# Learning Styles and Personality Traits of Selected Students: A Correlational Study

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**Abstract:** *The researcher intends to study the relationship between learning styles and personality traits among the selected Education students in Zhoukou Normal University, Henan, China. Being a teacher herself, she wants to further inquire if learning styles and personality traits can be intertwined with each other and if a certain personality trait shapes an important aspect of learning style. Thus, the researcher wants to probe the correlation between the learners' learning styles and their personality traits in order to help the university come up with improved teaching strategies for the teachers and effective learning experiences for the students.*

## 1. Introduction

Throughout the educational pursuits of students, many have had a teacher from whom it was difficult to learn. It may have been trouble understanding an educational subject that did not particularly correspond with a student's personality, or it may have been a learning style issue. Unfortunately, there is not a "one-size fits all" approach to learning (Jorgensen, 2006). Thus, this creates a concern that requires attention.

It is clear that a learning style body of knowledge has been accepted into the education literature and professional development agenda since the 1980s (Hickcox, 2006). A large portion of past researches have focused on identifying learning styles and personality traits to meet the learning needs of students.

Numerous studies have investigated the relationship between learning styles and personality traits of students. However, there is a lack of sufficient studies about the learning styles of students and the association of these styles with personality traits, particularly in Zhoukou Normal University, Henan, China. Thus, the present study will be carried out to analyze this relationship. Furthermore, the researcher encourages the educators and educational leaders within the profession to take this information seriously as comprehending learning styles and personality traits has the ability to enhance the educational experience for both the teachers and the learners.

### 1.1 Significance of the Study

The administrators will be acquainted with the correlation between learning styles and personality traits of students. They will be guided to come up with the necessary enhancement programs pertaining to the mentioned constructs. Teachers will be clarified on the relationship between learning styles and personality traits of students. As a consequence, the teachers will be able to design a more dynamic

teaching strategy based on the students' learning styles and personality types. Parents will Know the learning styles and personality traits of their children will help foster a positive and encouraging environment necessary for their children's effective learning. Students will understand their own learning styles and personality traits and will help them adjust their preferences to learning and understanding of their teachers' teaching strategies. The literature review and the result of this study will give better perspectives to the reserachers concerning the relationship of learning styles and personality traits on the teaching and learning process.

## 1.2 Literature Review

David Kolb's experiential learning theory (1984) proposes that effective learning occurs through a continuous cycle of four interconnected stages. The process begins with concrete experience, where learners actively engage in hands-on activities rather than passively observing. This is followed by reflective observation, where individuals critically examine their experiences to identify gaps in understanding. The third stage, abstract conceptualization, involves analyzing these reflections to form new theories or modify existing knowledge, often by drawing on academic models or past experiences. Finally, active experimentation allows learners to apply their refined understanding in practical situations, ensuring the knowledge is relevant and retained. Kolb's model highlights that learning is most meaningful when it connects to real-life contexts, and this cyclical process helps explain individual differences in learning preferences while providing a framework for examining how personality traits may influence learning styles.

Individuals with diverging learning style, concrete experience and reflective observation dimensions are dominant. These learners approach to concrete situations with different perspectives, and they organize relationships between events in a meaningful way. In a given situation, instead of taking action immediately, they make observations at first. They have developed thinking skills and are aware of meanings and values. These individuals, who take into account their own feelings and thoughts while configuring learning issues, have also developed creativity. They are quite successful at brainstorming activities when alternative ideas need to be created. They have strength in imagination, perception, identifying problems and evaluating them from different perspectives. However, they have hard times while choosing an option, or making decisions; at times, they are inadequate in taking advantage of learning opportunities (Aşkar & Akkoyunlu, 1993; Kolb, 1984, 1999; Ridin & Rayner, 1998).

Openness to experience captures an individual's cognitive flexibility, intellectual curiosity, and preference for novelty versus routine. This dimension reflects one's receptiveness to new ideas, creative thinking, and appreciation for unconventional perspectives. Those scoring high typically demonstrate artistic sensitivity, intellectual engagement, and a preference for variety, often pursuing creative endeavors and displaying tolerance for diverse viewpoints. Research links this trait to enhanced leadership potential through innovative problem-solving, as well as to progressive social values emphasizing universal justice. The trait shows remarkable long-term stability throughout adulthood while paradoxically increasing with accumulated life experience, suggesting its self-reinforcing nature. Openness strongly predicts creative achievement and correlates with psychological exploration through therapy, though it maintains minimal relationships with other major personality dimensions. Its unique combination of imagination and intellectual engagement makes it particularly valuable in contexts requiring innovation, while its stability suggests a fundamental cognitive style rather than temporary disposition.

Conscientiousness reflects an individual's capacity for self-discipline, organization, and goal-oriented behavior. Highly conscientious people demonstrate strong impulse control, persistence, and reliability,

making them particularly successful in academic and professional settings where they excel through careful planning and sustained effort. This trait correlates with valuing achievement, security, and order while avoiding impulsive thrill-seeking behaviors. Research consistently links conscientiousness to superior job performance, career advancement, and effective learning retention, along with better psychological adjustment and healthier lifestyle choices. While showing some positive association with agreeableness and negative correlation with neuroticism, it remains largely independent of other personality dimensions. The trait's strong predictive value for long-term success stems from its foundation in responsibility, thoroughness, and delayed gratification capabilities.

Extraversion characterizes an individual's inclination toward social engagement and environmental interaction. Highly extraverted individuals thrive in social settings, displaying outgoing, energetic, and assertive behaviors, while those lower in extraversion tend to be more reserved and introspective. Extraverts typically prioritize achievement and stimulation over tradition, often excelling in leadership roles and performance-driven occupations. This trait demonstrates remarkable long-term stability, consistently predicting career success, social adaptability, and overall well-being throughout one's lifespan. Research links extraversion to higher income levels, positive emotional experiences, and enhanced self-confidence, though it may sometimes lead to overestimation of one's capabilities. As one of the most stable and measurable personality dimensions, extraversion serves as a reliable indicator of social functioning and professional achievement.

Agreeableness reflects an individual's interpersonal orientation, characterizing how they interact with others. Those high in agreeableness demonstrate warmth, empathy, and cooperation, valuing social harmony and showing concern for others' welfare. They typically exhibit prosocial behaviors like gratitude and forgiveness, maintain strong relationships, and engage in community-oriented activities. In contrast, individuals low in agreeableness may appear more skeptical, competitive, or blunt in social interactions, prioritizing self-interest over collective needs. While agreeableness fosters positive social outcomes and life satisfaction, it may slightly hinder assertiveness in competitive settings and show a weak negative correlation with creativity. This trait moderately relates to other personality dimensions, showing positive associations with conscientiousness and negative links to neuroticism. Ultimately, agreeableness significantly influences social functioning and long-term well-being, though its benefits may come at the expense of some individualistic achievements.

Neuroticism reflects an individual's tendency to experience negative emotions and perceive situations as threatening. Those high in neuroticism often struggle with anxiety, self-doubt, and emotional instability, while those on the lower end tend to be more resilient, confident, and emotionally steady. This trait is closely tied to self-esteem, self-efficacy, and locus of control, with higher neuroticism correlating with poorer job performance and reduced motivation. Additionally, neuroticism's anxiety component aligns with traditional values, whereas its hostility and impulsivity aspects associate with hedonistic tendencies and weaker adherence to social norms like benevolence and conformity. Ultimately, neuroticism significantly impacts emotional well-being, coping mechanisms, and overall functioning in both personal and professional domains.

## 2. Theoretical Framework

This study will be directed by two theories on learning styles and personality traits.

### 2.1 David Kolb's Learning Styles Theory

David Kolb 's learning styles model was developed from his experiential learning cycle theory in 1984. These theories have largely to do with the inner cognitive processes of one's mind. Kolb believes that effective learning occurs by a cyclic process of experiencing, reflecting, thinking, and acting; which he elaborates through his 4-stage experiential learning cycle theory (1974).
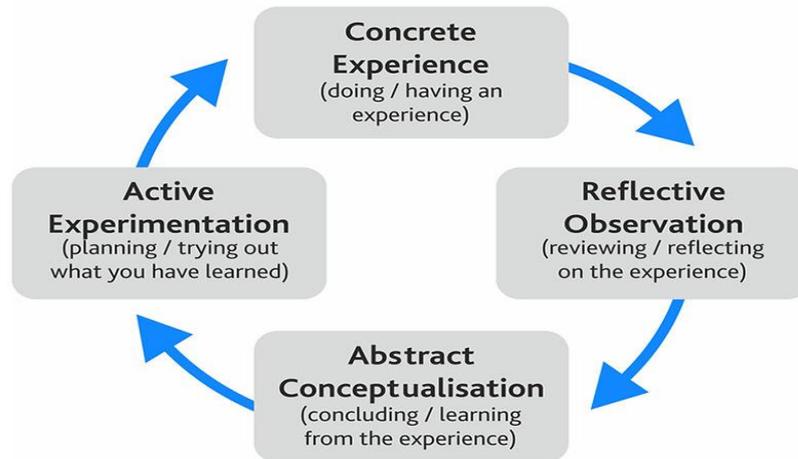


**Figure 1:** 4-stage experiential learning cycle theory

## 2.2 Kolb's Learning Styles

Kolb defines four distinct learning styles in his Learning Styles theory. An individual favours a certain learning style based on the inner cognitive make up, social influence, and educational background. No matter what the choice is, the learning preference is the product of two conflicting variables known as the Processing Continuum and the Perception Continuum (University of Leicester, 2002).

Processing Continuum is the choice of the way of approaching and tackling a task. Perception Continuum is the range of what is the emotional response to the task, including the thoughts and feelings. The learning styles are the following:
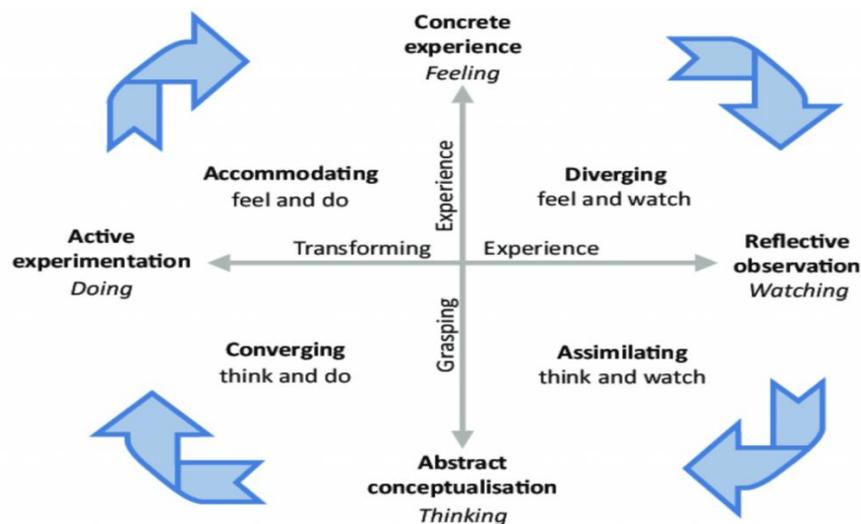


**Figure 2:** Kolb's Learning Styles

## 2.3 Big Five Personality Traits (Five Factor Model)

Many contemporary personality psychologists believe that there are five basic dimensions of personality, often referred to as the "Big 5" personality traits. The five broad personality traits described by the theory are conscientiousness, agreeableness, neuroticism, openness and extraversion (also often spelled extroversion). This is also known by the acronym CANOE or OCEAN. Evidence of this theory has been growing for many years, beginning with the research of D. W. Fiske (1949) and later expanded upon by other researchers including Norman (1967), Smith (1967), Goldberg (1981), and McCrae & Costa (1987).

## 3. Conceptual Framework



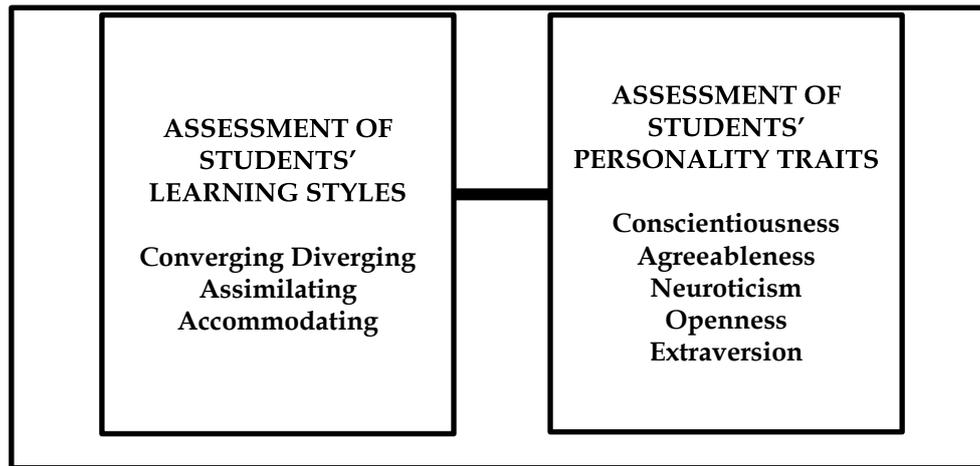| ASSESSMENT OF STUDENTS' LEARNING STYLES<br><br>Converging Diverging Assimilating Accommodating | ASSESSMENT OF STUDENTS' PERSONALITY TRAITS<br><br>Conscientiousness Agreeableness Neuroticism Openness Extraversion |
| --- | --- |

**Figure 3:** Research Paradigm

As illustrated in Figure 3, the assessments of the student respondents of their learning styles and personality will be analyzed.

The learning styles will be assessed by the student respondents to be supported by the following variables: converging, diverging, assimilating and accommodating, whereas the assessment of their personality traits will be supported in terms of the following factors: conscientiousness, agreeableness, neuroticism, openness and extraversion.

### 3.1 Hypotheses

This study will propose the null hypotheses: There is no significant relationship between the learning styles and personality traits of the student respondents.

## 4. Methodology

### 4.1 Research Design

This is mainly a descriptive - correlational research. The method of inquiry will be based on two adapted instruments on learning styles and personailty traits.

Using purposive sampling technique, the learning styles of the senior Education majors as student respondents will be assessed using the The Learning Style Inventory (LSI). On the other hand, their personality traits will be assessed too, guided by a tool on the Big Five Model Theory.

The researcher will analyze the significant relationship between learning styles and personality traits. The data that will be gathered from the questionnaires will be analyzed by quantitative survey tools, which will provide guarantee for the study to explore the correlation of the research variables.

**4.2 Sample**

The researcher will study the specific target population, the senior Education students of Zhoukou Normal University, in Henan, China.

**4.3 Research Instruments**

The researcher will target twenty 20% of the total population of 442 senior Education students or a sample population of 88 seniors as participants in this study. They will be purposively selected regardless of their gender based on the following criteria: must have a good class standing, must have finished majority of the required subjects of the program and are currently doing their on-the job training.

The researcher will use purposive sampling because it will enable her to obtain a sample population that best represents the entire population being studied, relying on her judgment when choosing members of the target respondents to participate in the study. She chooses the senior Education majors since the researcher believes that these participants are already mature and more adept to behaviorally manifest a set of key, transferable skills such as an ability to work and communicate with students. Also, the researcher is a teacher herself, and would like that these soon to be educators benefit through this study. the objective of assessing the learning styles and personality traits of the senior Education students in Zhoukou Normal University in Henan, China.

The researcher will have the adapted questionnaires validated by the experts in the fields of educational leadership and psychology. After which, a letter of request to the leader of Zhoukou Normal University will be personally given by the researcher asking permission to conduct the study.

Upon approval, the questionnaires will be distributed to the target respondents for data collection. This study will be conducted during the second semester of school year 2020-2021.

**4.4 Results**

Tables 1-4 present the assessments of the students of their learning styles in terms of converging, diverging, assimilating and accommodating.

On Converging

**Table 1:** Respondents' Assessment on their Learning Style in Terms of Converging

| Converging<br>I learn most by: | Mean | Qualitative Description | Interpretation |
|---|---|---|---|
| discovering, testing and trying new things. | 3.07 | Agree | High Level |
| quick decision making. | 2.68 | Agree | High Level |
| searching for one correct answer. | 3.01 | Agree | High Level |
| independent work. | 3.08 | Agree | High Level |
| reflecting on my own. | 3.06 | Agree | High Level |
| Composite Mean | 2.98 | Agree | High Level |

Legend: 3.51-4.00 Strongly Agree/Very High Level; 2.51-3.50 Agree/High Level; 1.51-2.50 Disagree/Low Level; 1.00-1.50 Strongly Disagree/Very Low Level

As reflected in the table above, student respondents agree that they learn most by independent work (3.08) which gained the highest assessment. Generally, they agree that they learn by discovering, testing and trying new things (3.07); reflecting on their own (3.06); and by searching for one correct answer (3.01). Though they also agree that they learn most by quick decision making (2.68) however, it was given the lowest assessment by the student respondents.

A composite mean value of 2.98 indicates that student respondents manifest a high level of learning style in terms of converging.

It can be inferred that the respondents are convergent learners since they use abstract conceptualization and active experiential learning paths. According to David Kolb, the theorist himself, these learners prefer to reach the correct information by trial and error and by applying what they learn, and they often require feedback from the teacher (Kolb, 1984, 1999).

On Diverging

**Table 2:** Respondents' Assessment on their Learning Style in Terms of Diverging

| Diverging<br>I learn most by: | Mean | Qualitative Description | Interpretation |
|---|---|---|---|
| looking into the big picture. | 3.06 | Agree | High Level |
| relying on feelings. | 2.77 | Agree | High Level |
| preferring personal interaction. | 2.81 | Agree | High Level |
| group discussion. | 2.84 | Agree | High Level |
| peer reviews. | 3.14 | Agree | High Level |
| Composite Mean | 2.93 | Agree | High Level |

Legend: 3.51-4.00 Strongly Agree/Very High Level; 2.51-3.50 Agree/High Level; 1.51-2.50 Disagree/Low Level; 1.00-1.50 Strongly Disagree/Very Low Level

The respondents generally agree that they learn most by peer reviews (3.14) which was given the highest assessment; by looking into the big picture (3.06); by group discussion (2.84); preferring personal interaction (2.81); while relying on feelings (2.77) as their learning style was given the lowest assessment.

A composite mean value of 2.93 indicates a high level of learning style in terms of diverging.

According to Kolb (1999), individuals with diverging learning style, their concrete experience and reflective observation dimensions are dominant. These learners approach to concrete situations with different perspectives, and they organize relationships between events in a meaningful way. They have strength in imagination, perception, identifying problems and evaluating them from different perspectives. However, they have hard times while choosing an option, or making decisions; at times, they are inadequate in taking advantage of learning opportunities (Aşkar & Akkoyunlu, 1993; Kolb, 1984, 1999; Ridin & Rayner, 1998).

On Assimilating

**Table 3:** Respondents' Assessment on their Learning Style in Terms of Assimilating

| Assimilating<br>I learn most by: | Mean | Qualitative Description | Interpretation |
|---|---|---|---|
| using critical thinking. | 3.15 | Agree | High Level |
| analyzing, organizing and sorting. | 2.98 | Agree | High Level |
| evaluating pros and cons. | 3.19 | Agree | High Level |
| listening to lectures. | 2.95 | Agree | High Level |
| using logical and detailed thinking. | 3.06 | Agree | High Level |
| Composite Mean | 3.07 | Agree | High Level |

Legend: 3.51-4.00 Strongly Agree/Very High Level; 2.51-3.50 Agree/High Level; 1.51-2.50 Disagree/Low Level; 1.00-1.50 Strongly Disagree/Very Low Level

The student respondents agree that they learn most by evaluating pros and cons (3.19) which was given the highest assessment. Similarly, they also agree that they learn most by using critical thinking (3.15); using logical and detailed thinking (3.06); analyzing, organizing and sorting (2.98); and listening to lectures (2.95), however, it was given the lowest assessment by the student respondents.

A composite mean value of 3.07 indicates a high level of learning style in terms of assimilating.

It can be inferred that the respondents adhere to abstract conceptualization and reflective observation which are in the foreground for individuals with such learning style. In the study of Lamm et all, 2011, assimilators were found to be organized, orderly, and logical. It was noted that the participants that were identified as assimilators lacked personal reflection in their journals, which is concurrent with Kolb's interpretation of someone with an assimilation learning style (Kolb, 1984). Assimilators, in this study, preferred both lecture and field work.

On Accomodating

**Table 4:** Respondents' Assessment on their Learning Style in Terms of Accommodating

| Accommodating I learn most by: | Mean | Qualitative Description | Interpretation |
|---|---|---|---|
| problem solving. | 2.91 | Agree | High Level |
| taking risks. | 2.77 | Agree | High Level |
| exploring. | 2.71 | Agree | High Level |
| synthesizing information. | 2.95 | Agree | High Level |
| communicating concept to others. | 2.89 | Agree | High Level |
| Composite Mean | 2.85 | Agree | High Level |

Legend: 3.51-4.00 Strongly Agree/Very High Level; 2.51-3.50 Agree/High Level; 1.51-2.50 Disagree/Low Level; 1.00-1.50 Strongly Disagree/Very Low Level

The student respondents agree that they learn most by synthesizing information (2.95) with the highest assessment given by the respondents, followed by problem solving (2.91); communicating concept to others (2.89); and taking risks (2.77). Though they also agree that they learn most by exploring (2.71), however, it was given the lowest assessment.

A composite mean value of 2.85 indicates a high level of learning style in terms of aaccommodating.

With a high level of accommodating learning style, it can be inferred that the respondents have capabilities of learning through concrete and that active life are in the foreground. Their leadership abilities are high and while they are learning, they make use of interpersonal relationships and personal information of individuals rather than technical analysis. They are open-minded about learning and their capacity to adapt to change is high. If the theory put forth or a plan is incompatible with the facts, they usually abandon the plan (Aşkar & Akkouyunlu, 1993; Kolb, 1984, 1999).

**Table 5:** Summary of the Respondents' Assessment on their Learning Style

| Learning Styles | Mean | Qualitative Description | Interpretation | Rank |
|---|---|---|---|---|
| Converging | 2.98 | Agree | High Level | 2nd |
| Diverging | 2.93 | Agree | High Level | 3rd |
| Assimilating | 3.07 | Agree | High Level | 1st |
| Accommodating | 2.85 | Agree | High Level | 4th |
| Over-all Mean | 2.97 | Agree | High Level | |

Legend: 3.51-4.00 Strongly Agree/Very High Level; 2.51-3.50 Agree/High Level; 1.51-2.50 Disagree/Low Level; 1.00-1.50 Strongly Disagree/Very Low Level

Based from the results, student respondents perceived themselves to have a high level of learning style in terms of assimilating which gained the highest assessment, followed by converging as the second highest, then diverging, while accommodating being the least assessed learning style.

According to Kolb, as a rule, best teaching practices always include a wide range of learning activities in order to reach all learning styles. Therefore, the researcher thinks positively that the third year Education student respondents are a combination of all learning styles. This is especially needed as they are soon to embark a teaching career. In a published articled of Atieno, 2019, when students are allowed to study using their learning styles, it helps reduce the stress, pressure and frustration of learning experiences. https://www.newtimes.co.rw/lifestyle/learning-styles-do-teachers-know-what-best-their-students
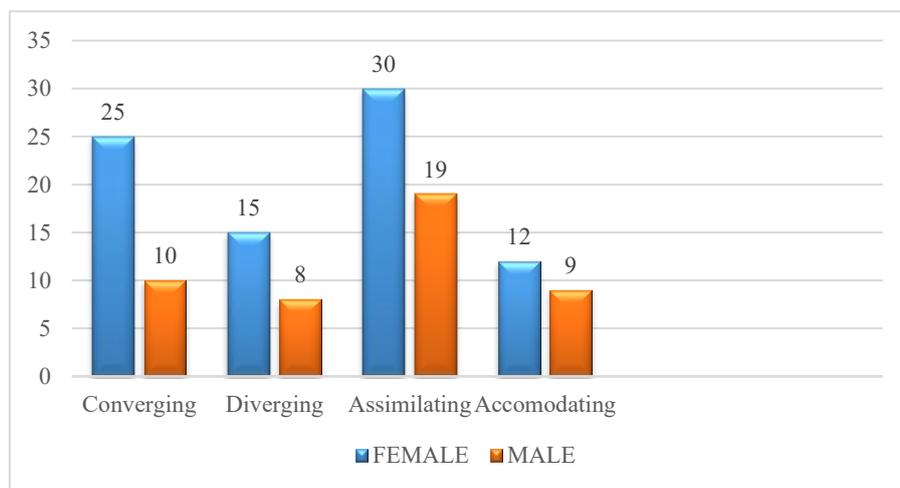


**Figure 5:** Learning Styles and Gender

The assessment of the Student Respondents as regards their Personality Traits
Tables 6-10 present the student respondents' assessment of theit personality traits in terms of openness, conscientiousness, extraversion, agreeableness and neuroticism.

On Openness

**Table 6:** Respondents' Assessment as Regards their Personality Traits in Terms of Openness

| Openness | Mean | Qualitative Description | Interpretation |
|---|---|---|---|
| I have a rich vocabulary. | 2.71 | Agree | High Level |
| I have a vivid imagination. | 3.13 | Agree | High Level |
| I have excellent ideas. | 3.04 | Agree | High Level |
| I am quick to understand things. | 2.95 | Agree | High Level |
| I am full of ideas. | 2.61 | Agree | High Level |
| Composite Mean | 2.89 | Agree | High Level |

Legend: 3.51-4.00 Strongly Agree/Very High Level; 2.51-3.50 Agree/High Level; 1.51-2.50 Disagree/Low Level; 1.00-1.50 Strongly Disagree/Very Low Level

The student respondents agree that they have a vivid imagination with the highest assessment of 3.13; they have vivid imagination (3.13); they are quick to understand things (2.95) and they have rich vocabulary (2.71), while being a student full of ideas was the least assessed having the lowest mean value of 2.61.

A composite mean value of 2.89 reveals that student respondents' personality traits in terms of openness was to a high level.

It can be inferred that the student respondents have the willingness to try new things as well as engage in imaginative and intellectual activities. It includes the ability to "think outside of the box." According to Lebowitz, (2016), an individual who is high in openness to experience is likely someone who has a love of learning, enjoys the arts, engages in a creative career or hobby, and likes meeting new people. Furthermore, Douglas, Bore, & Munro, (2016) stressed that openness is also connected to universalism values, which include promoting peace and tolerance and seeing all people as equally deserving of justice and equality.

On Conscientiousness

**Table 7:** Respondents' Assessment as Regards their Personality Traits in Terms of Conscientiousness

| Conscientiousness | Mean | Qualitative Description | Interpretation |
|---|---|---|---|
| I am always prepared. | 2.72 | Agree | High Level |
| I follow a schedule. | 3.20 | Agree | High Level |
| I get chores done right away. | 2.60 | Agree | High Level |
| I pay attention to details. | 3.20 | Agree | High Level |
| I am exacting in my work. | 3.00 | Agree | High Level |
| Composite Mean | 2.94 | Agree | High Level |

Legend: 3.51-4.00 Strongly Agree/Very High Level; 2.51-3.50 Agree/High Level; 1.51-2.50 Disagree/Low Level; 1.00-1.50 Strongly Disagree/Very Low Level

The student respondents agree that they follow a schedule, and that they pay attention to details which gained the highest assessment from the respondents at 3.20. Also, they agree that they are exacting in words (3.00); and are always prepared (2.72). Similarly, they also agree that they get chores done right away (2.60), however, it was given the lowest assessment.

A composite mean value of 2.94 shows that student respondents' personality traits in terms of conscientiousness was to a high level based on their self-assessment.

It can be inferred that the student respondents can measure elements such as control, inhibition, and persistency of behavior. Grohol, (2019), describes conscientiousness a person's ability to regulate their impulse control in order to engage in goal-directed behaviors.

On Extraversion

**Table 8:** Respondents' Assessment as Regards their Personality Traits in Terms of Extraversion

| Extraversion | Mean | Qualitative Description | Interpretation |
|---|---|---|---|
| I am the life of the party. | 2.73 | Agree | High Level |
| I am interested in people. | 3.05 | Agree | High Level |
| I feel comfortable around people. | 3.01 | Agree | High Level |
| I start conversations. | 2.80 | Agree | High Level |
| I talk to a lot of different people at parties. | 2.87 | Agree | High Level |
| Composite Mean | 2.89 | Agree | High Level |

Legend: 3.51-4.00 Strongly Agree/Very High Level; 2.51-3.50 Agree/High Level; 1.51-2.50 Disagree/Low Level; 1.00-1.50 Strongly Disagree/Very Low Level

The student respondents agree that they are interested in people (3.05) with the highest assessment given; they feel comfortable around people (3.01); they talk to a lot of different people at parties (2.87);

they can start conversations (2.80), while being the life of the party (2.73) was given the least assessment by the respondents.

The result indicates that student respondents' personality traits in terms of extraversion was to a high level with a composite mean of 2.89.

It can be inferred that the student respondents seek interaction with their environment, particularly socially. It encompasses the comfort and assertiveness levels of people in social situations. To further support the result of this findings, these studies also present that extroversion is an excellent predictor of effective functioning and general well-being (Ozer & Benet-Martinez, 2006), positive emotions (Verduyn & Brans, 2012), and overconfidence in task performance (Schaefer, Williams, Goodie, & Campbell, 2004).

On Agreeableness

**Table 9:** Respondents' Assessment as Regards their Personality Traits in Terms of Agreeableness

| Agreeableness | Mean | Qualitative Description | Interpretation |
|---|---|---|---|
| *1. I feel little concern for others. | 3.02 | Disagree | Low Level |
| I sympathize with others' feelings. | 3.32 | Agree | High Level |
| I have a soft heart. | 3.29 | Agree | High Level |
| I take time out for others. | 3.24 | Agree | High Level |
| I feel others' emotions. | 3.29 | Agree | High Level |
| Composite Mean | 3.03 | Agree | High Level |

Legend: 3.51-4.00 Strongly Agree/Very High Level; 2.51-3.50 Agree/High Level; 1.51-2.50 Disagree/Low Level; 1.00-1.50 Strongly Disagree/Very Low Level
Note: Statement with asterisk (*) was scored inversely

The student respondents agree that they sympathize with others' feelings (3.32) which was given the highest assessment. Also, they agree that they have a soft heart and they feel other's emotions (3.29); and they take time out for others (3.24). On the other hand, the respondents do not agree that they feel little concern for others which is taken to mean that they indeed feel concerned.

A composite mean value of 3.03 shows that student respondents manifested a high level of personality traits in terms of agreeableness.

It can be inferred that the student respondents tend to be well-liked, respected, and sensitive to the needs of others. In the study of Ozer & Benet-Martinez, (2006), those high in agreeableness are also more likely to have positive peer and family relationships, model gratitude and forgiveness, attain desired jobs, live long lives, experience relationship satisfaction, and volunteer in their communities.

On Neuroticism

**Table 10:** Respondents' Assessment as Regards their Personality Traits in Terms of Neuroticism

| Neuroticism | Mean | Qualitative Description | Interpretation |
|---|---|---|---|
| I get stressed out easily. | 2.97 | Agree | High Level |
| I like order. | 3.18 | Agree | High Level |
| I am easily disturbed. | 2.67 | Agree | High Level |
| I worry about things. | 2.77 | Agree | High Level |
| I change my mood a lot. | 2.51 | Agree | High Level |
| Composite Mean | 2.82 | Agree | High Level |

Legend: 3.51-4.00 Strongly Agree/Very High Level; 2.51-3.50 Agree/High Level; 1.51-2.50 Disagree/Low Level; 1.00-1.50 Strongly Disagree/Very Low Level

The student respondents agree that they like order (3.18) which gained the highest assessment from the respondents. They also agree on these: they get stressed out easily (2.97); worry about things (2.77); and they are easily disturbed (2.67). Though they also agree that they change their mood a lot (2.51), however, it was given the lowest assessment by the respondents. This goes to show that student respondents have manifested a high level of personality traits in terms of neuroticism

A composite mean value of 2.82 shows that student respondents manifested a high level of personality traits in terms of neuroticism.

A high level of neuroticism is not necessarily negative. It also includes one's propensity to experience negative emotions, therefore, it has to be properly managed. The respondent, being in third year or junior level may be being confronted with a lot of requirements so the result has a root cause. According to Lebowitz, (2016), those high in neuroticism are generally prone to anxiety, sadness, worry, and low self-esteem. They may be temperamental or easily angered, and they tend to be self-conscious and unsure of themselves.

**Table 11:** Summary of the Respondents' Assessment as Regards their Personality Traits

| Personality Traits | Mean | Qualitative Description | Interpretation | Rank |
|---|---|---|---|---|
| Openness | 2.89 | Agree | High Level | 3rd |
| Conscientiousness | 2.94 | Agree | High Level | 2nd |
| Extraversion | 2.89 | Agree | High Level | 3rd |
| Agreeableness | 3.03 | Agree | High Level | 1st |
| Neuroticism | 2.82 | Agree | High Level | 4th |
| Over-all Mean | 2.91 | Agree | High Level | |

Legend: 3.51-4.00 Strongly Agree/Very High Level; 2.51-3.50 Agree/High Level; 1.51-2.50 Disagree/Low Level; 1.00-1.50 Strongly Disagree/Very Low Level

**Table 12:** Relationship Between the Students' Learning Styles and Personality Traits

| Learning Styles | Personality Traits | Computed r | Sig | Decision on Ho | Interpretation |
|---|---|---|---|---|---|
| Converging | Openness | 0.94 | 0.00 | Rejected | Significant |
| | Conscientiousness | 0.92 | 0.00 | Rejected | Significant |
| | Extraversion | 0.94 | 0.00 | Rejected | Significant |
| | Agreeableness | 0.71 | 0.00 | Rejected | Significant |
| | Neuroticism | 0.95 | 0.00 | Rejected | Significant |
| | Average | 0.95 | 0.00 | Rejected | Significant |
| Diverging | Openness | 0.95 | 0.00 | Rejected | Significant |
| | Conscientiousness | 0.93 | 0.00 | Rejected | Significant |
| | Extraversion | 0.97 | 0.00 | Rejected | Significant |
| | Agreeableness | 0.63 | 0.00 | Rejected | Significant |
| | Neuroticism | 0.94 | 0.00 | Rejected | Significant |
| | Average | 0.95 | 0.00 | Rejected | Significant |
| Assimilating | Openness | 0.94 | 0.00 | Rejected | Significant |
| | Conscientiousness | 0.94 | 0.00 | Rejected | Significant |
| | Extraversion | 0.94 | 0.00 | Rejected | Significant |
| | Agreeableness | 0.74 | 0.00 | Rejected | Significant |
| | Neuroticism | 0.94 | 0.00 | Rejected | Significant |
| | Average | 0.96 | 0.00 | Rejected | Significant |
| Accommodating | Openness | 0.95 | 0.00 | Rejected | Significant |
| | Conscientiousness | 0.92 | 0.00 | Rejected | Significant |
| | Extraversion | 0.98 | 0.00 | Rejected | Significant |
| | Agreeableness | 0.60 | 0.00 | Rejected | Significant |
| | Neuroticism | 0.96 | 0.00 | Rejected | Significant |
| | Average | 0.96 | 0.00 | Rejected | Significant |
| Over-all Learning Styles | Over-all Personality Traits | 0.97 | 0.00 | Rejected | Significant |

Generally, it can be said that students' learning styles is positively correlated with their personality traits (0.97). This could mean that students' learning style can be affected by their personality traits.

As indicated in the table above, the result clearly shows that the student respondents' learning styles in terms of converging, diverging, assimilating, and accommodating are positively correlated to a high degree with their personality traits in terms of openness, conscientiousness, extraversion, agreeableness, and neuroticism.

The respondents' learning styles in terms of converging did make a significant relationship with their personality traits in terms of openness (0.94), conscientiousness (0.92); extraversion (0.94); agreeableness (0.71) and neuroticism (0.95) with an average computed r of 0.95. With these converger individuals, problem solving, logical analysis and deductive reasoning skills are higher, thus their openness and conscientiousness are assessed higher too in this survey.

The respondents' learning styles in terms of diverging did make a significant relationship with their personality traits in terms of openness (0.95), conscientiousness (0.93); extraversion (0.97); agreeableness (0.63) and neuroticism (0.94) with an average computed r of 0.95. The divergers have a well developed thinking skills and are aware of meanings and values. These individuals, who take into account their own feelings and thoughts while configuring learning issues, have also developed creativity. It can be inferred that they are more into self-reflection and inward looking which is rather apparent in the lower result of their agreeableness which is more of conformity with others.

The respondents' learning styles in terms of assimilating did make a significant relationship with their personality traits in terms of openness (0.94), conscientiousness (0.94); extraversion (0.94); agreeableness (0.74) and neuroticism (0.94) with an average computed r of 0.96. The assimilators are into making plans and problem-solving skills. They are more interested in abstract concepts and ideas; thus their perceived agreeableness was assessed the least in this survey.

The respondents' learning styles in terms of acommodating did make a significant relationship with their personality traits in terms of openness (0.95), conscientiousness (0.92); extraversion (0.98); agreeableness (0.60) and neuroticism (0.96) with an average computed r of 0.96. The accomodators are open-minded about learning and their capacity to adapt to change is high. They are sociable and they can easily communicate with other individuals; thus their perceieved extraversion has been assessed the highest.

## 5. Summary of Findings, Conclusions and Recommendations

### 5.1 The Assessment of the Student Respondents as regards their Learning Styles.

Student respondents manifest a high level of learning style in terms of converging. It can be inferred that the respondents are convergent learners since they use abstract conceptualization and active experiential learning paths. These learners approach to concrete situations with different perspectives, and they organize relationships between events in a meaningful way. It can be inferred that the respondents adhere to abstract conceptualization and reflective observation which are in the foreground for individuals with such learning style. With a high level of accommodating learning style, it can be inferred that the respondents have capabilities of learning through concrete and that active life are in the foreground.

**5.2 The Assessment of the Student Respondents as regards their Personality Traits**

Student respondents' personality traits in terms of openness was to a high level. It can be inferred that the student respondents have the willingness to try new things as well as engage in imaginative and intellectual activities. It can be inferred that the student respondents can measure elements such as control, inhibition, and persistency of behavior. It can be inferred that the student respondents seek interaction with their environment, particularly socially. It encompasses the comfort and assertiveness levels of people in social situations. It can be inferred that the student respondents tend to be well-liked, respected, and sensitive to the needs of others. It also includes one's propensity to experience negative emotions, therefore, it has to be properly managed. The respondent, being in third year or junior level may be being confronted with a lot of requirements so the result has a root cause.

**5.3 The Significant Relationship between the Learning Styles and the Personality Traits of the Student Respondents**

Generally, it can be said that students' learning styles is positively correlated with their personality traits. This could mean that students' learning style can be affected by their personality traits. The result clearly shows that the student respondents' learning styles in terms of converging, diverging, assimilating, and accommodating are positively correlated to a high degree with their personality traits in terms of openness, conscientiousness, extraversion, agreeableness, and neuroticism.

**5.4 The Observations of the Guidance Counselors**

If you are in the field of education, you will learn all about the different ways your students interact with new information. A valuable notion in education is that individual students have different learning styles that are linked with the way that a student prefers to learn.

The researcher interviewed four (4) Guidance Counselors (GC) who are assigned to the target participants in this research. The following themes were taken out of the focus group discussions: Helping Students Succeed in School, Learning Styles Counseling and Influence of Personality Types in Learning Styles.

**5.5 A Proposed Model for the Improvement of Instruction using Experiential Learning Theory**

Experiential learning has traditionally held a place in education in the form of either internships or job-shadowing to complement a conventional program. However, with technology being prioritized in higher education, the implementation of a more experiential learning methods should be given much attention. The objective is to be able to help students develop skills from real-world experiences.

**5.6 Conclusion**

It was found out that student respondents perceived themselves to have a high level of learning style in terms of assimilating, converging, diverging and accommodating.

Students' personality traits were assessed to a high level in terms of agreeableness, conscientiousness, openness, extraversion and neuroticism. Generally, it can be said that students' learning styles is positively correlated with their personality traits. The focus group discussion with the guidance counselors revealed that a valuable notion in education is that individual students have different learning styles that are linked with the way that a student prefers to learn.

**5.7 Recommendations**

It is important to first recognize the differences in student learning. Aside from teacher's observation, it is being recommended to use assessment tools to help educators identify learning styles and effectively tailor instruction.

While it is not always easy to personalize lessons, the use of a mixed learning approach throughout coursework can help teachers cater to each type of learning style. You may decide to focus on a particular learning type each lesson, or incorporate multiple strategies within each lesson.

The Five Factor Model is a valid and reliable test therefore, it is being suggested that teachers should administer this among the students, thereby letting them know their own type of personality that will give them a better insight of themselves and understand their teachers too.

It is being recommended to use the instructional model that the researcher has proposed in this study since the strategies are tailored fit on the different facets of experiential learning thus guiding the teachers on which particular area will be needing the prescribed instructional strategies.

# References

[1] Ackerman, C. (2017). Big Five Personality Traits: The OCEAN ModelExplained. (https://positivepsychology.com/big-five-personality-theory)

[2] Aşkar, P. & Akkoyunlu, B. (1993). Kolb öğrenme stili envanteri. Eğitim ve Bilim, 87, 37-47.

[3] Barrick, M. R., & Mount, M. K. (1991). The big five personality dimensions and job performance: a meta-analysis. Personnel psychology, 44, 1-26.

[4] Busato, V. V., Prins, F. J., Elshout, J. J. & Hamaker, C. (1998). The relation between learning styles, the Big Five personality traits and achievement motivation in higher education. Personality and Individual Differences, 26(1), 129-140.

[5] Cherry, K. (2019). What Are the Big 5 Personality Traits? Verywell Mind. Retrieved 12 June 2020, from https://www.verywellmind.com/the-big-five-personality-dimensions-2795422

[6] Cohen, A. D. (1996). Second language learning and use strategies: Clarifying the issues. Paper presented at the Symposium on Strategies of Language Learning and Use, December 13-16, Seville, Spain.

[7] Douglas, H. E., Bore, M., & Munro, D. (2016). Openness and intellect: An analysis of the motivational constructs underlying two aspects of personality. Personality and Individual Differences, 99, 242-253. doi:10.1016/j.paid.2016.05.030

[8] Ekici, G. (2013). Gregorc ve Kolb öğrenme stili modellerine göre öğretmen adaylarının öğrenme stillerinin cinsiyet ve genel akademik başarı açısından incelenmesi. Eğitim ve Bilim, 38(167), 211-225.

[9] Fallan, L. (2006). Quality reform: Personality type, preferred learning style and majors in a business school. Quality in Higher Education, 12(2), 193-206.

[10] Furnham, A. (1992). Personality and learning style: a study of three instruments. Personality and individual differences, 13, 429-438.

[11] Gadzella, B., Ginther, D., Masten, W., & Gutrie, D. (1997). Predicitng students as deep and shallow processors of information. Perceptual and Motor Skills, 84, 875-881.

[12] Geisler-Brenstein, E., Schmeck, R., & Hetherington, J. (1996). An individual difference perspective on student diversity. Higher education, 31, 73-96.

[13] Highhouse, S. & Doverspike, D. (1987). The validity of the learning style inventory 1985 as a predictor of cognitive style and occupational preference. Educational and Psychological Measurement, 47(3), 749-753.

[14] John, O. P., & Srivastava, S. (1999). The Big-Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), Handbook of personality: Theory and research (Vol. 2, pp. 102-138). New York: Guilford Press.

[15] Kolb, D. A. (1984). Experiential Learning: Experience as the source of learning and development. New Jersey: Prentice Hall, Inc.

[16] Kolb, D. A. (1999). The kolb learning style inventory: Hay Resources Direct.

[17] Lebowitz, S. (2016a). The 'Big 5' personality traits could predict who will and won't become a leader. Business Insider. Retrieved from http://www.businessinsider.com/big-five-personality-traits-predict- leadership-2016-12

[18] Lebowitz, S. (2016b). Scientists say your personality can be deconstructed into 5 basic traits. Business Insider. Retrieved from http://www.businessinsider.com/big-five-personality-traits-2016-12

[19] Ones, D. S., Viswesvaran, C., & Reiss, A. D. (1996). Role of social desirability in personality testing for personnel selection: The red herring. Journal of Applied Psychology, 81, 660-679. doi:10.1037/0021-9010.81.6.660

[20] Ozer, D. J., & Benet-Martinez, V. (2006). Personality and the prediction of consequential outcomes. Annual Review of Psychology, 57, 401-421.

[21] Rashid, N. A., Taib, M. N., Lias, S., Sulaiman, N., Murat, Z. H. & Kadir, R. S. S. A. (2012). Learners' learning style correlated to agreeableness based on EEG. Paper presented at the 2012 International Conference on Management and Education Innovation IPEDR.

[22] Ridin, R. & Rayner, S. (1998). Cognitive styles and learning strategies: Understanding style differences in learning and behavior. London: David Fulton Publishers