

## **Relationship between Teaching Style and Students' Performance**

**APOLINAR T. PAULICAN**

ORCID No. 0000-0002-5394-8976  
polin\_poli@yahoo.com

**LORNA T. PAULICAN**

ORCID No. 0000-0003-3026-654X  
ltpaulican@yahoo.com

Mountain View College  
Valencia City, Philippines

### **ABSTRACT**

Students' performance is related to some factors; one of which is the teaching style of the faculty members. Hence, this study aimed to find a relationship between the teaching style of the teachers and the performance of the students and compares the teaching styles of the faculty when grouped according to gender, department, and field of specialization and years of teaching. Using the Grashna-Riechmann (1996) Teaching Style Survey, the School of Arts and Sciences faculty members of Mountain View College, Mindanao, Philippines were assessed. The respondents were asked to judge themselves using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). They rated their teaching style as expert, formal authority, personal model, facilitator, and delegator. On the other hand, the performance of the students was determined by the grades they got from the courses taught by faculty in the area of specialization by the department. The correlation is tested between the student grades and the teaching style of the faculty. Results showed that the performances of students enrolled in Social Sciences have the highest average performance of 8.21 with letter grade equivalent of B- (between 86-88%) with a standard deviation of 2.55. Also, enrolled students in Natural Sciences/Biology had the lowest average grade of 6.29 with letter grade equivalent of C (between 80-82%) with a standard deviation of 3.01. The average performance of students enrolled in Mathematics and

Natural Sciences/Bio was different. However, their letter grades were the same C, which has equivalent between 80-82%. Hence, it is concluded that personal model teaching style for the faculty in Natural Sciences/Biology is significantly negatively correlated with the performance of the students ( $r=-0.863$ ,  $p=0.049$ ). Moreover, the educational attainments of the professors differ significantly in Personal Model. Professors who are masters' degree holders were highest in the personal model (with a mean value of 4.33) followed by BS/MS Candidate (with a mean of 3.50) and Ph.D. holders (with a mean of 3.375).

**Keywords:** Students' performance, Grashna-Riechmann (1996) Teaching Style Survey

## INTRODUCTION

The phrase "better teacher produces better student" while believed by many educators and academicians, scientific evidence is not as clear as to what characterizes a better teacher. Yero (2002) asserted that teaching style affects the performance of the students Rothstein (2008) alleged that the longer the teaching experience and the higher educational attainment the teacher has, the more qualified he/she is to teach. However, this assumption was not based on explicit scientific substantiation that these characteristics lead to better student performance. There are many factors that may affect student's performance. Among the meager scientific data, (Klaveren, 2010) showed the lower performance of students under teachers who have had less than two years' experience in teaching. Nevertheless, years of teaching and academic qualification are also important considerations to have better students.

There are many ways in presenting a lesson to the class. Most often, the teacher uses lecture as a method and strategy in his/her class. However, Klaveren (2010) articulated that teachers give fewer lectures in their classes; instead, they prefer to choose a personalized approach. Although some teachers use varied teaching approaches, in Mountain View College (MVC), the lecture is the predominantly used teaching strategy. This method is common probably because standing before the class and sharing new insights and information to the students is a straightforward way of imparting knowledge. However, this predominantly instructional delivery has advantages and disadvantages. For instance, a lecture encourages learners to focus attentively on the discussion and actively take down notes for easy remembering of the topics lectured. However, oftentimes, students may find

the lecture boring causing them to lose their interest in their studies.

A lecture method attributed the pros and cons to the teacher. Some teachers are efficient in lecture method. Moreover, with the aid of multimedia such as LCD projector, the class discussion becomes somewhat interesting and students tend to be engaged in the teaching-learning process. Instead of a just pure lecture, other methods of teaching are explored and practiced at MVC; for instance, role playing and film showing. These methods are classified as the personalized approach of teaching. While these teaching practices vary, the end goal is the learning outcome of the students. Regardless of the method use in teaching, the key thrust of teaching strategy is the learning of the students (Pangalangan, 2008).

Is there any single teaching strategy which can be considered effective? Effective means, students are engaged in the learning process resulting in learning as indicated by high grades. The answer to this question is none. The effectiveness of the teaching style varies with time, the subject and the teacher. According to Coates (2007), teaching pedagogy should be learner-centered.

## FRAMEWORK

The main thrust of education in the Philippines at present is to prepare students for hasty changes globally which include a transition from industrial age to information age (Pangalangan, 2008). Dede *et al.* (2005) asserted that teachers prepare the students for careers that do not exist today. Moreover, students in school use technology to acquire mammoth information and improve their competencies that are not in a textbook used by teachers in instruction.

Lage *et al.* (2001) claimed that the learning of most of the students will be enhanced as well as higher retention of information, resulting in better performance when teaching styles match learning styles. However, matching with every learning style is difficult hence; a portfolio of teaching styles is recommended (Moallem, 2001).

## OBJECTIVES OF THE STUDY

The objectives of this study were two-fold: 1) to find a relationship between teaching style of the teachers and the performance of the students and 2) to compare the teaching styles of the faculty when grouped according to gender, department, the field of specialization and years of teaching.

## METHODOLOGY

The study involved the teaching faculty of Mountain View College, Valencia City, the second semester of 2012-2013. Professors and instructors of the School of Arts and Sciences (SAS) were the respondents. A questionnaire was used to obtain information regarding their gender, years of teaching, educational attainment and field of specialization. The Grashna-Riechmann (1996) Teaching Style Survey was used to assess the respondents. The inventory instrument was made up of 40 questions: five scales, eight questions per scale. The respondents were asked to judge themselves using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The respondents rated their teaching style as an expert, formal authority, personal model, facilitator, and delegator.

Expert teaching style is a teacher-centered approach where teacher displays his/her detailed knowledge and challenges students to enhance their competence. Another teaching style which is teacher-centered approach is a formal authority. In this teaching style, the teacher feels responsible for sharing what content would be shared such that students may receive and assimilate. Moreover, a teaching style that encourages students to participate and utilizes varied learning style is called personal model. In this teaching style, the teacher would act like a coach who will guide the students in applying knowledge.

On the other hand, a student-centered approach to teaching wherein teachers would design activities that promote active learning is known as a facilitator. With the initiatives of the students to learn, the teacher would just facilitate and focus on activities. Finally, a delegator teaching style requires students to design rich task and work on it effectively either in a group or individual. A teacher would just delegate the task but has full responsibility for the learning of the students.

In this study, the performance of the students was determined by the grades they got from the courses taught by faculty in the area of specialization by the department. The correlation is tested between the grades of the students and the teaching style of the faculty.

## RESULTS AND DISCUSSION

Figure 1 shows the gender distribution of the faculty members of the School of Arts and Sciences in Mountain View College. Forty-three percent (43%) of the faculty were males, and fifty-seven percent (57%) were females.

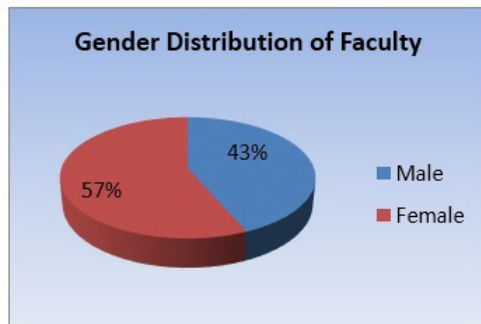


Figure 1. Gender Distribution of Respondents.

Table 1 shows the teaching style of the SAS faculty members. The results indicate that the males were a low in formal authority, personal model, and facilitator styles yet were moderate as expert and delegator. On the other hand, the teaching styles of the female SAS faculty members were moderate as expert, formal authority, facilitator, and delegator. Both the male and female faculty members were moderate in teaching style as an expert and delegator yet low in the personal model. These results suggest that the female SAS teachers were better in providing feedbacks to the students in order to facilitate learning. The studies of Basow (1999) supported the findings that female instructors were more sensitive, more respectful to the ideas of the students and facilitate learning well.

Table 1. Gender and Teaching Style of School of Arts and Sciences Faculty Members of Mountain View College

| Gender | Value and Description | TEACHING STYLE  |                  |                |                 |                 |
|--------|-----------------------|-----------------|------------------|----------------|-----------------|-----------------|
|        |                       | Expert          | Formal Authority | Personal Model | Facilitator     | Delegator       |
| Male   | Average               | 3.99            | 3.88             | 3.85           | 3.69            | 3.44            |
|        | Level                 | <i>Moderate</i> | <i>Low</i>       | <i>Low</i>     | <i>Low</i>      | <i>Moderate</i> |
| Female | Average               | 4.35            | 4.23             | 4.35           | 4.12            | 4.04            |
|        | Level                 | <i>Moderate</i> | <i>Moderate</i>  | <i>Low</i>     | <i>Moderate</i> | <i>Moderate</i> |

Legend:

**Expert** : Low 1.00 - 3.29; Moderate 3.30 - 4.89; High 4.90 - 5.00  
**Formal Authority** : Low 1.00 - 4.00; Moderate 4.10 - 4.89; High 4.90 - 5.00  
**Personal Model** : Low 1.00 - 4.39; Moderate 4.40 - 4.89; High 4.90 - 5.00  
**Facilitator** : Low 1.00 - 3.79; Moderate 3.80 - 4.89; High 4.90 - 5.00  
**Delegator** : Low 1.00 - 2.69; Moderate 2.70 - 4.29; High 4.30 - 5.00

Figure 2 shows that most (35%) of the SAS teaching force of MVC had teaching experience between 15 and 19 years. Only four percent (4%) of its faculty has been in teaching less five years. Thirty-one percent (31%) have been in teaching for twenty years and above; seventeen percent (17%) and thirteen percent (13%) have been in teaching for ten years to fourteen years and five years to nine years, respectively.

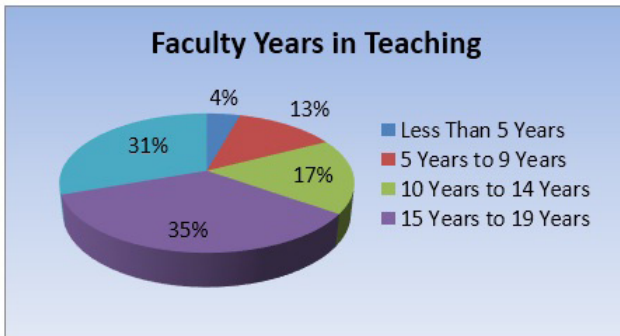


Figure 2. Years of Teaching Distribution of the Respondents.

As presented in Table 2, it is worth noting that as the teaching experience increased, the faculty member remains in the level as an expert, facilitator and delegator. However, their formal authority and personal model diminished from moderate to low as the teaching years goes on. In other words, faculty members tend to give less feedback for the improvement of learning of the students as their teaching experience increased or confidence brought by years of experience results in a relaxed attitude and less concern for student learning. This finding is dissimilar to the conclusion of Wolters and Daugherty (2007) who reported that significantly lower self-efficacy for instructional practices and classroom management to improve teaching-learning in the classroom was lesser in the early stage of teaching than teachers with more experience.

Table 2. Years of Teaching and Teaching Style of School of Arts and Sciences Faculty Members of Mountain View College

| Years of Teaching    | Value and Description | TEACHING STYLE |                  |                |             |           |
|----------------------|-----------------------|----------------|------------------|----------------|-------------|-----------|
|                      |                       | Expert         | Formal Authority | Personal Model | Facilitator | Delegator |
| Less Than 5 Years    | Average               | 4.50           | 5.0              | 4.88           | 3.88        | 3.38      |
|                      | Level                 | Moderate       | Moderate         | Moderate       | Moderate    | Moderate  |
| 5 Years to 9 Years   | Average               | 4.25           | 4.29             | 4.12           | 3.92        | 3.71      |
|                      | Level                 | Moderate       | Moderate         | Low            | Moderate    | Moderate  |
| 10 Years to 14 Years | Average               | 4.19           | 4.06             | 4.38           | 4.16        | 3.84      |
|                      | Level                 | Moderate       | Low              | Low            | Moderate    | Moderate  |
| 15 Years to 19 Years | Average               | 4.27           | 3.97             | 4.09           | 3.98        | 3.98      |
|                      | Level                 | Moderate       | Low              | Low            | Moderate    | Moderate  |
| 20 Years and Above   | Average               | 4.02           | 3.98             | 3.93           | 3.86        | 3.88      |
|                      | Level                 | Moderate       | Low              | Low            | Moderate    | Moderate  |

Legend:

|                         |   |
|-------------------------|---|
| <b>Expert</b>           | : Low 1.00 - 3.29; Moderate 3.30 - 4.89; High 4.90 - 5.00 |
| <b>Formal Authority</b> | : Low 1.00 - 4.00; Moderate 4.10 - 4.89; High 4.90 - 5.00 |
| <b>Personal Model</b>   | : Low 1.00 - 4.39; Moderate 4.40 - 4.89; High 4.90 - 5.00 |
| <b>Facilitator</b>      | : Low 1.00 - 3.79; Moderate 3.80 - 4.89; High 4.90 - 5.00 |
| <b>Delegator</b>        | : Low 1.00 - 2.69; Moderate 2.70 - 4.29; High 4.30 - 5.00 |

Regarding educational qualification, Figure 3 shows that among the SAS teaching faculty of MVC, most (78%) were master degree holders, an educational level that is a minimum requirement to teach in a college/university although four percent (4%) were still BS/MS Candidate. A Candidate designation indicates these faculty members were about to finish their master's degree. Eighteen percent (18%) of the teaching faculty had finished Doctor of Philosophy degrees in their respective field of specialization.

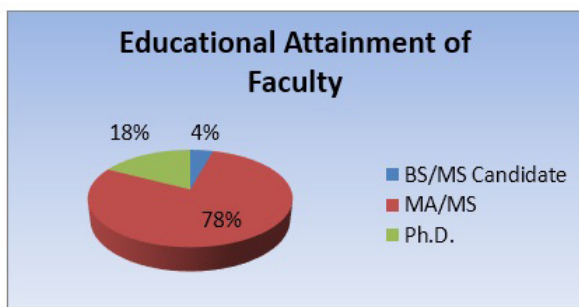


Figure 3. Educational Attainment Distribution of the Respondents.

Table 3 shows that the style of the SAS faculty of MVC was the same regardless of their educational attainment. The level of Expert, Formal Authority, Per-

sonal Model, Facilitator, and Delegator was identical. The findings support the work of Jacobs, H. (Ed.) (2010) who showed that the education of a teacher did not significantly affect the engagement and performance of students.

Table 3. Educational Attainment and Teaching Style of School of Arts and Sciences Faculty Members of Mountain View College

| Educational Attainment | Value and Description | TEACHING STYLE |                  |                |             |           |
|------------------------|-----------------------|----------------|------------------|----------------|-------------|-----------|
|                        |                       | Expert         | Formal Authority | Personal Model | Facilitator | Delegator |
| BS/MS Candidate        | Average               | 3.88           | 3.88             | 3.5            | 3.75        | 3.62      |
|                        | Level                 | Moderate       | Low              | Low            | Low         | Moderate  |
| MA/MS                  | Average               | 4.31           | 4.22             | 4.33           | 4.07        | 3.98      |
|                        | Level                 | Moderate       | Moderate         | Low            | Moderate    | Moderate  |
| Ph.D                   | Average               | 3.69           | 4.47             | 3.38           | 3.34        | 3.41      |
|                        | Level                 | Moderate       | Low              | Low            | Low         | Moderate  |

Legend:

- Expert** : Low 1.00 - 3.29; Moderate 3.30 - 4.89; High 4.90 - 5.00
- Formal Authority** : Low 1.00 - 4.00; Moderate 4.10 - 4.89; High 4.90 - 5.00
- Personal Model** : Low 1.00 - 4.39; Moderate 4.40 - 4.89; High 4.90 - 5.00
- Facilitator** : Low 1.00 - 3.79; Moderate 3.80 - 4.89; High 4.90 - 5.00
- Delegator** : Low 1.00 - 2.69; Moderate 2.70 - 4.29; High 4.30 - 5.00

Figure 4 shows the diversity of specialization of the SAS faculty of MVC. Thirty-five percent (35%) were in the Languages Department, twenty-six percent (26%) were in the Social Sciences while twenty-two percent (22%) were faculty of the Natural Sciences/Biology with only seventeen percent (17%) in the Mathematics department.

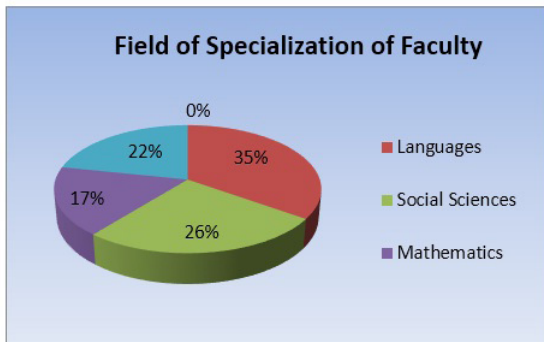


Figure 4. Field of Specialization Distribution of the Respondents.



Table 4 displays the teaching style and field of specialization of the SAS faculty of MVC. That two (Mathematics and Natural Sciences/Biology) had the same moderate level in all the teaching styles, suggest that, the styles of teaching may not vary regardless of the field of specialization. However, with regards to Formal Authority, Personal Model, and Facilitator, the faculty of the Languages department was low while the Mathematics teachers were moderate. The Social Sciences and Natural Science/Biology faculty members were moderate in Formal Authority and Facilitator but low in Personal Model.

Table 4. Field of Specialization and Teaching Style of School of Arts and Sciences Faculty Members of Mountain View College

| Field of Specialization | Value and Description | TEACHING STYLE |                  |                |             |           |
|-------------------------|-----------------------|----------------|------------------|----------------|-------------|-----------|
|                         |                       | Expert         | Formal Authority | Personal Model | Facilitator | Delegator |
| Languages               | Average               | 3.84           | 3.78             | 3.88           | 3.78        | 3.84      |
|                         | Level                 | Moderate       | Low              | Low            | Low         | Moderate  |
| Social Sciences         | Average               | 4.32           | 4.21             | 4.21           | 3.85        | 4.12      |
|                         | Level                 | Moderate       | Moderate         | Low            | Moderate    | Moderate  |
| Mathematics             | Average               | 4.53           | 4.34             | 4.41           | 4.12        | 3.91      |
|                         | Level                 | Moderate       | Moderate         | Moderate       | Moderate    | Moderate  |
| Natural Sciences/Bio    | Average               | 4.30           | 4.18             | 4.23           | 4.10        | 3.55      |
|                         | Level                 | Moderate       | Moderate         | Low            | Moderate    | Moderate  |

Legend:

- Expert** : Low 1.00 - 3.29 ; Moderate 3.30 - 4.89 ; High 4.90 - 5.00  
**Formal Authority** : Low 1.00 - 4.00 ; Moderate 4.10 - 4.89 ; High 4.90 - 5.00  
**Personal Model** : Low 1.00 - 4.39 ; Moderate 4.40 - 4.89 ; High 4.90 - 5.00  
**Facilitator** : Low 1.00 - 3.79 ; Moderate 3.80 - 4.89 ; High 4.90 - 5.00  
**Delegator** : Low 1.00 - 2.69 ; Moderate 2.70 - 4.29 ; High 4.30 - 5.00

In Table 5 below, is shown the performance of students enrolled in the different department field according to specialization. Social Sciences students had the highest average performance of 8.21 with a standard deviation of 2.55. On the other hand, students enrolled in the Natural Sciences/Biology had the lowest average grade of 6.29 with a standard deviation of 3.01. Although the mean performance of the students enrolled in Mathematics and Natural Sciences/Biology were different, their letter grades were the same C, which had an equivalent of between 80-82%.

Table 5. School of Arts and Sciences Faculty Students Performance

| Field of Specialization | Average Performance | Standard Deviation | Letter Grade | Percentage Description |
|-------------------------|---------------------|--------------------|--------------|------------------------|
| Languages               | 7.80                | 2.71               | C+           | 83-85                  |
| Social Sciences         | 8.21                | 2.55               | B-           | 86-88                  |
| Mathematics             | 6.49                | 2.75               | C            | 80-82                  |
| Natural Sciences/Bio    | 6.29                | 3.01               | C            | 80-82                  |

Legend:

Percentage

Percentage

|    |                |        |    |              |          |
|----|----------------|--------|----|--------------|----------|
| A  | 12.00 - 11.02: | 98-100 | C+ | 6.99 - 8.00; | 83-85    |
| A- | 11.01 - 11.99: | 95-97  | C  | 6.00 - 6.98; | 80-82    |
| B+ | 9.99 - 11.00;  | 92-95  | C- | 5.01 - 5.99; | 77-79    |
| B  | 9.00 - 9.98;   | 89-91  | D  | 3.99 - 5.00; | 75-76    |
| B- | 8.01 - 8.99;   | 86-88  | F  | 0.00 - 3.98; | below 75 |

Table 6 displays the relationship between teaching style and students' performance by the department. It is worth noting that the only significant correlation ( $p < 0.05$ ) of teaching style and the performance of the students is the personal model for the faculty in Natural/Biological Sciences. The negative correlation coefficient ( $-0.863$ ) simply connotes that the lower the personal model of a faculty, the higher is the grade of the students. Personal model teaching style is one wherein the teacher encourages students to participate and utilizes varied learning style. This result is counter-intuitive.

The other teaching styles in other departments were not significantly related. However, since some correlation coefficients were negative, (written in red), this imply that the relationship between teaching style and with the area of specialization was opposite, although not significant. However, in some departments, e.g., Languages, personal model, and expert teaching styles had high positive correlations ( $0.568$  and  $0.572$ , respectively), although not statistically significant.

Table 6. Relationship between Teaching Style and Students Performance by Department

| Department                   | Teaching Style   | Correlation Coefficient | P-value      | Significance       |
|------------------------------|------------------|-------------------------|--------------|--------------------|
| <b>Languages</b>             | Expert           | 0.572                   | 0.235        | Not Significant    |
|                              | Formal Authority | 0.357                   | 0.487        | Not Significant    |
|                              | Personal Model   | 0.568                   | 0.240        | Not Significant    |
|                              | Facilitator      | 0.350                   | 0.497        | Not Significant    |
|                              | Delegator        | 0.441                   | 0.381        | Not Significant    |
| <b>Social Sciences</b>       | Expert           | <b>-0.069</b>           | 0.896        | Not Significant    |
|                              | Formal Authority | <b>-0.537</b>           | 0.272        | Not Significant    |
|                              | Personal Model   | 0.050                   | 0.925        | Not Significant    |
|                              | Facilitator      | <b>-0.183</b>           | 0.729        | Not Significant    |
|                              | Delegator        | <b>-0.614</b>           | 0.195        | Not Significant    |
| <b>Mathematical Sciences</b> | Expert           | <b>-0.665</b>           | 0.335        | Not Significant    |
|                              | Formal Authority | <b>-0.508</b>           | 0.492        | Not Significant    |
|                              | Personal Model   | 0.051                   | 0.949        | Not Significant    |
|                              | Facilitator      | 0.340                   | 0.660        | Not Significant    |
|                              | Delegator        | <b>-0.319</b>           | 0.681        | Not Significant    |
| <b>Biological Sciences</b>   | Expert           | <b>-0.609</b>           | 0.276        | Not Significant    |
|                              | Formal Authority | <b>-0.793</b>           | 0.110        | Not Significant    |
|                              | Personal Model   | <b>-0.863</b>           | <b>0.049</b> | <b>Significant</b> |
|                              | Facilitator      | <b>-0.270</b>           | 0.660        | Not Significant    |
|                              | Delegator        | 0.157                   | 0.801        | Not Significant    |
| <b>Over All</b>              | Expert           | <b>-0.055</b>           | 0.802        | Not Significant    |
|                              | Formal Authority | <b>-0.176</b>           | 0.423        | Not Significant    |
|                              | Personal Model   | <b>-0.032</b>           | 0.883        | Not Significant    |
|                              | Facilitator      | <b>-0.070</b>           | 0.751        | Not Significant    |
|                              | Delegator        | 0.124                   | 0.572        | Not Significant    |

As shown in Table 7, the educational attainments of the professors differ significantly in Personal Model. Further investigation reveals that those who were masters' degree holders were highest in the personal model (with a mean value of 4.33) followed by BS/MS Candidate (with a mean of 3.50) and Ph.D. holders (with a mean of 3.375). The other variables such as gender, department, and teaching experience do not differ significantly in teaching style.

Table 7. Comparison between Teaching Style and Considered Variables

| Variable                              | Teaching Style   | Computed Value | P- Value     | Significance       |
|---------------------------------------|------------------|----------------|--------------|--------------------|
| <b>Gender</b>                         | Expert           | 1.91           | 0.182        | Not Significant    |
|                                       | Formal Authority | 1.51           | 0.232        | Not Significant    |
|                                       | Personal Model   | 2.90           | 0.104        | Not Significant    |
|                                       | Facilitator      | 2.50           | 0.129        | Not Significant    |
|                                       | Delegator        | 2.14           | 0.159        | Not Significant    |
| <b>Department</b>                     | Expert           | 1.49           | 0.250        | Not Significant    |
|                                       | Formal Authority | 0.76           | 0.532        | Not Significant    |
|                                       | Personal Model   | 0.54           | 0.658        | Not Significant    |
|                                       | Facilitator      | 0.35           | 0.791        | Not Significant    |
|                                       | Delegator        | 0.65           | 0.594        | Not Significant    |
| <b>Educational Attainment</b>         | Expert           | 2.00           | 0.162        | Not Significant    |
|                                       | Formal Authority | 2.17           | 0.140        | Not Significant    |
|                                       | Personal Model   | <b>4.24</b>    | <b>0.029</b> | <b>Significant</b> |
|                                       | Facilitator      | 2.20           | 0.137        | Not Significant    |
|                                       | Delegator        | 1.30           | 0.294        | Not Significant    |
| <b>Teaching Experience (in Years)</b> | Expert           | 0.20           | 0.933        | Not Significant    |
|                                       | Formal Authority | 0.54           | 0.706        | Not Significant    |
|                                       | Personal Model   | 0.47           | 0.756        | Not Significant    |
|                                       | Facilitator      | 0.12           | 0.973        | Not Significant    |
|                                       | Delegator        | 0.21           | 0.932        | Not Significant    |

## CONCLUSIONS

The performances of students enrolled in Social Sciences have the highest average performance of 8.21 with letter grade equivalent of B- (between 86-88%) with a standard deviation of 2.55. On the other hand, enrolled students in Natural Sciences/Bio had the lowest average grade of 6.29 with letter grade equivalent of C (between 80-82%) with a standard deviation of 3.01. The average performance of students enrolled in Mathematics and Natural Sciences/Bio was different. However, their letter grades were the same C, which has equivalent between 80-82%.

The only significant correlation of teaching style to the performance of the students is the personal model for the faculty in the Natural/Biological Sciences. The other teaching styles in other departments were not significantly related. However, some correlation coefficients were negative, implying that the relationship with teaching style and with department specialization was opposite, although not significant.

In like manner, the educational attainment of the professors differs significantly in Personal Model. The result showed that those who were masters' degree holders were highest in the personal model (with a mean value of 4.33) followed by BS/MS Candidate (with a mean of 3.50) and Ph.D. holders (with a mean of 3.375). The other variables such as gender, department, and teaching experience

do not differ significantly in teaching style.

In conclusion, personal model teaching style for the faculty in Natural Sciences/Biology is significantly negatively correlated with the performance of the students ( $r=-0.863$ ,  $p=0.049$ ). Also, the educational attainments of the professors differ significantly in Personal Model. Professors who were masters' degree holders were highest in the personal model (with a mean value of 4.33) followed by BS/MS Candidate (with a mean of 3.50) and PhD holders (with a mean of 3.375).

## RECOMMENDATION

Findings of the study show that the School of Arts and Sciences faculty are low in personal model. Hence, it is recommended that faculty members be advised to apply a teaching style that encourages students to participate and utilizes varied learning style called personal model. In this teaching style, the teacher would act like a coach who will guide the students in applying knowledge

## LITERATURE CITED

- Basow, S.A.  
1999 Student Evaluations of College Professors: When Gender Matters. *Journal of Educational Psychology* 87(4):656-65.
- Coates, J.  
2007 *Generational Learning Styles*. River Falls, WI: Lern Books.
- Dede, C., Korte, S., Nelson, R., Valdez, G., & Ward, D.J.  
2005 Transforming Learning for the 21st Century: An Economic Imperative. *Common Knowledge*, 399.
- Jacobs, H.  
2010 *Curriculum 21: Essential Education for a Changing World*. Alexandria, Va: Ascd.
- Klaveren, C.V.  
2010 *Lecturing Style Teaching and Student Performance*, Teir Working Paper Series
- Lage, M. J., Platt, G. J., & Treglia, M.  
2000 Inverting the Classroom: A Gateway to Creating an Inclusive Learning Environment. *The Journal of Economic Education*, 31(1), 30-43.

Moallem, M.

2001 Applying Constructivist and Objectivist Learning Theories in the Design of a Web-Based Course: Implications for Practice. *Educational Technology & Society*, 4(3), 113-125.

Pangalangan, E.

2008 Teaching Strategies and Techniques: Philippine Experience. *Journal of Teaching in Social Work*, Vol. 3-4, 2008.

Rothstein, J.

2008 Teacher Quality in Educational Production: Tracing, Decay and Student Achievement, NBER Working Papers 14442, National Bureau of Economic Research Inc.

Wolters, C.A. & Daugherty, S.G.

2007 Goal Structures and Teachers' Sense of Efficacy: their Relation and Association to Teacher Experience and Academic Level. *Journal of Educational Psychology*, 99, 181-193.

Yero, J.

2002 *Teaching in Mind: How Teacher Thinking Shapes Education*. Hamilton, MT: Mind Flight Publishing.