Relationship Between Personality Traits And Learners Attributes Through Systematic Literature

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Abstract

The purpose of this study that discusses the interaction of personality characteristics and learners' competencies in the context of studying the UTUAT 2 factors for online learning in Pakistan. Distance education has become part of modern education and it has been realized that such programs can be effective for some learners and not for others. Allying the study to the Five Factor Model (FFM), which comprises of openness, conscientiousness, extraversion, agreeableness and neuroticism, the research, seeks to determine the extent to which these traits affect students' engagement and learning outcomes in matters concerning online education. It also reviews the UTUAT 2 factors of performance & effort expectancy along with social influence and hedonic motivation are applied to the learners' adjustability and effectiveness in hostile conditions. For this purpose information are collected through detail systematic literature review. The importance of this study is that it creates base on which recommend excellent educational practices from educational contexts affected in one way or another by conflict in order to enhance the literacy and resiliency of students. The study add to the limited knowledge base of online education delivery during online learning and indicate the strength between learner personalities attributes and UTAUT-2 attributes.

Introduction.

Online learning has become a significant and modifying factor in educational systems, and thus, an understanding of how the characteristics of different learners, especially personality, could shape their capabilities needs to be considered. Studies show that personality plays a role in the learner's approach toward online learning and academic success (Zhang et al., 2023 ; Gunter et al., 2024). There are five broad traits that are recognized by Five Factor Model (FFM), namely openness, conscientiousness, extraversion, agreeableness, and neuroticism. Collectively, these traits come as independent entities, which have specific effects on the learners' behavior and on the capacities they can develop within an online learning setting. Openness is positive in learners, as high openness indicates receptiveness to novel concepts that can be helpful in users' interaction with a variety of Web contents (Bai et al., 2023). This trait is associated with a higher propensity to engage and learn more effectively by using these different tools and social networks. On the other hand, conscientious people are normally disciplined and well organized, important personal attributes as it pertains to online learning (Alharbi & Drew, 2024). Pupils with high self- conscientiousness easily develop goals, implement plans and prudently work hard even unto failure.

The collaborative settings of the online learning environment can be highly effective for extraverted learners as they get to interact with peers and engage in group discussions (Zhao et al., 2023). Generally, it averts their inclination of searching for social relations, which in turn may help on boosting their motivation and participation on online teaching courses. Once again, on the positive side, agreeableness is commonly linked with positive behavior and interaction with other

people; however, as it was found in Gunter et al. (2024), its aspect can be rather ambiguous on the course of online learning since agreeable individuals may easily get on with others but can lack assertiveness in conditions of self-directed learning. On the other hand, a high level of neuroticism can be detrimental to the learning process that is carried out over the internet as it raises the level of anxiety thus lowers one's self efficacy thus worsening academic performance (Schmidt et al., 2023). Learners who display this trait should be provided with learning materials which may assist them to contain their feelings and boost up their coping ability.

Learner competencies comprise self-management skills, technical proficiency, reflexivity, and critical thinking skills which are crucial in any learning online environment. Goals, progress, and strategies of self-regulated learners are characterized as more effective in view of self-regulation (Zimmerman, 2023). Conscientiousness and openness are the personality factors that meet the requirements for self-regulation development and help learners to manage their educational processes. It is also important in online learning; high openness is also indicative of high digital literacy since learners with the personality type are more likely to experiment with different kinds of technology (Bai et al., 2023). Furthermore, since evaluation involves critical thinking skills in order to make informed choices and as personality factors such as openness and conscientiousness foster critical thinking skills, they are important too (Zhang et al., 2023).

The relationship between personality characteristics and the related learner competencies is significant in explaining the behavior of online learning. Understand how the parameters like openness, conscientiousness, extraversion, agreeableness, and neuroticism affect learner behavior by allowing online course instructors to create a better experience than they have. We need to teach self-organizing skills, digital competencies, and critical thinking skills to make it easier for instructors to help a variety of students overcome the difficulties presented by online learning.

The rationale for carrying out a study on personality traits and learner abilities in learning context in the context of organized UTUAT 2 attributes during online learning in the war-affected areas of Pakistan is to investigate how person's certain personality characteristics, mentioned and defined in the Five Factor Model of personality, affect learners' interest and achievement in learning conducted through online platforms in conflict zones. In the context of the present study, the focus is placed on the analysis of the UTUAT 2 attributes, including Understanding, Transfer, Use, Application, and Technology, and their impact on learners' capability with reference to the existing conditions of online education and adaptation mechanisms and success indicators. Further, the study aims at finding out the experiences of students in the conflict zones that may act as the barriers to the online learning process, and how personality characteristics and student capability can prevent them. In its capacity as a discussion of the findings, it is recommended that the present study could contribute to the advancement of learners' intervention and support systems with reference to educators and policymakers so that students' personality types could be effectively suited to war affected areas with an online learning environment.

The relevance of this study is found in the ability it has to explain and guide learning practices and policies where normal learning environments are threatened by conflict. This way, the research may inform the enhancement of online learning approaches more suitable to the learners in such areas based on the interaction between personality characteristics and learner aptitudes. Furthermore, the findings may help educators create inclusive learning environments that accommodate diverse learner profiles, ultimately improving educational outcomes and fostering resilience among students facing the challenges of war. This study also adds to the growing body of literature on online education in crisis settings, providing valuable insights that can be applied in similar contexts globally.

Literature Review

With the development of education technologies, the online learning became one of the most essential parts of the learning process due to its flexibility. Nevertheless, it has been found that results of online learning may differ from one person to another. It is therefore important to determine the variables that may affect the students in this environment with a view of enhancing the educational achievement. Hence, the person variables, being primary characteristics of individual differences, have come out as the most plausible approaches towards the study of such variations. One of the most well-accepted models in the field of psychology is the Big Five personality model that describes individuals' differences in details. These traits, often referred to as the OCEAN model, include: Openness to Experience: This is a personality characterised by the ability to imagine, create and be receptive to new ideas and experiences. Specifically, openness is directly associated with greater superiority of ideas, greater curiosity, and higher levels of openness. (McCrae & Costa, 1987). Conscientiousness: This trait can be defined as a person's ability or the extent to which he/she is organized, disciplined and goal directed. It is well understood that people who are high on conscientiousness are normally more responsible, responsible and obsessed. (Goldberg, 1990). Extraversion: This trait is connected to the aspects of a person's sociability, assertiveness, and excitement- seeking. If a person has a high level of introversion, it is likely to be more active and social, get a lot of pleasure from it. (Eysenck, 1981). Agreeableness: This trait has to do with the cooperation, reliability and the ability to feel for others. People with high level of agreeableness are usually more friendly and they are more likely to be forgiving and willing to help. (McCrae & John, 1992). Neuroticism: This trait describes how Much stress or how prone a person is to become stressed or to have negative emotions. When a person scores high in neuroticism he or she is likely to get stressed, anxious or have mood swings. (Costa & McCrae, 1992)

Personality Traits related to Online Learning

Research has investigated the big five personality factors in connection with many facets of learning environment, including behavioral characteristics, academic aptitude, approach to learning; and to learning activities. In the context of online learning, these traits can influence a student's success in several ways:

Motivation and Engagement

Openness to Experience: Individuals high in openness are more likely to be intrinsically motivated to learn and explore new ideas. They may find online learning environments stimulating and engaging, as they offer opportunities for self-directed exploration and discovery. (Robbins & Judge, 2011). Conscientiousness: Perfectionism makes people self-disciplined and well-organized, which might be crucial for responding to the multiple challenges of online learning. It may make them more disciplined to attend to whatever lookout they have set, ensure that they submit assignments when due and also take an active participation in the different online forums. (Elliot & Thrash, 2010). Extraversion: Even though extraversion predetermines people's activities related to social interactions this factor can also impact on students attending on-line classes. Extraverts will be expected to post often on the discussion forum, follow the work of their peers, and ask the instructors for feedback. (Schutte & Grégoire, 2010)

Approaches to Learning and Preferences

Openness to Experience: Based on the personality trait of openness, people may have preferences towards learning which exposes them to more information, encourages creative thinking and critical analysis. They might prefer multimedia integrated courses with support of cases and free Internet access to study additional materials. Gardner (1983), comfortable with novelty, people high in openness are also apt to embrace new technologies and assume well to changing learning scenarios. It may be possible to enter the lecture assuming that the students are more inclined towards the use of online learning tools and resources as has been found by Mayer (2008). Conscientiousness: It can be assumed that conscientious personalities are more willing to spend time and energy on mastering new technologies and skills for distance learning. (Citation 8: Zimmerman, 1994). Perfectionists might select learning environments with higher organization embedded into them. It often makes sense to pay particular attention to what is taught in class, the fact that learners are provided with clear instructions and course objectives, step-by-step instructions, and adequate feedback. (Pintrich & Zusman, 1990)

Extraversion: Thus extravert people may well prefer classes which include interaction and group work. They may learn much from online courses that involve group assignments, discussion boards, and peer interaction. Felder & Silverman, 1998). Neuroticism: Such people may feel anxious or frustrated, when they are in a position to deal with any technology. They might need more resources and direction in terms of online learning. (Citation 9: Juvonen & Graham, 2001). Many academic works explored the connection between the Big Five personality indicators and the outcome of online learning. For instance, (CRobbins & Judge, 2011) identified that students who possessed more conscientiousness and openness, acted positively when taking online courses. Elliot & Thrash, (2010) mentioned that extraversion has positive correlation with active involvement in the online discussion. Schutte & Grégoire, (2010) indicated that neuroticism was positively related to stress and anxiety in online learning environment. These personality factors include the Big Five personality traits in influencing students' experiences and outcomes in online learning. The development of different personality types allows one to recognize the

peculiarities of organization and assessment in online classes. Subsequent research studies to the present investigation should expand previous works focusing on the interconnection between personality, learning preferences and effectiveness of online learning with a consideration on how to enhance the online learning experience of students with different personality characteristics.

The combined effects of UTAUT2 perceived attributes and personality characteristics in online learning environment are as follows:

This paper adopts Unified Theory of Acceptance and Use of Technology (UTAUT2) that is one of the commonly used models to analyse technology adoption and usage. It proposes four key constructs that influence individuals' intentions and behaviors regarding technology adoption: performance expectancy, social influence, effort expectancy and facilitating conditions, hedonic motive and price vale. These perceived control factors, alongside with some personality factors, would offer a broader picture of people's learning processes in the conventional online learning contexts.

Performance expectancy and Attitudes

Performance expectancy in regard to a particular technology, in simpler terms, is the belief that the use of such a product will enhance the user's performance or his/her standard of living. This belief may be affected by personality traits. For example, the kind of person who scores high in the openness to experience trait will have higher expectations of achievements since they perceive online learning as a way of obtaining new knowledge and skills. (Citation 1: On the other hand, those having high level of neuroticism may not easily accept such change because they may fear the failure and negative repercussion that may arise from the new technologies. (Citation 2: Liu & Liu, 2023)

Social Pressure and Personality Characteristics

Social influence is the perceived pressure by individuals in a society to either use or not to use a given technology. Individual attributes also affect people's perception of social influence. While, extraverteds could be more influenced by the social factors such as pressure to subscribe to the online learning platforms as opposed to introverted people who are less easily swayed by social influences. (Citation 3: Tlili et al., 2019)

This paper focuses on two independent variables which are effort expectancy and personality traits.

Effort expectancy on the other hand means how the extent to which an individual perceives that using a technology is demanding. Such perception of individuals can be influenced with personality traits. People who are legalistic may also be more inclined to view online learning as something that is effortful and therefore maybe well-disposed to spend time and effort to learn more on technology. Contribution: The results further imply that different levels of self-enhancement have an impact on how much online learning is considered to be effortful; whereas, disinclination toward agency might make agreeable participants less inclined to seek help from others. (Citation 4: Fatahi, 2019).

These instances are the reflectors of facilitating conditions and the personality traits corresponding to them.

Enabling factors are in relation to the physical and technical requirements necessary to operate a given technology. Facilitating conditions are felt differently by different people depending on their personality. Perceived facilitating conditions might be more favourable among individuals with high openness to experience and high level of conscientiousness because they may be willing to go out and seek for the necessary information and resources in order to engage in online learning. (Citation 5: Venkatesh et al., 2012)

Hedonic Motivation and Personality Traits

Hedonic motivation refers to the extent to which an individual believes that using a technology will be enjoyable or fun. Personality traits can significantly impact hedonic motivation. Extraverted individuals may be more likely to perceive online learning as enjoyable and engaging, while neurotic individuals may find online learning stressful or overwhelming. (Citation 6: Liu & Liu, 2023)

Price Value and Personality Traits

The price value of a technology thus means the perceived value of the benefits to be gained from the new technology, measured against the perceived cost of implementing the technology. Cost effectiveness can also be defined depending on personality aspects that define the perception of the price value of online learning. Extraordinarily proactive people should be inclined to decide the costs and benefits of online learning before making a final decision, whereas self identified openness may endow with independent perspective on the significance of online learning (Venkatesh et al., 2003).

Alignment of some of the predetermined UTAUT2 attributes and personality aspects gives deeper insight of the adoption and usage of online learning platforms. Through embracing technological factors both the researchers and the practitioners will be in a position to extend the effective strategies to increase the adoption and usage of the online learning tools. It is recommended that subsequent studies should focus on which of the UTAUT2 constructs' attributes offer the highest prediction of online learning adoption and success.

Conclusion and Recommendations.

The relation of students' personality characteristics with the attributes of UTAUT2 through detail literature demonstrates the complex interactions that underpin people's decision making to engage in online learning. In making use of both technological aspects and characteristics of individuals, the researchers and practitioners will be in a good position to understand the necessary factors that lead to the adoption or otherwise of online learning as well as factors that may enhance effective of the online learning processes. It was also found out that personality had an even more direct impact on people's attitude or impression about online learning. Hypothesized predictors include openness to experience, achievement motivation, extraversion, agreeableness, and neuroticism on student motivation and engagement, learning preferences, and technological literacy.Application of UTATT2 attributes offers the most structured model to study technology acceptance and usage. Based on

performance expectancy, social influence, effort expectancy, facilitating conditions, hedonic motivation, and price value, researchers are able to comprehend which aspects are significant to the user decision on the use of online learning platforms.

The results of literature review provide evidence that the relationship between personality traits and the attributes of UTAUT2 can explain the outcomes of online learning. The way in which these factors influence can be helping practitioners to come up with improved strategies in regard to the adoption and implementation of online learning.

Recommendations:

Personalized Online Learning Experiences: We have to call for better and more challenging approaches to design and develop environments within which to learn online paying a lot of attention to the profile of personality of potential learners. This may include presenting several learning activities; giving feedback to the participants; and including components that are related to learning mode preference.

1. Leverage Personality Assessments: Personality appraisal may be applied to get insight into the students' personality profile. Such information can then be applied to offer students suggestions concerning the types of approaches appropriate for online learning.

2. Foster a Supportive Learning Community: Support social learning among the students especially those learners who benefit from social learning in online learning environment. It can assist in dealing with issues regarding extraversion and neuroticisms and lay a positive environment that enriches online learning procedures.

3. Integrate Personality Factors into Online Learning Design: Integrate elements of users' personality into the models of creating courses and platforms for distance learning. This can entail development of learning activities that correspond with personality types that are exhibited and also granting the students capacity to select their learning formats.

4. Conduct Further Research: While the subjects' personality characteristics and attitudes to the components of UTAUT2 were described above, further research is needed to explain their relationship better. This work can have implications that reveal other variables which impact the use and effectiveness of online learning and contribute to the advancement of better educational practices.

Therefore, by adopting implementation of these recommendation and further studies, educators and practitioners could improve the students' performance online by managing their personalities in their classroom settings.

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