

QUALITATIVE STUDY DESIGN ACTIVITIES

Blended Learning in the Middle School Classroom

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The overwhelming presence of technology in the middle school classroom is creating a movement in education to find ways to create the perfect blended learning environment for this age student. If the students are constantly surrounded by the technology outside of school, why should it not also be used for educational purposes inside the school. With the addition of blended learning, a mixture of face-to-face and online learning, the classroom walls begin to disappear and the technology begins to facilitate learning opportunities outside of school as well (Dias & Diniz, 2014). Constant access to resources, immediate feedback from assessments, online communication and collaboration no matter the distance between the participants are all key characteristics in developing a blended learning environment where students feel connected and supported (Dias & Diniz, 2014; Kang & Im, 2013).

### **Worldview**

The constructivist worldview is one that looks at knowledge and truth through the lens of the people (Gash, 2014). There is not one set truth, but instead the truth according to the people which have perceived it. Knowledge is socially constructed and determined by the society according to constructivism (Gash, 2014). How an individual or group perceive something builds knowledge. In a qualitative study it is the researcher's goal to take the perceptions and opinions of the people and interpret them to find meaning that can transfer or be shared with others (Liss, 2014). The researcher then creates a theory based on the interpretations and findings from the study.

### **Goals**

As technology access increases rapidly in classrooms worldwide, teachers and students are struggling to find the best way to create a blended learning environment that emphasizes the most beneficial aspects. The addition of 1:1 devices for each of my students has led me to

pursue how to create the most effective blended learning environment to help prepare my students and set them up for academic success. Blended learning is a vague term that refers to the use of both online learning and face-to-face learning. Many studies have researched the effectiveness of blended learning as whole without stating specifically what made the blended learning so effective. Previous studies in this field have also focused primarily on post-secondary or high school level courses. The goal of this study is to gain insight in to which features of the blended learning environment middle school students perceive to be the most beneficial towards academic preparedness and success.

### **Conceptual Framework**

Blended learning is a phenomenon that has emerged with developing technology and how it can and should be integrated in the educational learning and teaching environments, specifically blended learning environments that include both face-to-face and online learning (Gecer & Dag, 2012). Previous studies have shown that successfulness and attitude towards blended learning and face-to-face learning environments are similar and positive (Delialioğlu & Yıldırım, 2007). While blended learning is receiving positive reviews, what aspects or features create the most effective environment for students to achieve?

There are many versions and formulas to create a balance in face-to-face and online learning within the blended learning framework (Rossett, Douglass, & Frazee, 2003; Valiathan, 2002). Gecer and Dag concluded that students have positive attitudes towards blended learning environments in situations where resources were made available for constant access (2012). Aside from the constant access to resources that a blended learning platform can provide, other features such as assignments, calendars, online discussion threads, modules, and assessments should also be considered and compared to those offered only in a face-to-face learning

environment. For example, some students enjoy online discussion threads so that they can participate in the conversation while still having time to formulate their response and without having to vocalize their thoughts in front of peers. On the other hand, some students are more well-spoken and prefer a verbal debate.

### **Research Questions**

This study will strive to answer the following questions:

1. What features of the blended learning environment do middle school students feel most prepared them for classroom assignments?
2. What features of the blended learning environment do middle school students feel most prepared them for success on assessments?

### **Research Design**

Qualitative research focuses on working to identify the quality and themes of responses or data rather than quantify the numerical data (Creswell, 2012). Qualitative methodologies are most useful when researchers are striving to collect data based on human perceptions and understanding (Stake, 2010). While the data in quantitative research is more focused on using numbers to prove a theory, the data from qualitative studies is used to help develop theories that will later be tested through more quantitative research. The desire to understand an event or perception drives the need for qualitative methodologies to make something better (Stake, 2010).

Within the varying designs used in qualitative studies phenomenological designs look at the stories of several individuals who have experienced the same phenomenon and try to bring meaning to explain that phenomenon (Creswell, 2013). The researcher has the job of not only telling the 'what' and 'how' of the experience or phenomenon, but also interpreting the

information to explain the why and how of the phenomenon. This design is beneficial in times when the researcher is working with a specific group of people who have all experienced the same thing and wishes to convey the overall thoughts and feelings of the group.

In this research study, the phenomenological design is most appropriate. The study focuses on how a group of middle school students' experience in a blended learning environment has affected their learning. What features of the blended learning environment do students perceive to be most beneficial in preparing them to achieve academic success? The use of computers for a combination of online learning and face-to-face learning to create a blended learning environment is a shared experience or phenomenon that all participants are experiencing for the first time during this study. All students will share their thoughts in order for the researcher to gain insight on the thoughts of the group as a whole regarding which features are most effective in preparing and achieving academic success.

### **Data Collection**

Qualitative data looks different than that of quantitative research designs. Qualitative data typically stems from open-ended questions where there is no one right answer because it is focusing on the thoughts or perceptions of an individual or society as supported by the constructivist worldview (Creswell, 2012). Interviews are a great way of collecting data from people in which the participants are able to answer open-ended questions that evolve and change to match the answers of the previous question. The researcher will conduct a semi-structured interview where there are guiding questions to be asked, but the interviewer has the freedom to rephrase or change the questions being asked during the interview (Creswell, 2012).

For this research study on the perceptions of middle school students of a blended learning environment, interviews will be done in person using small groups so that more individuals can

be interviewed in a shorter amount of time. A maximal variation sampling will be used to collect the largest assortment of perspectives on blended learning (Creswell, 2012). The interview questions will be focused on asking the students to describe their experiences with the blended learning environment to obtain a neutral voice and not ask leading questions. The interviews will be conducted at the end of the study once the participants have had an opportunity to reflect on the experience. Periodically throughout the research study, participants will be asked to fill out online questionnaires with open-ended questions seeking to gain information about what features they feel are beneficial and see if there is a difference in perceptions about the benefits of certain features of the blended learning environment based on the assignments or assessments.

### **Data Analysis**

Due to the open-ended nature of qualitative data there needs to be a systematic approach to organizing and transcribing the data before it can be analyzed. This can be done by hand or there are computer programs to help with this process. To begin analyzing the data the researcher must first get a general feeling for the data and then begin coding the responses (Creswell, 2012). Looking through the codes the researcher then begins to find themes or common trends in the responses that can be used to generalize the response of several individuals. In order to accurately be able to sort through the data to determine codes and themes a researcher must be well versed in previous studies and yet be able to look upon the information as individual bits and not overgeneralize. Qualitative data can be wonderful for helping to better understand a concept and find a way to improve a situation because there are not a set right or wrong answers.

After all interviews are conducted and surveys are collected for this study the researcher will read through all of the transcripts and begin coding or marking any pieces of information

that are: repeated in multiple places, related to previous study results, unique or surprising, or anything else that stands out for one reason or another. Once all possible codes are created, the researcher will begin looking to find codes that can be categorized together to create themes. The themes for this particular research may include certain features that students have perceived to be beneficial and why they feel that way. Themes may also include overarching thoughts or feelings to express likes and dislikes within the blended learning environment. Themes will then be connected or linked to one another based on the thoughts of the researcher without the researcher trying to interpret the actual data. A discussion piece will then be included to give the researcher the opportunity to interpret the findings and share what they feel the data is supporting.

### **Trustworthiness**

Trustworthiness can be broken down into four components: credibility, transferability, dependability, and confirmability (Shenton, 2004). It is easy for a qualitative study to be questioned or discredited due to the amount of bias as the researched works to analyze the data. Credibility refers to the internal reliability of the data and how well it matches with reality (Guba, 1981). To help ensure the results are credible it becomes necessary to find specific ways to safeguard that each participant is being honest, random sampling, triangulate data when possible, and constantly check the data being collected with the frameworks of previous studies (Shenton, 2004). While each study may not have the exact same results, they should each be congruent to the population in reality outside of the study. Member checking is one method that is appropriate to use to verify credibility. Member checking is the process of allowing participants to look at the transcripts or results before publication to be certain that they were expressed correctly and clear up any confusion (Shenton, 2004).

Transferability falls under the idea of external validity (Shenton, 2004). Researchers should develop a study that has results that can be applied to a larger population of people. To create this it is best to use a random sampling and include as many people in the study as possible. When the population being studied is limited, the results also become limited. Along with transferability also comes dependability. For a research study to be considered dependable the research methods must be thorough and sound so that another researcher could conduct the exact same study and add to the larger body of data (Shenton, 2004). The final step to guarantee trustworthiness is confirmability. In other words, the researcher should take all measures to confirm the results are free of bias. To help with this researchers go through a process called bracketing. Bracketing consists of taking all of the prior knowledge and bias about the content, data, or participants and separating it from the current study (Shenton, 2004). In order for this to work, the researcher will write down or discuss with a fellow researcher all of their prior experiences or views before beginning the study. Often it is useful to create a journal to document how the researcher is separating the study from prior knowledge (Shenton, 2004). This can be a considerably difficult task as the researcher is responsible for coding the data.

### **Ethics**

During the 1970's the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research was formed in the United States. This commission penned the Belmont Report to guide researchers in the ethical practices and standards that must be maintained in a study (Vollmer & Howard, 2010). The Belmont Report stated that all participants had to give informed consent to be included in the study. For this research study, that means that a letter must be sent home with all students in the blended learning classes to inform them of the research methods and purpose before it begins. Due to the fact that all

participants for this research study are under the age of 18, the parents or guardians must give written or verbal consent or approval as well as the students themselves. If a student does not wish to be included in the study they will not be interviewed or asked to complete the questionnaires throughout.

In addition to the consent portion of ethical standards, the Belmont Report also mandates that research studies must have justice in terms of participants (Vollmer & Howard, 2010). In this instance, justice is provided because all students in the researcher's class will be given the opportunity to participate regardless of race, gender, income level, academic achievement, or any other labelling. To even more ensure the safety and ethics of all involved, the study will be approved by the Institutional Review Board (IRB) of Kennesaw State University. Any adjustments they suggest will be made before it is carried out in the classroom.

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