

# The impact of ambivert personality traits and the hybrid teaching style on students' satisfaction: A quantitative and qualitative analysis

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**ABSTRACT** – This study investigates the impact of personality traits on teaching quality and students' satisfaction. The SEEQ questionnaire was used to assess the student evaluations towards the teaching quality. The results show that enthusiasm ( $4.55 \pm 0.55$ ) and rapport ( $4.33 \pm 0.69$ ) depict the highest mean for the introvert and ambivert students, respectively. Overall, both groups experienced high satisfaction with the hybrid teaching style. The finding also shows that the personality trait of the lecturer does not influence the satisfaction of the introverts and ambiverts students.

## 1. INTRODUCTION

Student satisfaction has become an important indicator to evaluate teaching quality and a university's reputation. It has a significant impact on the students' success and achievement. Therefore, it is crucial to identify the factors that contribute to effective teaching and learning. Research has investigated the factors affecting student satisfaction, including e-learning service quality [1], student-teacher relationship [2], environment and facilities [2], attitude towards the students [3, 4] and good university governance [5].

A personality trait is referring to one's characteristics patterns of thoughts, feelings, and behaviours [6]. Different personalities carry different behaviour and react differently to certain situations. Two major groups are introverts and extroverts. An introvert tends to turn inward or focuses more on internal thoughts, feelings, and moods rather than seeking out external stimulation. They feel more comfortable being surrounded by just a limited circle of friends rather than a large group/crowd. On the opposite end of the spectrum to introverted traits, extroverts are often action-oriented, talkative, sociable, enthusiastic, and outgoing. They love to talk and enjoy spending time engaged in social activities. They feel comfortable meeting new friends or total strangers. Apart from introverted and extroverted personality traits, someone who lies in-between the spectrum is called an ambivert [7].

A teaching style is an approach used to engage students in the teaching and learning process. It is central to student engagement and participation. There are five (5) common teaching styles [8]: (i) The authority style; (ii) The delegator style; (iii) The facilitator style; (iv) The demonstrator style; (v) The hybrid style [8].

This study aimed to analyse the impact of teaching style and personality traits on the students' satisfaction.

## 2. METHOD

The study is survey-based research conducted during the semester 2 2020/2021 in a public university in Malaysia. The respondents of this study were degree students from various fields of study i.e., Bachelor of Computer Science (Artificial Intelligence) and Bachelor of Computer Science (Computer Networking). There were 33 male students and 19 female students from the Artificial Intelligence course. The total of respondents was 52 students.

### 2.1 Personality Traits Test

This study has utilized the introvert/extrovert test by organizational psychologist Adam Brant<sup>1</sup> to determine the personality trait of respondents. The test consists of 10 multiple-choice questions. An example question is "When you meet someone for the first time: (i) You usually do most of the talking; (ii) you usually do most of the listening". Note that the lecturer has also taken the same personality traits test to ensure the consistency of result.

### 2.2 SEEQ

Student Evaluation of Educational Quality, also known as SEEQ [9] is an instrument used to collect student evaluations of university teaching. The questionnaires consist of 33 items that cover various aspects of teaching and learning quality. The questionnaire was to measure student learning (4 items), lecturer enthusiasm (4 items), course organization (4 items), group interaction (4 items), individual rapport (4 items), competency of the lecturers (4 items), examinations and assignments (5 items), and student overall satisfaction (4 items). The instrument is evaluated by a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Meanwhile, the student's overall satisfaction is using 5-point ranging from 1 (very poor) to 5 (very good). On top of the 33 items in the questionnaires, the student can also give additional comments on the lecturers' performance and teaching and learning experience [9].

<sup>1</sup> <https://ideas.ted.com/quiz-are-you-an-extrovert-introvert-or-ambivert/>

### 2.3 Lecturer’s Approach & Teaching Style

An appropriate teaching style is vital to engage a diversity of students in the learning process. It helps lecturers to identify the right teaching style for them and their students. In this study, the course was conducted full online via synchronous and asynchronous methods. Several supporting tools used to boost student’s engagement throughout the course such as WhatsApp group, Mentimeter<sup>2</sup>, Padlet<sup>3</sup>, crossword puzzle, and audio recording.

The lecturer for this course has embedded the hybrid or blended style of teaching. A hybrid/blended style [8] is an integrated approach that blends the teacher’s personality and interests with students’ needs and curriculum appropriate methods [8].

### 3. RESULTS AND DISCUSSION

Table 1 illustrates the results of respondents’ demographics. Based on the respondent’s personality trait test, we found out that no student with extrovert trait was identified. Out of total 52 respondents, 16 students were identified as an introvert, whereas the remaining as an ambivert.

Table 1 The Respondents Demographic

	Male	Female
<b>Total respondents</b>	52	33
<b>Introvert</b>	16	4
<b>Ambivert</b>	36	15
<b>Extrovert</b>	0	0

Table 2 Summary Statistics: The Mean, Standard Deviation, P-value for each variable in SEEQ based on the personality traits. Notes: *I* represent Introvert; *A* represents Ambivert personality traits.

Variables	<i>I</i> (n=16)		<i>A</i> (n=36)		P-value
	Mean	SD	Mean	SD	
Learning	4.25	0.67	4.32	0.52	0.976
Enthusiasm	<b>4.55</b>	<b>0.55</b>	4.26	0.59	0.067
Organization	4.39	0.54	4.31	0.58	0.615
Group Interaction	4.36	0.45	4.31	0.65	0.862
Individual Rapport	4.38	0.58	<b>4.33</b>	<b>0.69</b>	0.779
Breadth	4.36	0.51	4.13	0.57	0.348
Examinations	4.35	0.51	4.26	0.59	0.597
Assignments	4.44	0.54	4.33	0.67	0.739
Overall student satisfaction	<b>4.67</b>	<b>0.50</b>	<b>4.66</b>	<b>0.54</b>	0.747

Table 2 shows the summary statistics (number of observations (n), mean, standard deviation (SD), and P-value) based on the personality traits groups. This study evaluates student satisfaction based on nine variables that

cover various aspects of teaching and learning, as mentioned in section 2.2. The mean and standard deviation were used to compare differences between the two groups i.e., introvert and ambivert.

For the introvert group, it shows that the enthusiasm depicts the highest mean of  $4.55 \pm 0.55$  out of a possible score of 5. This might suggest that introvert students emphasizing the lecturer’s enthusiasm in conducting the course. An example of questions asked for enthusiasm was “*Instructor was enthusiastic about teaching the course*”. The mean for each variable is as follows: assignments ( $4.44 \pm 0.54$ ), organization ( $4.39 \pm 0.54$ ), individual rapport ( $4.38 \pm 0.58$ ), breadth ( $4.36 \pm 0.51$ ), group interaction ( $4.36 \pm 0.45$ ), examinations ( $4.35 \pm 0.51$ ).

Whilst building individual student rapport depicts the highest mean of  $4.33 \pm 0.69$  out of a possible score of 5 for the ambivert group. It might suggest that rapport is significant to the ambivert students. An example of a question asked under rapport was “*Instructor was friendly towards individual students*”. The mean for each variable is as follows: assignments ( $4.33 \pm 0.67$ ), learning ( $4.32 \pm 0.52$ ), organization ( $4.31 \pm 0.58$ ), group interaction ( $4.31 \pm 0.65$ ), enthusiasm ( $4.26 \pm 0.59$ ), examinations ( $4.26 \pm 0.59$ ).

On the other hand, breadth depicts the lowest mean of  $4.13 \pm 0.57$  for the ambivert group. Learning presents the lowest mean of  $4.25 \pm 0.67$  for the introvert group. Here, we can suggest that different personality traits do have different perceptions on the teaching style.

The overall students’ satisfaction result is quite promising for both groups, where the introvert group shows a higher mean of  $4.67 \pm 0.50$  out of a possible score of 5. Likewise, the ambivert group shows a mean of  $4.66 \pm 0.54$ .

However, the comparison of means between different variables of introvert and ambivert were not statistically significant. It may be due to the small sample size used in this study. Future research should consider a bigger number of sample size.

### 3.1 Qualitative Analysis

To further analyse whether the personality traits influence the satisfaction of the students in teaching quality, we present few examples of comments extracted from the optional comments/feedback section in the SEEQ (see Table 3). Out of 53 respondents, only 26 provide the comments. Based on the feedback, we can suggest that both groups have the same perceptiveness towards the approach and teaching style of the lecturer. It shows that the personality trait of the lecturer (ambivert) does not influence the satisfaction of the introverts and ambiverts students. Overall, both groups are adjusted well with the approach and teaching style of the lecturer.

Furthermore, we generate a simple word cloud from the students’ feedback to represent the visual summary of the entire feedback. We removed the stop words (e.g., *I, and, a, the, is*) from the word list and set a maximum of 100 keywords for the word cloud. As presented in Figure 1, the keywords from the word cloud offer an insight into the students’ voices/opinions. Words

<sup>2</sup> <https://www.mentimeter.com/>

<sup>3</sup> <https://padlet.com/>

like “*approach*”, “*understanding*”, “*encouraging*”, “*determination*”, “*knowledgeable*” are among the keywords captured in the word cloud. Therefore, from the keywords, we can suggest that the lecturer’s attitude and teaching styles are the significant topics mentioned by the students.

Table 3 Comments and Feedback

Personality traits	Comments/Feedback
Introverts	“ <i>The instructor approached the students in a very nice and fun ways, and it shows that the instructor is a very good instructor.</i> ”
Introverts	“ <i>Nothing to say more. Your deliverance of knowledge to us is the best and i can never thought of another lecturer like this type of determination.</i> ”
Ambiverts	“ <i>If i would give this lecturer a rating it would be definitely 1000/10 and will never change. Very humble and understanding. Classes with this lecturer are never boring but fun to attend!</i> ”
Ambiverts	“ <i>Dr. should be awarded with the award as she put a lot of her time and effort to help her student to achieve their best understanding about the course.</i> ”



Figure 1 Word Cloud of Students Feedback

**4. CONCLUSION**

Generally, the findings from the study showed that the personality traits and the hybrid teaching style promote a positive impact on the students’ learning experiences. Lecturer’s enthusiasm is the key concern of the introvert students, whereas, for the ambivert groups, building individual student rapport is relatively valued. The findings offer valuable insights for further research on the factors that contribute to a better quality of teaching and learning. While potentially addressing the gap in student satisfaction.

Further research should explore the relationship of personality traits and lecture approach towards teaching quality and student satisfaction in more detail. Given the small sample size in the present study, future studies should utilize larger samples to assess whether the differences are significant.

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