B.A.E. AND I MAKE A PERFECT BLEND: PERSONALITY TYPES AS DETERMINANT OF STUDENTS' SATISFACTION TOWARD BLENDED LEARNING

Kate Franzesca B. Inosanto, Graciela Roma V. Legados, and *Lorraine V. Lumawag*

Bachelor of Science in Psychology

Abstract

The researchers conducted the study to determine the level of personality variables and students' satisfaction toward blended learning and to find out if there is a significant relationship between the personality variables and blended learning components (instructor, technology, interaction, set-up, outcome and overall satisfaction). There were 150 college students from ACLC College of Baliuag. These students were under the learning curriculum. The respondents were drawn through random sampling. The research design used was descriptive correlational. The instruments used were Big Five Inventory and Learner's Satisfaction Questionnaire. Data analysis utilized were Pearson Product Moment Correlation to look for the relationship of the variables, and Multiple Regression analysis to determine which of the personality variables highly predicts satisfaction of students toward blended learning components. The findings showed that among the personality traits, conscientiousness is the highest predictor of satisfaction rate of the students toward instructor and openness is the highest predictor of satisfaction towards course set-up and Interaction while there are no personality variables that would predict the satisfaction of students towards blended learning components.

Keywords: personality, satisfaction, blended learning

The use of technology has uncovered opportunities for profound improvements in quality, effectiveness, convenience and cost of learning experiences (Nsofor, Umeh, Ahmed and

Sani, 2014), Thus, educational technology experts and others in education today are looking beyond the automation of traditional teaching models to new approaches to teaching and learning that are better aligned with the 21st century digital age and deliver measurable results (Swan, 2003). One of which is blended learning.

Blended learning is a type of teaching alternative that uses a combination of traditional face-to-face contact with online learning (Taylor, 2007). It is also described as a way of meeting the challenges of tailoring learning and development to the needs of individuals by integrating the innovative and technological advances offered by online learning with the interaction and participation offered in the best of traditional learning (Thorne, 2003).

There were lot of studies that differentiate blended learning from the traditional learning, (Young, 2002; Driscoll, 2003; Chou & Lin, 2005; Rooney, 2007; Allen & Seaman, 2007). All the more, by focusing on what can improve learning, rather than the limitation of the resources, it offers an opportunity to fundamentally re-think how to design and deliver learning programs. The integration of new mobile technologies and online media is proving highly effective in helping schools meet the expectations of 21st century learners while addressing the challenges of limited resources and the special needs of many students (Nsofor, Umeh, Ahmed and Sani, 2014).

Additionally, instructors in blended learning use a range of resources and activities to provide individualized, student-centered learning experiences for their students (Latchem & Jung 2010). The real difference today is the unparalleled access to the internet with its rich sources of information and services and more importantly, the connectivity it offers students and teachers, particularly the ability to create online communities and support networks (Wang, 2007). In same manner, there is a growing use of mobile technologies such as flip cameras, voice recorders, mobile phones and GPS devices extending learning beyond the classroom walls (Nsofor, Umeh, Ahmed and Sani, 2014).

From the distributed learning perspective, the researchers

saw the evidence of the convergence in face-to-face residency requirements and limited face-to-face events, such as orientations and final presentations. There are many reasons that an instructor, trainer, or learner might pick blended learning over other learning options. Osguthorpe and Graham (2003) identified six reasons that one might choose to design or use a blended learning system: pedagogical richness, access to knowledge, social interaction, personal agency, cost-effectiveness, and ease of revision. In the study by Graham, Allen, and Ure (2003, 2005) they found out that, overwhelmingly, people chose Blended Learning for three reasons: improved pedagogy, increased access and flexibility, and increased cost-effectiveness.

On the other hand, Student satisfaction is an important issue and should be considered in the evaluation of course and program effectiveness. In blended learning environments, it is one important outcome that needs to be tracked (Garrison & Kanuka, 2004). In blended learning settings, students value or associate perceived satisfaction with convenience, self-directedness, accessibility, availability of good resources, flexibility, diverse assessment methods, instructor availability, active communication and interaction, appropriate levels of workload, and a variety of activities and assignments (Ausburn, 2004; El Mansour & Mupinga, 2007; Ginns & Ellis, 2007; Welker & Berardino, 2005, 2006).

Locally, selected Philippine high schools had decided to implement a blended learning program as part of its solution to address the problem of classroom shortage and student learning outcomes. For a country with limited resources looking at technology to bridge the gap between those with and without access to quality education, it was expected that its gains should compensate for its costs. For the past decade, there had been calls to reform the Philippine educational system from various sectors of society. Some believed that Philippine education is in a state of crisis with lack of classrooms, lack of funds, poor learning outcomes and increasing drop-out rates as primary reasons (Abad, 2007; Guieb, 2011; Liu, 2008; Meinardus, 2003).

Therefore, this study aimed to know the learning

satisfaction of students in a local College in Baliuag, which utilizes blended learning approach as part of their curriculum. This present study also wanted to know if the blended learning approach affects the type of students' personality. This is a unique study because there is no research conducted in terms of the relationship between personality and blended learning approach.

The term "B.A.E" in this study stood for "Blended Approach in Education," and the title "B.A.E and I Make A Perfect Blend" was used to describe the blended learning approach in education and what component of blended learning was more suitable for each personality types. The result of this research was expected to have an advantage on both student and instructor to enhance their learning and abilities considering their personality types.

Significance of the Study

This study would help the students to deeply understand the blended learning approach as a new way of learning determine the strengths and weaknesses of each personality in the blended learning components and give the learners an awareness of it. Likewise, this study might also enhance the blended learning in the Philippines as the country is only starting to adapt the new way of learning. It might also improve the course when it proved that personality type has a significant relationship towards students' satisfaction in blended learning. This study might also help the instructors to deal with students with specific personality and improving the components that the learner is not satisfied to make the blended learning course a success.

Review of Related Literature

Components of Blended Learning

Instructor

In a blended learning approach, a student's day typically included online learning and small group interaction time with the teachers. The role of faculty in successful blended or online learning had been noted in a number of studies. In a study

conducted by Mayes and Morrison (2008) it was found that, in addition to a well-managed program, it was important that teachers were both interested and competent in teaching in an online context. Blended classroom teacher should be willing to learn, be open to new learning strategies and be a leader. According to Swan (2003), only when the course materials are prepared by an experienced instructor, the curriculum developed for e-learning would have been the greatest impact and would bring about the learners' satisfaction.

Technology

Blended learning is not merely adding technology, a device or a tutoring program. It is not replacing the teachers with computers. Technology integration is when the instructor use technology in a lesson or has students create to show mastery on an app/web tool. According to Graham, (2006) the term blended learning was relatively new in higher education however; the most common position was that blended learning environments combined face-to-face instruction with technology mediated instruction. Young (2002) stated that e-learning technologies could effectively respond to accelerating global competition, increased the quality of learning experiences and removed situational barriers. Oliver and Goerke, (2007) remarked that today's students were inhabitants of a world dominated by the use of information and communication technologies where internet and mobile phone use are commonplace and years of participation in interactive game play have generated skills linked to high level visual, audio, digital, or new media literacy. To support this, Prensky (2001) remarked that learners within this environment effectively accommodated the 'language' of new technologies and its place in their world, and they were comfortable with it because it is, and always has been, part of their reiterated experience.

Set-up

According to a study by Dede (2005), blended learning environments were shared platforms that allow multiple simultaneous participants representing themselves through avatars to communicate with each other, interact with digital

artifacts, and take part in immersive problem solving scenarios and simulations. This engagement enabled a new realm of constructivist learning, enhancing collaborative and individual practice, enabling students to seamlessly use new technologies to access new ways of learning and present ideas or respond to core discussion themes (Prensky, 2001)

According to Grenfell (2009), students had the capacity to talk and interact in real time, while sharing still or moving digital images, audio streams or adding to the digital infrastructure of the virtual environment, by engaging in art learning episodes and mounting simulated art exhibitions of their work. In blended learning, the face-to-face portion was conducted in an instructor-led classroom while the online learning portion could be provided as synchronous or asynchronous. Online synchronous design could be online chat, video-conferencing, and/or conference calls, and asynchronous design could be online discussion boards, online tutorials, online self-assessments, electronic texts, and emails. Asynchronous learning was self-paced, student-centered and offered students learning materials that can be repeated at their convenience. According to Garrison and Kanuka, (2004), there was a shortage in blended learning designs that could be followed by instructors. Although, in the past, the ingredients for blended learning were limited to physical classroom formats like lectures, laboratories, books or hand-outs.

Interaction

To clarify further on blended learning, Driscoll (2003) identified four eclectic definitions: to combine or mix modes of web-based technology like live virtual classroom, self-paced instruction, collaborative learning, streaming video, audio, and text to accomplish an educational goal, to combine various pedagogical approaches like constructivism, behaviourism, cognitivism, to produce an optimal learning outcome with or without instructional technology, to combine any form of instructional technology like videotape, CD-ROM, web-based training, film with face-to-face instructor-led training, To mix or combine instructional technology with actual job tasks in order to create a harmonious effect of learning and working. In fact, blended learning had been used to describe the mixing of

delivery methods to students in distance and face to face, face to face and independent learning as well as the combination of face-to-face instruction with various types of non-classroom technology-mediated delivery like instructional television. In its current guise,

Student's Satisfaction

Most researchers had examined the effectiveness of learning environment through students' academic performances as a result of their test and general percentage average (GPA) but some researchers also concluded that simply looking at students' grades would not determine the effectiveness of a course, since there were other factors that might influence students' satisfaction that seemed to be a very important component for the successful completion of the course (Chang & Fisher, 2003).

The Sloan Consortium defined student satisfaction as, "Students are successful in the learning and are pleased with their experience" (Moore, 2009) while Sweeney and Ingram (2001) define satisfaction as, "the perception of enjoyment and accomplishment in the learning environment." Both of them defined satisfaction with students' accomplishment and success in learning and how pleased and enjoyed the students felt during their experience. Thurmond, Wambach, Connors, and Frey (2002) described student satisfaction as "a concept that reflects outcomes and reciprocity that occur between students and an instructor". With this description, it highlighted how important the student-instructor interaction is and how it influenced students' satisfaction.

Sinclaire (2011) reported three compelling reasons for interest in student satisfaction. First, the Sloan Consortium's "Five Pillars of Quality Online Education" declared student satisfaction to be the most important key to continuing learning. It reflected the learners' evaluation of the quality of all aspects of the educational program (Sloan, 2011). And there was evidence that student satisfaction was positively related to retention and a decision to take one or more additional courses (Booker & Rebman, 2005).

Personality Types

The five-factor model of personality consisted of neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness, each in turn consisting of six facets. Neuroticism includes anxiety, depression, hostility, impulsiveness, self-consciousness, and vulnerability. Extraversion is characterized by warmth, gregariousness, assertiveness, activity, excitement seeking, and positive emotions. Openness includes openness to fantasy, aesthetics, feelings, actions, ideas, and values. The facets of agreeableness include altruism, compliance, modesty, straightforwardness, tender-mindedness, and trust. Conscientiousness includes achievement striving, competence, deliberation, dutifulness, order, and self-discipline (Costa & McCrae, 2002).

According to Bidjerano and Dai (2007), extraversion was indicated by positive feelings and tendency to seek company of others. It represented the tendency to be sociable, assertive, active, upbeat, cheerful, optimistic, and talkative. Such individuals, preferred groups, enjoyed excitement and stimulation, and experienced positive effect such as energy, zeal, and excitement.

Agreeableness was the tendency to be trusting, compliant, caring, considerate, generous, and gentle. Such individuals had an optimistic view of human nature. They were sympathetic to others and had the desire to help others; in return, they expected others to be helpful. In essence, agreeable individuals were prosocial and had communal orientation toward others. (Furnham & Chamorro, 2004)

Conscientiousness individuals were purposeful and determined. They had the tendency to act dutifully, show self-discipline, and aimed for achievement against a measure or outside expectation. Conscientiousness described socially prescribed impulse control that facilitates task- and goal-directed behavior, such as thinking before acting, delaying gratification, following norms and rules, and planning, organizing, and prioritizing tasks (Hurtz & Donovan 2000).

Neuroticism measured the continuum between emotional adjustment or stability and emotional maladjustment or neuroticism. People who had the tendency to experience fear, nervousness, sadness, tension, anger, and guilt were at high end of neuroticism. Individuals scoring at the low end of neuroticism were emotionally stable and even-tempered (Costa & McCrae, 2002).

Impact of Personality Type in Blended Learning

The impact of personality in Blended Learning could be observed in three aspects, first is in the educational environment, communication mode and in the participation of online discussion. This statement was supported in the study of Bolliger and Halupa (2013) where they studied the student's satisfaction with blended and online courses based on personality types.

In concerning personality type, student might settle in one educational environment or another. In the study of Harrington and Loffredo (2010) introverts were more predisposed to distance learning; introverts preferred online courses, whereas extraverts and perceivers preferred campus-based courses.

In the same study of Bolliger (2013), he also mentioned that because of individual differences, Barkhi and Brozovsky (2003/2004) suggest personality type might have an influence on how individuals prefer to receive information and learn of their choice of communication mode. Results of the study confirmed that a rich communication mode was considered more appropriate by feelers and a leaner communication environment was deemed as more appropriate by intuitive.

Learners with different personality type participated differently in online discussions and it was evident in the study of Daughenbaugh (2002) where they found extraverts liked the involvement of chat rooms, threaded discussion and e-mail correspondences of online course, whereas introverts contributed less to chats and discussions.

Reasoning that cognitive ability might reflect what a

student could do, whereas personality traits may reflect what a student will do (Furnham & Chamorro-Premuzic, 2004). Researchers had recently turned attention to understanding how personality traits were related to academic success.

For instance, conscientiousness had consistently emerged as a stable predictor of exam performance (Chamorro-Premuzic & Furnham, 2003) and GPA (Conard, 2006). Combinations of Big Five traits had also been found to predict various educational outcomes. Namely, conscientiousness and openness predicted course performance (Paunonen & Ashton, 2001), and agreeableness, conscientiousness, and openness predicted overall academic performance (Farsides & Woodfield, 2003; Poropat, 2009). Extraversion, openness, and conscientiousness had also been found to predict GPA, especially when students applied previously accumulated knowledge to real life settings (Lievens, Ones, & Dilchert, 2009).

In addition to the Big Five, other traits such as grit or perseverance (Duckworth, Peterson, Matthews, & Kelly, 2007) were also predictive of academic performance. Although these findings confirmed the general significance of personality traits, there remained a need to examine other individual level factors such as students' learning styles.

Theoretical Framework

Five Factor model of Personality

The Five factor model was developed by Costa and McCrae (2003). According to the study of Logue, Lounsbury, Gupka, and Leong (2007) and O'Connor and Paunonen, (2007) there were clear hints for the predictive importance of the Big Five for student's satisfaction. In student's satisfaction, personality could have a big role on how a person views study-related issues especially on blended learning. Additionally, based on research of Künsting and Lipowsky (2011), it indicated a positive effect of conscientiousness on learning satisfaction. Furthermore, most of the studies found that neuroticism had a negative influence on learning satisfaction. However, regarding effects of agreeableness, extraversion, and openness in learning

satisfaction, previous studies did not provide consistent empirical evidence. Students in blended learning might have different levels of satisfaction based on their personality types as blended learning was much different from the traditional face-to-face approach.

Transactional Distance Theory

Moore's theory of transactional distance provided a theoretical framework from which to develop a successful distance learning environment by balancing the interaction of course structure and student-instructor dialog based on the autonomy of the individual student (Burgess, 2006) Transactional distance looked at the interplay bet when dialogue, structure, and learner autonomy and how these variables interact to either increase transactional distance the feeling of connectivity and a measure of efficiency in diminishing communication or to decrease transactional distance. It was a theory that had both a psychological dimension of distance in terms of connectedness, and one that describe efficiency of the interactions in reducing miscommunications around the dialogue and the learning experience. Moore (2009) also discussed the major components in the theory of transactional distance learning. In his theory, Moore proposed that structure, dialog (interaction), and learner autonomy integrate with each other to determine the level of the psychological distance the learners perceive in all learning situations. Shearer (2010) also mentioned earlier, there was a transactional distance in any teaching situation that was different from traditional teaching. As a result of this, the major components affecting teaching and learning at a distance as proposed to be had the same component affecting teaching and learning in blended learning.

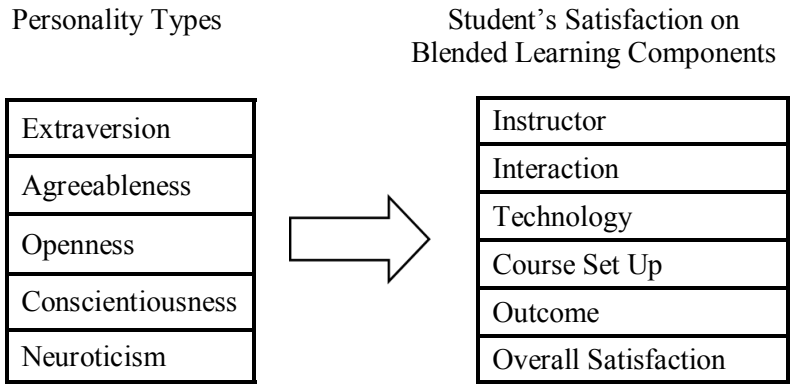

Figure 1. Schematic diagram of conceptual framework.

This study focused on personality type as predictors of students' satisfaction towards blended learning. This aimed to study if what blended learning component a student becomes more satisfied based on student's personality type. This study wanted to examine if there is a relationship between students' personality type based on Big 5 Personality Traits (Extraversion, Agreeableness, Openness, Conscientiousness and Neuroticism) and if these personality types had an effect on learner's satisfaction towards blended learning and its different components and outcomes and overall satisfaction

Research Problem

1. What is the level of the respondents based on:
   a. Personality Variables;
   b. Satisfaction toward blended learning components
2. Is there a significant relationship between satisfaction of students in blended learning and types of personality:
   a. Extraversion
   b. Conscientiousness
   c. Neuroticism
   d. Openness
   e. Agreeableness
3. Which among these personality types (Extraversion, Conscientiousness, Neuroticism, Openness and Agreeableness) highly predicts the satisfaction rates of students toward blended learning components (Instructor, Interaction, Technology and Course Set-up)?

Research Design

This study is a descriptive correlational, it is a type of non-experimental method that predicts the relationship of two or more variables (Jackson, 2006). It determines whether two or more naturally occurring variables are related to each other and assess the strengths of the relationships existed between measured variables (Graciano & Raulin, 2007). The relationships of variables could be positive, negative, none, or curvilinear, and magnitude, such as weak, moderate, or strong.

Sampling

This study used 150 college students from ACLC College of Baliuag that were drawn with the use of random sampling. There were 97 male students and 53 female students who are enrolled for the School Year 2017 – 2018 who answered the questionnaires. The students were assured that their responses would have no bearing on their academic standing but would instead help them to know how to adjust with the changes in their learning environment.

Instrumentation

Big Five Inventory (BFI)

The personality types of students in this study were measured based on Big Five Inventory (BFI) that was developed by John and Srivastava (1999) Big Five Inventory is a 44-item likert test that has been divided into 5 categories which are Extraversion, Agreeableness, Neuroticism, Openness and Conscientiousness. The inventory would be answered by 1 (Strongly Disagree), 2 (Disagree), 3 (Agree) and 4 (Strongly Agree). Sample from the Big Five Inventory included: Extraversion *"I am outgoing and sociable."* Agreeableness *"I am helpful and unselfish with others."*; Neuroticism *"I worry a lot."*;

Openness *"I am creative and a deep thinker."*; Conscientiousness *"I make plans and follow through with them."* The Cronbach's Alphas obtained were above the minimum acceptable level of 0.7 as suggested by DeVellis (2003)

Learner's Satisfaction Questionnaire

The learner's satisfaction questionnaire was based on Bolliger and Martindale (2004). The questionnaire had 24 items that were divided into six (6) subscales following student's satisfaction on blended learning components, its outcomes and the overall satisfaction from the course which are instructor, technology, course setup, interaction, outcomes and the overall satisfaction. All subscales were comprised of 4 items. The satisfaction questionnaire had 24 four-point Likert scale questions ranging from 1 (strongly disagree), 2 (disagree), 3 (agree) and 4 (strongly agree) based on the preference of the participants. Sample items from the 6 dimensions were as follows: Instructor *"I am dissatisfied with the accessibility and availability of the instructor."*; Technology *"I am satisfied with how I am able to navigate within the course management system."*; Course Setup *"I am satisfied with the flexibility this course delivery method affords me"*; Interaction *"I am satisfied with the quality of interaction between all involved parties."*; Outcomes *"I believe I will be satisfied with my final grade in the course."*; Overall Satisfaction *"My level of satisfaction in this course would encourage me to enroll in another course that is delivered in this way."* The student satisfaction questionnaire's reliability was high (a=.91), and the reliability of all subscales was acceptable: (a) instructor (a=.82), (b) technology (a=.76), (c) course setup (a=.60), (d) interaction (a=.60), (e) outcomes (a=.72), and (f) overall satisfaction (a=.85) (Bolliger & Halupa, 2012)

Data Collection and Analysis Procedures

The data were gathered using the International Business Machines Statistical Package for the Social Sciences Statistics version 20 (IBM SPSS v.20). Descriptive statistics was used to describe the profile, personality and satisfaction. This study used

Pearson Product Moment Correlation to measure the relationship of student's satisfaction on blended learning and student's personality type. Researchers also made use of the Regression Analyses to predict which component of Blended Learning Approach students are more satisfied.

Results

Table 1. Descriptive statistics of personality variables.

Personality	Mean	SD	Verbal Description
Extraversion	2.70	1.79	Moderate
Conscientiousness	2.61	.38	Moderate
Agreeableness	2.65	.38	Moderate
Neuroticism	2.48	.36	Moderate
Openness	2.73	.42	Moderate

Table 1 showed the descriptive statistics of the personality variables of the participants. Openness is the personality with the highest mean (M = 2.73, SD = 0.42), while Neuroticism is the personality with the lowest mean (M = 2.48, SD = 0.36).

Table 2. Descriptive statistics of blended learning components.

Blended Learning Components	Mean	SD	Verbal Description
Instructor	2.57	.49	Moderate
Technology	2.50	.50	Moderate
Set-Up	2.69	.52	Moderate
Interaction	2.71	.46	Moderate
Outcome	2.89	.52	Moderate
Global Score	3.26	1.45	Moderate

Table 2 showed the descriptive statistics of the blended learning components. The mean scores and standard deviations

are the following: Outcome M=2.89, SD=0.52; Interaction M=2.71, SD=0.46; Set-up M=2.69, SD= 0.52; Instructor M=2.57, SD=0.49; Technology M=2.50, SD=0.50; Global score M=3.26, SD=1.45.

Table 3. Correlation of extraversion towards the blended learning approach components.

Satisfaction Scale	*r*	*Sig.*	Description
Instructor	-.013	.572	No or Negligible Relationship
Technology	-.001	.993	No or Negligible Relationship
Set-up	-.054	.514	No or Negligible Relationship
Interaction	-.071	.385	No or Negligible Relationship
Outcome	-.031	.708	No or Negligible Relationship
Global Score	-.057	.289	No or Negligible Relationship

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

Table 3 showed the correlation of extraversion towards blended learning components. In terms of extraversion it showed no correlation and significance with the blended learning components. Extraversion was characterized by warmth assertiveness excitement seeking and positive emotion according to Costa and McCrae (2002). Students with high extraversion prefer interaction with instructor, as extraversion was indicated by tendency to seek company of others and prefer groups according to Bidjerano and Dai (2007). The extrovert personality of the students helped them establish good relationship with the instructor that gave rise to their satisfaction towards the component.

Table 4. Correlation of agreeableness towards the blended learning approach components

Satisfaction Scale	R	Sig.	Description
Instructor	.250	.002	Weak Positive Relationship
Technology	.013	.876	No or Negligible Relationship
Set-up	-.059	.475	No or Negligible Relationship
Interaction	.125	.126	No or Negligible Relationship
Outcome	.061	.455	No or Negligible Relationship
Global Score	.071	.385	No or Negligible Relationship

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

Table 4 showed the correlation of Agreeableness to blended learning components. The table showed that agreeableness had weak correlation and significance in instructor and no correlation and significance with the other components.

Table 5. Correlation of conscientiousness towards the blended learning approach components.

Satisfaction Scale	R	Sig.	Description
Instructor	.278	.001	Weak Positive Relationship
Technology	.110	.181	No or Negligible Relationship
Set-up	.056	.498	No or Negligible Relationship
Interaction	.195	.017	Weak Positive Relationship
Outcome	.075	.362	No or Negligible Relationship
Global Score	.011	.897	No or Negligible Relationship

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

Table 5 showed the correlation of conscientiousness to the blended learning components. The table showed that it had weak correlation and significance with the instructor and

interaction and no correlation and significance with the remaining components.

Table 6. Correlation of neuroticism towards the blended learning approach components.

Satisfaction Scale	R	Sig.	Description
Instructor	-.120	.143	No or Negligible Relationship
Technology	.074	.369	No or Negligible Relationship
Set-up	-.055	.501	No or Negligible Relationship
Interaction	.030	.715	No or Negligible Relationship
Outcome	.084	.305	No or Negligible Relationship
Global Score	-.105	.199	No or Negligible Relationship

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

Table 6 showed the correlation of Neuroticism towards the blended learning components. It showed that neuroticism had no correlation and significance with any of the components. As Costa and McCrae (2002) stated that students with high neuroticism include hostility and vulnerability they also had the tendency to experience fear, nervousness, sadness, tension, anger, and guilt. It meant that even if the student got a high or low score in neuroticism it would not affect their satisfaction.

Table 7. Correlation of openness towards the blended learning approach components.

Satisfaction Scale	R	Sig.	Description
Instructor	.202	.013	Weak Positive Relationship
Technology	.158	.053	No or Negligible Relationship
Set-up	.244	.003	Weak Positive Relationship
Interaction	.265	.001	Weak Positive Relationship
Outcome	.129	.116	No or Negligible Relationship
Global Score	.183	.025	Weak Positive Relationship

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

Table 7 showed the correlation of openness to blended learning components. It showed that it had weak correlation and significance with instructor, set-up, interaction and global score no correlation and significance with other components.

Table 8. Regression analysis of instructor towards the personality variables

Personality Types	*B*	*R*	R^2	*t*	*F*	*Sig*
Extraversion	-.007	.342	.117	-.318	3.826	.751
Agreeableness	.165	.342	.117	1.455	3.826	.148
Conscientiousness	.273	.342	.117	2.076	3.826	.040
Neuroticism	-.106	.342	.117	-.974	3.826	.332
Openness	.140	.342	.117	1.437	3.826	.153

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

Table 8 showed the regression analysis of the instructor towards the personality variables. It showed that conscientious personality was the predictor of the satisfaction in the instructor component. In Beta Coefficients and variations, for every unit increase of Conscientiousness, Satisfaction rate increased by .273 and t value of 2.076with an adjusted r^2 value of .117.

Table 9. Regression analysis of technology towards the personality variables

Personality Types	*B*	*R*	R^2	*T*	*F*	*Sig*
Extraversion	-.003	.195	.038	-.140	1.144	.889
Agreeableness	-.074	.195	.038	-.607	1.144	.545
Conscientiousness	.161	.195	.038	1.133	1.144	.259
Neuroticism	.100	.195	.038	.845	1.144	.400
Openness	.169	.195	.038	1.605	1.144	.111

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

Table 9 showed the regression analysis of technology

towards the personality variables. It showed that there was no personality variable that would predict the students' satisfaction towards technology component. What affect the satisfaction towards the technology component is the access to technology and right speed of internet and services by the institution (Rosenblatt, 2004; Belanger & Jordan, 2000).

Table 10. Regression analysis of set-up towards the personality variables.

Personality Types	*B*	*R*	R^2	*T*	*F*	*Sig*
Extraversion	-.019	.302	.091	-.832	2.895	.407
Agreeableness	-.236	.302	.091	-1.919	2.895	.057
Conscientiousness	.058	.302	.091	.406	2.895	.686
Neuroticism	-.142	.302	.091	-1.197	2.895	.233
Openness	.360	.302	.091	3.384	2.895	.001

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

Table 10 showed the regression analysis of set-up towards the personality variables. It showed that openness personality type was the only predictor of student's satisfaction with the set-up component. In Beta Coefficients and variations, for every unit increase of Conscientiousness, Satisfaction rate increased by .058 and t value of.406 with an adjusted r^2 value of .091.

Table 11. Regression analysis of interaction towards the personality variables

Personality Types	*B*	*R*	R^2	*T*	*F*	*Sig*
Extraversion	-.021	.308	.095	-1.043	3.015	.299
Agreeableness	.013	.308	.095	.117	3.015	.907
Conscientiousness	.198	.308	.095	1.590	3.015	.114
Neuroticism	.049	.308	.095	.472	3.015	.637
Openness	.241	.308	.095	2.604	3.015	.010

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

Table 11 showed the regression analysis of interaction towards the personality variables. It showed that Openness was the predictor of students' satisfaction towards interaction component. In Beta Coefficients and variations, for every unit increase of Openness, Satisfaction rate increased by .241 and *t*-value of 2.604 with an adjusted r^2 value of .095.

Table 12. Regression analysis of outcome towards the personality variables

Personality Types	*B*	*R*	R^2	*T*	*F*	*Sig*
Extraversion	-.011	.165	.027	-.400	.808	.690
Agreeableness	.044	.165	.027	.290	.808	.772
Conscientiousness	.098	.165	.027	.555	.808	.580
Neuroticism	.156	.165	.027	1.067	.808	.288
Openness	.152	.165	.017	1.161	.808	.248

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

Table 12 showed the regression analysis of Outcome towards the personality variables. It showed that no personality type could highly predict the students' satisfaction in the outcome component. Even though that outcome had the highest result in satisfaction, personality might not be the determinant.

Table 13. Regression analysis of global score towards the personality variables

Personality Types	*B*	*R*	R^2	*T*	*F*	*Sig*
Extraversion	-.068	.242	.058	-1.026	1.785	.307
Agreeableness	.061	.242	.058	.176	1.785	.861
Conscientiousness	-.285	.242	.058	-.703	1.785	.483
Neuroticism	-.507	.242	.058	-1.507	1.785	.134
Openness	.711	.242	.058	2.364	1.785	.019

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

Table 13 showed the analysis of global sore towards the personality variables. It showed that openness was the predictor of students' over-all satisfaction towards blended learning. Openness had been shown to have a positive correlation with standardized measures of knowledge and achievement and was modestly correlated with cognitive ability and had been positively associated with final grades, even when controlling for intelligence. In Beta Coefficients and variations, for every unit increase of Openness, Satisfaction rate increased by .711 and *t*-value of 2.364 with an adjusted r^2 value of .058.

Discussion

The present study conducted by the researchers used quantitative method to gather information that would answer the research questions from the selected college students who used blended learning from ACLC College-Baliuag Campus. The quantitative method was used to measure the personality and satisfaction of the students toward the Blended Learning approach (BLA). This study also aimed to ascertain the relationship of student's personality and their satisfaction towards the different components of Blended Learning (Instructor, Technology, Interaction, Set-up and Outcome).

Based on the results from the personality test, scores showed that from the 150 participants, the highest personality variables of the students were Openness with a mean of 2.73. According to the study of Costa and McCrae (2002), Openness includes openness to fantasy, aesthetics, feelings, actions, ideas, and values. People, who have this personality trait, tend to be more open-minded from situations as well as from the ideas, suggestions and feedbacks from other people. In addition, Neuroticism personality trait had the lowest mean of 2.48. From the study of Costa and McCrae (2002) it stated that neuroticism measures the continuum between emotional adjustment or stability and emotional maladjustment or neuroticism. People who have the tendency to experience fear, nervousness, sadness, tension, anger, and guilt are at high end of neuroticism. Based from these results, it only showed that people really have differences, particularly from their personality.

The satisfaction rate of students toward Blended Learning in this study was moderate (M=3.26, SD=1.45). It was supported by the study of Barkhi and Brozovsky (2003/2004), where they suggested that personality type might have an influence on how individuals prefer to receive information and learn or their choice of communication mode. However, aside from student's personality, there were other factors which might affect the satisfaction of the students. From different studies conducted by Ausburn (2004), El Mansour and Mupinga (2007), Ginns and Ellis (2007) Welker and Berardino (2005/2006) students value or associate perceived satisfaction with convenience, self-directedness, accessibility, availability of good resources, flexibility, diverse assessment methods, instructor availability, active communication and interaction, appropriate levels of workload, and a variety of activities and assignments. These suggested that aside from personality traits, components of blended learning itself (Instructor, Technology, Interaction, Set-up and Outcome) might influence on how a student would perceive the blended learning approach and how they would be satisfied.

From the different components of Blended Learning, results showed that Course Outcome had the highest score of mean (M=2.89) and the lowest was Technology, having a mean score of 2.61. According to the study of Kintu, Zhu and Kagambe (2017), Course Outcome included performance, motivation, satisfaction and knowledge construction. And according to Lim and Kim, (2003) they indicated that learner interest as a motivation factor promoted learner involvement in learning and this could lead to learning effectiveness in blended learning. Technology, according to Smart and Cappel (2006), used in online and blended learning environments enriched the learning experience and might contribute to student's satisfaction. It proved that the technology used by ACLC students of Baliuag caused the negative rate of satisfaction compared to the other components, because according to Piccoli, Ahmad and Ives (2001), poor quality of technology gave an unsatisfying feeling to users. The low satisfaction of students of ACLC Baliuag was supported by their experiences.

Extraversion, according to the study of Bidjerano and Dai (2007), is indicated by positive feelings and tendency to seek company of others. Based on the results, Extraversion had no relationship and significance to any of the components of Blended Learning. (Instructor, Interaction, Technology, Set-Up and Outcome). It was supported by the study of Stojanovska, Malinovski, Vasileva, Jovevski and Trajkovik (2015), wherein they stated that Extraversion had no significant impact on student's academic success and satisfaction. According to them, perceived satisfaction also depended on multiple subjective factors such as relationship with the lecturer and the peers, and environmental factors regarding the classroom environment, use of technology and content presentation. This only showed that even though a person has positive feelings about other people and is sociable, it would not affect the person's satisfaction towards blended learning as learning styles and other environmental factors might influence the satisfaction of the students.

Another personality trait that the researcher measured to know its relationship with satisfaction towards the blended learning components was Neuroticism, which also showed no relationship and no significant difference. This was supported by the study conducted by DeBourgh (2003), wherein personality was not the only factor which might affect the student's satisfaction, the degree of student satisfaction and likelihood of subsequent enrollment in online courses depends, in part, in how well the courses were planned and taught.

Agreeableness had weak positive correlation and significance to instructor. Agreeableness, according to Furnham & Chamorro, (2004), is the tendency to be trusting, compliant, caring, considerate, generous, and gentle. They were optimistic and sympathetic. In the study conducted by Swan (2003) instructor tend to have a big impact and experienced instructor improve learner's satisfaction. Jaggars, Edgecombe and Stacey's (2013) noted in their study that active instructors who asks the students some questions and feedback perceived as superiors. Also, in the study by Allen and Seaman (2015) it was said that students felt closer and acquainted to their teachers and classmates when they were in the interactive sessions. Thus, if

the instructor was not trained enough for blended curriculum then the student would not be fully satisfied in this component.

On the other hand, conscientiousness individuals were purposeful and determined. They were concerned with doing something correctly. Conscientiousness also had a weak correlation and significance in instructor and interaction. This was supported by the study of Anderson, Rourke, Garrison and Archer (2001), wherein the instructors who were more attentive and responsive to the student personally would be able to provide instructions directly and they would be able to relate the lessons they've been discussing in personal and detailed way. Conscientiousness makes student likes doing this right that is why they need clear instructions which can only be met if the instructors said it personally. However, if this component is not well implemented, student satisfaction will also not be met in order for the students to be satisfied.

Openness included openness to fantasy, aesthetics, feelings, actions, ideas, and values. Openness had weak positive correlation and had a significant effect in instructor, set-up, interaction and over-all satisfaction. It was supported by the study of Marriot and Selwyn (2004) whereas the students were more in favor of the face-to-face teaching method rather than online interaction because of interaction and communication skills they acquire. Kelley and Gorham (2009) noted in their study that interacting boost the relationship and learning between instructors and learners by sharing each other's ideas, opinions and non-verbal cues. It only showed that students who have this personality type were to be likely satisfied if there was interaction between their schoolmates and instructors.

The coefficient for technology is not significantly different for personality types (Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness). According to a study conducted by (Rosenblatt, 2004; Belanger & Jordan, 2000) there were two factors affecting the student's satisfaction when it comes to this component of blended learning, first is the access to technology and second, right speed of Internet and services by the institution. Also, in a study by Smart and Cappel (2006), they

noted that technologies used in online and blended learning environments enriched the learning experience, and did more than what we could do in face-to-face environment and in other approaches. But because of the differences in institutions some of them did not meet the standards of students when it comes to the use of technology.

Instructor, on the other hand, had a significant difference on conscientiousness but also was not significantly different from Extraversion, Agreeableness, Neuroticism and openness. The role of faculty in successful blended or online learning had been noted in a number of studies. In a study conducted by Mayes and Morrison (2008) it was found that, in addition to a well-managed program, it was important that teachers were both interested and competent in teaching in an online context. Conscientiousness individuals were more satisfied in instructor because they were more concerned in rules and instructions which were met by the instructors.

Another component was set-up and interaction showed no significant difference in these personality types aside from openness. According to a study by Grenfell (2009), students had the ability to talk and interact in real time, while sharing still or moving digital images, audio streams or adding to the digital infrastructure of the virtual environment, by engaging in art learning episodes and mounting simulated art exhibitions of their work. It was expected for this personality type to have significance in this component given the nature of their personality.

Outcome showed no significant difference among 5 personality types. Eon, Wen and Ashill (2006), stated in their study that self-motivation, student learning style and instructor knowledge facilitation were the predictors of learning outcomes in an on line environment learning, It only showed that it was not the personality alone that could determine the satisfaction of students in blended learning environment.

Global score was significantly different in openness but not in 4 other components. Barkhi and Brozovsky (2003/2004) suggested personality type might have an influence on how

individuals prefer to receive information and learn or their choice of communication mode. Results of the study confirmed that a rich communication mode was considered more appropriate by feelers and leaner communication environment was more appropriate by intuitive.

Recommendation

The researchers recommended that this study be conducted in other universities and colleges as well as in K-12 education that uses blended learning approach to get more relevant findings of the results. However, the school, curriculum, facilities and teacher's readiness for this approach should be included for future researches to determine how these factors, aside from the personality of the students, affect the student's satisfaction toward the blended learning components. Furthermore, future researchers could also give personality test questionnaires first to have their participants equally distributed to different personality types.

It is also recommended to have a study on how students perceived blended learning and what possible solutions can the university do to improve the curriculum of blended learning approach. Future researchers might also include other variables that would determine the student's satisfaction and readiness towards Blended learning. It was also recommended to conduct this kind of research to other areas of Baliuag, Bulacan before conducting with other universities in Manila.

References

Abad, B. (2007). The State of Philippine Public Basic Education: Problems and Approaches. Dumaguete City, Philippines.

Allen, I. E., & Seaman, J. (2015). Grade level: Tracking online education in the United States. A research report for Pearson Education. Retrieved from: http://www.online learningsurvey.com/reports/gradechange.pdf

Anderson, T., Rourke, L., Garrison, D. R., & Archer, W. (2001). Assessing teaching presence in a computer conferencing environment. Journal of Asynchronous Learning Networks, 5(2).

Ausburn, L. J. (2004). Course design elements most valued by adult learners in blended online education environments: An American perspective. Educational Media International, 41(4), 327-337.

Barkhi, R., & Brozovsky, J. (2003/2004). The influence of personality type on a distance course in accounting. Journal of Educational Technology Systems, 32(2 & 3), 179-198.

Belanger, F., & Jordan, D. H. (2000). Evaluation and implementation of distance learning: Technologies, tools and techniques. Hershey, PA: Idea Publishing Group.

Bidjerano, T. and Dai D.Y. .2007 The relationship between the Big-Five model of personality and self-regulated learning strategies. Learning and Individual Difference. (17) 69-81

Booker, Q. E., & Rebman, C. E. (2005). E-student retention: Factors affecting customer loyalty for online program success. Issues in Information Systems, 1(1), 183-189.

Bolliger, D.U., & Halupa, C. (2012). Student Satisfaction and anxiety in an Online Doctoral Program. Distance Education, 33(1), 81-98.

Bolliger, D. U., & Martindale, T. (2004). Key factors for determining student satisfaction in online courses. International Journal on E-Learning, 3(1), 61-67

Chamorro-Premuzic, T., & Furnham, A. (2003). Personality traits and academic examination performance. European Journal of Personality, 17, 237–250.

Chang, V., & Fisher, D. (2003). The validation and application of a new learning environment instrument for online learning in higher education. In M. S. Khine & D. Fisher (Eds.), Technology-rich learning environments: A future perspective, 1-18.

Chou S.S. & Lin C.H. (2005). Learning effectiveness in a web-based virtual learning environment: A learner control perspective. Retrieved from http://anitacrawley.net/Articles/Learning%20effectiveness%20in%20a%20Web based%20virtual.pdf

Conard, M. A. (2006). Aptitude is not enough: How personality and behavior predict academic performance. Journal of Research in Personality, 40, 339–346

Daughenbaugh, R., Daughenbaugh, L., Surry, D., & Islam, M. (2002). Personality type and online versus in-class course satisfaction: A study of student personality types showed surprising preferences for the medium of instruction. EDUCAUSE Quarterly, 25(3), 71-72.

Dede, C. (2005). Planning for Neo-millennial Learning Styles: Implications for Investment in Technology and Faculty. Educating the Net Generation, 226-247. Retrieved from www.educause.edu/educatingthenetgen

DeVellis, R.F. (2003). Scale development: Theory and applications (2nd ed.), California: Sage.

Driscoll, M. (2003) Blended learning: Let's get beyond the hype. Retrieved from http://www8.ibm.com/services/pdf/blended_learning.pdf

El Mansour, B., & Mupinga, D. M. (2007). Students' positive and negative experiences in hybrid and online classes. College Student Journal, 41(1), 242-248.

Eom, S., Wen, H.J., Ashill, N. (2006). The Determinants of Students' Perceived Learning Outcomes and Satisfaction in University Online Education: An Empirical Investigation. Decision Sciences, 4(2), 215-235. doi: 10.1111/j.1540-4609.2006.00114.x

Farsides, T., & Woodfield, R. (2003). Individual differences and undergraduate academic success: The roles of personality, intelligence, and application. Personality and Individual Differences, 34, 1225–1243.

Furnham, A., & Chamorro-Premuzic, T. (2004). Personality and intelligence as predictors of statistics examination grades. Personality and Individual Differences, 37, 943-955.

Garrison, D. R., and Kanuka, H. (2004). Blended learning: Uncovering its transformative potential in higher education. The Internet and Higher Education, 7, 95-105.

Harrington, R., & Loffredo, D. A. (2010). MBTI personality type and other factors that relate to preference for online versus face-to-face instruction. The Internet and Higher Education, 13, 89-95. doi:10.1016/j.iheduc.2009.11.006

Hurtz, G. M. and Donovan J.J. (2000). Personality and job performance. The Big Five revisited. Journal of Applied Psychology, 85, 869-879

Moore, M. G., & Kearsley, G. (1996). Distance education: A systems view. New York, NY: Wadsworth

Paunonen, S. V., & Ashton, M. C. (2001). Big five predictors of academic achievement. Journal of Research in Personality, 35, 78–90.

Ginns, P., & Ellis, R. (2007). Quality in blended learning: Exploring the relationships between on-line and face-to-face teaching and learning. The Internet and Higher Education, 10, 53-64.

Graham, C. R. (2006). Blended learning systems: Definition, current trends, and future directions. In C. J. Bonk and C. R. Graham. The Handbook of blended learning: Global perspectives, local designs, 3-21.

Grenfell, J. (2009). A post card from Second Life: Student participation in immersive virtual and real life art education teaching and learning simulations. Paper presented at the The Aotearoa New Zealand Association of Art Educators (ANZAAE) Conference. Dunedin, New Zealand.

Guieb, M. (2011). Abad cites "deep crisis" in education. Business Mirror. Retrieved from Business Mirror website: http://www.businessmirror.com.ph/home/nation/19271-abadcites-deep-crisisin-education

Jaggars, S. S., Edgecombe, N., & Stacey, G. W. (2013). Creating an effective online instructor presence. Retrieved from http://files.eric.ed.gov/fulltext/ED542146.pdf

Kintu, M. J., Zhu, C. & Kagambe, E. (2017). Blended Learning Effectiveness: The Relationship between Student Characteristic, Design Features and Outcomes. International Journal of Educational Technology in Higher Education, 14(7), 1-20. doi:10.1186/s41239-0170043-

Künsting J., Lipowsky F. (2011). Motivation for choosing a teacher education program and personality traits as predictors for study satisfaction and strategy use]. Z. Pädagogische Psychol. 25, 105–114. doi:10.1024/10100652/a000038

Latchem, C., & Jung, I. (2010). Distance and Blended Learning in Asia.

Lievens, F., Ones, D. S., & Dilchert, S. (2009). Personality scale validities increase throughout medical school. Journal of Applied Psychology, 94, 1514–1535

Liu, K. J. R. (2008). Philippine education still in crisis. GMA News Online. Retrieved from GMA News Online website:http://www.gmanetwork.com/news/story/97955/news/nation/philippineeducation-still-in crisis

Mayes, T., and Morrison, D. (2008). You take the high road: National programmes for the development of elearning in Higher Education. Reflecting Education, 4(1), 6-16.

Meinardus, R. (2003). The Crisis of Public Education in the Philippines. Business World Internet Edition. Retrieved from Friedrich Naumann Foundation For Liberty website: http://www.fnf.org.ph/liberalopinion/crisis-public-educationphilippines.htm

Nsofor, C.C., Umeh, A., Ahmed B. & Sani, I.D., (2014). Blended Learning Environment: An Innovative Pedagogical for Redifining Higher Education in Nigeria. Research on Humanities and Social Sciences, 26(4), 225-484.

O'Connor, M. C., & Paunonen, S. V. (2007). Big Five personality predictors of post-secondary academic performance. Personality and Individual Differences, 43 (5), 971-990.

Oliver, B., and Goerke, V. (2007). Australian undergraduates' use and ownership of emerging technologies: Implications and opportunities for creating engaging learning experiences for the Net Generation. Australian Journal of Educational Technology 23(2), 171-186.

Osguthorpe, R. T., & Graham, C. R. (2003). Blended learning systems: Definitions and directions. Quarterly Review of Distance Education, 4(3), 227–234.

Peralta, S. T., and Adriano, C. T. (2008). Information and Communications Technology (ICT) Integration in Teacher Education Institutions. Paper presented at the The Third National ICTs in Basic Education Congress: Teaching the Next Generation: Curriculum, Pedagogy and the Challenge of 21st Century Learning, Cebu City, Philippines. Retrieved from: http://www.fited.org/congress2008/contents/PERALTA%20and%20ADRIANO/Peralta20and %20Adriano%20PAPER.pdf

Piccoli, G., Ahmad, R., & Ives, B. (2001). Web-based virtual learning environments: a research framework and a preliminary assessment of effectiveness in basic IT skills training. MIS Quarterly, 25(4), 401–426.

Prenksy, M. (2001). Digital Natives, Digital Immigrants, Part II. Do they really think differently? On the Horizon, 9(6), 1-6. Retrieved from http://www.marcprensky.com/writing/Prensky%20%20Digital%20Natives,%20Digital 20 Immigrants%20-%20Part2.pdf.

Rooney, J. E. (2003). Blended learning opportunities to enhance educational programming and meetings. Association Management, 55(5), 26-32.

Rosenblatt, M.A. (2004) The educational effectiveness of problem-based learning discussions as evaluated by learner-assessed satisfaction and practice change. Journal of clinical anesthesia, 16(8), 596-601.

Sinclaire, J. (2011). Student satisfaction with online learning: Lessons from organizational behavior. Research in Higher Education Journal, 11, 1-18.

Sloan. (2011). The 5 Pillars of Quality Online Education. The Sloan Consortium. Retrieved from http://sloan consortium.org/5pillars

Smart, K. L., & Cappel, J. J. (2006). Students' perceptions of online learning: A comparative study. Journal of Information Technology Education, 5, 201-219. Retrieved from http://www.jite.org/documents/Vol5/v5p201-219 Smart54.pdf

Stojanovska, T. V., Malinovski, T., Vasileva, M., Jovevski, D. & Trajkovik, V. (2015). Impact of Satisfaction and Learning Style on Educational Outcomes in a Blended Learning Environment. Learning and Individual Differences, 38, 127-135. Retrieved from http://dx.doi.org/10.1016/j.lindif.2015.01.018

Swan, K. (2003). Learning effectiveness online: What the research tells us. Elements of quality online education." practice and direction, 4, 13-47.

Sweeney, J. C., & Ingram, D. (2001). A comparison of traditional and web--based tutorials in marketing education: An exploratory study. Journal of Marketing Education, 23 (1), 55 62.

Thorne, K. (2003). Blended learning: How to integrate online and traditional learning. London: Kogan Page.

Thurmond, V. A., Wambach, K., Connors, H. R., & Frey, B. B. (2002). Evaluation of student satisfaction: Determining the impact of a web-based environment by controlling for student characteristics. The American Journal of Distance Education, 16(3), 169-189.

Welker, J., & Berardino, L. (2005/2006). Blended learning: Understanding the middle ground between traditional classroom and fully online instruction. Journal of Educational Technology Systems, 34(1), 33-55.

Young, J. R. (2002) 'Hybrid' Teaching Seeks to End the Divide Between Traditional and Online Instruction. The Chronicle of Higher Education 48(28): 33-34.