

# Teaching and Learning Styles of Teachers and Students in Relation to their Personality Types

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## Abstract

This paper investigated the teaching and learning styles of teachers and students in relation to their personality type under quantitative research. The study aimed to correlate teaching and learning styles to personality type and also in terms of age, sex, school, number of years teaching, status and type of school. The study consisted of 200 respondents studying and teaching from 2 private and public schools in Batangas City, Philippines. Results showed that there is a negative correlation between extrovert personality and dependent learning, all the learning styles also correlated with one another and personality type and teaching styles. Sensing and intuitive personality type also has a significant difference when grouped according to type of school. The study showed that personality type, learning style and teaching style can be a factor in determining each with one another.

Keywords: Learning; Personality; Student(s); Teaching; Teacher(s)

## I. Introduction

Every person is as unique as our own finger prints, whether in physical appearance, attitude and personality. The uniqueness being studied in this paper is the personality type, teaching and learning style of the participants. Since every person is unique, there are tons of possible combinations on the three topics of the study.

Learning process can never be accomplished without the learners, and there are many factors that contribute to the ability of the students to learn new information. The study about the learners, focus on their preferred style of learning. Learners have their own way of learning new things, but sometimes they don't have any idea on how to recognize it. That is why many researchers focused on creating a model that will help individuals identify their style of learning. From the different variables that affect the learning process, different learning styles were developed. Learning styles are preferred way of learning of individuals [1] and learners should acknowledge the kind of style they have for it will help them to gain new information efficiently and with greater comprehension.

Another important subject of this study is the teachers because they are a large part to every student's lives; they are the ones that mold learners' minds to become a model person in the future. Instructors, teachers or professors are the ones whom students gain information from and without them it would be harder for learners to achieve new knowledge. There are many styles that teacher uses just as many as there are teachers and with that conclusion, there are also many learning styles that students acquire. Just like students acknowledging their learning style, teachers should also be aware about their type of teaching style to make them and to help the students to understand better.

It is said in some researches which will be further discussed in the review of literature, that personality types, learning and teaching styles are related to one another. Personal qualities influence the learner's ability to acquire information, to interact with peers and the instructor, and otherwise to participate in learning experience [1]. So technically, personality is a great contribution to the learning process of the students. On the other hand, "teachers teach the way they learned", [2] and from the conclusion of Dunn, it is safe to say that a mismatch on the learning style and teaching style will affect the ability of the student to learn easier and faster.

The main theory of the study is Social Learning Theory of Julian Rotter. His theory suggests that personality is important in the development of one's learning [3]. There are many theories that support learning and personality, but the researchers use the Constructivism as a specific theory for learning, which is a type of learning theory generally attributed by Jean Piaget. The researchers use the theory for it states that students construct their own knowledge by assimilation and accommodation and teachers are merely there to guide them. This learning theory is perfect for the test use in the study for it is mainly composed of student-centered questions and also includes questions regarding their peers, environment and experiences.

The researchers chose to study the correlation of personality to learning and teaching style because not only that information towards the correlation among the three subjects of the study are vague and limited, it is also recommended by other researchers to further study the said subjects. Another reason for choosing this research is the fascination of one of the researchers to the personality theory of Carl Jung and how other researches supported the idea of this concept. Even though many researches were conducted about the three topics, it was still stated that no single teaching and learning method are commonly accepted [4]. That is the reason why the researchers decided to conduct their very own study especially that most related researches found are more in a foreign context and limited local studies were conducted towards the correlation between personality types, learning and teaching styles.

## II. Objectives of the Study

The study aimed to determine the teaching style of the teachers and learning styles of the students per demographic variables; to determine the personality types of both teachers and students; to correlate teaching style and learning style to personality types; to identify if there is a significant difference when grouped according to the type of school of the respondents.

## III. Methods

### 3.1. Research Design

This study is purely quantitative in approach. The quantitative design correspond to the different tests that were included in the study, namely; the Psychological Type Index, the Teaching Style Inventory and the Grasha-Riechmann Student Learning Style Scale and the results of the aforementioned tests will be correlated to the different factors (age, sex, etc.).

### 3.2 Participants

The population of the study were conducted to two public/state and private universities and the samples were third year college students and instructors teaching third year students with a population of 200 participants.

The participants were found to be equally distributed 40 college students each from the two public/state and private universities with a total of 160 junior college students. The study also involved teachers from both public and private universities, 10 professors in each school.

The researchers conducted the quantitative data gathering to public/state universities which are Batangas State University and Colegio ng Lungsod ng Batangas in Batangas City, Philippines and to private Universities which are Golden Gate College and Lyceum of the Philippines University in Batangas City, Philippines.

There are more female student respondents with 118 or 73.8% of the sample whose age are 18 years old with 88 or 55%. There are 21 or 52.5% of the teacher respondents are female who are in their 20's with 14 or 35% which are married with 24 or 60% and that have been teaching for 9 to more than ten years with 17 or 42.5% of the sample.

There are several instruments that were used in this study, which are Psychological Type Index of Anthony Grasha (35-items), Teaching Style Inventory (40-items), Grasha-Riechmann Student Learning Style Scale (60-items) and a random interview to both teachers and students.

The Psychological Type Index is a 35-item test which is developed by Anthony Grasha. It was made with the help of two expert judges by clustering the data used on the research literature that used Myers-Briggs Type Indicator (MBTI) [8] as the test. Psychological Type Index can also translate the type of personality to teaching styles of instructors and learning styles of the students as printed on Grasha's book entitled "Teaching with style". The index like MBTI also includes three pairs of personality type. The study however, will only be using the Extrovert-Introvert and Sensing-Intuitive type of personality, since the Extrovert-Introvert is a personality type that measures the interests, attitudes and source of energy of an individual and it is the main function of Jung's theory while Sensing-Intuitive type measures the preference of the individual for gathering information.

To score the Psychological Type Index, the representative summed the number of times in each pair of blocks that we checked. To identify the psychological type, uses the letter associated with the highest number of items checked in each dichotomy. The letters in each block of times corresponded to each of the personality dimensions. Note: Extrovert & Introvert (numbers 1-17), Sensing & Intuitive (numbers 18-34). Its validity and reliability is .615 which was computed using cronbach alpha.

Another instrument that was used in the study is Grasha-Riechmann Student Learning Style Scale which is also developed by Anthony Grasha and his co-author Sheryl Riechmann in 1974. Its validity and reliability is .751 which was computed using cronbach alpha. The test was used to determine the college student's style of class participation and was made specifically for distant learners and college students. The scale consists of six learning styles, namely; Independent, Dependent, Competitive, Collaborative, Avoidant and Participant.

The last test that was included in the study is the Teaching Style Inventory that has 40 items and was also developed by Grasha and Riechmann to gauge the teaching style and preferences of the instructors. Its validity and reliability is .367 which was computed using cronbach alpha. The inventory has five types of teaching style which are Expert, Formal Authority, Personal Model, Facilitator and Delegator. To score for the GRSLSS and the Teaching Style Inventory, please refer to the appendices.

### **3.3 Procedure**

The instruments and protocol in this study are to do a correlation study among third year college students and teachers teaching third year college students. The three standardized tests, namely the Psychological Type Index, the Teaching Style Inventory and the Grasha-Riechmann Student Learning Style Scale were given to the participants. After finishing the data gathering, the researchers computed and correlated the three variables from one another through statistical analysis.

### **3.4 Data Analysis**

The data gathered was analyzed and computed using Pearson r correlated coefficient, ANOVA, cronbach alpha, mean, standard deviation and frequency.

### III. Results and Discussion

From Table 1 shows the over-all learning and teaching styles and personality types of the respondents.

Table 1. Mean and Standard Deviation of the Variables

<b>Variables</b>	<b>Mean</b>	<b>Std. Deviation</b>
<b>Students</b>		
Extrovert	8.51	2.40
Sensing	11.24	2.72
Collaborative	40.35	4.81
Dependent	38.93	4.76
Participant	39.38	5.43
<b>Teachers</b>		
Extrovert	8.85	2.43
Sensing	9.87	2.91
Expert	36.32	49.31

It perpetuates that students are extrovert and sensing type of learners and they are also a dependent, collaborative and participant learners. On the other hand, teachers are also an extrovert and sensing type of teachers and have an expert teaching style. The students' results support the theory used in the study, Constructivism theory by Jean Piaget wherein the constructivist view of learning means is encouraging students to use active techniques such as experiments and real-world problem solving using authentic data if possible, and to create knowledge and reflect on their understanding. However, it does not support the result of the teachers because constructivist teachers are said to have a facilitator style of teaching which does not bear in the researchers' result.

Table 2 presents the determined teaching styles of the respondents to each demographic variables of the study. It shows that males, teachers in their 20's, teachers teaching for less a year to 5 years, School D and private schools has a delegator teaching style. On the other hand, females, teachers in their 30's and 40's, married teachers and public schools have an expert type of teachers. Facilitator teaching style can be manifested to the teachers in their 50's, teachers teaching for 6-8 years, the School C and private schools. Personal model type of teachers however can be seen in single teachers and to the School B. Lastly, formal authority teaching style can be shown to teachers teaching for 9 to more than 10 years.

According to Diaz, Larenas and others [1], teaching environment and different variables such as personality types, experience and age are one of the factors that should be taking into consideration.

From the results shown in the table, School A got the highest mean and showed that School A teachers have an expert style of teaching. Since 7 out of ten respondents of the school are mostly in their 20's they still have a fresher and clearer idea on what they teach on their students.

Table 2. Teaching Styles of the Respondents per Demographic Variables

<b>Demographic Variables</b>	<b>Mean</b>	<b>Teaching Styles</b>
<b>Sex</b>		
Male	31.57	Delegator
Female	41.47	Expert
<b>Age</b>		
20's	29.14	Delegator
30's	29.16	Expert
40's	77	Expert
50's	35	Facilitator
60's	26.66	Delegator
<b>Status</b>		
Single	30.66	Personal Model
Married	41.54	Expert

<b>No. of years teaching</b>		
1	31.25	Delegator
4	20.75	Delegator
7	30.42	Facilitator
10	50.05	Formal Authority
<b>School</b>		
School A	59.7	Expert
School B	25.4	Personal Model
School C	30.6	Facilitator
School D	32.2	Delegator
<b>Type of School</b>		
Public	42.35	Expert Facilitator and
Private	30.95	Delegator

Also School A and School B are public/state schools which got the highest mean, that both gets support from the government that cause them to have a stricter attack on teaching which can lead to intimidation among the students which are the characteristics of an expert style of teaching.

The table above shows the determined learning styles of the students to each demographic variables. Seventeen and twenty-two years old students shows a Participant learning style. it also shows the public sector has a dependent learning style. The rest of the variables show collaborative learning style.

There are many contributing factors to the learning process of an individual, like the learning environment, variables (personality, ethnicity, age, etc.) and educators. Ching-Mei et. al. [5] pointed out those learning styles as a map tells us how learners learn and prefer to learn.

Table 3. Learning Styles of the Respondents per Demographic Variables

<b>Demographic Variables</b>	<b>Mean</b>	<b>Learning Styles</b>
<b>Sex</b>		
Male	39.16	Collaborative
Female	40.77	Collaborative
<b>Age</b>		
17	42.75	Participant
18	40.46	Collaborative
19	39.95	Collaborative
20	40.90	Participant
21	42.16	Collaborative
22	39.33	Participant
<b>School</b>		
School A	39.7	Collaborative
School B	40.37	Collaborative
School C	41.25	Collaborative
School D	40.1	Collaborative
<b>Type of School</b>		
Public	38.66	Dependent
Private	40.67	Collaborative

As Table 3 presents, School C got the highest mean in having a collaborative learning style. It is evident

that students of School C are collaborative just by looking at the different local and international events that LPU have joined in. On the other hand, public school students are dependent learners, since they gain support from the government they tend to learn dependently with the help of not only the government but also with the help of their professors and co-students.

Table 4 presents the personality type of the respondents to each demographic variables. It shows that 65% of the teachers are extrovert and 75% of them have a sensing type of personality. For teachers, 56.25% of them are extrovert and 93.75% of them are sensing type of teachers. For an over-all percentage of the respondents, 66.66% of them are extrovert and 83.33% of them are sensing type of respondents.

Extraversion is one of the main functions of our attitudes. It is stated that 75% of the population are extraverted people [6] and extraverted person tend to be spontaneous, sociable, active and they tend to act before they think. Extraverts also tend to thrive when they are allowed to think through by talking, such as discussion or group activities [7]. Seventy-five percent of the populations are sensing type of person. The function sensing means getting information through ones senses.

Table 4. Personality Types per Demographic Variables of Teachers and Students

<b>Demographic Variables</b>	<b>Mean</b>	<b>Personality Types</b>
<b>Teachers</b>		
<b>Sex</b>		
Male	9.15	Extrovert and Sensing
Female	10.47	Introvert and Sensing
<b>Age</b>		
20's	9.07	Extrovert and Sensing
30's	9.08	Introvert and Intuitive
40's	9.16	Extrovert and Intuitive
50's	11	Extrovert and Sensing
60's	11.66	Introvert and Sensing
<b>Status</b>		
Single	8.66	Extrovert and Sensing
Married	10.04	Extrovert and Sensing
<b>No. of years teaching</b>		
1	10.75	Extrovert and Sensing
4	8.875	Introvert and Intuitive
7	11.42	Extrovert and Sensing
10	9.05	Introvert and Sensing
<b>School</b>		
School A	9.8	Extrovert and Sensing
School B	8.3	Introvert and Intuitive
School C	11.4	Extrovert and Sensing
School D	9.5	Extrovert and Sensing
<b>Type of School</b>		
Public	11.53	Extrovert and Sensing
Private	10.95	Extrovert and Sensing
<b>Students</b>		
<b>Sex</b>		
Male	9.92	Extrovert and Sensing
Female	11.71	Introvert and Sensing

<b>Age</b>		
17	10	Extrovert and Sensing
18	11.52	Extrovert and Sensing
19	11.04	Introvert and Sensing
20	10.54	Introvert and Sensing
21	11	Introvert and Sensing
22	10.66	Extrovert and Sensing
<b>School</b>		
School A	12.05	Extrovert and Sensing
School B	8.77	Extrovert and Sensing
School C	11.12	Introvert and Intuitive
School D	10.77	Introvert and Sensing
<b>Type of School</b>		
Public	11.53	Extrovert and Sensing
Private	10.95	Introvert and Sensing

This involves perception rather than judging information [6]. Sensing people are both practical and realistic. They are also observant and tend to be literal on their words. They focus on details and may ignore the big picture [7].

Table No. 5. Relationship among Teaching Style, Learning Style and Personality Type

<b>X</b>	<b>Y</b>	<b>rx<sub>y</sub></b>	<b>p-value</b>	<b>Interpretation</b>
Extrovert	Dependent	-.159*	.045	Correlated
Independent	Collaborative	.290**	.000	Correlated
	Dependent	.365**	.000	Correlated
	Competitive	.396**	.000	Correlated
	Participant	.347**	.000	Correlated
Facilitator	Sensing	.356*	.024	Correlated
	Intuitive	-.356*	.024	Correlated
	Formal Authority	.915**	.000	Correlated
	Personal Model	.954**	.000	Correlated
	Delegator	.950**	.000	Correlated

\*\**. Correlation is significant at the 0.01 level (2-tailed).*

\**. Correlation is significant at the 0.05 level (2-tailed).*

Table 5 presents the relationship among teaching style, learning style and personality type. It is seen in the table that extrovert personality type and dependent learning style are related to one another. It shows a negative correlation that explains extrovert respondents are less dependent learners. To explain the result, since extroverts are active learners, they tend to be more participative and collaborative and dependent learners has little interest in class learning thus, explains the negative correlation between the two. Extrovert personalities are attitudes and interests oriented towards the external world of actions, people, objects and events. Dependent learners show little intellectual curiosity and who learn only what is required, views teacher and peers as sources of structure and support and look to authority figures for specific guidelines on what to do.

The table also presents the relationships among Independent, Collaborative, Dependent, Competitive and Participant learning style. Since the instrument used to determine the learning style of the respondents has a .751 reliability and validity, all the learning styles gave a significant correlation with one another.

Independent are those students who like to think for themselves and are confident in their learning abilities, prefer to learn the content that they feel is important and would prefer to work alone on course projects than

with other students. Collaborative on the other hand is typical of students who feel they can learn by sharing ideas and talents, they cooperate with teachers and like to work with others. Dependent shows little intellectual curiosity and who learn only what is required, views teacher and peers as sources of structure and support and look to authority figures for specific guidelines on what to do. Competitive are those students who learn material in order to perform better than others in the class, believe they must compete with other students in a course for the rewards that are offered, like to be the center of attention and to receive recognition for their accomplishments in class. Participant students are good citizens in class, enjoys going to class and take part in as much of the course activities as possible.

Table 5 also represents the relationship among Facilitator, Sensing, Intuitive, Formal Authority, Personal Model and Delegator. It shows that Facilitator type of teaching both possess a sensing and intuitive personality type since they teach through practical facts but they still guide and consider their relationship with their students. Facilitator is also correlated with Formal Authority, Personal Model and Delegator for the reason that all of it is somehow concerned in guiding and encouraging students.

Formal Authority possesses status among students because of knowledge and role as a faculty member, concerned with providing positive and negative feedback, establishing learning goals, expectations, and rules of conduct for students. Concerned with correct, acceptable, and standard ways to do things and providing students with the structure they need to learn. Personal Model believes in “teaching by personal example” and establishes a prototype for how to think and behave. Facilitator emphasizes the personal nature teacher-student interactions. Guides and directs students by asking questions, exploring options, suggesting alternatives, and encouraging them to develop criteria to make informed choices. Delegator is concerned with developing students’ capacity to function in an autonomous fashion. Students work independently on projects or as part of autonomous teams. The teacher is available at the request of students for a resource person.

Table 6. Comparison of Teachers’ Personality Type when Grouped according to Type of School

		(N = 40, α = 0.05)			
Variables		Mean	F	p-value	eta <sup>2</sup>
Sensing	Public	8.55	10.179	.003*	.211
	Private	11.2			
Intuitive	Public	8.45	10.179	.003*	.211
	Private	5.8			

*\*Significant*

Table 6 represents the teachers’ personality type when grouped according to the type of school. Private schools have a sensing type of personality while public schools have an intuitive personality type. It showed that private schools have a sensing type of personality because they base their teachings on facts and experience in everyday life since most of the teachers have taught for a long time now and they are mostly in their 40’ s - 60’ s, so their life experience is enough to help them teach. On the other hand, public schools have an intuitive style of teaching because they go beyond their experiences and facts but they consider other factors in teaching, since they are mostly in their 20’s and 30’s, they have less experience so they use other tools in helping them teach their lessons.



## IV. Conclusion and Recommendations

Teachers are expert in their profession. On the other hand, students have a collaborative, dependent, competitive and participant style of learning. Teachers' and students' personality are extrovert and sensing. The results of the correlation show that there is a relationship between extrovert personality type and dependent learning style. There is a relationship among Independent, Collaborative, Dependent, Competitive and Participant. There is also relationship among Facilitator, Sensing, Intuitive, Formal Authority, Personal Model and Delegator teaching style and personality type. Personality types of teacher respondents have a significant difference when grouped according to type of school.

It is recommended that the teachers should enhance their facilitator type of teaching to avoid intimidation among students; students should act independently to develop initiative. The teachers and students should maintain and develop positive skills revealed in the results. Future researchers, who want to pursue a similar research, should utilize other test or questionnaires to further validate the results. Future researchers may use other variables in their research, such as religion and ethnicity. Future researchers may conduct a class observation process to identify the environment and behaviour of the participants.

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