodical examinations.

Recommendations

Based on the aforementioned findings and conclusions, the following recommendations are forwarded:

1. A seminar / training on promotion of a positive classroom climate may be given during the annual In-Service Training (INSET) for teachers.
2. The principal / academic heads can design a module on classroom management that includes the importance of creating and promoting a very positive classroom climate and its three dimensions.
3. Conducive classroom climate must become an important element of curriculum implementation.
4. The principal / academic heads and teachers may initiate relevant school activities that would require learners to think critically such as debate on social issues, students' journalism and allowing learners to make classroom based- decisions.
5. Teachers must have a conscious effort to incorporate critical thinking in daily classroom activities, such as discussion, cooperative learning, seatwork, assignment, periodical examinations, projects and other school related work.
6. Principal should require teachers to use a range of questions, such as inference, interpretation, transfer and about hypothesis and reflective questions in order for learners to constantly get used to answer questions from the simplest to the most complex questions which is based to the Cognitive Domain of Bloom's Taxonomy of Education.
7. Teacher may gradually train the learners to be familiar in answering and experiencing the use of Socratic questioning because the art of questioning is important to excellence of critical thinking.
8. Modified easy questions are highly recommended for teachers to integrate levels of thinking to arrive at the correct answer.

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Off to a Good Start: Launching the School Year. Excerpts from the Responsive Classroom Newsletter No. 1