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# Virtual Classrooms Bridging Homeschooling to Public Schools

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VIRTUAL CLASSROOMS BRIDGING HOMESCHOOLING TO PUBLIC SCHOOLS

by

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## ABSTRACT

### VIRTUAL CLASSROOMS BRIDGING HOMESCHOOLING TO PUBLIC SCHOOLS

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This research explored the preliminary results that show how technology through virtual classrooms has bridged the home and public-schooling systems. The research invites further reflection on the ways by which the home-learning process improves through the inclusion of other parameters such as the e-learning framework. Online education has been discussed extensively as a way of enabling the home-schooling with increased access to better teachers and learning materials.

The research identified the Technology Acceptance Model (TAM) as a means of determining how new technologies in the online learning process compared to the virtual classroom learning experience. The research explored a case study research design, as proposed by Robert K. Yin (2014), in the analysis of the home-schooling alongside public school learners. The qualitative data used in this research saw the sampling frame of parents with home-schooled children with an understanding of the virtual learning process. The data collection through online means like Skype and personal interviews; ten participants sampled for this research were parents of home-schooled children. From the respondents, 18% backed home-schooling due to the suitability of the customized curriculum best fitting the children. The sample qualification eighty percent had a bachelor's degree, and above, ten percent with a high school diploma and the other ten percent had no degree at all. This research determined that the employability of the persons who attend the virtual schools was as high as those that attend public schools albeit with

added benefits of having used various virtual learning systems like tablets and video cameras in the learning process thus inculcating a virtue of independence among students. The interpretation of the research findings necessitates the argument that virtual classrooms can bridge the home-schooling to public schools.

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## CHAPTER I: INTRODUCTION

### 1.1 BACKGROUND OF THE PROBLEM

Parent-led education, or what is popularly known as home-schooling was once a norm in a majority of the communities around the world. Fathers or other male adult members of the families were responsible for teaching young boys about the way of life, and mothers or female adult members of a family were responsible for teaching young girls, and the practice was undertaken for thousands of years (Agarwal & Vora, 2016). The system of education changed drastically in the late nineteenth century as government-compelled education was implemented in a majority of the countries globally. For instance, in the USA, children started attending institutional schools in 1900. Ray (2017) pointed out that during that period, there was approximately 72 percent of five to 17 year-olds that were enrolled in these public schools. However, their average attendance in the public-school system was only 99 days in a year. The changes resulted in the traditional classroom-based education being adopted by countries globally, while home-based education became *extinct*, especially in a majority of the developed nations (Ray, 2017).

In the later 20th (the 1970s) and 21st century, there seems to have been a resurgence of home-schooling, especially in the developed countries. For instance, from the 1970s to 2015, the number of students undertaking home-based education increased from 13,000 to approximately 2.2 million (Ray, 2017). It is today, recognized as an alternative form of education to the traditional-based classrooms. Also, while this form of education was mainly comprised of White families in the 1970s and 1980s (approximately 100 percent), in 2012, 32 percent of the children who were in the home-based schooling system were from White Non-Hispanic communities such as African Americans, Hispanic and Asian (Noel, Stark & Redford, 2014).

According to a National Catholic Education report of 2014, it pointed out that in 2012, there were more students in the home-schooling system than in the Roman Catholic schools (National Catholic Education Association, 2014). These are indicators that home-schooling is a popular form of alternative education in the United States. However, there is the notion that virtual classrooms can act as a bridge to public schools for home-school educated children. Also, in time virtual classroom has been seen to have the potential of replacing the home-schooling system of education.

In 2007, Dean Bennett of the Canadian Press posed a question to his readers, “Why, in the Information Age, are students heading back to the classroom?” (Bennett, 2007) In the same year, Tucker (2007) published a report in the think tank Education Sector stating the educationists in a bid to improve the national public-school system of education have proposed different solutions that impact the school leadership, teacher quality, education standards, and even testing formats (Barbour & Reeves, 2009). These proposed solutions that have had little or no impact on the education sector, the increased use of virtual schools may bring about the reforms that have not yet been successful in the traditional public schools’ system.

Over the years, there have been different definitions of virtual schools. One definition of the virtual school is a state-approved or regionally accredited school that offers courses through distance learning methods that include online delivery (Clark, 2000). Another definition of virtual schools is schooling that uses computers to provide online education to students (Russell, 2004). Virtual classrooms refer to accredited courses that are offered to students via the internet. The teaching and learning environment, in this case, takes place within a virtual or computer system, and the students and the teachers are connected via the internet (Aparicio, Bacao, & Oliveira, 2016).

The virtual learning environment possesses a set of communication platforms, tools, and facilities that are considered to be better than the ones that are in a traditional classroom platform, and therefore enhance the learning process (Augar, Raitman, & Zhou, 2004). The teachers and students actively engage in sharing information, creating and undertaking learning activities such as group discussions, presentation of projects, and sharing the solutions of the homework problems through the use of bulletin boards, emails, chat rooms and conferences. Although the virtual classroom to a large extent possesses the tools and resources that exist in a traditional classroom, it possesses additional characteristics linked to the internet that cannot be possessed by a traditional classroom such as no limit of time, distance, place and it is considered to be convenient for both the students and the teachers.

There are a variety of reasons that led or contributed to the resurgence of home-schooling in the late 1960s and 1970s. According to Isenberg (2007), the three main reasons as to why parents preferred their children to undertake a home-based system of education to the traditional classroom learning method in the 1990s were: religious reasons, poor learning environment in public schools and intention to provide their children with a quality education at home. In the 1960s and 1970s, fundamentalists felt that public school curriculum had no religious basis, and therefore their children lacked the moral values that can be effectively taught if the public institutions taught about religion (Romanowski, 2006). They felt that in a home-schooling system of learning, they would have a platform to provide their children with religious teachings.

Today, there are additional factors that parents take into consideration when making the decision as to whether their children will participate in home-schooling or attend a public school such as their physical and mental health, special needs and behavioral problems. In such cases, parents feel that home-schooling provides a safe environment where they can monitor them as

they learn and reduce the likelihood of such students to be bullied or fall behind in the learning process as may be the case in the public schools (Austin, Sharma, Moore, & Newell, 2013).

However, most parents are facing a variety of challenges in home-schooling as they try to provide their children with the best form of education. One of the challenges that have been associated with home-schooling is the selection of the best curriculum and materials for study (Barbour & Reeves, 2009). Most parents spend much of their time reading reviews and making comparisons of the most appropriate curriculum in relation to their children needs. There are parents who have noted that their children are not willing to accept the constructive criticism that they provide to their work, or when they advise them to work harder in their education. Many parents feel that they are losing the teaching credibility as they are growing older and an outside educator may be more effective in assisting their children to learn. Other challenges are lack of most of the teaching resources that the student may require, structure and flexibility of this system of learning.

Virtual, or hybrid form of learning presents the parents, children, and teachers involved with a unique form of learning through the combination of real-time, live-stream, and teacher-directed learning process with web-based activities and assessments. It also incorporates some of the best traditional-classroom based resources such as the use of the curriculum textbooks and laboratory activities enhancing the learning process of the students who use this form of learning (Barbour & Reeves, 2009). In addition to that, when the students log in to the virtual classroom at the comfort of their homes, they have access to teachers, students, different communication platforms and other learning tools, and this allows them to be in a position whereby they can exchange information and solve problems together as a team of learners.

## 1.2 STATEMENT OF PROBLEM

There are existing literature and statistics that not only validate the home-and public-schooling but also show the success rates of these two forms of learning processes. Although there are mentioned benefits of students using the virtual-based form of learning, there is limited research that provides evidence of the mentioned benefits. Furthermore, there are few studies that have focused on whether virtual classrooms can act a bridge to public schools to home-schooling students. In this study, the researcher explores the possibility or viability of homeschooling parents to enroll their children in a public school system if they are allowed to attend the classes via the virtual classroom.

## 1.3 SIGNIFICANCE OF THE STUDY

As has been noted before, there are studies that have shown that a majority of parents prefer the home-schooling system of learning because of the opportunity to be involved in their children's learning process, provide them with high-quality education, be able to fulfill, or meet their special needs requirements, and reduce the negative influence or behavior that they may acquire in a public school system. However, most parents also face a variety of challenges such as using appropriate learning materials or curriculum to teach their children. In this study, the researcher seeks to investigate virtual classrooms as an alternative to solve the problems experienced in these two forms of learning.

From a theoretical perspective, it can be termed as "*the best of both worlds*," in relation to traditional classrooms and home-schooling, in that the child will learn from the comfort of their homes, but will have access to qualified teachers, accredited courses, and other learning materials that will facilitate their learning process. In addition to that, the parent can still maintain a similar level of involvement as is the case in home-schooling in terms of actively

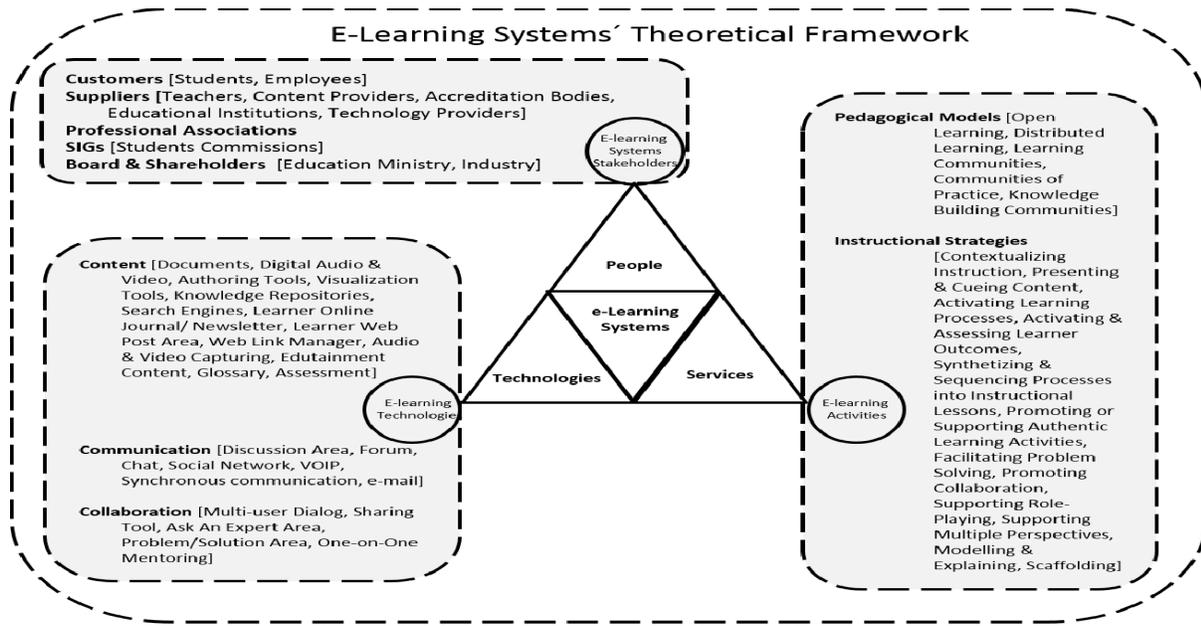
monitoring the progress of their children, while leaving the teaching process to qualified personnel. A quantitative approach was employed to assess if parents were willing to allow their children to attend a public school system if they attend the virtual classrooms.

## **1.4 THEORETICAL FRAMEWORK**

### **1.4.1 The E-Learning Theory Framework**

This theoretical framework is comprised of three components: people, technologies, and services. In this case, people are the ones who interact with the e-learning systems. The technology enables a direct or indirect interaction of the different groups of users that use the learning system, and they provide tools to enhance the communication process and integration of the learning content (Aparicio, Bacao, & Oliveira, 2016). In addition to that, the e-learning activities are meant to integrate the activities, which correspond to both the pedagogical models and instructional strategies. It is important to point out that the complex interaction combination is based on the direct and indirect actions with the e-learning systems, and therefore, the systems are able to provide effective services in accordance to the specified strategies for the learning activities. The figure below presents the e-learning theory framework (Aparicio, Bacao, & Oliveira, 2016).

**Figure 1. The E-Learning Theory Framework**



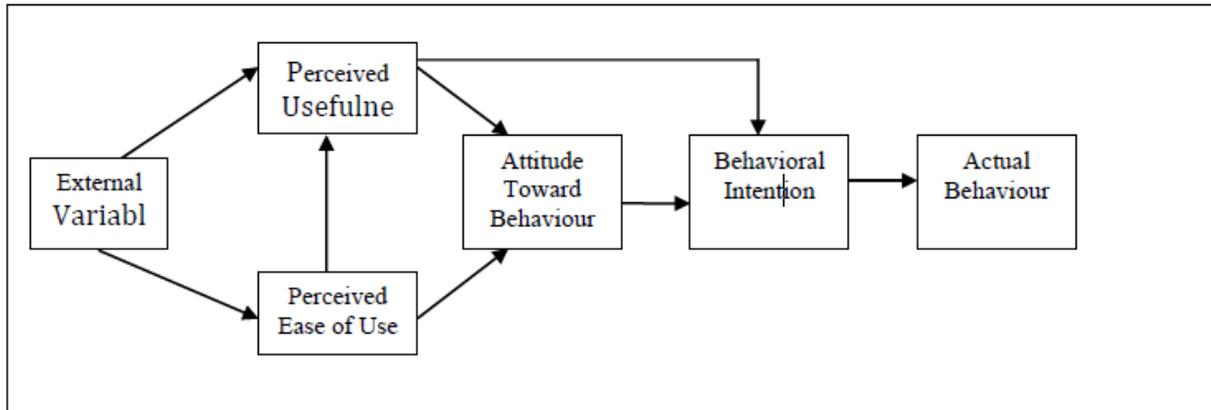
*Figure 1. The e-learning theory framework. (Aparicio, Bacao, & Oliveira, 2016)*

### 1.4.2 Technology Acceptance Model

The Technology Acceptance Model (TAM) is a theory that is used to determine how users will accept and ultimately use new technology. There is a suggestion that when users are presented with new technology, there are a number of factors that influence their decision on how and when they will use the technology through determining its perceived usefulness and perceived ease-of-use. Perceived usefulness is considered as the degree in which a person determines that technology will enhance his or her performance in a specific area such as learning. On the other hand, the perceived ease-of-use is the degree in which a person believes that using a particular system will be free from the effort (Davis, F., Bagozzi, R., & Warshaw P., 1989). It has been determined that this theory was developed from the theory of reasoned action, and it mainly focuses on providing an attitudinal explanation of the intention to use a specific

technology such as virtual classrooms for children who had previously been in a home-schooling program.

**Figure 2. Technology Acceptance Model**



*Figure2.* Technology acceptance model. (Davis, F., Bagozzi, R., & Warshaw P., 1989)

## 1.5 REVIEW OF RESEARCH

### 1.5.1 The Virtual Classroom Learning Experience

Virtual classrooms are described as being different from conventional classrooms in a variety of ways. Firstly, they have allowed the education process to shift from its traditional format of one teacher and a group of students in one place at the same time for the learning process to take place (Fabri & Gerhard, 2018). The reason for this is that in virtual classrooms, the students can be in different locations from their teachers and other students and still be able to be provided with instructions and information that enhances their learning. Secondly, the teachers and students in virtual classrooms use a variety of ICT to facilitate their learning process, communication and improve the collaboration between teachers and students in ways that are not considered to be typical in a conventional classroom (Fabri & Gerhard, 2018). It

promotes a sense of independence for the students and this has the potential of making the learning process to be more exciting than in a conventional classroom.

### 1.5.2 Independence and Support in Virtual Classrooms

A majority of teachers and students view the virtual classroom environment as providing students with greater learning independence and self-motivation than is the case in the conventional classrooms. However, it is important to point that for some students, they are able to manage their virtual classes better than others given the independence level that they are provided in this system or format of learning (Gulz & Haake, 2009). Virtual classrooms also provide the students and teachers with effective or sufficient support and resources that are essential for them to learn, and it is upon the student to take responsibility and make the best use of the resources that are available for them. It is important to point out that virtual classrooms are considered to be best suited to mature students who are capable of working optimally in an independent environment.

Many teachers who regularly use this platform to provide instruction to their students felt that it allows them to take a more proactive role in terms of helping them support their virtual learners. The reason for this is that they are able to apply different teaching approaches and strategies to support and engage their students. In addition to that, they are able to create unique learning environments that are effective in terms of improving the learning process of their different students (Hack, 2015). Teachers and students have the ability to develop a highly supportive relationship that has a positive impact on their learning because of their personal interactions through text chats, and video-conferencing. The teachers are able to effectively demonstrate that they care for their students and that they are interested in their learning outcomes (Hack, 2015). Furthermore, through the virtual classroom platforms, the teachers and

students are in an improved position than in a conventional classrooms to set achievable goals and use different measuring techniques to assess a student's progress. There are also different strategies that the teachers can use to make follow-ups on the students, especially when they feel that things are not progressing as they should.

### 1.5.3 Personalized Learning in Virtual Classrooms

According to the Mental Health Foundation 2015 study, approximately 10 percent of school-going children aged 5-16 have a diagnosable mental illness (Hack, 2015). Therefore, in an average class of 30 students, three will have a mental health problem, and this may have a devastating impact on the academic prospects of these students such as missing classes, falling behind in their classwork and therefore becoming highly disengaged in the learning process (Hack, 2015). Online learning platforms such as virtual classrooms are seen as effective solutions in helping students with mental health issues to be able to learn despite their health challenges (Hack, 2015).

The virtual classrooms create a flexible and safe learning environment for the students. For a majority of students who suffer from mental health issues such as anxiety, a seemingly simple task such as traveling to school, interacting with school peers and attending lessons can be a trigger leading to the student to develop overwhelming feelings of panic and anxiety (Hoffman, 2010). Such incidents may result in these students missing classes, developing depression and becoming highly disengaged in their learning process. The virtual classrooms create an ideal environment whereby students who suffer from mental illnesses will be less impacted or encounter triggers that may lead them to miss their classes (Khan, 2012). Even in situations whereby students have “*bad*” days, they still have access to their classroom activities and this enhances their learning process.

The virtual learning process facilitates personalized and differentiated learning. The reason for this is that through the use of virtual classrooms, the learners or students are provided with access to personalized content that will tailor the gaps in terms of their knowledge level. It is also highly suited for their skill level (Melatti & Johnsen, 2017). Also, it is important to point out that in this learning environment, the teachers or instructors are provided with a rich source of data that they can use to monitor their students' performance level, progression, level of attendance and assess the areas that students may require additional help to ensure that they are on the right track in terms of their learning process (Noel, Stark, & Redford, 2013). In addition to that, the teachers are able to reduce their workloads by developing effective lesson plans that free up their time ensuring that they can provide more student-oriented lessons and specialized support to the students who require extra attention to promote learning in the different subjects.

#### 1.5.4 Synchronism in Virtual Classrooms

Virtual classrooms provide a platform whereby the instructors and students are able to interact online in a synchronous manner, and they can communicate with each other through the use of texts, audio, and videos. They are also able to express emotions through the use of emoticons (Polisca, 2013). The synchronous virtual classrooms allow the instructors to be in a position whereby they can poll the students instantly, while providing the students with the opportunity to engage each other in group activities, creating the feeling that they can interact with each other in a "face-to-face" manner.

There are a variety of features that are available in a synchronous virtual classroom that play an essential role in promoting the interaction between the teachers and students. There is a content frame that allows the instructor to upload power points and other documents that the students can use in learning. There is also an e-board that allows an instructor to write notes that

the students can use, clarify information from other texts, and also provide students with instructions (Polisca, 2013). Other tools that are available for both the teachers and the students include the text chat (to allow teachers and students to interact using words and emoticons), audio chat for the students and teachers to talk via a microphone. In addition to that, the synchronous virtual classroom allows the teachers to administer the student polls, allow for the two parties (teachers and students) to share their desktops through application sharing. Furthermore, teachers and students can use webcams to see and interact with each other. The most common virtual classrooms that are in the market are Elluminate, Horizon Wimba, Adobe Connect, and Webex.

Synchronous interaction that has been enabled by virtual classroom increases student satisfaction in terms of learning. The synchronous tools are essential or play a key role in improving the social aspects of education (Polisca, 2013). The major benefits of using asynchronous virtual classroom are its ability to provide both the students and teachers with immediate feedback on the different concepts that they are learning. It encourages the students to exchange ideas and perspectives on different issues that they are studying at a particular period (Polisca, 2013). In addition to that, it enhances the level of interaction among all the participants that are using this platform i.e. the teachers and the students. In addition to that, it strengthens their social presence, and create a support network that the students can rely on when they are facing learning challenges (Polisca, 2013).

#### 1.5.5 Virtual Learning Challenges

Although there are a lot of advantages that are associated with the virtual classroom learning process, there are also a variety of disadvantages. For instance, even though the teachers and students are presented with a variety of communication tools to enhance their interaction, it

is difficult and virtually impossible to read non-verbal cues when using this platform. In the conventional classrooms, teachers are able to observe their students' faces when they are providing instructions and therefore can notice the non-verbal cues and even gauge their level of engagement in relation to their lessons in real-time (Polisca, 2013). This assists them to make adjustments on the way that they deliver their lessons and enhance the understanding level of a majority if not all the students in that class. In most cases, the only teachers can assess a student's level of understanding and interest in their subject is through regular tests and their level of participation, which may fail to provide the teachers with the true reflection of their students' level of understanding and engagement (Melatti & Johnsen, 2017). It presents or is considered a shortcoming when compared to other methods of learning such as conventional classroom and home-schooling.

The tools of teaching in a virtual environment have been to be constrained or limited, especially when the learning platforms that are used cannot support multi-modality. In the traditional classroom, other than speaking as part of instruction delivery, a teacher can write on a board, use stories and metaphors to teach, and all these are based on the responses that they receive from their learners (Melatti & Johnsen, 2017). The tools that a teacher uses on a traditional classroom are device and based on the students' responses especially their level of participation- questions they ask or responses to the teachers' questions, and their level of understanding.

Virtual classrooms may provide students with a lot of distractions as it takes place in a student's comfort zone, mainly their homes and they use internet services to access the classes. Learning from home can be destructive, especially if there are other family members engaging in other activities such as playing video games, watching movies or listening to music. In addition

to that, the use of the internet may mean that the student may engage in other activities other than learning such as chatting with friends and the teacher will not be aware of it (Melatti & Johnsen, 2017). Even in situations where the teacher notes that the student is distracted or engaged in other activities, there is little that they can do to stop this behavior other than reporting the student to his or her parents to help them reduce the activities that may distract their child while learning and therefore enhance their level of understanding of a subject.

### **1.6 PURPOSE OF THE STUDY**

The researcher is interested in capturing parents' attitude towards public schools through virtual classrooms. The Research objectives are:

- To determine the benefits of virtual classrooms over home-schooling as a measure of providing parents with alternative education programs for their children
- To determine the expected learning outcomes by parents on their children when they enroll in virtual classrooms.

### **1.7 RESEARCH QUESTIONS**

- What are the expected benefits and concerns of virtual classrooms over home-schooling as one of the alternative education programs for students?
- What are the expected learning outcomes by parents of children who enroll them in virtual classroom programs?

## **CHAPTER II: METHODOLOGY**

### **2.1 INTRODUCTION**

In this chapter, it provides a clear framework of how the researcher applied a qualitative research approach to study the perceptions of parents who are home-schooling their children on the possibility of letting them attend public schools via the virtual classroom platform. The researcher discusses the research design, context, sampling, the research instruments that were applied, research procedure and data processing. The researcher provides a description of the methodological approach that was used during the data collection process (i.e. the use of interviews).

The researcher also provides a rationale of why he selected this method, the data that was collected and the potential benefits of this research in relation to the objectives that were formulated. The researcher also describes the sampling process that was applied and its benefits over the other sampling processes in this study. The researcher pointed out the processes that were used to ensure that the study did not have any form of bias issues and that the data that was collected was reliable and valid. Finally, the researcher described the data analysis method that was used in this research and the ethical considerations that were applied to ensure that this research was successful.

### **2.2 RESEARCH DESIGN**

The research used a qualitative research method to capture the views of five home school family's feelings towards using a virtual classroom to attend public school. The first was intended to identify negative and positive factors that influenced the families to home school. The second was designed to determine if families would transition from home-schooling to public schooling with virtual classroom bridging the gap between home-schooling and public

school. Yin (2014) used a case study research design to provide an in-depth analysis of a focus group of home-school parents. The research used purposive sampling from a home school cooperative to find a sample. The term "*qualitative*" describes a type of data or the methods used to collect and analyze those data, whereas the design of a study is the overall architecture within which data collection and analysis are carried out. The choice of research design chosen was driven by the research questions and goals. An interview design was chosen in which the researcher asked questions from the interview guide to the focus group. The focus groups provided interaction between the individuals in the focus group (Krueger & Casey, 2009).

### **2.3 RESEARCH SETTING**

The setting was in Greensboro North Carolina, hosted at Participant Cs house. A dining room with a large dining table that was able to seat all the participants was used during the focus group interview. The researcher of the study focused on assessing how parents who have initially home-schooled their children feel about having their children attend public school via the virtual classrooms. The researcher was interested in identifying the positive and negative factors that influenced them to begin to home school their children. The researcher is also interested in knowing their knowledge level in the virtual classroom concept and their willingness to ensure that their children attend this system of learning.

### **2.4 PARTICIPANTS**

In qualitative research, the sample from which the researcher collects data is usually small and cannot be considered to be a representation of the population of interest. Purposive sampling was used to select the research participants that were involved in this study. It is a non-probability sampling method whereby the researcher is interested in research participants who fulfill a certain criterion (i.e. parents who are currently homes-schooling their children).

Coopler and Schindler (2014) state that a population is a group, which constitutes the total collection of all the elements that a researcher aims to study. Saunders et al. (2009) define a sampling design as a technique that is used by a researcher to select a sub-group from a population, which was involved in a research study. It normally acts as a framework guide, which will help the researcher determine how the study samples will be selected from the selected study population. The researcher must ensure that the sub-group that will be used in this study consists of all the characteristics that are required to fulfill the research objectives that were set out at the beginning of the thesis.

## **2.5 SAMPLING FRAME**

The research participants had to fulfill the following criteria:

- Be a parent whose children are currently being home-schooled
- Have an understanding of the virtual classroom learning process

## **2.6 SAMPLING TECHNIQUE**

The participants who were subjected to an interview process, a judgmental or purposive sampling approach was used (Creswell & Guetterman, 2019). The reason as to why this method was deemed to be appropriate for these research participants is that they were selected based on the judgment of the researcher. The research participants that were considered for this research were the ones that possessed the right experience, and knowledge that was required by the researcher.

## **2.7 DATA COLLECTION**

The data collection that was used in this study (i.e. the interview process), was effective in terms of deriving both detailed and comprehensive information from the selected research

participants. The researcher had developed guideline questions that were used. However, whenever necessary, an interviewee was asked to expound on the responses that he or she provided, exposing the researcher to unlimited responses from the respondents. A total of ten days was taken to conduct the interviews and compile the results, as illustrated in the preceding sections.

For the interviews, the researcher organized dates with the respondents for the interview processes. For those respondents who were busy, the researcher used Skype to ensure that none of the interviewees failed to grant him an interview because of work or other commitments. Data collection for the interviews was through the use of a recorder, which is later transcribed for data analysis. The average interview lasted thirty minutes using skype and the in-person interview lasted an average of forty minutes. Seven of the focus group participants were conducted in person with the remaining three participants conducting the interview with Skype. The researcher also used the focus group method to collect data from his research participants in a group format where discussions are encouraged to get a deeper understanding of the issues that the researcher was interested in, in this study.

## **2.8 PILOT TEST**

A pilot study on three home-schooling parents identified through the home school cooperative. The reason for this was to determine if the questions that were designed for this study were appropriate in relation to what was being investigated in the study. This means that the researcher wanted to know if the questions that were developed would help him fulfill the objectives that he had established at the start of the study. After conducting the interviews, the interviewees helped him to improve the specificity of the questions based on the feedback that they provided.

## 2.9 DATA ANALYSIS

Data analysis is defined as the process that researchers use to bring about order, structure, and meaning to the information that they have managed to collect in research. As has been pointed out before, the data was collected using interview process and focus group process. The narrative analysis, a method used for uncovering the underlying ideologies embedded in stories, was applied for data analysis purposes (Hollway & Jefferson, 2008),

When conducting the interview, the researcher ensured the participant's trustworthiness using the following criteria, credibility, transferability, dependability, and confirmability (Lincoln & Guba 1985). Lincoln and Guba clearing up the aspects and issues to consider when conducting qualitative research methods to create a thorough study design. After completing the interviews. The researcher used four criteria to determine when to end the collecting and analyzing of the data (Lincoln & Guba 1985).

The coding and categorizing mechanisms serve to organize the material and to privilege important information and discard what is not relevant. This procedure helps to fully understand the meaning of the data and their possible relationships with each other. To encrypt, it was first necessary to develop categories where the data are grouped together and then to specify comparisons or linkages between the proposed categories. Involves assigning a word, phrase, number or symbol to each coding category. The researcher went through all textual data (interview transcripts, direct notes, field observations, etc.) in a systematic way. The ideas, concepts, and themes were coded to fit the categories. A software program Atlas Ti was used to make the task easier. The Atlas.ti is a computer software program was used for the analysis of large amounts of textual or qualitative data. The software provides researchers a means to seek associate pattern codes or codes - labels that contain fragments of images, drawings, texts,

videos, sounds and other types of videos in digital formats, which from the purely statistical or formal point of view is very difficult to analyze (Paulus & Lester 2016). The program allows naming the codes allowing the researcher greater freedom to identify them, in the same way, it allows one to create subcategories, and even separate them by color. The Atlas.ti humanized the data collected in a qualitative analysis and interpretation research. All the information gathered in the investigation is integrated with the coding. Although the Atlas.ti software performs well in organizing transcript data in preparation for analysis, it does not analyze the data.

To collect the demographic information on the focus group participants an online survey using the Qualtrics software was used. The initial portion of that survey will inform participants about the purpose of the study, benefits and confidentiality, and option to discontinue, which all serve the purposes of a consent form. By clicking on the agree button, participants consented to participate in the study. The online survey included 14 questions, including demographics related questions, the survey, participants were also asked if would participate in a focus group interview through Skype, a web conference tool. If they are interested, they will be instructed to provide an email address for scheduling purposes to provide an in-depth understanding of our participants' insights.

## CHAPTER III RESULTS/FINDINGS

### 3.1 FINDINGS

#### 3.1.1 Profile of Participants

The total sample population used for the research was ten participants. All participants were parents with homeschooled children. The sample was evenly distributed across the study area, and the children grade level varied from one parent to the other.

The demographic survey used Qualtrics application to collect demographic data from the participants (see Appendix C for the Survey Questions). Religious-related factors were the most influential reasons for homeschooling. Nevertheless, a significant number of the respondents (17.65%) argued that they believed they could order better education at home most likely because of the customizable curriculum to suit their children academic needs. The study revealed there were several criteria used by parents to assess the effectiveness of a homeschooling curriculum that would best suit and address their children's academic needs.

The study limited its scope to four significant channels: the internet, word of mouth, direct mailing, and homeschooling curriculum fairs and event. Any other channel used as a learning platform was classified as others. The research aimed to establish the preference level of the sample to integrate a virtual classroom for their homeschooled children. A majority of the sample were willing to integrate the virtual learning for their homeschooled children. From the sample population used, all parents (a total of ten), homeschooled their children. Thus, the population studied met all the research requirements qualifications to participate in the study. Both genders were distributed evenly, with the total population constituting of five male parents and five female parents.

Age is an essential component for this research study because it would help in concluding whether there is any relationship between the choice of homeschooling design chosen by a parent and parents age. The study assumes that the older the parent, the less they are likely to recommend homeschooling for their children. Besides, studies show that parents who experienced the web 2.0 era during their schooling years were more likely to recommend homeschooling compared to the traditional schooling system. The table below demonstrates the age distribution of the studied population.

In terms of academic qualification, 80 percent of the population had a bachelor's degree or higher. Only 10 percent of the population had a high school diploma or equivalent degree, and 10 percent did not have any degree. The education level of the parent is highly subjective to the child's academic life. It was found that learned parents, especially those with bachelor's degree qualifications were more likely to opt for homeschooling, compared to those with master's levels. The academic level is also closely linked to employment status and income bracket as well. Majority of parents with higher educational levels were employed in more senior rewarding jobs and thus were capable of paying for private tutors or private schools that offered distance-learning opportunities

The employment status of the parent highly determines the ability of the parent to pay for either a private tutoring school system or a traditional schooling system. However, this may not always be the case, especially if the child has special needs that could otherwise not be adequately addressed either in a home-based system or a school setting. The family income level was calculated based on the total earnings of the parents/ family per year. The income level excluded taxes and or government any deductions such as loans from the total earnings.

### 3.3.2 Benefits of Virtual Classroom

### 3.3.2.1 Safe Learning Environment

Out of ten participants in this study, all reported safety being a benefit. Participants felt the primary reasons for choosing homeschool is that they can ensure a safe learning environment for their children (see Appendix E for Focus Group Transcripts). Some also do home-schooling for religious reasons. Other participants were simply disappointed with the traditional school system due to safety concerns. Participants voiced the top features that the virtual classroom offers are a safe environment and a controlled educational process. Participant D said, “a virtual classroom would provide an engaging way for my child to study in the safety of our home”. Drugs and violence in the public were major issues with the participants.

### 3.3.2.2 Control over Curriculum

Out of ten in this study, seven reported having control over the curriculum that is taught to their children is a benefit of a virtual classroom. Participant E felt that homeschooling provides more control over the children’s education. Participants wanted to be able to monitor classroom work and view homework assignments in a virtual classroom. Participant D want the option to choose their child's curriculum. Participants liked the idea of being able to observe online learning and review the curriculum.

### 3.3.2.3 Cost Savings

Out of ten in this study, five reported cost-saving being a benefit of the virtual classroom. Participant G stated fees and books are not cheap but if the virtual classroom provided electronic books and materials that would cost saving.

A few of the participants were concerned with the amount of time required of their children to be in front of a computer with a virtual classroom. Another concern voiced by

participant E homeschooled students used to a teacher in a classroom school setting may have to adjust to not having a teacher standing in front of them to address questions. All participants overall felt the positive features of a virtual classroom outweighed the challenges of attending school online.

### 3.3.3 Expected Learning Outcomes

#### 3.3.3.1 Improved Grades

Out of ten participants in this study, ten expected improved grades as a learning outcome of the virtual classroom. Participant D gave the reasons for the massive growth of homeschooling saying that they provided students with specific instructions to provide their specific needs, which improves learning outcomes. The most cited benefit of virtual schooling by the researchers was that their course design and delivery varied. The nature of virtual schooling programs would provide a framework for a variety of learning activities that the mortar and brick schools cannot match. Parents mentioned that the motive behind homeschooling their children were to avoid environments of bullying, sexual influences, and drugs.

#### 3.3.3.2 Positive Learning Experience

Out of ten in this study, five participants wanted a positive learning experience for their children. Homeschooling provided parents with quality family time traveling time to and from regular schools. Participant C thought test scores were important but also wanted a positive learning experience for their child. Participant G could see how this could help students and teachers improve the learning experience in schools. Being able to tutor your children during online classes could improve the learning experience of children with special needs Participant F expected instant feedback to students thus creating a positive learning experience.

### 3.3.4 Concerns of a Virtual Classroom

For the parents, who took their time comparing their choices, they were concerned whether the virtual schools did a fulfilling job problem solving, teaching basic skills and providing safety. The factors considered when choosing the homeschooling system were: atmosphere, discipline, teaching approach, and style. They all tended to believe in the same guiding factor that education is all about excellent academic performance and good test scores.

Participants were aware of the benefits of attending the virtual schools which they mentioned. They knew it is accessible to everyone with a tablet, Smartphone or a computer, the schooling is affordable and defective in the ways in which it allows learners to control what they can access and very popular (Torre, 2013). Participant E concern is some kids may have a hard time adapting to a virtual environment with no teacher at the front of the classroom. However, the advantages of virtual schooling were some of their reasons for homeschooling. While some students would be comfortable using the technology, some would be left out; those that would need additional support to get started. Accessing a wide range of information meant that their children would have to engage in some courses which were taught entirely in the classroom. In homeschooling, specific courses were taught to their children, enabling greater understanding and saving time.

## CHAPTER IV DISCUSSION AND CONCLUSIONS

### 4.1 SYNTHESIS OF FINDINGS

As previously discussed in the literature section, virtual classrooms allow students from different locations access a teacher or tutor in another area without necessarily having to travel at all. Besides, both teachers and students in virtual classrooms use a variety of ICT to facilitate their learning process, communication and improve the collaboration between teachers and students in ways that are not considered typical in a conventional classroom (Fabri & Gerhard, 2018). It also promotes independence for the students, and this has the potential of making the learning process to be more exciting than in a conventional classroom. Similarly, home-schooling is beneficial, especially in addressing the student's academic needs (Committee on Establishing and Promoting a Culture of Safety in Academic Laboratory Research, 2014). However, most of the home-schooled students have difficulties in socializing and also their communication, and social skills are usually limited due to lack of exposure to different or rather a broader spectrum of varying cultures, individuals, and behaviors

From the research findings, a majority of the parents preferred to enroll the children to a virtual learning system from grade five to six (33.3 percent) and 9-12 (55.56 percent) respectively. Moreover, there were higher chances for parents to enroll older children to an online virtual classroom system as compared to the younger ones. This is because older children/students are less likely to be supervised as compared to the young ones. Also, more former students were found to be mature and more responsible and were capable of working optimally in an independent environment (Gutierrez, 2011).

Similarly, children with cognitive development are highly dependent on exposure. When home-schooled children are not exposed to other life variables, it often becomes difficult for them to develop other aspects of learning such as collaboration, teamwork, and discussions. Thus, there is a great need for home-schooled children, especially those in the lower grades (from grade 5) to interact with other students.

#### **4.2 IMPLICATIONS TO EDUCATIONAL PRACTITIONERS**

Based on the research findings, data shows that ten out of ten participants provided positive feedback and were more likely to recommend a virtual learning classroom for their children to attend public school. These results are an indication that the education system is continuously evolving and thus researchers, as well as academic practitioners, need to further their knowledge in operation, management, and integration of the virtual learning systems to both the traditional school setting system and home-based system.

Consequently, further research needs to be carried out to help as well as facilitate the academic performance and ease of operation to the newly enrolled students. As a result, parents and education providers have a huge role to play in the training and successful implementation of the integrated virtual learning methods for their children. There is a considerable room for improvements in student performances in fully online schools. Developments of learning models have always coincided with developments in technology. Learners develop their reality and interpret their experiences and points of view based on their prior experiences and individual knowledge. Studies have shown that some additional areas could provide a better understanding of student performance in online schools and enhance accountability in strengthening practices in these schools (Choi, Dailey-Hebert & Estes, 2016). Common characteristics of students who

attend and enroll in online schools need to be assessed and the factors that drive the high turnover rates, and those which contribute to school dropouts investigated.

In order to keep up with changes that we are experiencing in the school system, there have to be changes in how often the National Education Technology Plan is updated. Educational practitioners are encouraged by the fact that most classrooms have access to virtual reality, yet in communities where the impact could be greatest, there is a lack in the use of these technologies. Most virtual learning schools want to have accessibility to cheaper devices but still complain that they are not effective enough (Trena, Paulus & Jessica, 2016). Everyone seems to be proud of the growing number of learners who are able to use digital tools in school yet fail to realize that some low-income students and those living in rural areas lack access to the internet and the use of powerful digital tools to create, communicate and solve various problems. Most teachers are in need of receiving immense training on the use of technology than the one they are receiving currently. It is evident from the participants feedback that the virtual classroom is to be the tool of learning over the alternative homeschooling system. Educators need to embrace the responsibility of reflective and thoughtful innovators, who will work hand in hand with each other, to explore new methods of learning, new digital learning environments and sharing (Choi, Dailey-Hebert & Estes, 2016).

When fully and carefully designed in schools, technology can expand and accelerate the impacts of effective practices in teaching. This will require educators to be transformative and possess high skills and knowledge to create technology-rich learning environments but keeping the technology affordable for parents. The roles of parents, classroom teachers, and learners will need to shift as virtual schooling ensures new learning experiences formats. For these changes in learning to occur, educators will create a shared vision and develop a plan on how they can

translate the visions into actions. When evidence of learning processes is communicated to families, teachers, and learners more people may become satisfied with the virtual schooling system (Choi, Dailey-Hebert & Estes, 2016). A comprehensive learning scheme will require extensive digital learning content and implementation of other resources as well as professional development for educational leaders and educators. Many schools are not yet using or having access to the ways in which technology can improve learning on a daily basis, underscoring a need for further research to build and adopt effective ways and approaches. During early development and implementation of digital transformation in schools, districts and schools planning to incorporate virtual reality in student learning, need to engage families actively in its early developments.

In the event of students using technology to support their learning, schools have been faced with a need for protection of privacy of students while at the same time, allowing them to use data appropriately for the sake personalized learning, advanced research and create a well-designed vision for learners and families and their teachers (Choi, Dailey-Hebert & Estes, 2016). To remain competitive in a global economy, learners of all ages will have to be given opportunities for prosperity and personal growth.

#### **4.3 LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH**

This study sample was relatively too small to have a generalized conclusion that is representative of the district used for the study. Besides, the phenomenon being investigated was relatively new to the sample population. Out of a possible 100-sample population, less than ten parents had adequate knowledge and met the qualifications that would be appropriate for the study. This means that over 80% of the sampled population had limited or did not meet the researcher qualifications. Purposive sampling was used to select the research participants that

were involved in this study. It is a non-probability sampling method whereby the researcher is interested in research participants who fulfill a certain criterion i.e. parents who are currently homeschooling their children. Including a wider scope of the population will be highly recommended for further research.

Secondly, the interpretation of the data and the studied phenomenon was highly influenced by the researchers interpretative perspective including cultural biases, level of education and beliefs. That is, although the researcher ensured that all research guidelines followed and remained impartial in the data collection, personal biases in sample selection and interpretation of the data is likely to be an essential limitation of the study. Cultural beliefs, religion, education level, and social exposure all have an influence on how the researcher interprets of the collected data.

The data collection that was used in this study was through the interview process, and although it was found to be effective in terms of deriving both detailed and comprehensive information from the selected research participants. However, having multiple data collection techniques could offer much more detail and diverse information to the researcher. This way, the researcher could have varying perceptions and arguments of the same phenomenon.

The study was also limited to time and budget. A more extensive time would definitely have provided a wider range of data for analysis and thus a much stronger conclusion. Also, the amount spent on conducting the interviews was on skype which requires the researcher to have an internet access point or a huge data plan for streaming. Unfortunately, the limited budget could not allow the research to include more than ten participants.

The researcher recommends further investigation of different aspects within the social and academic environment that influence the choice and mode of learning system for specific needs such as gifted children, children with social and medical special needs. Although it has been determined that the integration of a virtual learning system to that of the home-based curriculum is highly effective for students with different learning abilities, the research has not in detail discussed the implications or limitations to this integration. Secondly, with the ever-evolving technological advancements, the research recommends carrying out further research on the best practices, technical devices, as well as information channels that could be used by parents as sources of curriculum evaluation, comparison, and possibly be used as criteria for making informed decisions on the most appropriate virtual learning system for their children. Lastly, the researcher recommends further studies of the cost-effectiveness and academic performance for students who have integrated virtual learning with home-based learning systems.

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## Appendix A

### IRB Consent Form

#### INFORMED CONSENT DOCUMENT OLD DOMINION UNIVERSITY

**PROJECT TITLE:** Virtual Classrooms Bridging Homeschooling to Public Schools

#### **INTRODUCTION**

The purposes of this form are to give you information that may affect your decision whether to say YES or NO to participation in this research, A Study to determine whether parents that have currently enrolled their children in a homeschool-based learning program can allow them to go to public schools through the virtual classrooms.

#### **RESEARCH QUESTIONS**

- What are the expected benefits of virtual classrooms over homeschooling as one of the alternative education programs for students?
- What factors make virtual classroom programs to be a highly effective pedagogy program for students with different learning abilities?
- What are the expected learning outcomes by parents of children who enroll them in virtual classroom programs?

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#### **DESCRIPTION OF RESEARCH STUDY**

There are existing literature and statistics that not only validates the home-and public-schooling but also shows the success rates of these two forms of learning processes. Although there are mentioned benefits of students using the virtual-based form of learning, there is limited research that provides evidence of the mentioned benefits. Furthermore, there are few studies that have focused on whether virtual classrooms can act a bridge to public schools to home-schooling students. In this study, the researcher explores the possibility or viability of homeschooling parents to enroll their children in a public-school system if they can attend the classes via the virtual classroom.

If you decide to participate, then you will join a study involving research to determine whether parents that have currently enrolled their children in a homeschool-based learning program can allow them to go to public schools through the virtual classrooms. Purposive sampling will be used to select the research participants in this study. the researcher organized dates with the respondents for the interview processes. For those respondents who were busy, the researcher used Skype to ensure that none of the interviewees failed to grant him an interview because of work or other commitments. Data collection for the interviews will use a recorder, which is later transcribed for data analysis. The researcher uses the focus group method to collect data from his research participants in a group format where discussions are encouraged to get a deeper understanding of the issues that the researcher is interested in, in this study. If you say YES, then your participation will last for about forty-five minutes. The focus group will be between 6-10 participants anything above 10 and it's very difficult to capture data from the participants and get any level of depth from individual respondents.

#### **EXCLUSIONARY CRITERIA**

To participate in the study, you need to fulfill the following criteria:

- Be a parent whose children are currently being home schooled
- Have an understanding of the virtual classroom

Exclusion:

- 18 and younger
- Parents with children in public school
- Parents with children in private school

#### **RISKS AND BENEFITS**

**RISKS:** If you decide to participate in this study, then you may face a risk of loss of confidentiality. The researcher tried to reduce these risks by collecting your responses and removing all PII to protect your identity, analyzing and presenting data in aggregate and storing all data on encrypted removable media. However, as with any research, there is some possibility that you may be subject to risks that have not yet been identified.

**BENEFITS:** You may receive no direct benefit or harm from completing the study. Others may benefit by a better understanding of homeschooling parents.

**COSTS AND PAYMENTS**

The researchers are unable to give you any payment for participating in this study.

**NEW INFORMATION**

If the researchers find new information during this study that would reasonably change your decision about participating, then they will give it to you.

**CONFIDENTIALITY**

The researchers will take reasonable steps to keep private information, such as questionnaire and responses, confidential. The researcher will remove identifiers from the information, destroy tapes, store information in a locked filing cabinet prior to its processing. The results of this study may be used in reports, presentations, and publications; but the researcher will not identify you. Of course, your records may be subpoenaed by court order or inspected by government bodies with oversight authority.

**WITHDRAWAL PRIVILEGE**

It is OK for you to say NO. Even if you say YES now, you are free to say NO later, and walk away or withdraw from the study -- at any time. Your decision will not affect your relationship with Old Dominion University, or otherwise cause a loss of benefits to which you might otherwise be entitled.

**COMPENSATION FOR ILLNESS AND INJURY**

If you say YES, then your consent in this document does not waive any of your legal rights. However, in the event of, harm, injury or illness arising from this study, neither Old Dominion University nor the researchers are able to give you any money, insurance coverage, free medical care, or any other compensation for such injury. In the event that you suffer injury as a result of participation in any research project, you may contact Tian Luo at (757) 683-5369 or Dennis Norman at (804) 878-6386, Dr. Laura Chezan, the current IRB chair at 757-683-7055 at Old Dominion University, or the Old Dominion University Office of Research at 757-683-3460 who will be glad to review the matter with you.

**VOLUNTARY CONSENT**

By signing this form, you are saying several things. You are saying that you have read this form or have had it read to you, that you are satisfied that you understand this form, the research study, and its risks and benefits. The researchers should have answered any questions you may have had about the research. If you have any questions later on, then the researchers should be able to answer them:

Dr. Tian Luo at (757) 683-5369 or Dennis Norman at (804) 252-5481.

If at any time you feel pressured to participate, or if you have any questions about your rights or this form, then you should call Dr. Laura Chezan, the current IRB chair at 757-683-7055, or the Old Dominion University Office of Research, at 757-683-3460.

And importantly, by signing below, you are telling the researcher YES, that you agree to participate in this study. The researcher should give you a copy of this form for your records.

<b>Subject's Printed Name &amp; Signature</b>	<b>Date</b>
<b>Parent / Legally Authorized Representative's Printed Name &amp; Signature (If applicable)</b>	<b>Date</b>
<b>Witness' Printed Name &amp; Signature (if Applicable)</b>	<b>Date</b>

I certify that I have explained to this subject the nature and purpose of this research, including benefits, risks, costs, and any experimental procedures. I have described the rights and protections afforded to human subjects and have done nothing to pressure, coerce, or falsely entice this subject into participating. I am aware of my obligations under state and federal laws and promise compliance. I have answered the subject's questions and have encouraged him/her to ask additional questions at any time during this study. I have witnessed the above signature(s) on this consent form.

<p style="text-align: center;"><b>X</b> _____</p> <p><b>Dennis Norman</b> Investigator's Printed Name &amp; Signature</p>	<p style="text-align: center;"><b>6/1/2019</b> Date</p>
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**APPENDIX B****Interview Questions**

Hello, my name is Dennis Norman, a student from the Old Dominion University, I am here to learn about your view on virtual classrooms to meet your home-schooling needs. Thank you for taking the time to talk with me today. There are no right or wrong answers, or desirable or undesirable answers. I would like you to feel comfortable saying what you really think and how you really feel. If it's okay with you, I will be tape-recording our conversations since it is hard for me to write down everything while simultaneously carrying an attentive conversation with you. Everything you say will remain confidential, meaning that only myself and my teammates will be aware of your answers the purpose of that is only so we know whom to contact should we have further followed up questions after this interview.

Question 1 Tell me what are the expected benefits of virtual classrooms over home-schooling as one of the alternative education programs for students?

Question 2 What do you expected learning outcomes by parents of children who enroll them in virtual classroom programs?

APPENDIX C

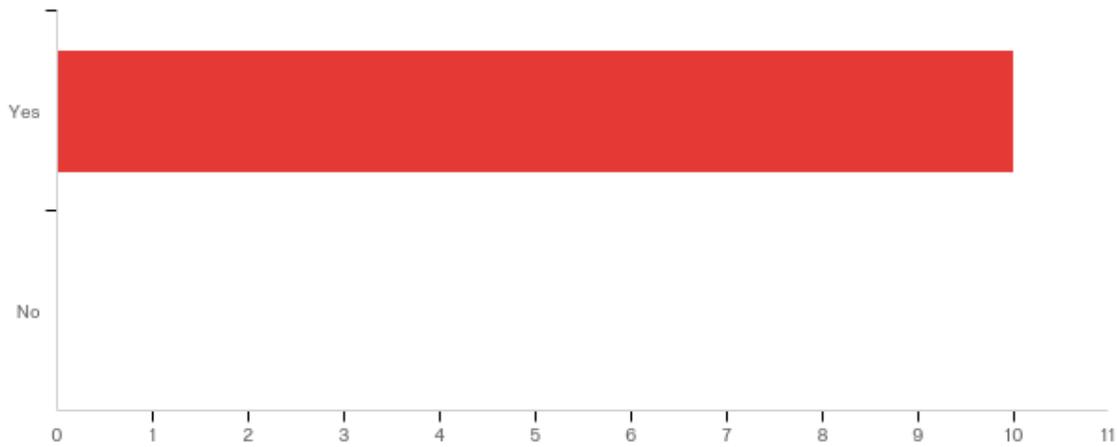
Survey

Default Report

virtual

August 1st 2019, 5:14 pm MDT

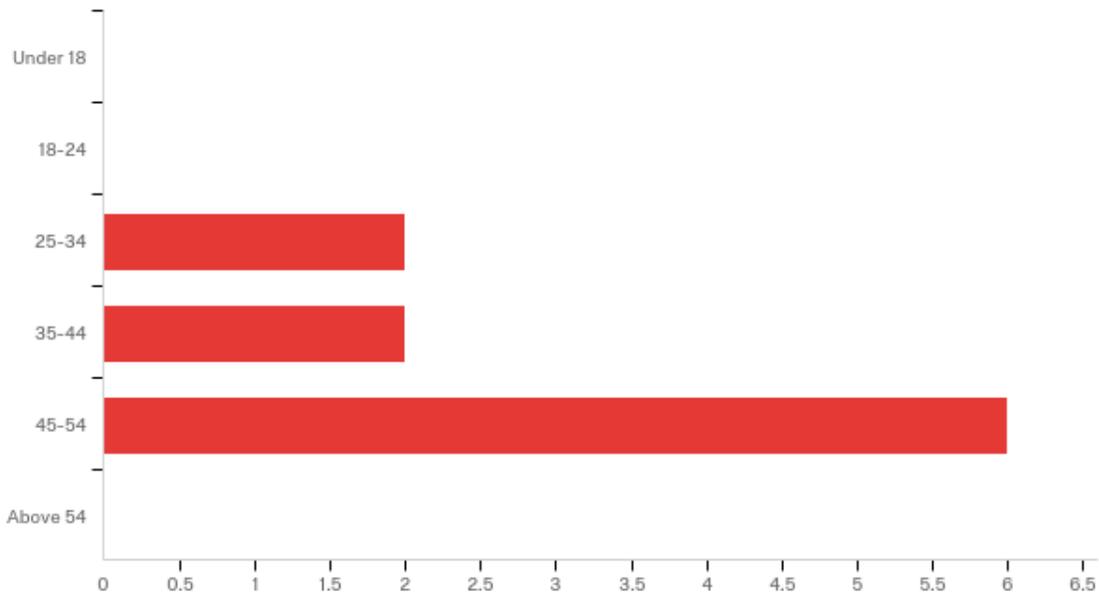
Q1 - Are you currently homeschooling any children?



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Are you currently homeschooling any children?	1.00	1.00	1.00	0.00	0.00	10

#	Answer	%	Count
1	Yes	100.00%	10
2	No	0.00%	0
	Total	100%	10

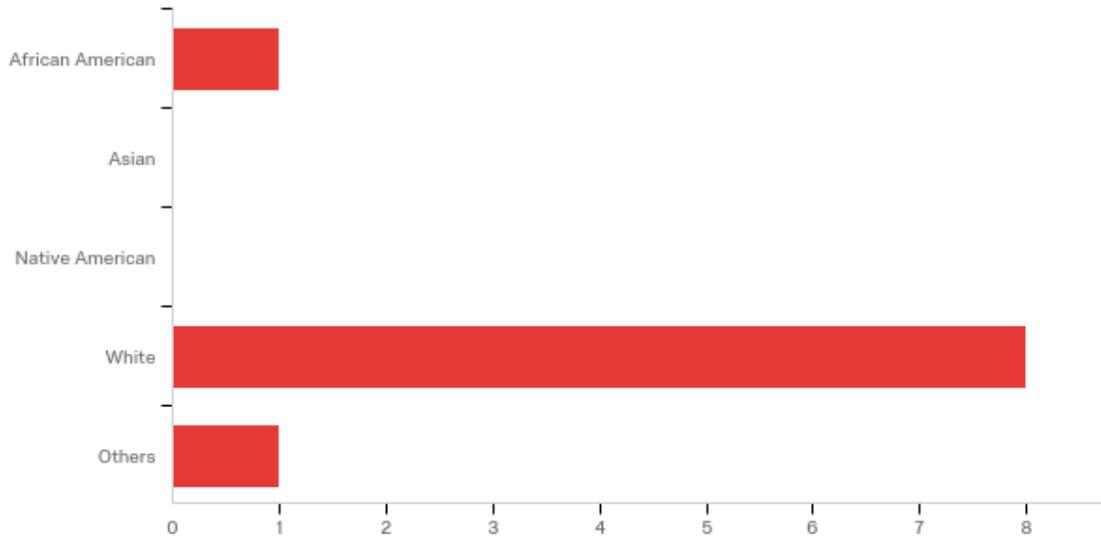
**Q2 - What is your age?**



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	What is your age?	3.00	5.00	4.40	0.80	0.64	10

#	Answer	%	Count
1	Under 18	0.00%	0
2	18-24	0.00%	0
3	25-34	20.00%	2
4	35-44	20.00%	2
5	45-54	60.00%	6
6	Above 54	0.00%	0
	Total	100%	10

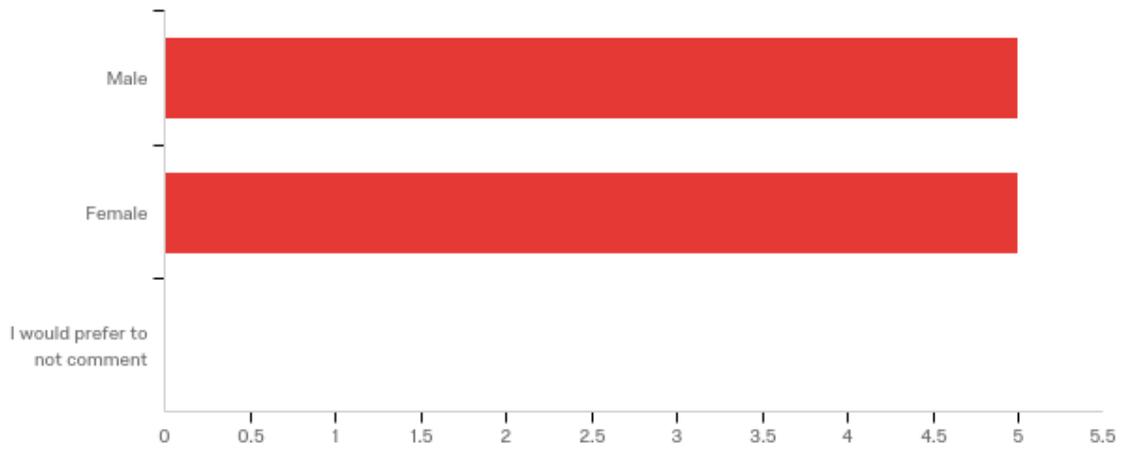
**Q3 - What would best describe you?**



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	What would best describe you?	1.00	5.00	3.80	0.98	0.96	10

#	Answer	%	Count
1	African American	10.00%	1
2	Asian	0.00%	0
3	Native American	0.00%	0
4	White	80.00%	8
5	Others	10.00%	1
	Total	100%	10

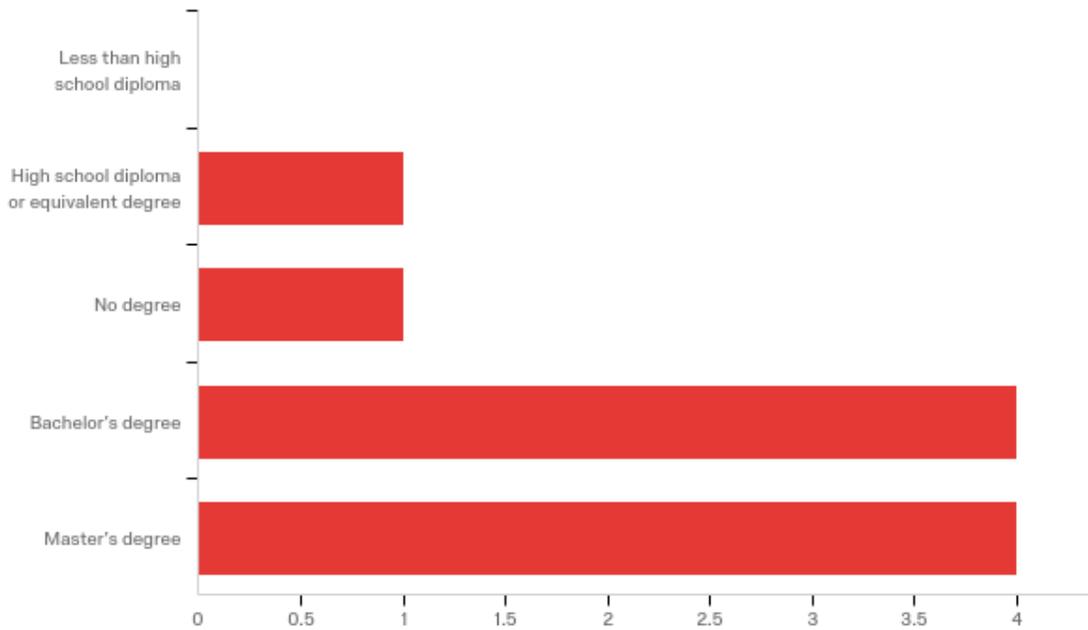
**Q4 - Which gender do you identify most with?**



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Which gender do you identify most with?	1.00	2.00	1.50	0.50	0.25	10

#	Answer	%	Count
1	Male	50.00%	5
2	Female	50.00%	5
3	I would prefer to not comment	0.00%	0
	Total	100%	10

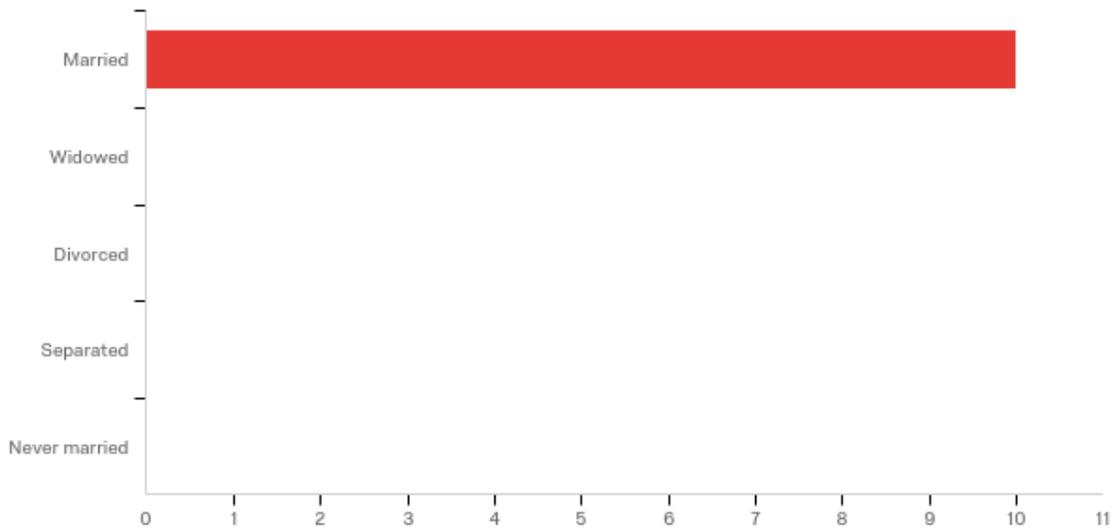
**Q5 - What is your highest qualification?**



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	What is your highest qualification?	2.00	5.00	4.10	0.94	0.89	10

#	Answer	%	Count
1	Less than high school diploma	0.00%	0
2	High school diploma or equivalent degree	10.00%	1
3	No degree	10.00%	1
4	Bachelor's degree	40.00%	4
5	Master's degree	40.00%	4
	Total	100%	10

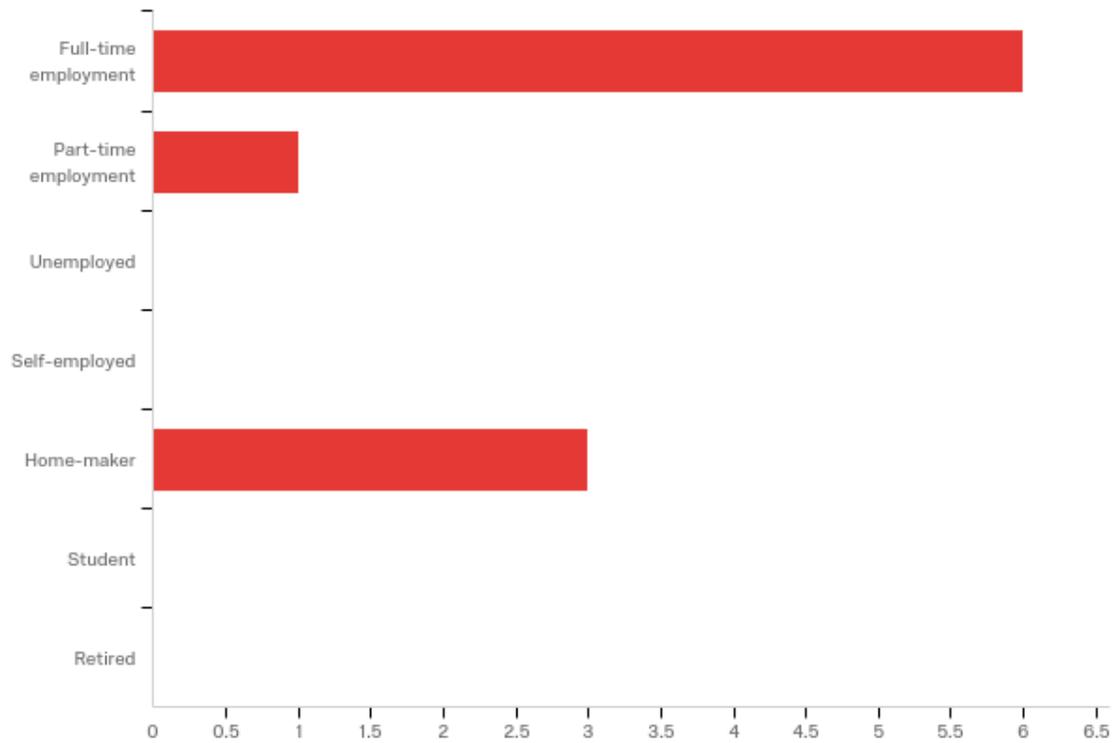
**Q6 - What is your marital status?**



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	What is your marital status?	1.00	1.00	1.00	0.00	0.00	10

#	Answer	%	Count
1	Married	100.00%	10
2	Widowed	0.00%	0
3	Divorced	0.00%	0
4	Separated	0.00%	0
5	Never married	0.00%	0
	Total	100%	10

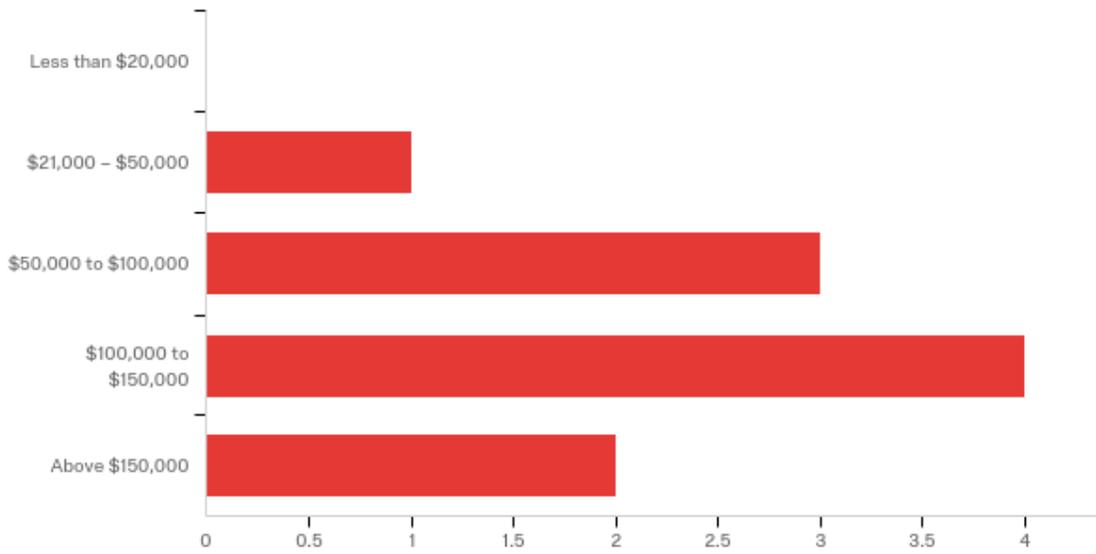
**Q7 - What is your current employment status?**



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	What is your current employment status?	1.00	5.00	2.30	1.79	3.21	10

#	Answer	%	Count
1	Full-time employment	60.00%	6
2	Part-time employment	10.00%	1
3	Unemployed	0.00%	0
4	Self-employed	0.00%	0
5	Home-maker	30.00%	3
6	Student	0.00%	0
7	Retired	0.00%	0

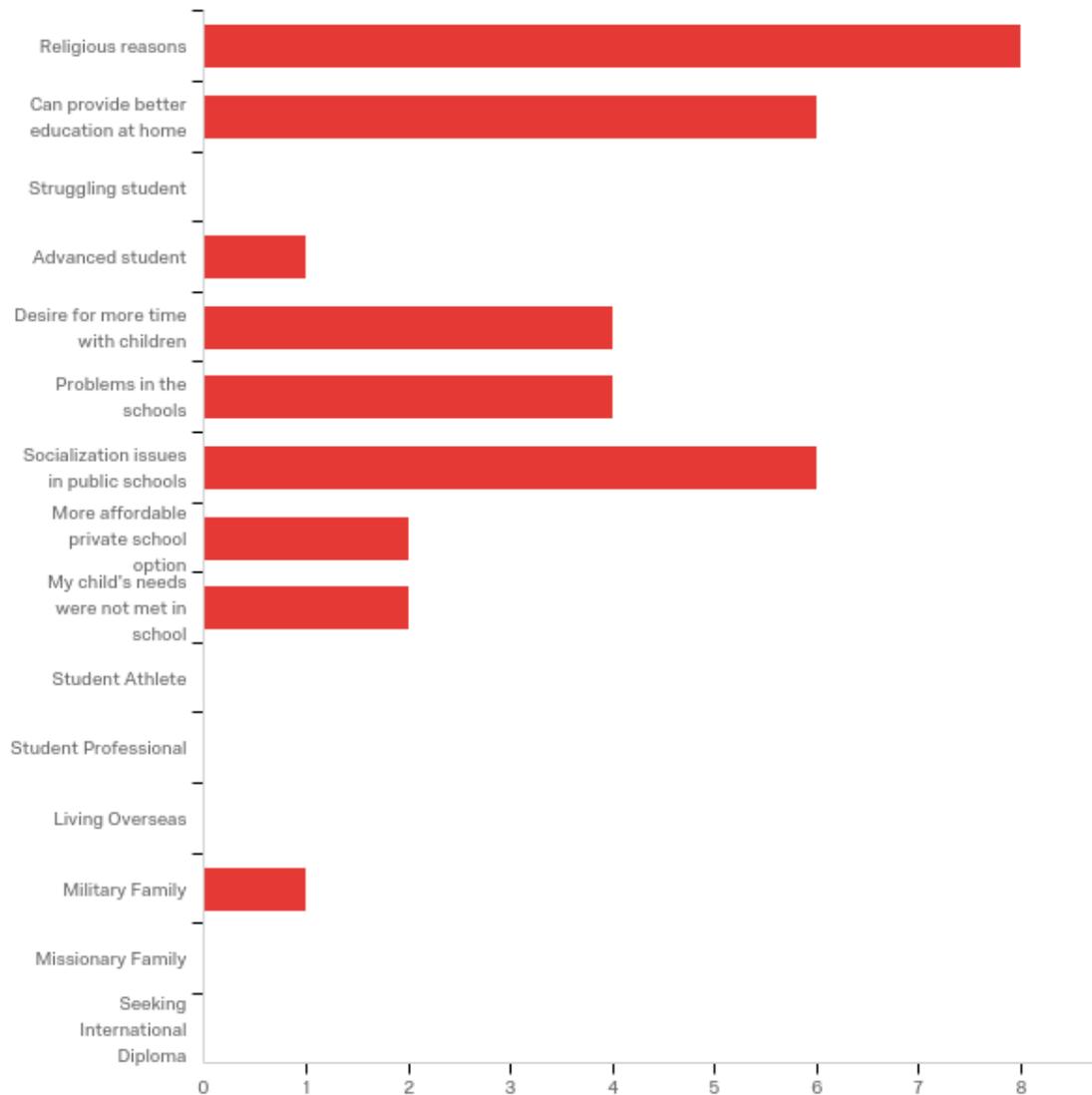
**Q8 - Which income group does your household fall under?**



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Which income group does your household fall under?	2.00	5.00	3.70	0.90	0.81	10

#	Answer	%	Count
1	Less than \$20,000	0.00%	0
2	\$21,000 - \$50,000	10.00%	1
3	\$50,000 to \$100,000	30.00%	3
4	\$100,000 to \$150,000	40.00%	4
5	Above \$150,000	20.00%	2
	Total	100%	10

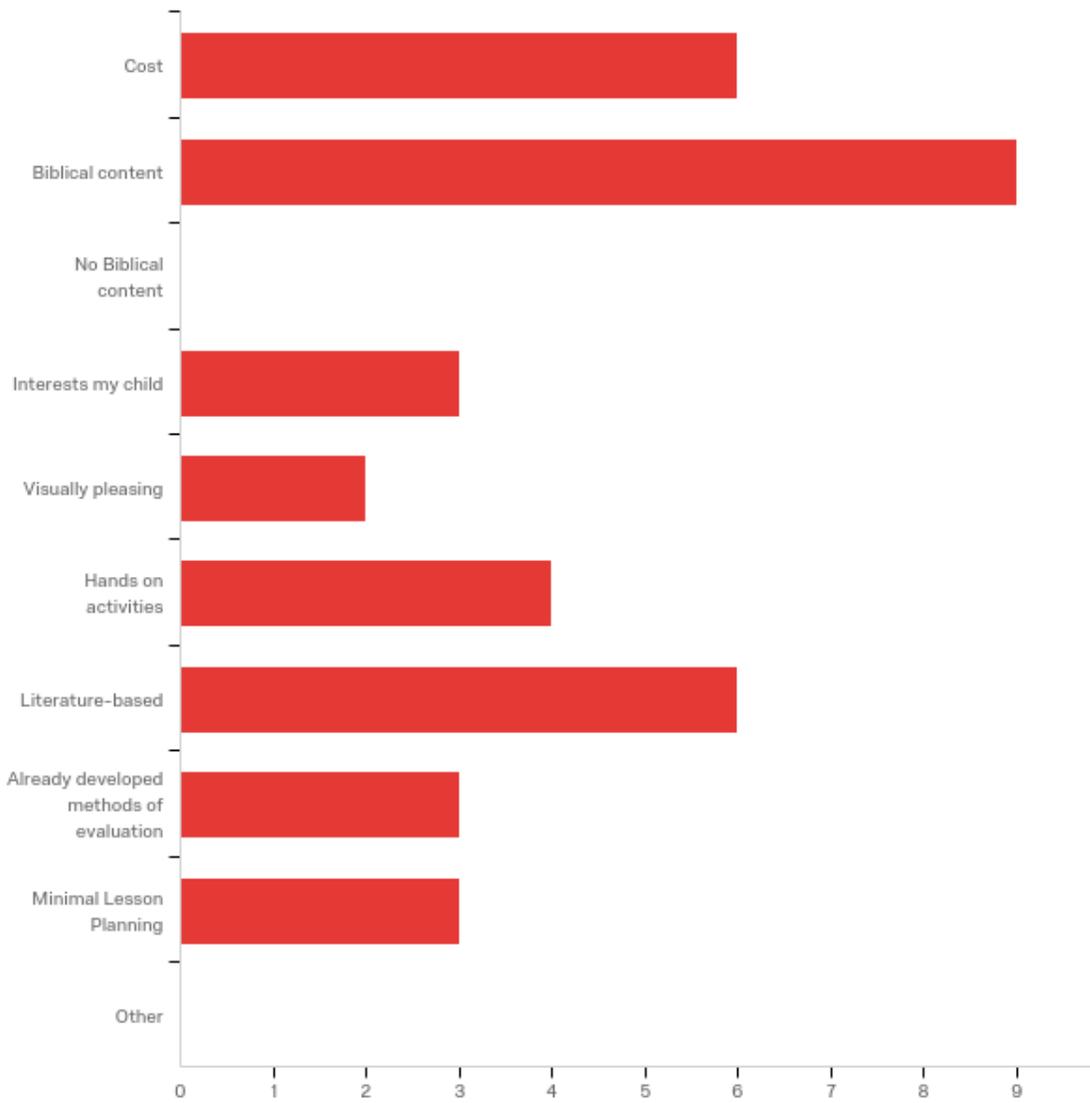
**Q9 - What are your primary reasons for homeschooling?**



#	Answer	%	Count
1	Religious reasons	23.53%	8
2	Can provide better education at home	17.65%	6
3	Struggling student	0.00%	0
4	Advanced student	2.94%	1
5	Desire for more time with children	11.76%	4

6	Problems in the schools	11.76%	4
7	Socialization issues in public schools	17.65%	6
8	More affordable private school option	5.88%	2
9	My child's needs were not met in school	5.88%	2
10	Student Athlete	0.00%	0
11	Student Professional	0.00%	0
12	Living Overseas	0.00%	0
13	Military Family	2.94%	1
14	Missionary Family	0.00%	0
15	Seeking International Diploma	0.00%	0
	Total	100%	34

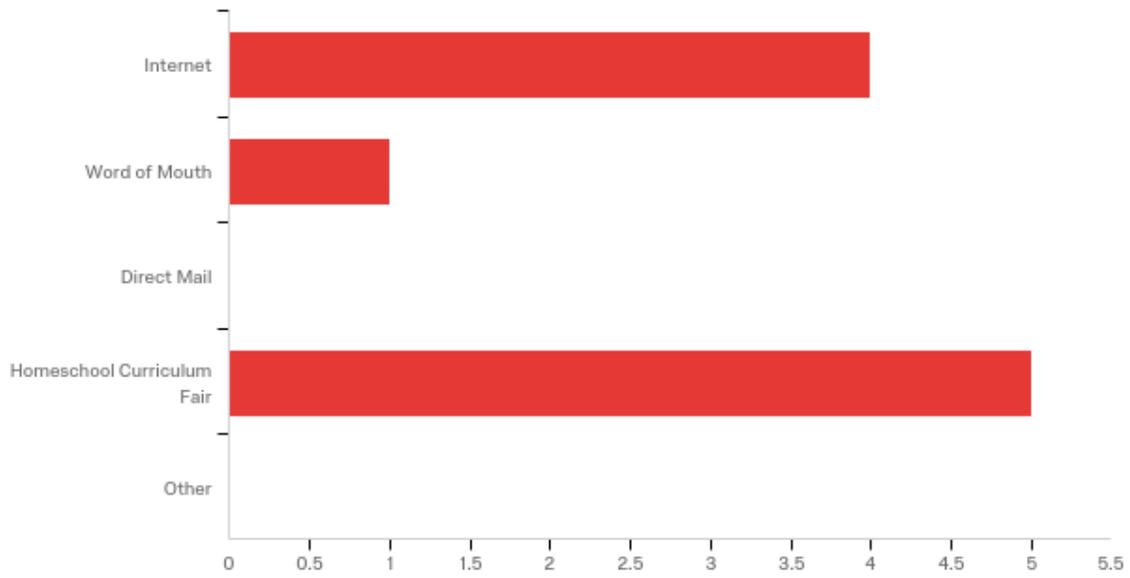
**Q10 - What are the main criteria you use when evaluating homeschooling curriculum or programs (select all that apply)?**



#	Answer	%	Count
1	Cost	16.67%	6
2	Biblical content	25.00%	9
3	No Biblical content	0.00%	0
4	Interests my child	8.33%	3

5	Visually pleasing	5.56%	2
6	Hands on activities	11.11%	4
7	Literature-based	16.67%	6
8	Already developed methods of evaluation	8.33%	3
9	Minimal Lesson Planning	8.33%	3
10	Other	0.00%	0
	Total	100%	36

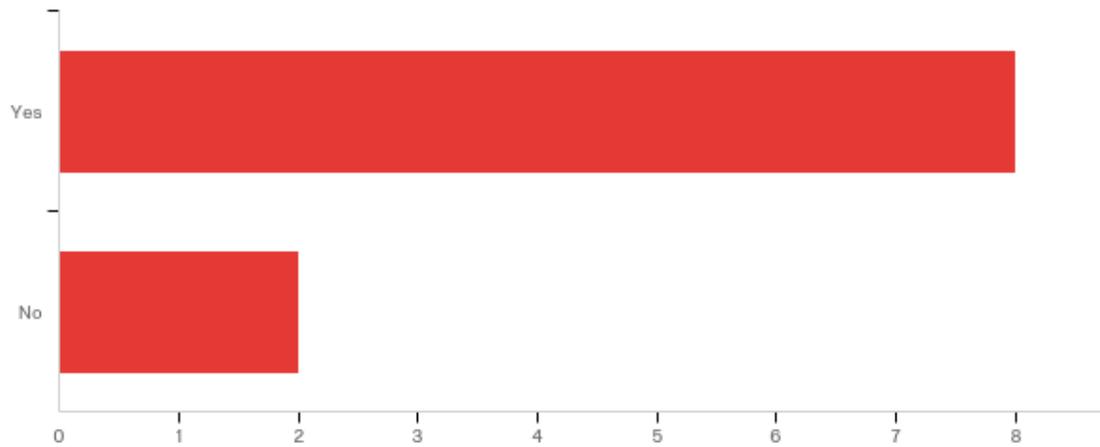
**Q11 - What is the main method you use to learn about homeschooling programs?**



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	What is the main method you use to learn about homeschooling programs?	1.00	4.00	2.60	1.43	2.04	10

#	Answer	%	Count
1	Internet	40.00%	4
2	Word of Mouth	10.00%	1
3	Direct Mail	0.00%	0
4	Homeschool Curriculum Fair	50.00%	5
5	Other	0.00%	0
	Total	100%	10

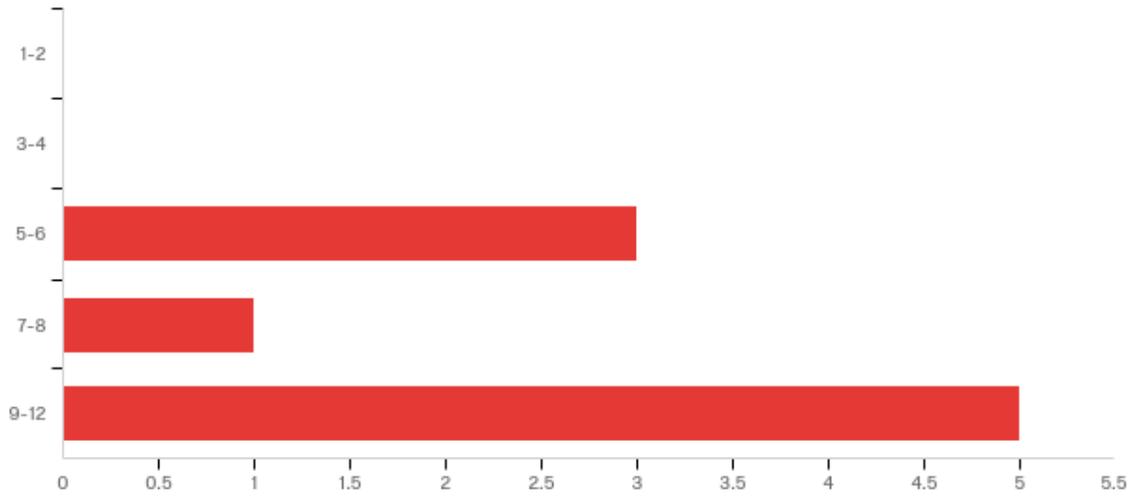
**Q12 - Would you be interested in on-line Virtual Classroom?**



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Would you be interested in on-line Virtual Classroom?	1.00	2.00	1.20	0.40	0.16	10

#	Answer	%	Count
1	Yes	80.00%	8
2	No	20.00%	2
	Total	100%	10

**Q13 - If yes, what grade levels would you enroll in on-line classes?**



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	If yes, what grade levels would you enroll in on-line classes?	3.00	5.00	4.22	0.92	0.84	9

#	Answer	%	Count
1	1-2	0.00%	0
2	3-4	0.00%	0
3	5-6	33.33%	3
4	7-8	11.11%	1
5	9-12	55.56%	5
	Total	100%	9

**APPENDIX D**  
**IRB Approval Letter**



**OFFICE OF THE VICE PRESIDENT FOR RESEARCH**



**Physical Address**

4111 Monarch Way, Suite 203  
Norfolk, Virginia 23508

**Mailing Address**

Office of Research  
1 Old Dominion University  
Norfolk, Virginia 23529  
Phone(757) 683-3460  
Fax(757) 683-5902

DATE: June 20, 2019

TO: Tian Luo

FROM: Old Dominion University Education Human Subjects Review Committee

PROJECT TITLE: [1451816-1] Virtual Classrooms Bridging Homeschooling to Public Schools

REFERENCE #:

SUBMISSION TYPE: New Project

ACTION: DETERMINATION OF EXEMPT STATUS

DECISION DATE: June 20, 2019

REVIEW CATEGORY: Exemption category # 2

Thank you for your submission of New Project materials for this project. The Old Dominion University Education Human Subjects Review Committee has determined this project is EXEMPT FROM IRB REVIEW according to federal regulations.

We will retain a copy of this correspondence within our records.

If you have any questions, please contact Laura Chezan at (757) 683-7055 or lchezan@odu.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Old Dominion University Education Human Subjects Review Committee's records.

## APPENDIX E

### Focus Group Transcripts

#### VIRTUAL CLASSROOMS BRIDGING HOMESCHOOLING TO PUBLIC SCHOOLS

Researcher (Dennis Norman)

Participant A

Participant B

Participant C

Participant D

Participant E

Participant F

Participant G

Participant H

- Date and time of the interview or recording of the event June 29<sup>th</sup> 2019
- Hosted at the home of the participants in a group of 8 participants total
- Audio file name: Virtual Class 001
- Duration of interview or recorded event 45 mins

Researcher Hello, my name is Dennis Norman, a student from the Old Dominion University, I am here to learn about your view on virtual classrooms to meet your home-schooling needs. Thank you for taking the time to talk with me today. There are no right or wrong answers, or desirable or undesirable answers. I would like you to feel comfortable saying what you really think and how you really feel. If it's okay with you, I will be tape-recording our conversations since it is hard for me to write down everything while simultaneously carrying an attentive conversation with you. Everything you say will remain confidential, meaning that only I and my teammates will be aware of your answers the purpose of that is only so we know whom to contact should we have further followed up questions after this interview.

Participant C How long is the interview process?

Researcher I estimate forty five to sixty minutes. Please limit the discussion to the questions and only one person speaking at a time. Ok the first question Tell me what are the expected benefits of virtual classrooms over home-schooling as one of the alternative education programs for students?

Participant B I love the idea of having the option of having my kids have access to a virtual classroom. The reason my children do homeschooling is because of the negative learning environment in public schools. The students in public schools usually discourages other student from doing well in class. Class sizes are too large which causes students to get lost in the daily shuffle. A virtual classroom would allow me to homeschool my children with one on one help from me

Participant C There are pro and cons to the virtual classroom. The big benefit I see is the safe learning environment the virtual classroom provides. My kids can learn in the safety of my home not be exposed to bullying and drugs that is a major issue in the public school system. Some of

the cons is children will miss out on extra-curricular activities available such as band, sports and educational programs, I enjoyed attending school with friends in the neighborhood which build social skills which will come in handy as the children develop.

Participant D I agree with Participant C, drugs and violence is a major concern of mine with public schools. a virtual classroom would provide an engaging way for my child to study in the safety of our home. Virtual classrooms will work well in homes that can provide a safe environment for children. I am concerned that not all could benefit from a virtual classroom if both parents had to work or if they don't have high speed internet. My big question is will I get to meet the teachers that are facilitating the virtual class room and will I be able to choose the classes my child will attend. I would also like to review any curriculum prior to my child enrolling into a class.

Participant E We feel that homeschooling provides us more control over our children's educations and provides a safer learning environment. With all the things we see in the news of shootings, bullying, drugs, political correctness, the virtual classroom could resolve those issues. I would like to see a demo and see a little more of a virtual classroom prior to enrolling my children. I assume parents could monitor classroom work and view homework assignments in a virtual classroom?

Researcher Just like not all schools are created equal in the quality of education some virtual classrooms may differ on the quality of instructional delivery.

Participant E I would enroll my children on a trial bases to see how they do with online classes.

Participant G I totally agree with Participant E

Participant B Same

Participant D A big plus of a virtual classroom is it would provide an engaging way for my child to study in the safety of our home

Participant F The virtual classroom is excellent for today's generation of students who are more clued up about technology than us adults, they use it on a constant basis. Virtual classroom are well overdue. The virtual classroom could resolve so many issues the inner schools have thus may help minority children for the social issues they face daily.

Participant B Virtual classroom technology could replace the brick and mortar classrooms that out outdated and costly to maintain.

Participant G My concern would be the lack of my child socializing with other children. Virtual classroom environment may work better for children who are introverts or have physical disabilities. But may be a issue for parents who want their kids to pursue sports. Homeschooling fees and books are not cheap but if the virtual classroom provided electronic books and materials that would save me a nice chunk of change. Parent would just need to have an Internet service provider and computer for each child which most like in middle class families. This may be a challenge for underprivileged families.

Participant A Totally agree

Participant C Same

Participant H based on everyone's thoughts the benefits of a virtual classroom and homeschooling would could be combined thus making it a feasible option to enroll children into the public-school system. But as someone mentioned this would only be on a trial bases to see how my children do with online classes at a young age.

All Participants Agree or nod in agreement.

Participant E One concern I do have is that homeschooling provides a teacher that provides instruction, I feel that some kids may have a hard time adapting to a virtual environment with no teacher at the front of the classroom. The virtual classroom may not be for all students.

Researcher Ok excellent feedback everyone. Next question, what do you expected learning outcomes by parents of children who enroll them in virtual classroom programs?

Participant C Please repeat the question

Researcher Next question what do you expected learning outcomes by parents of children who enroll them in virtual classroom programs?

Participant A improvement of grades

Participant B Yes

Participant E same

Participant D I would expect students with specific instructions to provide their specific needs, which improves learning outcomes.

Participant C I would hope in reducing the time to learn. No more wasting time riding schools buses on reduce amount of homework.

Participant F I would hope a learning outcome would be instant student feedback and giving tailored feedback for each student. No need to wait for teacher feedback and tell the student where he or she went wrong

Participant G Being new to virtual classroom I could see how this could help students and teachers improve the learning experience in schools. I could still tutor my child while my kids are attending class. This would improve the learning experience of children with special needs

Participant C Though test scores are important I would like to see if my child has a positive learning experience.

Researcher any other thoughts?

Participant D I think we all can agree on wanting to see an improvement on our children's grades and reduce classroom or time spent on school work.

All Participants verbal Agree or nod yes

Researcher if no additional feedback I will end this focus research group session. Thanks again for your time and feedback.

Date and time of the interview or recording of the event June 29th 2019

- Hosted with Skypys 2 participants total

Participant I

Participant J

- Audio file name: Virtual Class 002
- Duration of interview or recorded event 20 mins

Researcher Hello, my name is Dennis Norman, a student from the Old Dominion University, I am here to learn about your view on virtual classrooms to meet your home-schooling needs. Thank you for taking the time to talk with me today. There are no right or wrong answers, or desirable or undesirable answers. I would like you to feel comfortable saying what you really think and how you really feel. If it's okay with you, I will be tape-recording our conversations since it is hard for me to write down everything while simultaneously carrying an attentive conversation with you. Everything you say will remain confidential, meaning that only I and my teammates will be aware of your answers the purpose of that is only so we know whom to contact should we have further followed up questions after this interview. Can you all hear me all right?

Participant I Yes

Participant J Yes

Researcher Please limit the discussion to the questions and only one person speaking at a time. Ok the first question Tell me what are the expected benefits of virtual classrooms over home-schooling as one of the alternative education programs for students?

Participant I A virtual classroom resolves the issue of school time and location, no more waiting for a bus then the bus trip to school then waiting for class to start which is all a waste of time and resources compare to a public-school classroom. Attending a virtual classroom can be done at the comfort and safety of your home which saves many hours that is used to commute forth and back to school.

Participant J A virtual classroom would make schooling more affordable for parents who home school. Home schooling has many associated costs that increase as children grow older. I believe virtual classroom would allow me to maintain the benefits of homeschooling my children while allowing my children to attend public school via a virtual classroom.

Participant I Yes the virtual classroom provides many benefits of homeschooling. I like the fact that exams or tests taken online are usually scored as soon the student finishes. This helps parents who homeschool their children to track the progress and show problem areas that require improvement. Homeschooling parents spend a lot of time teaching, grading and tracking assignments.

Participant J I agree

Researcher Great input. Next question what do you expected learning outcomes by parents of children who enroll them in virtual classroom programs?

Participant I Reduced classroom time and improved testing scores

Participant J I agree but would like to see my children become more positive about education and have a good learning experience.

Researcher any additional comments?

Participant I No

Participant J I would like to see your research when it's completed

Researcher Sure, thanks for your participation, this will end our focus group discussion.