

An Analysis of Teachers Teaching Styles and Students Learning Styles and Academic Performance in Asian Civilization of the Grade 7 in Tondo High School, Manila, Philippines

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Abstract: *The current teaching practices in the classroom are challenged by the outcomes of learning as gauged by standard test. This present study sought to analyze the dominant teaching styles and dominant learning styles and the academic performance of the grade 7 students in Tondo High School during the first quarter of school year 2016 – 2017. A sum total of 1196 grade 7 students participated in this study and 4 teachers teaching Asian civilization in the first quarter. The dominant teaching styles and dominant learning styles were identified through the results of accomplished CAPSOL (Computer Assessment Plan- Styles of Learning) Inventory. The results of the first periodical examination was use as a basis of academic performance presented in tems of mean and standard deviation. ANOVA (Analysis of Variance) was the statistical treatment used to interpret the relationship of the variables under the study. The study revealed that (1) the visual teacher can produce better learners in Asian Civilization, (2) The students are more of bodily kinesthetic who preffered activities such as role playing. It is recommended that Teachers should be aware in the dominant learning styles of the students and use such for springboard in providing motivations before the start of the lesson and in the lesson proper. The impact of the study is the significant improvement in the academic performance of the students.*

Key Words: *Teaching Style, Academic performance, Learning styles, CAPSOL, STAR*

1. INTRODUCTION:

Current teaching practices in the classroom are challenged by the outcomes of learning as gauged by standard tests. In Tondo High School, most of the students, particularly the Grade 7 students got low grades in Asian Civilization. The researcher became interested to know what were the reasons behind this poor grades of the students. The researcher observed that the teachers have been doing their job well. They use different teaching styles and strategies, different learning materials, but behind all these, the grades of the students remain low. Teaching strategy is a “careful plan” that serves an important function in achieving a specific outcome. In selecting teaching strategies the following should be taken into consideration; the instructional objectives, study needs and interest of students, developmentally appropriate learning styles, multiple intelligences of the students and lastly the mastery of teaching skills of teachers. Teachers should always remember that teaching strategies are great help for the successful outcome of learning. Multiple Intelligences of the students should also be identified so that there will be a variety in teaching strategies and all students will do their part based on the intelligences they possess. Teachers must be aware that a class is made up of learners with different strengths and weaknesses, so all students shall be given tasks that suit their intelligences. According to Howard Gardner, multiple intelligences of the students include verbal-linguistic, logical-mathematical, intrapersonal, interpersonal, visual-spatial, bodily-kinesthetic, musical-rhythmic harmonic, naturalistic, existential. This research is based from a variety of learning style theories, learning models, and brain based Educational Theory. Learning modalities refer to the perceptual learning style elements to include visual, auditory and bodily-kinesthetic processes (Wilson: 2011). (1) Auditory modality refers to the learners’ preference for listening, understanding spoken directions, following logic that is explained verbally, and addressing background sounds – whether supportive or disruptive; (2) Visual is the learners’ preference for visually gathering and comprehend information through reading, observing models, maps, graphic organizers, charts, and demonstrations, and to internalize their own perspective; (3) Bodily Kinesthetic is the learners preference for understanding by actively touching, manipulating, arranging, acting, showing and experimenting with various physical approaches by experiencing first-hand.

CAPSOL defines the different teaching and learning modalities as follows. Individual is the learner’s preference for addressing acquisition of knowledge from an individual perspective, comparing new information with previous experience and reflecting understanding through their own opinions and modes of perception. Group preference, on the other hand, is the learners’ preference for collaboration with one or more other students in planning, discussing, sharing responsibility, organizing, listening and supporting a point of view leadng to a product. Oral expressive is the learners’ preference for expressing their understanding and insight through spoken description or through questioning of ideas, concepts or facts while written expressive preference is the learners’ preference for

expressing their understanding and insight through written description, questioning, word processing, emphasizing cut/paste approaches and drawing conclusions. The preferences are visually presented in the paradigm as a means to present the relationship of the theories with the research direction. See Figure 1.

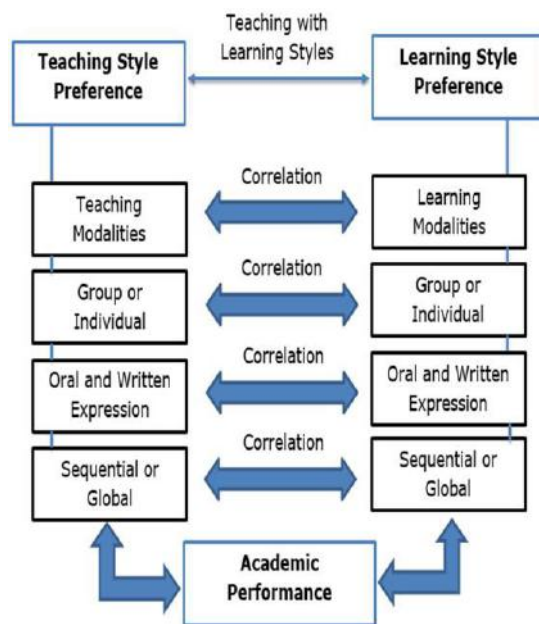


Figure 1: Theoretical Framework

Figure 1 is developed as the general paradigm of this research. The researcher started with the questionnaire distribution to the teachers as well as the learners, then retrieval of the accomplished questionnaires. For data analysis, the following documents were collected to the teachers: the anecdotal records of strategies used in class, daily lesson log and the STAR (Situation, Task, Action, Result) observation sheet by the head teacher. The teaching styles of the teachers were determined through the teaching styles inventory they answered while the learning styles of the students were determined through the learning styles inventory they also answered. After determining the data relevant to the teaching styles of the teachers and learning styles of the students these were correlated with the academic performance of the students. The analysis of these variables served as bases of the findings, the conclusion and recommendation of the study.

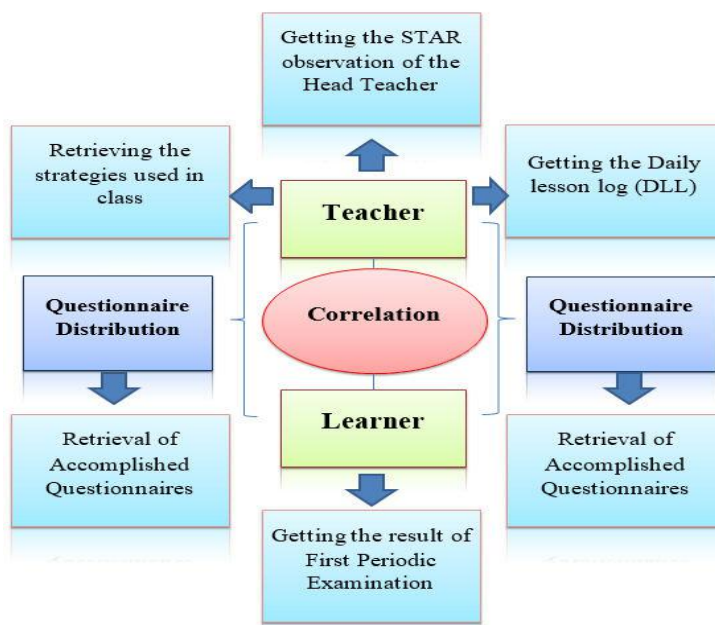


Figure 2: Correlational Study Paradigm

This study was limited to the analysis of the relationship of the dominant teaching styles of the teachers with the dominant learning styles of the students and academic performance of Grade 7 students in Asian Civilization. To identify the correlation, the CAPSOL (FORM A) CAPSOL STYLE OF LEARNING ASSESSMENT was utilized to

the students to identify their dominant learning styles. Likewise, CAPSOL (FORM B) CAPSOL Style of Teaching Assessment was administered to the teachers to identify their dominant teaching styles. Academic Performance was gathered from the results of the first periodical examination of students. Academic Performance was presented by mean and standard deviation.

2. MATERIALS:

The Grade 7 students and Grade 7 teachers of Tondo High School were used as participants in this research. Purposive sampling was used for the teachers and for the learners. The teacher who taught Asian Civilization during the conduct of the study and the students who were present were the respondents. There were 707 boys and 489 girls, a total of 1196 students were present at the time survey was conducted in all the class sections. These students are the main participants for the learning instrument. Out of this number of students, the teachers teaching during the first quarter of school year 2016 – 2017 in Grade 7 Asian Civilization were selected to answer the inventory of teaching styles. There were four teachers who participated in this survey.

3. METHODS:

Primarily, this research is quantitative in nature, as it requires thorough statistical analysis to reveal facts however; numerical findings supported with descriptive analysis of findings. Teaching preference inventory was administered to all grade 7 Asian Civilization Teachers for the school year 2016 – 2017. The researcher collected instructional strategy data to correlate and substantiate response of the teachers in the CAPSOL inventory. The results were statistically analyzed to answer and give meaning to the data and information gathered. The following statistical treatment were utilized: Frequency Count, Percentage, Mean and the ANOVA (Analysis of Variance).

The scale below was used to categorized the mean of the academic performance of the Grade 7 students.

Mean	Description
10.00-31.00	Low
32.00-43.00	Moderate
43.00-50.00	Above Moderate
51.00-75.00	High

4. RESULT AND DISCUSSIONS:

Dominant Teaching Styles used by the Teacher in Teaching Asian Civilization. Based from the Form B CAPSOL style of teaching assessment that was accomplished by the teacher-respondents, the teaching styles of the teachers are presented in Table 1.

Table 1: Dominant Teaching Styles of the Teachers in Teaching Asian Civilization

Teaching Styles	Teacher 1	Teacher 2	Teacher 3	Teacher 4	Total	%
Visual				1	1	25.00
Auditory		1			1	25.00
Bodily Kinesthetic		1			1	25.00
Individual					0	0.00
Group					0	0.00
Oral Expression					0	0.00
Written Expression					0	0.00
Sequential	1		1		2	50.00
Global					0	0.00

Based on the table, the dominant teaching style of Teacher 4 was visual which represents 1 teacher or 25 percent of the actual respondents. The teacher used concept maps and demonstration. On the other hand, Teacher 2 used auditory and bodily-kinesthetic approaches. Teacher 1 and Teacher 3 had the same dominant teaching style which was sequential. They were receptive to students who preferred learning through timelines, ordering, prioritizing and inference. The weekly inspection of the styles and the anecdotal records in the classroom observation revealed

that these were the most frequently utilized in the class. It involved strategies including graphic organizers, travelogue, games and simulation, jigsaw, ICT integration, joint storytelling, gallery walk, reward system, learning stations, classroom debates, fish bowl, impromptu speeches, plus and minus, KWL techniques and completing the unfinished stories. Three-observation reports from among four teachers showed the same findings. This supports the study of Wilson (2012). The teachers in her study clearly favored certain modes of instruction over others, as accommodation levels were dominant for visual, auditory sequential and bodily-kinesthetic teaching styles. These data only suggest that the teacher respondents have variations of teaching styles which supports the research of Becker et.al.,(2007). In their study, they mentioned that the traditional teaching strategy such as classroom discussion by the teacher is important and should be in the practical level to differentiate their style of teaching in order to achieve matching of students’ learning styles. At the same time, teachers should also combine different pedagogical strategies in every element of instruction to meet various styles of learning.

Dominant Learning Styles of the Students: Based from the Form A CAPSOL style of learning assessment that was accomplished by the respondents, the learning styles of the students per teacher was determined.

Table 2: Learning Styles of the Students in Asian Civilization

Learning Styles	Students of Teacher 1	Students of Teacher 2	Students of Teacher 3	Students of Teacher 4	Total	%	Rank
Visual	53	56	58	56	223	18.65	3
Auditory	33	14	41	24	112	9.36	7
Bodily Kinesthetic	90	101	98	74	363	30.35	1
Individual	38	42	66	45	191	15.97	5
Group	53	48	47	46	194	16.22	4
Oral Expression	29	11	27	31	98	8.19	8
Written Expression	35	37	33	38	143	11.96	6
Sequential	73	71	68	64	276	23.08	2
Global	27	11	36	22	96	8.03	9
Total	431	391	474	400	1696		

It can be seen on Table 2 that there was a total of 1696 dominant learning styles from 1196 respondents. This proves that one student may possess one or more dominant learning styles. According to the table, out of 1196 respondents, bodily kinesthetic was the dominant learning style which ranked 1 with a sum of 363 or 30.35 percent. Teacher 2 had the greatest number of bodily kinesthetic learners with 101, Teacher 3 had 98, Teacher 1 had 90, and lastly, teacher 4 had 74. These imply that students prefer to move not just to listen to the teacher’s lecture inside classroom. Students like to learn through movement and touching. They have the skills which include dancing, crafts, building something and expressing emotions through the body. Ranked 2 for the dominant learning style of Grade 7 respondents was sequential with a sum of 276 or 23.08 percent, Teacher 1 had 73 sequential learners, teacher 2 had 71, teacher 3 had 68 and teacher 4 had 64. Sequential learner's preferred to learn with diagrams, chronological arrangements and sequencing. This is suited to Asian Civilization because the subject is about important events that happened in history. The results of the dominant learning styles of students is true with the research of Clark. According to Clark, students utilized all three modalities to gain learning from experiences. Based on modality theory, one or more of these receiving styles are normally dominant. This dominant style delineates the suitable means for a person to acquire new information by sifting what is to be learned. This method may not always be similar for some tasks. The learner may prefer to use one dominant style of learning for specific task, and a mix of one or more in other tasks. (Clark, 2008).

Table 3: Academic Performance of the Students in Asian Civilization Grouped according to Teacher

Teacher	Mean	Description	Standard Deviation
1	31.83	Moderate	10.45
2	42.76	Moderate	13.43
3	37.03	Moderate	11.36
4	50.00	Above Moderate	15.35
Average	40.41	Moderate	12.65

Based on Table 3, the mean and standard deviation of academic performance of the students in Asian Civilization when grouped according to teacher had variations of moderate and above moderate performances. Teacher 4 was the only teacher whose students had an above moderate mean of 50.00 and standard deviation of 15.35.

This was followed by Teacher 2 whose students had a moderate mean of 42.76 and standard deviation of 13.43. Students of Teacher 3 also had a moderate mean of 37.03 and standard deviation of 11.36. And lastly, Teacher 1 had a moderate mean of 31.83 and standard deviation of 10.45. These results suggest that the students showed various level of academic performance under different teachers. The total mean of the scores of the students of all the teachers under study was 10.41 with a standard deviation of 12.65. Teacher 4 which had a dominant teaching style of visual had students with the greatest mean among the group. This suggests that even there is mismatch between the teachers' teaching style and the students' learning style, learning may still be gained. This is true with the research of Gilakjani (2012) about match and mismatch between learning styles of learners and teaching styles of the teachers. Like age, student's current preferred learning style may also change as soon as he progresses in the next level. These are reasons behind the differences in the mean and standard deviation of academic performance of the students in Asian Civilization when grouped according to teacher.

Table 4: Significant Difference in the Academic Performance when Grouped according to Students' Learning Style

Sources of Variation	SS	Df	MS	Computed F	Tabular F at 0.05	Decision	Description
Between Groups	1258.22	8	157.28	0.84	1.95	Not Significant	Accept Ho
Within Groups	22348	1187	188.27				
Total	224737.5	1195					

As can be observed in the table, the tabular F is 1.95 which is greater than the computed F of 0.84 indicating that at 0.05 level, there was no significant difference in the academic performance of the students when grouped according to their students' learning style. At this point, the null hypothesis was accepted. This proves that the students showed the same academic performance or learned in similar phase when the students were grouped according to their learning styles. This is in accordance with the study of Becker et al (2007) which stated that various teaching styles should be used to tap the different students' learning styles. Teachers should also combine different teaching styles in every element of instruction to meet different learning styles to achieve good academic performance.

Table 5: Significant Difference in the Academic Performance of the Student-Respondents when Grouped According to Teachers' Teaching Style

Sources of Variation	SS	Df	MS	Computed F	Tabular F at 0.05	Decision	Description
Between Groups	25709.76	3	8569.92	51.33	2.61	Significant	Reject Ho
Within Groups	199027.8	1192	166.97				
Total	224737.5	1195					

As can be observed in the table, the computed F was 51.33 which was greater than the tabular F of 2.61 indicating that at 0.05 level of significance, there was a significant difference in the academic performance of the students when grouped according to their teacher's teaching style. At this point, the null hypothesis was rejected. This proved that the students showed different level in academic performance or learned at different phases when the teachers used different teaching styles. It can be remembered that the students obtained different means in the examination that represented their academic performance. One group had above moderate level of performance while the rest exhibited moderate performance. This means that, the students exhibited good academic performance even under different instructors who utilize different teaching style. It can be inferred that the students learned not because of the teachers' teaching style but because of other factors not covered in the study. Furthermore, it revealed that students attained learning because of their initiative to understand the lessons and their good study routines. Upon analysis, the table further reveals that the group of students under Teacher 4 who used visual teaching style performed better than the other three groups who had all moderate academic performance and were under the teachers with different teaching styles. Wilson (2012) provided a light to this result, which can be seen based from the classroom observations. Though the inventory and the matching revealed a very positive result, the correlation was not established and remain weak to negligible. Though students are highly matched with the visual and auditory strategies, the way it was implemented does not encourage participation and does not support learning (Alaska, 2011; Felder & Brent, 2005).

Table 6: Matching of the Teachers' Teaching Style and the Students' Learning Style

Teacher	Dominant Teaching Style	Mean	Dominant Students' Learning Style	Remarks on Matching
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1	Sequential	31.83	Bodily-Kinesthetic	Not Matched
2	Auditory and Bodily-Kinesthetic	42.76	Bodily-Kinesthetic	Matched
3	Sequential	37.03	Bodily-Kinesthetic	Not Matched
4	Visual	50.00	Bodily-Kinesthetic	Not Matched

As noted from Table 6, we can see teachers’ teaching styles vary while the students’ learning styles which were all bodily-kinesthetic. Teacher 1, teacher 3 and teacher 4 dominant teaching style did not match with the dominant learning styles of students. Only teacher 2 who is a bodily- kinesthetic teacher matched with the students’ learning style. The other three groups of students have teachers whose teaching styles that are not bodily-kinesthetic. Teacher 1 had mean of 31.83 percent lower compared to the mean of teacher 3 which was 37.03 percent. Teacher 4 who had the dominant teaching style of visual did not match with the dominant learning style of bodily kinesthetic with a mean of 50.00. The matching of the dominant teaching styles and dominant learning styles was successful in teacher 2, as seen on the table that the dominant teaching style was auditory and bodily kinesthetic which match the dominant student learning style of bodily kinesthetic with a mean of 42.76.

5. CONCLUSIONS:

- **What were the dominant teaching styles used by the teachers in teaching Asian civilization?** It was revealed that the teachers have different teaching styles. The dominant teaching style of Teacher 1 and Teacher 3 was both sequential. Teacher 2 was auditory and bodily-kinesthetic and Teacher 4 was visual. None of them was dominant in individual, group, oral, written and global teaching styles.
- **What were the dominant learning styles of the Grade 7 students in Asian civilization?** Most of the learners were bodily kinesthetic as their dominant learning style. This ranked 1 with a sum total of 363 or 30.35 percent. Teacher 2 had the greatest number of bodily kinesthetic learners with 101, Teacher 3 with 98 while Teacher 1 had 90 and Teacher 4 had 74.
- **What was the academic performance of the students in Asian Civilization when grouped according to teacher?** The overall academic performance of the students was within the moderate level, almost all passed which means learning was gained. Students of Teacher 4 had above moderate level of performance.
- **What significant difference existed in the students’ academic performance with respect to their learning styles?** There was no significant difference in the students’ academic performance when grouped according to their learning styles.
- **What significant difference existed in the students’ academic performance when grouped according to teachers’ teaching style?** There was a significant difference in the students academic performance when grouped according to teachers’ teaching style. The students of the teacher with the dominant visual teaching style performed better than the other groups.
- **How can the matching of students’ learning style and teachers’ teaching style be described?** It was revealed on the survey that there was mismatch between the students’ learning style and teachers’ teaching style.

Based on the findings, the following conclusions were formed:

1. The teacher who has visual teaching style contributes significantly to the performance of the students.
2. The teachers have varied teaching styles.
3. The students are mostly bodily kinesthetic in terms of learning styles who preferred activities such as role playing.

RECOMMENDATIONS:

In the light of the results of the research, the following recommendations are suggested:

- Teachers should prepare more activities in the classroom to conform with the bodily kinesthetic learning style, since it was revealed that this is the most dominant style among the learners.
- Teachers should be aware on the dominant learning styles of the students and use such for springboard in providing motivations before the start of the lesson and in the lesson proper.

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