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Instructional Strategies Within a Blended Learning Model for At-Risk Students

Kim Marette Zeydel
Walden University

Walden University

College of Education

This is to certify that the doctoral study by

Kim Zeydel

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Review Committee
Dr. Christopher Cale, Committee Chairperson, Education Faculty
Dr. Ruby Burgess, Committee Member, Education Faculty
Dr. Karen Hunt, University Reviewer, Education Faculty

Chief Academic Officer
Eric Riedel, Ph.D.

Walden University
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Abstract

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MS, Walden University, 2008

MA, Claremont Graduate School, 1985

BA, Johnston College, 1973

Doctoral Study Submitted in Partial Fulfillment

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Abstract

Many at-risk students attending an alternative high school in a northwestern state were not graduating on-time even after a learner-centered blended learning model was implemented. The administration and teachers sought to understand why the change to a learner-centered program was only slightly increasing the graduation rate each year. The purpose of this qualitative case study was to explore how the learner-centered instructional strategies used within a blended learning model were being implemented and supporting at-risk students. Weimer's learner-centered framework was used to ground the study and guide the research questions which examined teacher and student perspectives about the learner-centered instructional strategies that were being implemented. Interviews were conducted with 6 teachers from diverse disciplines who had taught at the study site for 3 or more years, 4 recent graduates, and 6 current students who were 18 years old or older. Classroom observations of the 6 teachers were conducted and archived student surveys from the previous 2 years were collected. All data were analyzed and coded to identify common themes and strategies regarding learner-centered instruction. The findings indicated the teachers needed professional development in how to implement learner-centered and blended learning strategies and how to help students take responsibility for their education. A yearlong professional development program focused on how to use learner-centered and blended instructional strategies was developed for teachers. Implementation of appropriate learner-centered and blended learning strategies might result in students completing their courses and increased graduation rates. As more students graduate, instead of dropping out, positive social change will occur in the community as they responsibly enter the work force.

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Dedication

I want to dedicate this project study to my loving and patient husband who stood by me and gave me the space to write without interruptions. It was a lengthy process and I am thankful that we both made it through and are still very much in love.

Acknowledgments

I would like to acknowledge the support I received from my former colleagues and students who were with me throughout this process. I also want to thank the participants in this study. Without their cooperation, this study would not have been possible. Their willingness to provide honest answers to my questions and their insights into the areas of strengths and areas of improvement for the school were appreciated. Without the support of my chair, Dr. Chris Cale, I would not have finished, and I want to publicly thank him for his suggestions that helped me complete my doctorate. I would also like to thank Dr. Ruby Burgess, Dr. Karen Hunt, and Dr. Kathryn Swetnam for their support, and the advice and encouragement I received from other Walden faculty members.

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Section 1: The Problem

The Local Problem

Many at-risk students attending an alternative high school in a northwestern state in the United States are not graduating on-time. The graduation rate for this state was 77.3% in 2013-2014, 78.9% in 2014-2015, and 79.7% in 2015-2016 as reported in the state's K-12 Report Card. Meanwhile, the national average was 84% according to the National Center for Education Statistics (2018). A contributing factor for the low graduation rate was the alternative high schools which had an on-time graduation rate of 36% according to the State Board of Education (Russell, 2016). The low graduation rates at the alternative schools prompted the president of the Board of Education to ask for an investigation into how to help these students graduate on-time (Russell, 2016).

A task force was established and created a comprehensive report which ultimately resulted in the Governor signing a bill to provide grants to 20 local education agencies to pilot new educational programs. The State Department awarded grants to districts or schools to plan, develop, and implement these new learner-centered programs to increase student success in their regular and/or alternative schools. This project study involved High Mountain School District (pseudonym) which was one of the 19 sites chosen for the pilot programs.

High Mountain School District and its alternative high schools were chosen because of their low graduation rates which ranged from 27.3% to 52.7% for the 2015-2016 school year as indicated by the State Department of Education. The school district and the Valley Alternative High School (VAHS; pseudonym) principal knew there was a

problem as the at-risk students were not graduating on-time and they believed it was a result of using a traditional school structure and traditional delivery of the curriculum instead of learner-centered instructional strategies within a blended learning model (VAHS principal, personal communication, August 15, 2016).

The district research coordinator presented a plan at the April 28, 2015 School Board meeting describing the changes to be implemented. VAHS implemented the suggested changes for the 2016 – 2017 school year by incorporating learner-centered instructional strategies within a blended learning model. Their goal was to see if this model would enable the at-risk students to be more successful academically, take ownership and responsibility for their own learning, and graduate on-time (VAHS principal, personal communication, August 15, 2016). However, little evidence exists providing an understanding of which learner-centered instructional strategies support at-risk students (Bernard, Borokhovski, Schmid, Tamim, & Abrami, 2014; Mayer, Lingle, & Usselman, 2017; Nair, 2016; Rivera, 2017; Zacharis, 2015).

The students attending VAHS are considered at-risk because they might become dropouts due to the individual characteristics identifying them as at-risk which they are required to have by the state to attend an alternative high school (see Appendix B). If under this new learner-centered instructional program within a blended learning model the graduation rate does increase, then the program would be presented to other alternative schools within the district and state to help them improve their graduation rates (VAHS principal and district research coordinator, personal communication, August 15, 2016).

With the change to learner-centered instructional strategies used within a blended learning model, the teachers needed to learn and understand how to become facilitators of learning instead of transmitters of learning (Dole, Bloom, & Kowalske, 2016). Teachers at VAHS were provided professional development in the form of three book studies on instructional practices (Horn & Staker, 2015; Knight, 2013; Northwest Evaluation Association, 2012) and two book studies on restorative practices to help the teachers with mentoring their students (Costello, Wachtel, & Wachtel, 2010; Smith, Fisher, & Frey, 2015). In addition, during the summer of 2016 teachers wrote and developed their instructional units with help from technology specialists (VAHS principal, personal communication, May 16, 2016). Throughout the 2017-2018 school year, teachers met in Professional Learning Communities by discipline to refine and refocus their semester or yearlong curriculum into four units of instruction with a capstone project at the end of each unit or every two units (district research coordinator, personal communication, May 17, 2017). At the end of the 2017-2018 school year, teachers were asked to read Harvey and Goudvis' (2017) book on instructional strategies and Dweck's (2006) book on mindset over the summer to increase their understanding of how to be an effective teacher. In addition, a small group of teachers attended statewide conferences on how to implement a learner-centered program (VAHS principal, personal communication, May 16, 2017).

A problem arose at VAHS when the graduation rate for the 2017-2018 school year increased but not as much as was hoped and the district research coordinator and VAHS's principal began to wonder how the new learner-centered instructional strategies

within the blended learning model were being implemented and why they did not produce the expected results of increased student success as indicated by the literature (Mesecar, 2015; Rufatto et al., 2016; Suprabha & Subramonian, 2015; Weimer, 2013). Based on this data, the district administration and VAHS principal wondered if there was a gap in practice in the implementation and understanding of learner-centered instructional strategies used within the blended learning model (district research coordinator and VAHS principal, personal communication, June 5, 2018).

Rationale

Lin, Chung, Yeh, and Chen (2016) reported in their study that their student participants preferred the blended learning model. However, Lin et al. (2016) suggested that this model needed to be verified in other settings and with different age groups of students, including at-risk students. Rivera (2017) indicated a need to study special needs students, which some at-risk students are considered, to determine if they were successful under a blended learning instructional model. Furthermore, Adekola, Dale, Gardiner, and Fischbacher-Smith (2017) suggested the need to further research how to support students who are disengaged and/or do not feel included in the online interactions which describes some at-risk students.

Barnett (2016) and Lewis, Whiteside, and Garrett Dikkers (2014) researched how at-risk students performed in online courses and discovered that most needed a supporting adult to help them complete the courses. This research indicated the need for using a blended model that allows for online individualized learning with face-to-face support. However, there is little research specifically on at-risk students and learner-

centered instructional strategies within a blended learning model to indicate how successful this model is in supporting these students to succeed. Thus, the need for this qualitative case study.

With the implementation of a learner-centered blended learning model, the graduation rate improved at VAHS at the end of the first year of implementation, but the increase was much smaller than what was expected which caused concern among the staff (VAHS principal, personal communication, June 5, 2018). Table 1 depicts the graduation rate for the 2014-2015 and 2015-2016 school years, before the change in school structure, and the following two years under the new learner-centered blended learning model for VAHS. The number of credits needed to graduate changed from 56 to 46 credits between the 2014-2015 and 2015-2016 school years.

Table 1

Graduation Rates

School Year	2014-2015	2015-2016	2016-2017	2017-2018
Credits	56	46	46	46
VAHS	39.1%	52.7%	56.1%	59.5%
State	78.91%	79.66%	79.67%	80.65%

Source. Department of Education (n.d.)

In addition to a graduation rate below the state average, the state test scores were decreasing which caused more concern (district research coordinator, personal communication, May 22, 2018). The test scores for the 2014-2015 school year were the first for the new state assessment based on the Common Core State Standards. The

learner-centered instructional strategies used within a blended learning model were fully implemented in the 2016-2017 school year. VAHS's scores decreased in ELA from 71% of the students scoring below proficiency in the 2014-2015 school year to 88% below proficiency in the 2017-2018 school year. Meanwhile, the number of students below proficiency in math has remained somewhat constant. However, the number of students who were scoring below basic increased by 14 percentage points according to the State Department of Education (see Table 2).

Table 2

ELA and Math State Test Scores

Year	Below Basic	At/Near Proficient	Proficient	Advanced
2014-2015				
ELA	47%	24%	29%	0%
Math	74%	24%	3%	0%
2015-2016				
ELA	34%	44%	20%	2%
Math	80%	20%	0%	0%
2016-2017				
ELA	41%	28%	25%	6%
Math	84%	13%	0%	3%
2017-2018				
ELA	37%	51%	12%	0%
Math	88%	9%	0%	2%

Note. 2014-2015 school year is the baseline
Source. State Department of Education (n.d.)

The purpose of this qualitative case study was to explore how the learner-centered instructional strategies used within a blended learning model at VAHS were being implemented. This information was obtained through interviews with teachers, recent

graduates, and students 18 years old or older attending VAHS, classroom observations, and review of archived district administered student surveys. The information obtained from this study might help teachers at VAHS understand how to implement the learner-centered instructional strategies and blended learning to facilitate learning and encourage their at-risk students to take ownership of their own learning and graduate on-time. This information might then be used by the local school, district, and state as they implement more learner-centered instructional strategies throughout the educational system.

Definition of Terms

At-risk students: These are students who are attending an alternative school who meet one or more of the following criteria: repeated a grade level; high absenteeism; failed one or more courses; behind in the number of credits required to graduate on-time; substance abuse or legal issues; serious emotional or health issues; or other issues that may prevent them from graduating from high school (Williams & Siebert, 2018) (See Appendix B for a detailed list of qualifications for being identified as at-risk to attend an alternative school).

Blended learning: Students learn from the teachers using both the traditional face-to-face and online methods of instruction (Graham, Woodfield, & Harrison, 2013).

Facilitator: Teachers take on the role of facilitating or supporting the learning the students are doing. Facilitators create an environment where they are guides or coaches and the students are the ones who develop the skills to master the material (Weimer, 2013).

Flipped classroom: A flipped classroom involves the students watching a video of the lesson outside of class and then using the class period to do the assignments or activities (Roach, 2014).

Learner-centered instruction: Teaching that focuses on how students learn; what students need to learn; how students retain and apply what they are learning, and how the students will continue learning in the future (Weimer, 2013).

Learning management systems (LMS): An integrated computer management system that has communication tools and online content (Snodin, 2013).

Mentor: A teacher who is an advocate for students and supports students over an extended period (Reigeluth et al., 2015).

Mindset: The belief that one can increase one's intellectual skills through effort (Dweck, 2006).

Responsibility for learning: Students take an active role in their education by participating in class, asking questions, taking notes, discussing the material with the teacher and peers, and making sure they understand what they are learning (Weimer, 2013).

Teacher: A teacher is a person responsible for the education of students and may be referred to as a facilitator or instructor (Bishop, Caston, & King, 2014).

Significance of the Study

This study will provide an original contribution to the field of education, especially curriculum, instruction, and assessment, by providing an understanding of how to implement learner-centered instructional strategies within a blended learning model for

at-risk high school students attending an alternative high school, like VAHS. Krasnova and Vanushin (2016) provided support for this type of study by suggesting that as more districts and universities, nationally and internationally, transition to a blended learning model, it is important to understand how to implement learner-centered instructional strategies within a blended learning model. With the knowledge and understanding gained from this study of the implementation of learner-centered instructional strategies that support at-risk students attending VAHS, other schools in the district that are transitioning to learner-centered blended learning models might be more successful in supporting their students

VAHS recognized that their students' learning needs must be addressed if they were to graduate from high school and pursue postsecondary education and/or a career. Supporting at-risk high school students attending VAHS to graduate, instead of dropping out, will result in a positive social change in their community as these graduates become employable and productive members of our society due to their increased self-efficacy (Arbaugh, 2014) and other skills they learned in high school and/or postsecondary.

Research Questions

At-risk high school students struggle academically in the traditional high school setting and thus do not graduate on-time at the same rate as their peers as indicated by the state graduation rate being 79.7% and the alternative schools only at 36% (Russell, 2016). The literature suggested that learner-centered instructional strategies and blended learning were more effective than traditional instructional strategies (Mesecar, 2015; Rufatto et al., 2016; Suprabha & Subramonian, 2015; Weimer, 2013). This research study

provided an analysis and results of the perspectives of teachers, recent graduates, and current students 18 years old or older on how teachers were implementing learner-centered instructional strategies, such as student choice and teachers as facilitators of learning, to support the at-risk students attending VAHS. In addition, I analyzed the perspectives of the participants on how the students were taking ownership and responsibility for their own learning through the blended learning process which was one of the focuses of learner-centered instruction (Horn & Staker, 2015; Weimer, 2013).

The two central questions that were researched in this qualitative study were:

1. How are the learner-centered instructional strategies within a blended learning model being implemented by the teachers at VAHS as perceived by the teachers, recent graduates, and current students who are 18 years old or older to facilitate learning, so students graduate on-time?

2. What learner-centered instructional strategies within the blended learning model do teachers, recent graduates, and current students 18 years old or older at VAHS perceive as encouraging students to take ownership and responsibility for their own learning?

Review of the Literature

In this subsection, I described learner-centered instruction as the conceptual framework for the study of instructional strategies in a blended learning model with at-risk high school students and indicated why it was a worthwhile scholarly project. I began by explaining Weimer's (2013) framework on learner-centered instruction and the importance of implementing it at the secondary level. Following this description is a

critical review of the literature on learner-centered instruction and blended learning with an emphasis on the advantages and challenges of each.

Conceptual Framework

This qualitative bounded case study was grounded in the conceptual framework of Weimer's (2013) learner-centered teaching. The major focus of learner-centered teaching was to shift the balance of power away from the teacher and toward the students to help them understand that what they are learning was their responsibility (Weimer, 2002; Weimer, 2013). Thus, high school students, who have been conditioned to want the teacher to tell them what to do, when to do it, how to do it, and make all the decisions, now had to make those decisions (Weimer, 2013). In this model, the teachers who have traditionally been in control will now become facilitators of learning and help the students learn how to be responsible for their own learning (Weimer, 2013).

Having become concerned, as a college professor, that college students were not prepared for college, Weimer (2013) suggested that a shift to a more learner-centered model would help prepare students for college. However, secondary schools needed to transition from a teacher-centered model to a learner-centered model, so students could acquire the skills necessary to be successful in college. The secondary school teacher must become a resource person, mentor, instructional designer, and expert learner (Weimer, 2013). With these changes, the students would become engaged in the tasks created by the teachers, learn how to communicate with their peers, discover new knowledge through discovery, make decisions, and take ownership of their learning (Weimer, 2013). Bowering, Mills, and Merritt (2017) along with Rufatto et al. (2016)

agreed with this and discovered that as teachers shifted the learning responsibility to the students, grades improved.

Weimer's (2013) learner-centered teaching also focused on the delivery of the content and how much of the course content needed to be covered. Many college professors, as well as high school teachers, believe they must cover all the content in their courses to prepare their students for the next course (Weimer, 2003; Weimer, 2013). This is true, but some students have difficulty retaining the information at the pace of the instruction and the amount of content that is presented (Weimer, 2013). Thus, Weimer (2013) proposed that covering the content equates to superficial learning. Instead, students needed to be engaged in the content and learn the content like the experts in the field learn (Weimer, 2013).

In addition, Weimer (2013) suggested connecting learner-centered teaching with a blended learning model where the teacher provided face-to-face instruction, as well as opportunities for independent and/or small group learning online. Likewise, Jacobs (2016) indicated that blended learning in secondary schools can help students learn life skills such as self-direction and responsibility, so they were better prepared for college. The blended learning model enabled students to take more responsibility and ownership of their learning (Alijani, Kwun, & Yu, 2014; Vaughan, 2014). It also required students to be more prepared (Rufatto et al., 2016). By being prepared, the students could plan when they were to attend class, what needed to be completed before each class, and when they would complete the work outside of class (Horn & Staker, 2015; Rufatto et al., 2016).

Weimer's learner-centered conceptual framework related to this qualitative case study by providing specific strategies that should help at-risk students become independent learners, academically successful, and graduate on-time. The research questions in this study focused on identifying how the learner-centered instructional strategies were being implemented as perceived by teachers, graduates, and current students 18 years old or older to facilitate student learning. In addition, the research questions helped to discover if teachers, recent graduates, and students 18 years old or older perceived the blended learning model as enabling the students to develop the skills and ownership of their own learning which Weimer (2013) mentioned as being important for high school graduates. By incorporating blended learning into the instructional model, this allowed the students to determine the path, place, pace, and time for learning (Horn & Staker, 2015). This required the students to be responsible for their own learning.

Review of the Broader Problem

This literature review involved reviewing over 100 peer reviewed journal articles, newspaper articles, and books that focused on or related to blended learning, learner-centered teaching, learner-centered instruction, instructional strategies, secondary students, at-risk students, and professional development. The search terms and phrases I used by themselves or in different combinations, to discover peer-reviewed research conducted in the last 5 years included: *blended learning, learner-centered teaching, learner-centered instruction, student-centered instruction, e-learning, hybrid learning, at-risk students, secondary students, high school students, instructional strategies*, and *high school dropouts.*

The Internet-based search engines and databases I used were: Academic Search Complete, Education Source, Education Resource Information Center (ERIC), MERLOT (Multimedia Educational Resource for Learning and Online Teaching), ProQuest, Education Research Complete, Education from SAGE, ScienceDirect, Taylor and Francis Online, Thoreau Multi-Database Search, and EBSCO. I also used Google Scholar to find specific articles referenced in other articles.

In this subsection, I presented the advantages of leaner-centered instruction and the process to transition from a traditional model to a learner-centered model. This was followed by a definition of blended learning; the four aspects of blended learning (pace, path, place, and time); the advantages and challenges of blended learning; instructional strategies used in a blended learning model; blended learning and at-risk students; and the implementation process of a blended learning model.

Advantages of learner-centered teaching. The literature provided evidence through interviews, surveys, and achievement results that students achieved more in a learner-centered model than in the traditional teacher-centered model (Mesecar, 2015; Rufatto et al., 2016; Suprabha & Subramonian, 2015). Students learned how to have meaningful discussions, develop communication skills, be confident to express their ideas, and how to work as a team member (Bishop, Caston, & King, 2014). In addition, Krishnan's (2015) research indicated that students felt the student-centered learning approach developed their study skills, and their higher order and creative thinking skills. Weimer's (2013) and Kohn's (1996) findings were like these and stressed the need for

more schools to transition to a learner-centered instructional model so that students could develop these skills.

Changing to a learner-centered model. Reigeluth et al. (2015) identified changes that occurred when an educational system changed from a teacher-centered model to a learner-centered model. Some of these changes were:

- from time-based student progress to competency-based student progress;
- from norm-referenced tests to criterion-referenced tests;
- from standardization to personalization;
- from teacher as sage on the stage to teacher as guide on the side;
- from decontextualized content in the disciplines to authentic interdisciplinary projects;
- from students as passive and teacher-directed to students as active and self-directed learners; and
- from teacher planning to a personal learning plan for every student (p. 460).

Many of these changes were addressed in the interviews that I conducted with the teachers, graduates, and current students who were 18 years old or older from VAHS to discover if they agreed that the changes were beneficial to the learning and success of students during and after high school. Weimer (2013) suggested that schools make these changes slowly as it is easier on the students and teachers if the changes were scaffolded to enable everyone to adjust to this new paradigm. One must also be cognizant that students whose parents do not have a postsecondary education may not do well in a

learner-centered model where they needed to make decisions and be engaged in the learning process (Anderson & Anderson, 2017).

Blended learning. Even though blended learning has been used at all levels of education, there was no agreed upon definition. Most researchers defined blended learning as a combination of face-to-face and online instruction (Bernard et al., 2014; Graham et al., 2013; Kuo, Belland, Schroder, & Walker, 2014; Poon, 2013). Some researchers placed time limits on how much time was spent in face-to-face instruction and how much was online (Alijani et al., 2014; Bernard et al., 2014). Still others have decided the online portion was a replacement for part of the face-to-face instruction (Asarta & Schmidt, 2015). VanDerLinden (2014) combined these definitions and determined that blended learning was on a continuum between face-to-face instruction and online instruction. A more general definition was used by other researchers who incorporated face-to-face instruction with online as well as any other type of technology to enhance learning (Adekola et al., 2017; Nair, 2016; Wong, Hamzah, Goh, & Yeop, 2016; Zacharis, 2015).

The new Elementary and Secondary Education Act (Mesecar, 2015) and Banditvilai (2016) expanded upon these recognized definitions of blended learning to include student-led learning, or self-study, where the student controlled the time, path, and/or pace of the course. This definition followed the work of Horn and Staker (2015) as they described how to implement a blended learning structure within a classroom.

Blended learning started to become popular in the early 1990s at the university level due to internet access and then the advent of learning management systems which

enabled educators to develop and manage courses online (Oliver & Stallings, 2014). One such learning management system is Moodle (n.d.) which is an open source platform that started in 2001 and has been used by many universities (Adekola et al., 2017; Cheng & Chau, 2016; Cucu, 2014; Darojat, 2016; Florian & Zimmerman**,** 2015; Horvat, Dobrota, Krsmanovic, & Cudanov, 2015; Lai, Lam, & Lim, 2016; Lin, Tseng, & Chiang, 2017; Tshabalala, Ndeya-Ndereya, & van der Merwe, 2014; Yeou, 2016) and some secondary schools (Siko, 2014).

Recently, researchers have indicated that blended learning improves instruction and student achievement at the middle school (Stevens, 2016), high school (Kazu & Demirkol, 2014), and college (Herlo, 2014) levels. Whiteside, Garrett Dikkers, and Lewis (2016) asserted that "blended learning can promote autonomy and self-regulation, encourage inquiry and build relationships, and ultimately help students feel ready for college" (p. 136). This was in addition to the communication, critical thinking, collaboration, and meta-cognition skills discovered by Florian and Zimmerman (2015).

Four aspects of blended learning that increase student learning. Horn and Staker (2015) identified pace, time, place, and path as four aspects of blended learning that enabled students to be successful. Early College High School in Salt Lake City, Utah recognized the importance of the first aspect, pace, and developed a successful program where students could work at their own pace in an online program with face-to-face teacher support to complete their courses (Jacobs, 2016). Other researchers also found that using a blended learning model allowed students to work at their own pace and take advantage of the face-to-face and online components of the course (Alijani et al., 2014;

Kazu & Demirkol, 2014; Kim, Park, Jang, & Nam, 2017; Rivera, 2017; Siko, 2014). In addition, some researchers noted that allowing students to set their own pace enabled them to master the material according to their own learning styles and/or needs (Adekola et al., 2017; Banditvilai, 2016; Brodersen & Melluso, 2017; O'Flaherty & Phillips, 2015; Yapici, 2016).

The first and second aspects of blended learning, pace and time, were often combined to allow students to work when they wanted to, and at a pace that reflected their learning style (Jahjouh, 2014; Sorgenfrei & Smolnik, 2016). Time also referred to the amount of time and how the time was spent in face-to-face instruction, one-on-one with the instructor, and online (O'Flaherty & Phillips, 2015; Roach, 2014). Futch, deNoyelles, Thompson, & Howard (2016) agreed with these definitions and noted that there needed to be honest communication with the students for them to understand the importance of both the face-to-face time and the online time. Another important aspect of time was the ability to reflect on one's own work and that of their peers (Lai et al., 2016). Time flexibility and control over time were other benefits mentioned by the participants in numerous studies (Akgunduz & Akinoglu, 2016; Banditvilai, 2016; Keengwe, Onchwari, & Agamba, 2014; Nair, 2016).

The third aspect of blended learning was place, where the students could access the materials online and study at a location of their choice (Akgunduz & Akinoglu, 2016; Banditvilai, 2016; Jahjouh, 2014; Kazu & Demirkol, 2014; Rivera, 2017; Sorgenfrei & Smolnik, 2016; Stevens, 2016). This enabled college students to access the materials outside of class and not have to travel to the college to attend class except for the face-to-

face sessions (Keengwe et al., 2014). This was financially beneficial for colleges as they did not need to build more classrooms to accommodate an increase in students because the students were off site for the online portion of their courses (Baepler, Walker, & Driessen, 2014).

Finally, many of the articles combined path with either pace and/or time (Banditvilai, 2016; Jacobs, 2014; Mesecar, 2015; Sorgenfrei & Smolnik, 2016). Time and pace do affect the path that a student took to complete a course. The flexibility of which path a student would take allowed students with learning disabilities to participate in a blended course and receive individualized instructional support through the online format (Rivera, 2017).

Advantages of blended learning. Researchers discovered that students who were exposed to blended learning had a positive attitude toward this model of education (Akgunduz & Akinoglu, 2016; Arbaugh, 2014; Herlo, 2014; Lin et al., 2016; Yapici, 2016). Teachers noted an increase in student engagement with learning the subject matter (Alijani et al., 2014; Saritepeci & Cakir, 2015; Stevens, 2016; Vaughan, 2014). Other researchers discovered that students in blended learning courses were more self-motivated than they were in the traditional classroom (Akgunduz & Akinoglu, 2016; Banditvilai, 2016; Jacobs, 2016). Students also became more responsible for their learning and/or learned to be autonomous learners (Adekola et al., 2017; Arbaugh, 2014; Herlo, 2014; Jacobs, 2016).

Some studies indicated that blended learning increased student achievement more than traditional or online learning (Akgunduz & Akinoglu, 2016; Chang et al., 2014;

Herlo, 2014; Wong et al., 2016; Yapici, 2016). Increased test scores may be in part due to the increase in student-teacher interaction because of blended learning (He, 2014; Kazu & Demirkol, 2014; Roach, 2014; Saritepeci & Cakir, 2015). Another indicator for this increase was that the teachers who used a blended learning model would teach to the various learning styles and needs of their students (Rivera, 2017; Sorgenfrei & Smolnik, 2016; Wong et al., 2016).

Technology enabled the online component of blended learning to be accessible to students. It enabled students to view videos, participate in interactive activities, post to discussion boards that require feedback, watch simulations, collaborate with other students on projects, and take quizzes and tests to ensure understanding (Adekola et al., 2017; Banditvilai, 2016; Kazu & Demirkol, 2014; Krasnova & Vanushin, 2016; Rivera, 2017; Roach, 2014; Vaughan, 2014; Wong et al., 2016; Yapici, 2016).Technology also enabled universities to use blended learning to educate more students without the need to expand facilities and hire more instructors thus keeping costs down (Reigeluth et al., 2015). Other studies agreed that blended learning was cost effective (Acree et al., 2017; Akgunduz & Akinoglu, 2016; Downing, Spears, & Holtz, 2014; Nair, 2016). Wang, Han, & Yang (2015) suggested the need for further research to explore why blended learning has not expanded to more institutions even though the research indicated many benefits to both students and faculty.

Challenges of blended learning. Blended learning required the students to be self-motivated and able to self-regulate their time, which was difficult for some students (Douglass & Morris, 2014; Oliver & Stallings, 2014; Siko, 2014). If the students had

internal locus of control and a medium level of anxiety about taking a blended course, those students were successful (Aldalalah & Gasaymeh, 2014). However, if the students needed external locus of control and had either high or low levels of anxiety, those students struggled in trying to complete the course (Aldalalah & Gasaymeh, 2014). Other students struggled with disorientation, distraction, and cognitive overload as they tried to learn from the online component of blended learning (Sorgenfrei & Smolnik, 2016). Finally, a lack of access to technology and/or internet, software problems, and internet speed were other factors that impacted the success of a blended learning model (Aldalalah & Gasaymeh, 2014; Banditvilai, 2016).

Some schools and teachers found it challenging to decide which topics and subjects were suitable for students to learn in a blended model, what curriculum to use; how much time should be spent in face-to-face time vs. online time, and which technology best matched the pedagogy for the course content (Oliver & Stallings, 2014). Without proper initial professional development and continuous professional development throughout the year, teachers would not have the deep understanding of how to use the technology and pedagogical strategies as they constructed and implemented a pedagogically sound blended learning model (Riel, Lawless, & Brown, 2016).

To transform traditional courses, or create new ones into blended learning courses, teachers needed time, technology training, financial support, and curriculum professional development (Porter, Graham, Bodily, & Sandberg, 2016). They also needed policies set at the administration level that supported blended learning along with

monitoring formats (Tshabalala et al., 2014). If teachers were not given this level of support, it made it difficult for them to develop and/or implement blended learning courses that enabled students to learn and successfully complete courses (Porter et al., 2016).

Instructional strategies used in a blended learning model. The learner-centered instructional strategies used in a blended learning model were different than those used in a teacher-centered classroom. In the beginning, the strategy was to teach the students how to use the internet to find specific content information; how to critically analyze the information; and how to apply the information to new situations according to the criteria established by each content area (Weimer, 2013). By doing this, the students were learning how to become independent learners and how to be responsible for their own learning (Weimer, 2013). During this initial instructional time, the teachers needed to be mindful that for their students to take responsibility for their own learning, the instructional strategies must be diversified to meet the needs of all their students (Keengwe et al., 2014).

Learner-centered teaching, within a blended learning model, enabled students to have choice and access to various learning and assessment activities to prove their understanding and knowledge of a subject (Bishop et al., 2014; Cheng & Chau, 2016). Students could express their knowledge through classroom discussions, online discussions (Owston & York, 2018), and student created artifacts (Cheng & Chau, 2916). This enabled both the extrovert and introvert students to actively participate in the course (Oliver & Stallings, 2014).

It has been found that by having the students study the content online and then come to class, the students have deeper class discussions (Kim, Park, Jang, & Nam, 2017). It was also discovered that the online discussions could be more in-depth as the students and teachers have more time to process and reflect on the topic of discussion (Futch et al., 2016; Lai et al., 2016). Besides face-to-face and online discussions, other instructional strategies that were encouraged in a learner-centered model were debates, role modeling, team problem solving, and group projects that could promote student learning within a blended model (Owston & York, 2018; VanDerLinden, 2014). Providing prompt feedback was another important instructional strategy that the online component facilitated and that helped the students succeed (Owston & York, 2018). Teachers needed to learn how to provide prompt feedback that was meaningful to the students and the students needed to take this feedback seriously to improve their work.

The online component of blended learning could be used to deliver the class lectures, reading materials, multi-media support materials, online practice sessions, collaboration projects, and quizzes (Asarta & Schmidt, 2015). This enabled the face-to-face sessions to be devoted to clarification of the lecture or reading materials, discussion of issues, practical applications, exercise-solving, demonstrations, and collaboration sessions (Asarta & Schmidt, 2015). These strategies plus effective and open communication and feedback between the student and teacher and engaging activities increased the student's ability to be successful in a blended learning model (Lin et al., 2017; Zacharis, 2015).

Some schools implemented a flipped classroom, where students listened to the lecture at home and completed the homework in the classroom **(**Asarta & Schmidt, 2017; Kazu & Demirkol, 2014; Kim, Park, Jang, & Nam, 2017; O'Flaherty & Phillips, 2015; Rufatto et al., 2016). The benefit of this form of blended learning was that the teacher could spend more time in one-on-one sessions with struggling students and students had access to the materials online where they could stop, rewind, replay, and/or pause the video to better understand the content (Roach, 2014). This strategy has been used at the university level, where the students listened to the lectures and conducted research online, and then came to class prepared to give presentations, lead discussions, conduct role-plays, and have debates (O'Flaherty & Phillips, 2015). With these different learner-centered instructional strategies, the focus of the blended learning should remain on student/teacher, student/student, and student/technology interactions to promote engagement and understanding (Downing et al., 2014). Thus, the activities created by the teachers needed to be engaging, inspiring, and motivating for the students to develop the self-directed learning skills they needed to take responsibility for their own learning and for their future careers (Reigeluth et al., 2015).

At-risk students. Many at-risk students struggle in school and need extra support. Siko (2014) suggested that a blended learning model could provide this extra support. This support could be from more online communication with the teacher, more homework and quizzes to judge learning, and/or more face-to-face time with the teacher (Siko, 2014). Special needs students could be considered at-risk and blended learning environments provided them with the advantages of face-to-face instruction with the

teacher, interactions and collaboration time with their peers, and additional individualized instructional support through the online component and special education department (Rivera, 2017). However, Zhu, Au, and Yates' (2016) research indicated that students with low levels of self-control or self-regulatory learning skills, which describes many at-risk students, may not be as successful as other students in a blended learning model.

At-risk students have diverse levels of personal control which could impact their success rate in a blended learning model (Zhu et al., 2016). This needed to be considered when deciding which students would be successful on their own and which students would need extra support to be successful (Sorgenfrei & Smolnik, 2016). Many researchers (Bernard et al., 2014; Mayer et al., 2017; Nair, 2016; Rivera, 2017; Zacharis, 2015) have suggested the need to do more research on how successful blended learning is with diverse groups of students.

The approaches and suggestions for further research were diverse. Bernard et al. (2014) suggested that the focus of this new research should be on self-regulation, motivation, collaboration, and cooperative learning design principles. The idea of motivational design principles was supported by Adekola et al. (2017) who suggested that more research needed to be conducted in how blended learning affected diverse groups of students and students who felt isolated and disengaged, which described many at-risk students. Zhu et al. (2016) supported the idea of more research into the area of self-control and self-regulation and its effect on student learning outcomes. Meanwhile, Wang et al. (2015) identified needing more research in student support and relationships.

The state's Superintendent of Education, noted the need to discover why the virtual and alternative schools, which serve many at-risk students, have the lowest graduation rates in the state. My qualitative bounded case study on the learner-centered blended learning model implemented at VAHS was necessary to address this issue and to discover how to help at-risk students achieve academic success and graduate on-time from high school.

Implementation of a blended learning model. The implementation of a blended learning model took planning and professional development time for both teachers and students. Teachers needed to be involved in every step of the development and implementation of a blended learning model (Mesecar, 2015). Mesecar (2015) stressed that this required professional development on how to use the technology, how to develop courses, and how to manage the face-to-face components of blended learning, as well as, pedagogy- and content-specific needs. This professional development could not be a one-time workshop but rather a continuous program throughout the school year to enable a successful implementation process of blended learning (Oliver, & Stallings, 2014; Riel et al., 2016).

Wang et al. (2015) identified three stages "awareness/exploration, adoption/early implementation, and mature implementation/growth" (p.388) that the implementation process went through and that teachers and administrators must recognize this as they implement a blended learning model. Porter, Graham, Spring, and Welch (2014) also identified these three stages as schools implemented a blended learning model. This indicated that the transition to a blended learning model took time.

Teachers needed time to reflect, understand, adjust, collaborate, and challenge what was occurring in their blended learning classrooms (Acree et al., 2017). Students, especially at-risk students, must be considered in this implementation process and the teachers and the institution must address their needs and expectations (Wang et al., 2015). Erdem and Kibar (2014) agreed that the views of the students needed to be considered throughout the process. Thus, the implementation process needed to be constantly addressing the needs and expectations of the teachers, students, and administrators.

Implications

The literature review provided information on the different configurations of blended learning, the advantages and challenges, and how to implement a blended learning model at the college or high school level. It also provided information on learner-centered instructional strategies and how teachers become facilitators of learning and students take ownership of their own learning. This information provides guidance for this study as I discover the perspectives of the teachers, graduates, and current students who are 18 years old or older on blended learning and learner-centered instructional strategies.

The intention of this study is to create an understanding of how teachers, recent graduates, and current students who are 18 or older perceive the implementation process of a learner-centered blended learning model at VAHS and what helps students take ownership of their learning and graduate on-time. This information might be used to help other schools learn how to transition from a traditional school to a learner-centered blended learning school. In addition, once specific learner-centered strategies are

identified by the participants, then professional development can be created to help the teachers understand how to better use these learner-centered instructional strategies within a blended learning model and how to help at-risk students take responsibility and ownership of their own learning.

Besides professional development for the teachers, a need became apparent from the semistructured interviews for student development sessions/workshops to help the students learn the skills they identified as still needing to help them take ownership and responsibility for their own learning. These skills are important for high school students to develop and once they have acquired these skills, they can use them in their careers after high school and/or college. This could have a positive social impact as these at-risk students will now be able to graduate from high school with the skills to get a job and/or attend college and discover a career that will enable them to support themselves and their families.

An additional area of need which became evident from this study was the need to help teachers develop their courses and support them while they create and/or revise their courses (Darojat, 2016; Weimer, 2013). Professional development in the areas of pedagogy, course content and design, and/or technology skills and usage for teachers is a frequent theme in the literature as all three areas are impacted when one changes to a learner-centered blended model (Acree et al., 2017; Cucu, 2014; Darling-Hammond, Hyler, & Gardner, 2017; Darojat, 2016; Freeman & Tremblay, 2013; Kebaetse & Sims, 2016; Kuo et al., 2014; Ma'arop & Embi, 2016; Mesecar, 2015; Mirriahi, Alonzo, McIntyre, Kligyte, & Fox, 2015; Oliver & Stallings, 2014; Parks, Oliver, & Carson,

2016; Poon, 2013; Porter et al., 2014; Riel et al., 2016; Wong et al., 2016). Thus, a focus of this project study, that I developed from my findings, is a professional development program that focuses on pedagogy.

Because blended learning is one of the current trends in education (Halverson, Graham, Spring, Drysdale, & Henrie, 2014), this project study should provide much needed information on how to implement a learner-centered blended learning model with at-risk high school students. Another goal of this study is to identify instructional strategies that the teachers and students perceive to be helpful in enabling at-risk students to be successful in completing their courses, graduating from high school, and taking ownership and responsibility for their own learning.

Summary

Blended learning has proven to be a successful learning model for many students as indicated in the literature review (Akgunduz & Akinoglu, 2016; Chang et al., 2014; Herlo, 2014; Wong et al., 2016; Yapici, 2016). Learner-centered teaching, a component of blended learning, has increased student engagement and motivation to complete courses (Mesecar, 2015; Rufatto et al., 2016; Suprabha & Subramonian, 2015). However, some studies have shown that blended learning and/or learner-centered teaching has not been effective with some students (Anderson & Anderson, 2017; Zhu et al., 2016). This might indicate that these students will need extra support, such as training on how to use the technology and technical support throughout the course (Oliver & Stallings, 2014). Others will need training on self-control and self-regulation to be successful in a blended learning model (Zhu et al., 2016). These and other challenges mentioned in the literature

can be addressed through training and scaffolding for the students (Oliver & Stallings, 2014).

Blended learning, learner-centered teaching, and the instructional strategies used need to be analyzed to discover how to implement them so that the students and teachers perceive them to be supportive of at-risk student learning. Learner-centered implies that the teacher becomes a facilitator of learning and the instruction is focused on the students (Weimer, 2013). Teachers need to assess their students, and those needing external locus of control will need extra support in this model (Aldalalah & Gasaymeh, 2014). In addition, teachers need to identify their students who need extra support and provide it when needed.

In Section 1, I described the research problem, the rationale from a local and national perspective, the significance of the problem, and the research questions that will guide this research project. This section also included a comprehensive literature review on the conceptual framework, and a review of the broader problem including the advantages and challenges of blended learning with at-risk students. Most of the studies reviewed for this project study focused on college students and the advantages of blended learning in these settings. In the last part of Section 1, I focused on the implications drawn from the literature review for more research on blended learning with secondary, specifically at-risk, students. A variety of possible projects were suggested, and the data from the semistructured interviews will determine the actual focus of the project and how it will be implemented at VAHS.

In Section 2, I presented the research design, methodology, proceedings, and findings from this qualitative bounded case study. Section 3 described the project dealing with implementing instructional strategies within a blended learning model to support the academic achievement of at-risk high school students, so they can graduate on-time. It contained information on the extent of students taking responsibility for their own learning. Section 4 concluded this study with a narrative reflection of my journey in researching the literature, writing this paper, conducting the research, analyzing the data, developing the project, and implementing the project.

Section 2: The Methodology

The purpose of this qualitative case study was to explore how a learner-centered blended learning model was being implemented at VAHS through the perspectives of teachers, recent graduates, and current students 18 years old or older. In addition, the instructional strategies used by the teachers and perceived to support students to graduate on-time and take ownership and responsibility for their learning were identified through the views expressed by the participants.

Qualitative Research Design and Approach

The research design and approach for this qualitative study was a bounded case study. This design was chosen because it involved students and teachers experiencing the same phenomenon of learner-centered instruction using a blended learning model at an alternative high school that served at-risk students. Only current students 18 years old or older, recent graduates, and teachers at this school were possible participants in this case study.

Problem and Research Design

The local problem that was addressed in this qualitative case study was that many at-risk high school students attending VAHS were not graduating on-time, within 4 years. High Mountain School District supported the change to the learner-centered blended learning model at VAHS starting with the 2016-2017 school year to increase the on-time graduation rate. The students were provided with a personal laptop and the curriculum was purchased from an online provider within the state and delivered to the students online with teacher support. Beginning with the 2017-2018 school year, a new learning

management system was implemented using curriculum created by the teachers at the school.

Even though the graduation rates for 2016-2017 and 2017-2018 increased, they did not increase as much as was expected. This caused the administrators and teachers to wonder if there was a lack of understanding in how to implement learner-centered instructional strategies within a blended learning model that supported academic achievement and enabled students to take ownership of their learning (VAHS principal and district research coordinator, personal communication, June 5, 2018).

To determine which design method to use to research this problem, I studied the differences between quantitative and qualitative research. Quantitative research is structured, uses large samples and possibly control groups, and the interviews and observations are structured (Bogdan & Biklen, 2007). The sample size for this research was small and there was no possibility of having a control group. Therefore, a quantitative approach would not be as appropriate as a qualitative approach for my study. I was interested in the participants' perspectives which required open-ended questions and the ability to change the direction of the questioning to follow a new concept, idea, or strategy. According to Bogdan and Biklen (2007), qualitative researchers explored a phenomenon and developed a detailed understanding of the experiences of those who were participating in the phenomenon. Qualitative researchers developed this understanding of the phenomenon through observations and interviews that were flexible and nonstructured (Bogdan & Biklen, 2007). Thus, I determined that a qualitative study would be the best for obtaining the perspectives and experiences of the participants on

how to implement learner-centered instructional strategies within a blended learning model to help the students graduate on-time and take ownership of their own learning.

Halix (2014) conducted a qualitative research study involving non-completer male Latino high school students. Halix interviewed the students to elicit their perspectives on why they dropped out and why some came back to finish their education. Like Halix, I used a qualitative research approach to obtain the perspectives of students, as well as teachers. I asked the teachers, recent graduates, and current students who were 18 years old or older for their perspectives on how the learner-centered instructional strategies within a blended learning model were being implemented to support the students to achieve academically and take ownership of their own learning. It was my belief that this increased understanding of the implementation could not be obtained at the same in-depth level in a quantitative research study.

In addition to interviews, I used other data sources as part of my qualitative research design (Glesne, 2011; Merriam & Tisdell, 2016). I conducted classroom observations to gain a better understanding of how the learner-centered instructional strategies were being implemented in the classrooms. In addition, I analyzed archived district administered de-identified student surveys that were given to all students in grades 9 through 12 at VAHS at the end or beginning of the school year for two years to obtain a more in-depth understanding of the students' experiences. However, less than half of the students completed the surveys. Collecting and analyzing data from interviews with teachers, recent graduates, and current students who were 18 years old or older, classroom observations, and archived de-identified student surveys allowed me to

understand how the learner-centered instructional strategies were being implemented in a blended learning model. I was able to identify the instructional strategies that were perceived to facilitate student academic achievement and students taking ownership and responsibility for their own learning.

Description of the Qualitative Case Study Design

As researchers have noted (Creswell, 2012; Merriam & Tisdell, 2016; Yin, 2014), a bounded case study involved the use of only a specific group of people involved in a specific phenomenon during a specific period. My study was considered a bounded case study because only students and teachers who are or have been at VAHS can participate. I planned on interviewing six teachers who met the criteria of teaching at the school for 3 years and observing their classrooms. I also planned on interviewing three graduates from the previous school year, and five current students who were 18 years old or older. In addition to the information gathered from these interviews and classroom observations, I obtained copies of de-identified archived student survey data from VAHS for the last two years. Besides being a bounded qualitative case study, this study was also considered applied research because it could be used to improve the quality of the learner-centered instructional practices at VAHS (Merriam & Tisdell, 2016).

The questions asked during the interviews focused on the implementation of learner-centered instructional strategies within a blended learning model to facilitate student academic achievement and enabled students to take ownership and responsibility for their own learning (See Appendices C, D, and E for specific questions). I took fieldnotes during the classroom observations to discover which strategies were being

used (see Appendix F). Following the classroom observation, I conducted a discussion with the individual teachers to verify that my fieldnotes and perspectives were correct. The archived de-identified student surveys were used to analyze the students' experiences within the learner-centered blended learning model over the past 2 years (see Appendix G).

Justification for the Research Design

To determine if a case study was the most viable option for my project study, I considered action research, phenomenology, grounded theory, and ethnography and rejected each of these approaches. Action research required the researcher to identify a current situation or problem while engaging the participants or stakeholders and implementing changes during the research to improve the situation or problem (Creswell, 2012; Glesne, 2011; Merriam & Tisdell, 2016). Completing action research was not possible to finish at VAHS because I would not be implementing changes at the school. In addition, the focus of this research was on exploring and discovering how different learner-centered instructional strategies were being implemented to support at-risk students instead of just one instructional strategy.

Another possible design was phenomenology, which is used by researchers to explore people's experiences (Merriam & Tisdell, 2016). Patton (2015) described phenomenology as studying the essence or essences of a shared experience. I rejected this option. Although the students and teachers in the study have experience with the blended learning model, I wanted to explore and understand how the model was being implemented and the learner-centered strategies that supported the students and not how

they experienced this educational model. Similarly, grounded theory was based on developing a theory from the data (Merriam & Tisdell, 2016; Yin, 2014). I rejected grounded theory as I did not envision using an inductive method to analyze student and teacher perspectives leading to a theory on learner-centered instructional strategies.

Ethnography was another design which I considered. Ethnography involved a long-term commitment to learn about and understand a group of people and their culture, beliefs, and language (Creswell, 2012; Glesne, 2011; Merriam & Tisdell, 2016). Because my research questions focused on implementation of instructional strategies that supported students to succeed academically and not on culture, beliefs, or language, I rejected this design.

Thus, a qualitative bounded case study was appropriate as it enabled me to interview teachers, recent graduates, and current students 18 years old or older who experienced learner-centered instruction within a blended learning model at VAHS. As the researcher, I would not be controlling the teachers' and students' behavioral events. However, I did seek to discover the perspectives of these teachers and students on learner-centered teaching within a blended learning model for at-risk high school students. In addition, this study allowed me to gain a more-in-depth understanding of how to implement a learner-centered blended learning model and the specific instructional strategies that supported at-risk students from the perspective of teachers and students. I gained an understanding of how students 18 years old or older, teachers, and graduates, perceived the at-risk students attending VAHS taking responsibility and

ownership of their own learning, as a result of their exposure to a learner-centered blended learning model.

Participants

The participants for this qualitative case study were from VAHS, an alternative high school which served at-risk students in Grades 9 through 12. There were 13 teachers, a maximum of 175 students, two paraprofessionals, one counselor, a part-time instructional coach, one secretary, one janitor, and a principal at this school. The student body was 56% male and 44% female with 57% of the students on free and reduced lunch (VAHS principal, personal communication, September 19, 2018). The teaching staff consisted of six men and seven women with four being new to the teaching staff for the 2018-2019 school year. Five of the teachers had 3 to 5 years of teaching experience at the school and four had 6 to 13 years of teaching experience at this school (VAHS principal, personal communication, August 22, 2018).

Criteria for Selecting Participants

Patton (1990) indicated that purposeful sampling strategies should be used when selecting participants for a qualitative study for gaining perspectives that were information rich. Merriam and Tisdell (2016) agreed and suggested using a purposeful sample when seeking to gain a deeper understanding of a situation. A purposeful sample involved selecting participants from a select group who could add depth and insight into understanding a specific case, such as instructional strategies (Merriam & Tisdell, 2016). Use of a purposeful sample enabled the selection of a similar proportion of participants as they appeared in the total population as noted by Bogdan and Biklen (2007). Purposeful

sampling could also ensure a maximum variation of participants to add depth to the study (Glesne, 2011). Thus, a purposeful sample of teachers, recent graduates, and current students 18 years old or older was used. Potential participants who met the specific criteria described in this study were asked to participate.

Teacher participants must have at least 3 years of teaching experience at VAHS, so that they understood the school structure, curriculum, and learner-centered instructional strategies that could be used within a blended learning model. To develop a more in-depth understanding of this learner-centered model, the teachers had to be willing to participate in an approximately hour long semistructured interview to provide their perspective of how the learner-centered blended learning model was being implemented, their teaching strategies, and how the students were responding to those strategies (Yin, 2014). Glesne (2011) suggested using teachers from a wide variety of disciplines to provide depth to this study. Interviewing teachers from different disciplines allowed me to see if there were similar or divergent perspectives on how to implement learner-centered instructional strategies to support the academic achievement of at-risk students depending on the teachers' academic discipline. In addition, they had to be willing to allow me to observe their classrooms for one class period to gain firsthand knowledge of how they were implementing different learner-centered instructional strategies and then a short, maximum of 30 minutes, debrief after the observation outside of instructional time to confirm my understanding of what I observed.

Banditvilai (2016), Crawford, Barker, and Seyam (2014), and Futch et al. (2016) indicated a need to include students in research studies that involved the students'

education. Thus, one of the objectives of this study was to obtain the perspectives of recent graduates. To be considered for inclusion, the recent graduates had to be 18 years old or older, attended the school for at least two years, and be willing to participate in an hour-long semistructured interview with me about their perspectives on how the teachers implemented learner-centered instructional strategies within the blended learning model to support student academic achievement. In addition, we would discuss how they took responsibility and ownership of their own learning.

Current students, who were 18 years old or older and had attended VAHS for at least the past two years, were included in my purposeful sample. Those who were 5th year seniors and 18 years old or older were also part of the purposeful sample as they were current students and were considered a unique sample because they did not graduate within the typical four years (Merriam & Tisdell, 2016). These students were willing to participate in an approximately 1-hour semistructured interview on how they experienced the implementation of different learner-centered instructional strategies by their teachers, and how and/or why these strategies facilitated their academic achievement, or not. In addition, we discussed how they had taken responsibility and ownership of their own learning.

Justification for Number of Participants

Participants in this bounded case study were teachers, recent graduates, and current students attending VAHS who were 18 years old or older. A set number of participants were selected to start the study from those who indicated a willingness to participate. Initially, six teacher, three recent graduates, and five current students who

were 18 years old or older were asked to participate. One graduate and one current student were added so that redundancy occurred in the process to answer the research questions (Merriam & Tisdell, 2016).

Van Rijnsoever (2017) stated that the sample size should be between 20 and 30. Boddy (2016) suggested a sample size of 6 to 12 would be adequate to get to the point of redundancy and saturation. Malterud, Siersma, and Guassora (2016) suggested using information power, which refers to the number of participants as being determined by the amount of information obtained from each participant, as the guide for how many participants to include. They suggested setting an initial size for the sample and then continually evaluating after each interview to determine if more were necessary. I used the advice of Malterud et al. (2016) for my study.

Teacher participants. Six teachers volunteered to participate out of the nine who qualified to participate. Jovanovic, Simic, and Rajovic (2014) noted that the perspectives expressed by the teachers needed to answer my research questions. Thus, the teachers were asked their perspectives as to how learner-centered instructional strategies were being implemented and how students were taking responsibility for their own learning. The six teachers' perspectives allowed me to obtain a clear understanding of the instructional strategies they used and how the students were taking responsibility and ownership of their education.

These six teachers represented approximately 50% of the teachers at the school. I attempted to get an equal number of male and female teachers to participate because there was almost an equal representation at the school. However, I was not able to do this

which resulted in four male and two female teachers participating. These six teachers did represent diverse academic disciplines (Glesne, 2011).

Graduate participants. I started with a minimum of three recent graduates to participate from a group of volunteers. These graduates were included due to their personal experience in this educational model and because their perspectives were necessary to add depth to the understanding of how the implementation of the learner-centered blended learning model facilitated their academic achievement (He, 2014; Kotok, Ikoma, & Bodovski, 2016; Krishnan, 2015; Merriam & Tisdell, 2016; Rufatto et al., 2016). As Jovanovic et al. (2014) mentioned in their research study of students at risk, there was a need for these students' perspectives to be included in educational research studies.

I initially interviewed three recent graduates, who were at least 18 years old. They were purposefully chosen among those who had gone on to postsecondary education or the workforce to ensure that both groups were fairly represented (Merriam & Tisdell, 2016). This separation of the graduates was necessary to discover if there was a difference between the perspectives of those in postsecondary education and those in the workforce. I added a fourth graduate to obtain redundancy and complete this case study. Of the four graduates, three were female and one was male. One graduate was a current college student working part time, two had attended college first semester and were now working full-time, and one was working full-time. No graduate participant decided to drop out of this study, so I did not have to replace one (Yin, 2014). There were 23

graduates in the 2017-2018 graduating class. Thus, the four graduates represented 17% of the graduates.

Student participants. Five current students who were 18 years old or older were purposefully chosen from those who volunteered. This number did increase by one to reach redundancy. The perspectives from these six current students were important to help discover how the implementation of the learner-centered instructional strategies within the blended learning model supported them and how they were taking responsibility for their own learning. The inclusion of three 5th year seniors was necessary to discover why they did not graduate within the traditional four years (He, 2014; Kotok et al., 2016; Krishnan, 2015; Merriam & Tisdell, 2016; Rufatto et al., 2016). The other students were two seniors and one junior who were 18 years old or older. Thus, a total of six students, four recent graduates, and six teachers were involved in this study to ensure redundancy and completion of the study (Yin, 2014).

Procedures for Gaining Access to Participants

I was a high school mathematics teacher at VAHS for 12 years and worked with the superintendent, research coordinator, and the principal for 3 to 7 years. This enabled me to develop a level of trust which Bogdan and Biklen (2007) mentioned was important in conducting a qualitative research study. I retired from this school district on June 1, 2018. Thus, I no longer had any supervisory or other conflicts of interest at VAHS. Once I received IRB approval from Walden University (approval #12-24-18-0114554.), I began my study by providing the district and principal with detailed information about the purpose of my study, procedures, and the protections put in place to ensure the

confidentiality of the school district, school, and participants. Once written permission from the school district was obtained to conduct this qualitative research study, the principal at VAHS provided written permission to conduct this study (Bogdan & Biklen, 2007; Creswell, 2012).

After permission was obtained, I contacted the teachers who had worked at VAHS for at least 3 years to solicit their participation in my study. A description of my study, a request for their participation, how their identity would be protected, the requirements for participating, and how to contact me was included in an email to each teacher. Those who indicated a potential willingness to participate within 48 hours of receiving my invitation were emailed a consent form and a short demographic questionnaire, asking for their name, gender, years of teaching at this school, and subject discipline, to be completed. There were nine teachers who met my purposeful sampling requirement. However, only six teachers returned the consent form and agreed to participate. This group did represent a diverse group of teachers based on gender, years of teaching, and discipline (Vaughan, 2014). I contacted them by email, or in person, to determine a date, time, and location for the hour-long semistructured interview outside of instructional time and the one classroom observation during the spring semester.

I obtained a list of the 2017-2018 graduates from the VAHS principal. I emailed or called these graduates reminding them of who I am and describing my study, the requirements for participating, how their identity would be protected, what their responsibilities and commitment would be, and how to contact me by email within 48 hours of receiving the email or phone call if they were interested in participating (Bogdan

& Biklen, 2007). Those who indicated a willingness to participate were emailed, by me, a consent form and short questionnaire that needed to be signed and returned to me within the week if they still wanted to participate. As suggested by Iachini, Rogelberg, Terry, and Lutz, (2016), the questionnaire consisted of demographic information that included their gender, age, and if they were attending a postsecondary school or working. Once the signed consent form and questionnaire were returned to me, the graduates were sorted by postsecondary or working. The volunteer participants were chosen from both groups to provide diverse perspectives and then contacted to confirm a date, time, and location for their individual hour-long semistructured interview (Merriam & Tisdell, 2016). All interviews took place at VAHS.

I obtained a list of all current students who were 18 years old or older from the principal. I contacted them at school and then sent an email to each student who indicated an interest. The email contained a reminder of who I am, a written description of my qualitative case study, how their privacy would be protected, their responsibilities as a participant, and how to contact me if they were interested in participating. Those who indicated a willingness to participate within 48 hours were emailed or handed a consent form to sign and questionnaire to complete and return to me within one week. After the consent forms and questionnaires were completed and returned, the student volunteers were sorted by gender and number of credits earned 0 – 5, 6 – 10, and 11 or more from the previous year to obtain a diverse group of students. I then purposefully chose the student participants to ensure that the students represented a variety of credits earned the previous year and tried to match the gender proportion of the school. The participants

were then contacted to confirm their willingness to participate and to set a date, time, and location for their individual hour-long interview which occurred outside of class instructional time.

Researcher-Participant Working Relationship

The possible participants were informed in the invitation email and at the beginning of each interview that I taught at VAHS for 12 years and retired at the end of the 2017-2018 school year. Thus, the participants were cognizant that I was aware of their school program, but no longer held any supervisory or teacher authority (National Institute of Health, 2011). Glesne (2011) recognized the need for rapport and trust to be developed between the researcher and the participants to do qualitative research. I did develop and maintain a trusting relationship with all the adult participants during the selection process, while conducting the interviews, and after the interviews and classroom observations.

As a researcher-participant, I was an instrument of the research as the primary collector and analyzer of the data from the interviews, observations, and archived documents (Merriam & Tisdell, 2016). This researcher-participant status was granted by the approval of the school district, Walden University IRB, principal, and the informed consent forms signed by the participants. The informed consent form ensured that each participant understood the process to participate, not to participate, or stop participating, and their responsibilities as a participant in this research study (Glesne, 2011; Merriam & Tisdell, 2016).

As the researcher-participant, I journaled to reflect on my own biases, perspectives, assumptions, emotions, and methods (Glesne, 2011; Merriam & Tisdell, 2016). I also wrote in the journal before and after each interview what my perspectives were of this participant (Glesne, 2011). Being cognizant of my own biases, beliefs, feelings, and relationships with some of the participants, enabled me to analyze the data with more objectivity. In addition, I maintained positive relationships, rapport, and trust as mentioned by Glesne (2011) to obtain honest feedback from the participants for this qualitative bounded case study.

Protecting Participant Rights

During my coursework prior to beginning the work on this qualitative study, I completed The National Institute of Health (NIH) Office of Extramural Research Web-based training course on "Protecting Human Research Participants" (National Institute of Health, 2011) and received a certificate (#2283615) stating that I had successfully completed the course. In accordance with the information from the NIH course, I determined that the level of risk to the participants was very low. I held no position of authority over the teachers or students, and as such, was not a threat to their teaching position or status as a student.

Using the advice of Merriam and Tisdell (2016), all participants were given pseudonyms to protect their identity (T1 for teacher one, G1 for graduate one, and S1 for student one); signed informed consent forms were obtained; all data collected from interviews and observations were coded, kept confidential, and secured on my password protected personal computer and/or locked in my filing cabinet at home; all written

documents were kept in my locked filing cabinet; permission from the district and principal were obtained to use archived data that pertains to this research topic; and a debriefing procedure was developed to allow participants to ask questions, comment on, and ensure that no harm had occurred.

Glesne (2011) also stressed the need to protect the participants using consent forms, the avoidance of doing harm, and confidentiality.

The consent form included the following:

- name of the researcher;
- a description of the purpose of the study and the procedures to be followed;
- a statement indicating that participation in this qualitative research study was voluntary, the administration had no input, and one could decline or withdraw from the study at any time;
- the process to secure the confidentiality of the participants;
- the method to secure the data collected;
- the usage of the data to develop a professional development program around learner-centered instructional strategies and implementation;
- information on the attached demographic questionnaire which would be used in the selection process to secure a wide selection of participants from the school;
- instructions on how to submit the signed consent form and questionnaire to the researcher; and

- the process for returning the signed consent form and demographic questionnaire to the participants.

The safety and confidentiality of the participants was a priority throughout this qualitative study. A list of the actual names of the participants and their pseudonyms was kept in a separate file on my password protected computer at my home to ensure the confidentiality of the participants. All efforts before, during, and for five years after the completion of the study will be made to protect the identity of the participants, the school, and the district. At the end of five years, all stored electronic and written data will be destroyed, per Walden University protocol.

Data Collection

I collected data from three diverse sources, which allowed me to collect richer data and increase the trustworthiness or credibility of this qualitative case study (Glesne, 2011; Merriam & Tisdell, 2016). These sources were semistructured interviews, classroom observations, and archived district conducted student surveys that were de-identified by the district. I used these three sources to discover how the learner-centered instructional strategies within a blended learning model were being implemented and how these strategies were helping students graduate on-time and take ownership of their own learning

Description and Justification of Data Collected

Because the purpose of this qualitative bounded case study was to explore the perspectives of teachers, recent graduates, and current students who were 18 years old or older involved in a learner-centered blended learning model, semistructured interviews,

classroom observations, and review of archived district de-identified student surveys were appropriate methods for this data collection (Glesne, 2011; Merriam & Tisdell, 2016).

Interview data. Data collected through interviews provided more in-depth understanding of the situation than observations or documents according to Yin (2014) and Creswell (2012). I maintained a neutral stance during the interview process to not bias the data (Yin, 2014). Interviews were conducted using semistructured questions that provided the participants with the ability to share their perspectives without the questions steering their responses in a specific direction which would imply a bias on my part. (Creswell, 2012). Each group of participants, teachers, graduates, and current students who were 18 years old or older, had similar but different interview protocols due to their connection to the school. The questions were focused on the participants' experiences at the school with the implementation of learner-centered instructional strategies; their feelings about students taking responsibility and ownership of their learning; and what they specifically liked, or disliked, about this model. All interviews were audio recorded, with participant approval, and transcribed verbatim (Merriam & Tisdell, 2016). This was necessary for accuracy and data analysis (Creswell, 2012; Merriam & Tisdell, 2016). The actual interview protocols can be found in Appendices C, D, and E.

Observation data. Once teachers gave me permission to observe their classrooms for one period, a date and time was set for me to observe. I conducted direct observations (Yin, 2014) of the teacher participants' classrooms using a checklist which consisted of common learner-centered instructional strategies and blended learning to collect data on

how instructional strategies were being implemented and student engagement (See Appendix F). Some of the students in the class knew me, but I did not interact with them during the observation period. I used fieldnotes to expand and enhance the data collection process by providing a descriptive narration of what instructional strategies were being implemented in the classroom and my reflections on what I observed (Bogdan & Biklen, 2007; Merriam & Tisdell, 2016). The fieldnotes included the date, time, pseudonym of the teacher, how the classroom was configured, who was in the classroom, what activities were occurring in the classroom, and student engagement (Glesne, 2011). The classroom observations were necessary to corroborate what the teachers and students who participated in the interviews stated in terms of learner-centered instructional strategies being implemented within the blended learning model. (Creswell, 2012).

Archived student survey data. The archived district administered student surveys from the past two years were obtained from the district research coordinator. These surveys were de-identified by the district to protect the identity of the students (VAHS principal, personal communication, April 25, 2018). Students in Grades 9 – 12 took the survey which expanded the number of students and grade levels of those involved in this study. The surveys covered many topics related to school satisfaction, ownership of their own learning, and academic achievement, which added depth to this qualitative case study. The actual survey can be found in Appendix G.

Because I collected data from different sources using different methods, I used what is often referred to as triangulation (Glesne, 2011). Triangulation enabled the researcher to corroborate evidence from different data sources which increased the

credibility and trustworthiness of the research study (Creswell, 2012; Glesne, 2011; Merriam & Tisdell, 2016). In addition, triangulation was necessary to validate the perspectives of the teachers, graduates, and current students who were 18 years old or older who were experiencing the same situation but may perceive the situation differently. The full survey can be found in Appendix G, but I used only the questions that are in bold.

Data Collection Instruments and Sources

A description of each of the three sources of data collected in the case study follows.

Interviews. I developed the interview protocol and questions. The questions for the teachers were focused on their perspectives of how they were implementing learner-centered instructional strategies within the blended learning model (see Appendix C). If necessary, the teachers were provided with a list of learner-centered instructional strategies (see Appendix F) to identify the ones they have implemented and to identify which ones they perceived to best facilitate student academic achievement and student ownership and responsibility for their own learning (Bishop et al., 2014; Krishnan, 2015; Weimer, 2013). In addition, teachers were asked if they used any other instructional strategies and how they perceived those strategies to be supportive of student academic achievement.

The questions for the current students and graduates were focused on their perspective of the implementation of learner-centered instructional strategies and how those strategies helped them learn the material (see Appendixes D and E respectively).

Blended learning allowed the students to work at their own pace, place, path, and time (Horn & Staker, 2015; Jahjouh, 2014; Sorgenfrei & Smolnik, 2016). Thus, the students and graduates were asked if this helped them to be more successful academically. In addition, they were asked about the amount of time and how the time was spent in face-to-face instruction, one-on-one time with the instructor, and online (O'Flaherty & Phillips, 2015; Roach, 2014). Likewise, they were asked if the time they were allowed helped them, or not, to succeed academically. Finally, the students and graduates were asked if they took ownership and responsibility for their own learning, and did they believe or perceive that the path they took and/or the place where they studied helped them to be academically successful (Banditvilai, 2016; Sorgenfrei & Smolnik, 2016).

Archived student surveys. A student survey was administered to all students in Grades 9 – 12 at the end or beginning of the school year but only about half of the students completed the survey each year. The data was de-identified and focused on student perspectives and experiences within this learner-centered blended learning model. I obtained the results of these surveys for the previous two years from the district research coordinator and aggregated the data by age, theme, and school year. I used only the data from the questions that are in bold (see Appendix G)

Observations. Yin (2014) stressed the need to observe the instructional technology and curriculum as it was implemented to gain a better understanding of how they were used. An observation checklist (see Appendix F) consisting of learner-centered instructional strategies and blended learning components was created by me adapting Kohn's (1996) checklist, and the writings of Weimer (2013) and Horn and Staker (2015).

On the checklist, the instructional strategies were listed in one column and the other column was blank for recording teacher actions, my reflections, and quotes from the teacher (Downing et al., 2014; Glesne, 2011). Some of the learner-centered instructional strategies on the checklist were: teacher facilitates an emphasis on thoughtful exploration of complicated issues; different activities take place during class sometimes simultaneously; students have choice or flexibility in how to demonstrate knowledge; small group and/or one-on-one instruction; and usage of laptops. The physical layout of the classroom was also noted and compared to the other classrooms that I observed in this study (Glesne, 2011). This checklist allowed me to quickly record different instructional strategies as I observed them being implemented.

Sufficiency of Data Collection Instruments

Having three different but similar interview protocols for the teachers, recent graduates, and current students who were18 years old or older, was necessary to obtain an in-depth understanding of the perspectives of each group of participants. These perspectives provided information on how the learner-centered instructional strategies were being implemented in the classrooms to support at-risk high school students to succeed academically, and how students were being responsible for their own learning. There was consistency in the perspectives from all three groups, thus the research questions were answered.

The classroom observation checklist provided information on how learner-centered strategies were being implemented in the classroom, the students' level of engagement in the strategy, and the interrelationships between teacher/student,

student/student, and student/technology. The research questions were answered because there was consistency and redundancy in how the instructional strategies were implemented that facilitated student academic achievement and whether the students were taking responsibility for their own learning.

The collection of archived de-identified student survey data from the previous two years provided data from more students attending the school and all grade levels, which added depth to this research study. The surveys corroborated and/or added more insight into the students' perspectives of the learner-centered instructional strategies being implemented within a blended learning model for at-risk high school students. By using three types of data collection instruments, I was able to triangulate the data and identify how learner-centered instructional strategies were implemented to facilitate students being academically successful and taking responsibility and ownership of their learning.

Process for How and When Data are Generated and Recorded

Once approval was obtained from Walden University's IRB, the district, and the principal, I started the recruitment process to obtain volunteer participants. Finding willing participants, obtaining signed consent forms, and the selection process of a purposeful sample took about a month (Merriam & Tisdell, 2016; Yin, 2014). The selected participants were contacted by email, phone, or in person to set up appointments for the interviews and classroom observations.

Interviews. The interviews were set up at a convenient time outside of instructional time for the participants once the signed consent forms and demographic questionnaires were received. The interviews lasted approximately 20 to 60 minutes and

were audio recorded with permission from the participants (Glesne, 2011; Merriam & Tisdell, 2016). I transcribed each interview verbatim shortly after each interview (Glesne, 2011; Merriam & Tisdell, 2016). All participants were informed as to how their identity would remain confidential using a pseudonym coding system (such as T1 for teacher 1 and S1 for student 1) that was not sequential (Creswell, 2012; Yin, 2014). This coding system was only known by me and was used to ensure confidentiality of the participants to prevent any harm or risk to them (Creswell, 2012). All interview transcriptions were maintained in electronic format in a case study database that was password protected along with a backup system that was also password protected (Yin, 2014). The audio recordings were coded and kept in a locked safe.

Glesne (2011) suggested starting the interviews by asking broad questions about the participant, such as his/her background, where they grew up, family, education, and a typical day at this school to get the participant to relax (see Appendices C, D, and E). Once I believed a level of comfort for the participant was established, the audio recording (with participant approval) was started. I began with a set of predetermined questions that focused on teacher or student perspectives on how learner-centered instructional strategies within a blended learning model were being implemented. During these approximately 20 to 60-minute-long interviews, I constantly assessed what I heard and observed, and used follow-up questions to obtain clarification, more explanation, and/or feedback to make sure I interpreted the answers, emotions, and/or body language correctly (Yin, 2014) and to add depth to my understanding of what was being conveyed (Glesne, 2011).

Glesne (2011) and Merriam and Tisdell (2016) suggested using probes in the form of hypothetical questions, devil's advocate questions, ideal situation questions, and interpretive questions to deepen my understanding of the perspectives of the participants. These probes were asked when the answers provided by the participants required more information or clarification. The questions for the teachers, graduates, and current students who were 18 or older were similar but different to reflect their distinct roles in relation to the school (see Appendices C, D, and E)

Classroom observations. Classroom observations were conducted after the teacher and student interviews were completed. Only classrooms of the teachers involved in the study were observed. These classrooms were observed only once for one class period. The teachers chose the date and class to be observed. I only observed the implementation of learner-centered instructional strategies and the engagement level of the students as a class. The teachers were reminded of the protection measures in place to protect their identity (Yin, 2014). All classroom observations were conducted and completed within a month of the interviews (Yin, 2014).

The teacher's pseudonym was recorded on the observation checklist to protect the identity of the teacher, along with the date and time. The fieldnotes were transcribed in an electronic format right after each observation to ensure accuracy and to reduce the chance that the information was diffused due to interaction with others and time (Merriam & Tisdell, 2016). The transcription of the fieldnotes was in narrative format and coded according to the teacher's and observation code (T1O3 stands for Teacher 1 Observation 3). The codes were not sequential to protect the identity of the teachers. The

original fieldnotes were saved and locked in my filing cabinet after they were scanned and saved in an electronic case study database. These electronic copies were kept on my password protected computer along with a password protected backup system.

Archived documents. The archived district de-identified student surveys from the 2016-2017 and 2017-2018 school years were obtained from the district research coordinator at the beginning of my data collection. The data was recorded by age and question number in the case study database (Merriam & Tisdell, 2016; Yin, 2014). See Appendix G for the complete survey.

Tracking Data from Instruments and Emerging Understandings

Spreadsheets were created to track the data from each participant using pseudonyms and codes to identify the data as from an interview, observation, or archived student survey (Merriam & Tisdell, 2016). Learner-centered instructional strategies that were identified in the literature were listed on another spreadsheet. The data from all three sources, interviews, classroom observations, and student surveys, were continuously monitored and individually coded using predetermined (a priori) codes on the spreadsheets for mentioning one or more of the learner-centered instructional strategies (Stuckey, 2015).

An additional data spreadsheet was developed for factors that indicated student ownership and responsibility for their own learning. Emergent codes were used as no specific factors had been identified in the literature.

My reflections and emerging understandings of the data were noted in a comment section on each spreadsheet. Saturation, or information power, of learner-centered

instructional strategies implemented within a blended learning model was determined when no new strategies became apparent through the data collection process (Malterud et al., 2016).

In addition, after each interview, I recorded in a research log when and where I met with a participant and my thoughts after each interview on topics such as what did the participant say that intrigued me, surprised me, or disturbed me (Glesne, 2011). From the research log, I gained insights into my participants' thoughts and actions, as well as my own biases. This enabled me to separate my biases from the perspectives of the participants.

Gaining Access to the Participants

It was necessary to have a diverse group of participants to get a more in-depth understanding of how learner-centered instructional strategies were being implemented, so at-risk students could succeed academically and take ownership and responsibility of their own learning. Thus, a diverse group of teachers, recent graduates, and current students who were 18 years old or older were recruited to participate and share their own perspectives. I used school email addresses for potential teacher and current student participants. I emailed or called recent graduates to ask them to participate.

Role of the Researcher

I was a mathematics teacher, department chair, and mentor to new teachers at VAHS for 12 years and retired from this school at the end of the 2017-2018 school year. My role as the researcher was not to impose my beliefs and biases onto others (Merriam & Tisdell, 2016). I was cognizant of my own biases toward the teachers and the learner-

centered instructional strategies used within a blended learning model. I used a process called bracketing where I identified my biases, knowledge, and assumptions and temporarily set them aside so that these did not influence my research study (Merriam & Tisdell, 2016). Before I started the data collection process, I identified the following personal biases that I brought into this study. These biases were blended learning is an instructional strategy that is more effective than total online or whole class teacher-centered instruction; learner-centered instruction facilitates student academic achievement more than teacher-centered instruction; and one needs to scaffold the changes from a traditional school structure to a learner-centered structure for both teachers and students. In addition, my background knowledge from working with autistic students and the University of California at Irvine ADHD program for children has made me realize the need for these students to have structure in their educational setting.

With these biases and knowledge in mind, it was my responsibility to be clear and open during my data collection process to understand the perspectives of the participants without my thoughts influencing what was stated. Patton (2015) stressed the need to identify one's biases, so as not to influence the validity of the research study. To prevent any misinterpretation of what was stated in an interview or observed in a classroom, I asked for clarification if I was not sure what the participant was trying to convey. I also used member checking where I allowed the participants to read the transcripts of their interviews, add other learner-centered strategies that they use to the list of learner-centered activities that I observed, and read my analysis of what they stated in a 2-page summary of the study to ensure that it was accurate (Merriam & Tisdell, 2016).

During the interviews, I was careful not to show through body language or verbal responses my agreement or disagreement with a comment or answer made by a participant (Merriam & Tisdell, 2016). I was nonjudgmental, sensitive to the feelings of the participants, and showed respect for their opinions and perspectives (Merriam & Tisdell, 2016). If I did not conceal my feelings and beliefs, I could have unwittingly biased the whole research and thus made it invalid. In addition, I practiced allowing the perspectives of the participants to influence the research and not my subjective opinions, biases, and beliefs (Bogdan & Biklen, 2007).

My in-depth understanding of learner-centered instruction strategies and blended learning from the literature review and my own teaching experiences was beneficial for this research but it must not influence my analysis of the data due to my own biases (Glesne, 2011; Merriam & Tisdell, 2016; Yin, 2014). As suggested by Glesne (2011), Merriam and Tisdell (2016), and Yin (2014), writing or journaling about one's biases was very important, so one was aware of their own personal biases and could bracket them and thus not influence the interviewing questions or analysis of the data. Thus, I journaled before and after each interview and classroom observation about my ideas and feelings concerning learner-centered instructional strategies and blended learning to reduce the possible influence of my biases on this study. I continued journaling throughout the data collection process and was cognizant of my own biases to ensure that all information collected was analyzed fairly. I used journaling to clarify my own biases toward specific learner-centered instructional strategies and not let these biases influence what I heard in the interviews and saw during the classroom observations (Glesne, 2011).

By using an observation checklist of different learner-centered instructional strategies and blended learning identified through the literature research, the influence of my biases was minimized. I was open to watching for other forms of learner-centered instructional strategies that were being used in the classrooms by the teachers in this blended learning model. Thus, by bracketing my biases, knowledge, and assumptions, I was able to demonstrate that I understood my biases and the possible impact they would have on the outcome of my research. This process added credibility to my research and helped to ensure that my research was trustworthy (Tufford & Newman, 2012).

How and When the Data were Analyzed

The data from the interviews, classroom observations, and archived student surveys along with the notes and comments I made throughout the data collection process were coded to identify potential themes, patterns, and to develop a visual description of the data (Creswell, 2012). This process was implemented after each interview and observation for discovering similar and/or divergent themes, as well as to determine if the research questions were being answered and if not, how to rephrase the questions or the observation checklist to answer the research questions (Creswell, 2012). Once themes or patterns started to emerge, a priori codes and emergent codes were developed from these and noted on a spreadsheet with the responses from the participants listed under the specific codes (Creswell, 2012; Stuckey, 2015). This process was inductive and was used to develop a description of VAHS and the themes that became apparent throughout the interviews and observations.

The data was organized in spreadsheets under the general headings of themes, instructional strategies, teachers, graduates, and current students. The answers to the same interview questions were compiled under the general headings to enable identification of similar and contradictory themes or opinions (Creswell, 2012). The data was organized and coded by hand due to the unlikelihood that there would be more than 500 pages of transcripts to code (Creswell, 2012).

Once I received the archived student surveys, I immediately started looking for themes and patterns that occurred throughout the surveys that answered the research questions I posed for this qualitative study. Because the survey data was transmitted to me electronically, I was able to file it in the case study database by year and later by individual theme. The themes that became apparent were coded and organized within the database for ease of finding during the current study.

Data Analysis

In this section, I described how I analyzed and interpreted the qualitative data using three of the steps identified by Creswell (2012). These three steps focused on organizing the data, coding the data using a spreadsheet, and then describing the categories and themes (Creswell, 2012).

Coding procedures

I created a dictionary of the participant identification codes to protect the participants' identity (Stuckey, 2015). Thematic codes were developed using two to three words to describe a theme (Glesne, 2011). Themes were noted in the margins of the transcripts and on the data spreadsheets (Bogdan & Biklen, 2007). Under the thematic

codes, there were subcodes that expanded upon the themes (Stuckey, 2015). The coding focused on what learner-centered instructional strategies were implemented, and indicators of student ownership and responsibility for their learning, Once I completed the data collection and coding, I used the list of codes that represented the different themes, patterns, strategies, and/or categories that emerged from the data to consolidate the codes into two to three major themes/strategies (Creswell, 2012). I combined codes that were similar in theme or instructional strategy, were mentioned by many of the participants, were unique, or were expected in this study or divergent from the other themes (Creswell, 2012). By combining these codes, three major themes became apparent under instructional strategies that supported students and two themes that supported the students taking responsibility and ownership of their learning, I reread the transcripts and recoded to ensure that the codes matched the text segments and the themes/strategies were identified correctly.

Each individual interview transcript had no participant personal information. The interviews were labeled with the participants' identification code which included the participant's pseudonym, date, and time of the interview (Glesne, 2011). Once an interview was transcribed, I read it line by line, wrote in the margins my ideas and thoughts about what was being stated, and added thematic codes where indicated (Bogdan & Biklen, 2007; Creswell, 2012; Glesne, 2011). I followed the same procedure after each classroom observation where the fieldnotes were transcribed, coded by participant identification, and then read line by line while noting themes or ideas and putting thematic codes in the margins.

Evidence of Quality of Procedures

Throughout the interview and observation process, I was consciously aware of what I was seeing and experiencing, my thoughts, my biases towards the benefits of blended learning, and things that I may be missing, such as negative aspects of different instructional practices (Glesne, 2011). Once I completed a draft of the results of my study, I used member checking to ensure internal validity. Member checking involved allowing the participants to read a 1-2-page summary of the report to ensure that I have accurately interpreted the participants' views on how the learner-centered instructional strategies were being implemented, and student ownership and responsibility for their learning (Merriam & Tisdell, 2016). Member checking was another way for me to determine if any of my biases may have influenced my analysis of the data (Maxwell, 2013). In addition, member checking allowed the participants to check for anything that might jeopardize or hurt their positions in the school (Glesne, 2011).

Another method suggested by Creswell (2012) and Merriam and Tisdell (2016) to ensure the credibility and trustworthiness of my research was the use of multiple sources of data. Yin (2014) described establishing credibility and trustworthiness by using more than one source for data collection, establishing a system to track the data, and using member checking to verify the results. By collecting data from interviews, observations, and archived documents, recording and identifying the data collected on spreadsheets, and having the participants review the summary report, I satisfied Yin's (2014) construct validity assessment.

Audio recordings of the interviews were transcribed electronically in a password protected computer with the original audio recording labeled and saved in my locked safe (Yin, 2014). The observations were transcribed and saved electronically with the original documents placed in my locked filing cabinet. The archived student surveys were saved on my password protected computer. This enabled me to maintain a chain of evidence as suggested by Yin (2014). By having this triangulation of data from interviews, observations, and archived documents, the credibility or internal validity of this study was increased (Patton, 2015).

The findings from this study might be transferable (Merriam & Tisdell, 2016) or helpful to other alternative schools in the state that serve at-risk high school students. These schools might be able to transfer the insights from the perspectives of teachers and students at this alternative school and implement them at their schools. There are other alternative schools within the area with very similar learner-centered programs that could use the insights from this study to help improve the academic success of their students and the implementation of a learner-centered blended learning model. This study could also help in identifying ways to help students at their schools take ownership and responsibility for their own learning.

Discrepant Cases

If discrepancies were found, more participants would be selected to corroborate the discrepancies (Yin, 2014). Merriam and Tisdell (2016) and Yin (2014) indicated the need to purposefully be aware of contradictions and to try to find evidence that discredits or challenges most views discovered in the literature, student survey data, interviews,

and/or classroom observations on the implementation of learner-centered instructional strategies within a blended learning model that facilitated learning for at-risk high school students to achieve academically and take responsibility for their learning. This did include looking at the whole structure of the academic setting at the alternative high school, how the teachers were implementing learner-centered instructional strategies and interviewing or observing more participants to discover how divergent or contradictory these differences were. This process of analyzing discrepant cases increased the worthiness of this qualitative case study as it pertained to the implementation of learner-centered instructional practices within a blended learning model that facilitated learning, so at-risk high school students could achieve academically, graduate on-time, and take responsibility for their own learning (Creswell, 2012; Merriam & Tisdell, 2016).

Limitations

Limitations are weaknesses or problems that the researcher may become aware of during the data collection process and/or analysis of the data (Creswell, 2012). This qualitative case study was conducted at one small alternative high school in a northwestern state in the United States which might not be representative of all alternative high schools for at-risk students. Weimer (2013) indicated, change from a traditional teacher-centered model to a learner-centered model takes time and the change needs to be scaffolded so teachers and students have time to adjust. This study occurred during the third year of implementing a learner-centered blended learning model.

Banditvilai (2016) noted in her research, using a small sample, such as one classroom or one school, can be viewed as a limitation due to the unique characteristics

of the school and students. Other limitations to this study come from only using the perspectives of teachers, who have been teaching at the school for at least 3 years, recent graduates, and students who have attended the school for at least two years and were 18 years old or older are included. By excluding newer teachers and the perspectives of students who were younger than 18 years of age could result in different conclusions due to the teachers' years of teaching experience and students' maturity level. As Anderson and Anderson (2017) indicated in their study, my research was conducted during one semester which does not factor in previous and future experiences with learner-centered instruction within a blended learning model which could provide different perspectives. Another limitation that might result from this study is no consistent agreement on how learner-centered instructional strategies are being implemented to facilitate learning, and how the blended learning model is enabling students to take ownership and responsibility for their own learning.

Data Analysis Results

VAHS leadership decided to change from a traditional school structure and traditional delivery of the curriculum to learner-centered instructional strategies using a blended learning model for the 2016-2017 school year to increase the graduation rate. This change resulted in the graduation rate increasing up to 59.5% in 2018. However, this rate change was not as high as was expected according to the literature and was still far below the state average of 80.65% The purpose of this case study was to explore how learner-centered instructional strategies were implemented within a blended learning

model to support the students attending VAHS to succeed academically and take ownership and responsibility for their own learning.

Data Collection Process

Data collection for this study consisted of one-on-one semistructured interviews with six teachers who had taught at the school for 3 or more years (see Appendix C), six current students who were18 years old or older (see Appendix D), and four recent graduates who were also 18 years old or older (see Appendix E). These interviews lasted from approximately 20 minutes to 60 minutes with the current students on the average having the shortest interviews and the teachers having the longest. Using researcher-developed interview questions, I explored which instructional strategies were being used that the teachers, students, and graduates perceived to support the students' academic success; how the students and teachers spent their time during a typical day; and how the students were taking ownership and responsibility for their education. Before I began interviewing participants, I followed Glesne' (2011) advice and I listed my biases in a journal. I also wrote in this journal my feelings before and after each interview (Glesne, 2011). I did this so that I would be cognizant of any biases or feelings that I might have that would have a negative impact on this study. In addition, I kept a log of when I conducted each interview and observation (see Appendix J).

Once the interviews were completed and transcribed verbatim, I had the participants member check their interviews for accuracy. One teacher added more information to the question regarding learner-centered instructional strategies used in the classroom and the other participants had no comments or corrections to make to their

interview transcriptions. Using the advice of Merriam and Tisdell (2016), I read the transcripts line by line, made notes in the margins, and recorded codes for themes and concepts which were later used to make a spreadsheet using the codes for each participant and themes they identified. I put a checkmark under each theme or concept that was mentioned by a participant. From these checkmarks, I determined which themes were mentioned the most by the participants. These themes were then used to develop my project.

The teacher participant classroom observations followed the interviews. The observations were conducted using a researcher-developed checklist of learner-centered instructional strategies and blended learning characteristics that was adapted from the works of Kohn (1996), Horn & Staker (2015), and Weimer (2013) (see Appendix F). On the checklist document, located next to the checklist, was an area to record fieldnotes on how the teacher spent his/her time with the students (Merriam & Tisdell, 2016). On the back of the checklist, I drew a floor plan of the classroom and where students were seated to determine if students had choice in work location (Akgunduz & Akinoglu, 2016; Horn & Staker, 2015). Four of the observations lasted 30 minutes and two lasted 60 minutes. The difference in time was due to the courses being different and scheduled for either a 30-minute block or 60-minute block. The time difference did not seem to make a difference in the data collected. After each classroom observation, I conducted a follow-up interview with the teachers to discover other learner-centered strategies they used with their students but were not used in the class I observed. I then wrote a narrative report

from my fieldnotes for each classroom observation and identified the learner-centered instructional and blended learning strategies observed and identified by the teachers.

In addition, archived district administered student surveys from spring 2016 and fall 2017 were used to understand how the students perceived this new school structure and learner-centered instructional strategies within a blended learning model (see Appendix G for the full survey). I created a table to record the student responses on two demographic questions (age and gender), and nine Likert scale questions about their perspectives as in agreement, neutral, or disagreement with specific questions dealing with the implementation of the new school structure and learner-centered instructional strategies. Lastly, two free response questions about how the school could meet their needs to be successful and their concerns about the change were coded by theme to be used in the narrative of the results of this study.

Research Questions

Using the conceptual framework from Weimer's (2013) research on learner-centered instructional strategies and Horn and Staker's (2015) research on blended learning, I analyzed the data I had collected. The perspectives of the participants, classroom observations, and the archived student surveys provided information on how the learner-centered instructional strategies used within a blended learning model to support at-risk high school students to succeed academically and take ownership and responsibility for their own education were implemented at VAHS.

Research Question 1 was developed and answered through the semistructured interviews with all the participants, the classroom observations, and the student surveys.

Research Question 2 was developed and answered through the semistructured interviews with all participants and the student surveys. The coding and analysis for Research Question 1 and 2 are described in the following sections.

Research Question 1

How are the learner-centered instructional strategies within a blended learning model being implemented by the teachers at VAHS as perceived by the teachers, recent graduates, and current students who were 18 years old or older to facilitate learning, so students graduate on-time?

All participants were asked semistructured questions gathering their perspectives on different learner-centered instructional strategies that they thought helped the students or themselves to be academically successful. As I read through the interviews, I wrote key words or open codes in the margins to describe those words and phrases. Open codes according to Merriam and Tisdell (2016) were any piece of data that might be useful to the study. Next to each open code, I recorded excerpts from the interviews, observations, and students surveys, (see Appendix H). I identified 28 open codes from the data I collected. From these 28 open codes, I created eight axial codes or temporary themes, also called emergent codes (Glesne, 2011), by combining some of the open codes that had common attributes (see Table 3). From these eight axial codes, I used thematic coding to find relationships and commonalities among the axial codes. I combined the codes that dealt with aspects of learner-centered instructional strategies, blended learning, or school structure. This resulted in three themes being identified: knowledge of learner-centered instructional strategies; knowledge of blended learning; and development of

structure (see Table 3). This procedure was also used on the classroom observations and district surveys which resulted in the same three themes being identified. These three themes revealed how the teachers, current students, and recent graduates who were 18 years old or older perceived the learner-centered instructional strategies that were implemented in this new school structure to support student academic achievement.

Table 3 contains the learner-centered instructional strategies, blended learning strategies, and school structure identified by the participants, classroom observations, and student surveys. These open codes led to the three major themes listed on the right in Table 3.

Table 3

Research Question 1: Open Codes, Axial Codes, and Themes

Open code	Axial code/ Temporary Theme	Theme
• One-on-one • Feedback • Revision • Explanations • In-depth	One-on-one instruction	Knowledge of learner-centered instructional strategies
• Discussions • Teamwork • Peer support • Interactive • Small Group	Small Group Instruction	
• Online has distractions • Online is hard • Students don't go • Paper and pencil	Blended Disadvantages	Knowledge of blended learning
• Resources online • Syllabus of assignments/dates • Work at own pace	Blended Advantages	
• Choice of work location • Student choice of activity • Student choice of courses	Student Choice	
• Set class time • Set one-on-one time • More one-on-one • Whole school same schedule	Scheduling	Development of structure
• More structure • Structure with flexibility • Less free time	Structure	
• Choice to attend or not	Student Choice	

A description of the three themes follows with an explanation as to how the teachers, students, and graduates perceived the changes in the instructional strategies and the school structure and how these changes were perceived to have impacted student academic achievement. Included in the descriptions are excerpts from the interviews, district student survey, and classroom observations (see Appendix H).

Theme 1: Knowledge of Learner-Centered Instructional Strategies

Transitioning from teacher-centered instructional strategies to learner-centered instructional strategies required the teachers to focus on how the students were learning and how to engage the students in the learning process (Weimer, 2013). It also required the teacher and students to collaborate and share the responsibility for the learning that was happening in the classroom (Weimer, 2013). For this transition to occur, the role of the teacher had to change from the teacher as the dispenser of knowledge to a facilitator of learning (Doyle, 2011; Weimer, 2013). The teachers also had to learn how and when to use whole group, small group, and one-on-one instruction to meet the needs of the students so they could complete their courses in a timely manner.

Facilitator. A facilitator is one who facilitates the learning instead of being the dispenser of knowledge. This role change was expressed by all six teachers in their interviews. T3 (Teacher 3) explained this view by stating, “I’m a facilitator of conversation and communication and honesty.” T5 agreed by stating, “I think I am more of a facilitator than a teacher. What do you need to learn at this particular time to get yourself through to the next level? That’s it.” This limited understanding of what the role of a facilitator is in a learner-centered instructional model was best described by T4 who

stated, “It has definitely changed from as far as like being a lot like a facilitator with knowing their [students’] schedule and making sure they are making their classes.” The teachers seemed to believe the role of the facilitator was to manage the students’ movement from class to class or the mechanics of getting through a class instead of enabling the students to learn through collaboration with their teachers and peers.

T5 provided a definition of facilitator that was closer to Weimer’s definition by explaining the desire to be able to do the following instead of what was stated by the other teachers:

> A teacher to me takes a group of students and presents some material, gives kids insight, provides them with the opportunity to experiment with the materials, and learn from that experiment, so that they can move forward in their lives and see some application to that in their lives. Here it is just like a band aid.

Doyle (2011) stated that a facilitator supports others in their thinking and practice. “To do this, the facilitator encourages full participation, promotes mutual understanding, and cultivates shared responsibility” (Doyle, 2011, p. 53). From this data, I ascertained that teachers needed more training to understand this definition of facilitator and how they can incorporate these concepts as they develop their courses and instructional time with their students.

One-on-one instruction. One-on-one instruction is the preferred learner-centered instructional strategy mentioned by the students and graduates. During one-on-one instruction the teacher works with one student to help that student understand a new concept, revise a paper, and/or answer questions. The students preferred the one-on-one

instruction as stated by G1 (Graduate 1), “One-on-one tutoring really helped me.” The teachers even mentioned this as depicted by T1, “The most important strategies are the one-on-one working with kids.” During classroom observations, I noted in the field notes (see Table 4) that four of the teachers only used one-on-one instruction while the students worked on their laptops. One of these teachers had to work one-on-one with the students, because this class was a combination of many different courses and many of the students were working on projects. One-on-one instruction is an effective strategy to help a student, but the student does not learn how to interact, collaborate, and discuss new concepts with others. The depth of knowledge was restricted to what was in the online curriculum with no diverse opinions to be challenged in a class discussion.

Both the observed and teacher reported instructional strategies were recorded in Table 4. One key takeaway from the table was four teachers indicated they used small group instruction. However, during the classroom observations it was evident that these small group sessions were really the teacher working one-on-one with the students. Another key takeaway was the lack of using peer tutoring, online discussions, and teamwork sessions.

Table 4

Instructional Strategies Observed or Stated to be Used by Teachers

Teacher	T1	T2	T3	T4	T5	T6
Emphasis on thoughtful exploration of complicated issues	O		X			
Different activities take place during class sometimes simultaneously		X	X		O	O
Whole class direct instruction	O	O	X			
Small group instruction	X		X	X		X
Peer Tutoring					O	
One-on-one instruction	X	X	O	O	O	O
Teamwork sessions			X			
Practical applications		O				X
Debates/Discussions	O	O	X	X		
Online independent work	X		X	O	O	
Online discussion postings			X			
Online research			X	X		
Student choice of work location			O		O	O
Student choice of activity			O			O
Student self-reflection	O		X	O		X
Prompt feedback			X	O	O	O

Note. T1 = Teacher 1, O = Observed, X = Teacher reported

Table 5 indicated how the six current students described how much time they spent each day in face-to-face instruction, one-on-one instruction, and online during a typical day at school. The students confirmed that the teachers were spending very little time each day in face-to-face instruction and more hours a day in one-on-one instructional sessions with students. The most interesting data were the amount of time the students spent online each day which also indicated that when the students were in face-to-face or one-one-one instruction sessions they were also on their laptops.

Table 5

Number of hours a student spends in each instructional strategy per day.

Current Students	S1	S2	S3	S4	S5	S6
Face -to-Face Instruction	0	3	0	0	1	0
One-on-one Instruction	1	2	0.5	3	0	1
Online	6	6	6	6	3	6

Note. S1 = Student 1, 6 = 6 hours

Whole group instruction. Whole group instruction was observed as another learner-centered instructional strategy used in the study site. In a learner-centered classroom, the students are taught as a group, but the teacher is using lecturing on a limited basis and other instructional strategies such as leading a discussion, debate, or the students are sharing information they learned on a specific topic with the whole class. S2 (Student 2) mentioned, “Class discussions also really help.” Two teachers (T1 and T2) used whole group instruction during their observation (see Table 4). They both

emphasized thoughtful exploration of complicated issues but had limited whole group discussion. The limited amount of student interaction could indicate the students were not engaged and/or they needed help in learning how to speak and discuss within a group setting. Helping students be comfortable and able to speak in a group setting is a skill the students need to learn, and the teachers need training in how to help the students become confident and willing to speak in front of a group of 15 to 20 other students.

Small group instruction. Small group instruction was another learner-centered instructional strategy mentioned by the participants. The small groups can be purposefully created or randomly created to meet the needs of the students. At the study site, these groups usually consisted of 8 to 12 students. One of the most frequent aspects of small group instruction mentioned by some students and teachers was class discussions and how they helped students understand and learn the new concepts. S5 stated, "It has helped me because I can bounce ideas and whatever I need to get done with somebody, so it helps me go a little bit faster than I am." T4 explained why small group discussions were important by stating, "And people can share their experiences, especially in my class, and I think it is good for people to see that. That's kind of been lost [because this teacher is only doing one-on-one instruction now due to the structural change]."

During the classroom observations it was noted that three of the teachers were involved with students in small groups, but these teachers were only doing one-on-one instruction with those students because the students were at different places in the online curriculum. During these one-on-one instructional sessions, the students were working

online, and the teacher was answering questions, clarifying a concept, or helping a student do a revision. T5 provided an example of this.

> So, when you have five to seven kids in a room and they all have different problems, if you can't address them, they just sit there and talk because they are stuck there. They can't move forward. So, if I can get them all in a line and work down the line, I can do it.

These comments and observations indicated that the teachers possessed a limited understanding of the different learner-centered instructional strategies and how to implement them in their classrooms. There appeared to be a need for the teachers to have a better understanding of Weimer's (2013) principle 5 which states, "Faculty encourage students to learn from and with each other" (p. 81). Without discussion, students were missing out on strengthening their critical thinking and communication skills which are necessary for their success in postsecondary education and/or careers. G3 noted this by stating,

> I don't think this school prepared us enough for critical thinking because in college it is a lot of projects and assignments and I don't think I learned enough about critical thinking and creative thinking here to be successful in that setting.

Theme 2: Knowledge of Blended Learning

Teachers need to be knowledgeable of blended learning and understand how to implement it in their classrooms. The blended learning strategies that were observed in the classrooms were one-on-one instruction in conjunction with online instruction, student choice of pace in the course, and student choice of place to study. Blended

learning involves more instructional strategies than these, especially strategies involving teamwork, collaboration, and discussion. According to the literature review, blended learning is the combination of face-to-face instruction and online instruction (Bernard et al., 2014; Graham et al., 2013; Kuo et al., 2014; Poon, 2013). G2 described why she liked blended learning but also indicated a limited understanding of what blended learning could be.

> I love how you can go, and you can get the one-on-one interaction that you need but you can also move ahead like on the computer. So, it isn't one or the other, you get the best of both worlds on that.

Horn and Staker (2015) noted that blended learning, which involves online learning, makes it possible for learner-centered learning to be personalized and mastery-based. In addition, Horn and Staker indicated students need to have some control over time, place, path, and/or pace of their education. The data indicated that the teachers need a better understanding as to how to implement pace, place, online resources, student choice, and eliminate online distractions to help students learn.

Pace. Part of blended learning was allowing the students to move through the curriculum at their own pace, but this can cause problems for students who set a very slow pace for completing the curriculum. The students and graduates indicated they liked being able to set their own pace. G2 stated, "There was not the pressure of like trying to keep up with everyone else." While S2 indicated, "Pace is definitely one of my favorites and it is working really well for me." The teachers also indicated that enabling students to set their own pace has increased student academic achievement for some students. T2

commented, “The students that I see that are really owning it again are those kids who recognize that this is at their own pace and nothing is holding them back unless it is them.” In addition, T5 believes, “They feel empowered by it. They can choose what they want to do, when they want to do it, and get it done.”

The students who indicated during the interviews that they could manage their pace and complete their courses did well in this learner-centered blended learning model by earning more than the required 12 credits per year. However, by allowing the students to set their own pace, those who were not responsible or motivated did not make much progress as indicated by what happened to S2, S4, and S6 who had to spend a 5th year in high school to complete their courses. The teachers needed knowledge of strategies that they could use within this learner-centered blended learning model to support these students to complete their courses in a timely manner and thus graduate from high school within 4 years.

Place. The term place refers to allowing students to work in a location where they feel comfortable and can get their assignments completed is part of blended learning, but it can be abused. S1 stated, “I think I just like the place because some places you can work better than others.” In addition, students observed in T1, T5, and T6’s classrooms could choose their place to work within the classroom. This choice in place to work was advantageous for the students who were self-motivated, could complete the course work on their own, and/or were responsible to attend their classes or ask for help. However, it became apparent in the interviews and observations that some students were not attending class. They were staying in their preferred location to work. This decision to not attend

class impacted the teachers' ability to create learner-centered lessons to help the students learn critical thinking skills, communication skills, and collaborative skills which are necessary for their postsecondary success because the teachers did not know who or how many students would attend their classes.

Lesson plans. Lesson planning is important and T1 and T4 indicated they wanted to include discussions, teamwork, collaboration, small group sessions, and one-on-one time in their lesson plans. Unfortunately, because these teachers did not know how many students were going to show up for class, this made lesson planning difficult. Also, T1 indicated that if a teacher did not know how to make their lessons engaging or relevant for the students or the online curriculum was not conducive to discussion, that made it even harder for the teachers to create good lessons. Teachers who spent the time developing face-to-face sessions that were interactive and fun had students attending their sessions. T1 affirmed this notion by stating, "They respond. They are successful. But if you are not prepared, they are not going to be successful." S3 followed this line of thinking by commenting, "When the teacher makes it fun for them to learn, oh hey this is actually fun. I am going to learn it and it actually gets stuck in kids' brains." The data from the interviews and observations indicated a need to develop a structure where all students must attend class and teachers need to develop engaging lessons.

Online resources. Online resources were mentioned by some of the participants as helping them learn and/or complete assignments. S2 mentioned that being able to access the curriculum on the student's laptop on campus and off campus helped this student complete classes faster. G1 explained this by stating, "Here are a bunch of things

you can refer to for this one question or word that you need." This was further emphasized by T4 who made the comment, "That the curriculum is right there. The answers are all on the computer and you can re-watch that video so many times." One problem with the online curriculum, that I observed in the four classes where the students were working online, was the students were not interacting with each other or the teachers in online discussions or research. The students were just completing worksheets and essays, with teacher assistance when needed, that were online and submitting these to their teachers. Again, this is an area where the teachers needed to learn how to implement discussions and actual research projects into the curriculum instead of having the students reading documents and filling out worksheets online.

Student choice. Student choice in a learner-centered blended learning model means the students can choose the place, path, pace, and time when they work (Horn & Staker, 2015). It also means the students can have choice in how they demonstrate to their teachers what they have learned (Weimer, 2013). G2 commented, "It was probably the best thing that could have happened because it makes you mature really quickly." However, the idea of students being able to have choice and make decisions in this model had discrepant results as depicted by the student surveys. Students who were 14, 15 and 19 years old believed they could make decisions about the topics that they studied in school. Meanwhile, of the students who were 16, 17, or 18 years old, most believed they could not make decisions or were neutral about the topics that they studied in school (see Table 6). This indicated that the freshmen and sophomores believed they had choice and the juniors and seniors did not. This provided more of an indication about how the

curriculum was designed and delivered online rather than whether students did have choice. Teachers may need help designing diverse activities into their curriculum that allows the students to have choice. At the end of each unit or topic of study, students need options in how they prove they have learned or mastered the academic content (Doyle, 2011; Weimer, 2013). Some of the options could be writing an essay, taking a traditional test, doing a research project, giving an oral presentation, and/or discussing the topic orally with their teacher (Bishop et al., 2014; Cheng & Chau, 2016). The number of students responding to the survey statement on choice as agree, neutral, or disagree by age and year they took the survey is depicted in Table 6.

Table 6

Students' responses to "I make decisions about the topics that I study in school."

Year	Age	No. Students	Agree	%	Neutral	%	Disagree	%	NA
Spring 2016	14	1	1	100%	0	0%	0	0%	0
Fall 2017	14	18	11	61.1%	6	33.3%	1	5.6%	0
Spring 2016	15	25	13	52%	10	40%	2	8%	0
Fall 2017	15	14	8	57.1%	5	35.7%	1	7.1%	0
Spring 2106	16	30	7	23.3%	14	46.7%	8	26.7%	1
Fall 2017	16	23	10	43.9%	9	39.1%	3	13%	1
Spring 2016	17	19	10	52.7%	7	36.8%	2	10.5%	0
Fall 2017	17	9	4	44.4%	3	33.3%	2	22.2%	0
Spring 2016	18	18	5	27.8%	9	50%	4	22.2%	0
Fall 2017	18	6	0	0%	4	66.7%	2	33.4%	0
Spring 2016	19	2	2	100%	0	0%	0	0%	0
Fall 2017	19	1	1	100%	0	0%	0	0%	0

Note. Data taken from the district archived student surveys. Strongly agree and agree were combined under agree. Strongly disagree and disagree were combined under disagree. The number under the heading of age is the number of students that age when they took the survey. The numbers under agree, neutral, and disagree indicate the number of students who responded in that manner. The percentages relate to the percent of the total number of students who responded in that age group as agree, neutral, or disagree during that time period.

Discrepancies with online learning. Discrepancies became apparent when analyzing the responses of the graduates, current students, and student survey answers

when they were asked to provide their prospective on having all the curriculum online. Two current students and 15 survey students preferred all the curriculum being online. Three current students preferred some of the curriculum being online. While one current student and 15 survey students preferred none of it online. The students who preferred the online curriculum or learned how to excel using this system were those who were self-motivated and/or had peers to help them which was confirmed by all the graduates. G4 explained this by saying, "But it is only because we are really responsible when it came to that and that is why we got so many credits is because we would push each other as a group."

S2 and S4 did very well under the traditional instructional system but struggled with the change to all the curriculum being online and having choice to attend class or not which resulted in them not graduating on-time. S2 eventually did become successful in this new model and said, "It is actually really nice because I can take my work home easier. All I have to do is bring my laptop home, connect to my wi-fi, and then I can do my work." S4 was still struggling and stated, "I don't really like it honestly. I wish we would go back to paper and pencil that was a lot easier and it kept me on track a lot more." Meanwhile, S6 who also did not graduate on-time stated procrastination was an issue and, "I would stay in one classroom a lot with my friends and just not get things done." Another viewpoint on why some students may be struggling with the online learning was described by G4, "Because it might be really hard, it was difficult for me. So, there are a lot of people who don't want to say that because 'I don't want people to think I am stupid because I don't know what I am doing.' But I got the hang of it."

S3 provided a good description of the middle group who preferred some of the curriculum online and some of it not by stating, “To be honest, I don’t like it so much, but it is easier having it on there. I do like writing on paper more than the computer because I feel like having my curriculum on the laptop will take my attention away and I get distracted easily.” The distractions, like video games and YouTube, were something some of the students and teachers mentioned as a problem with having the curriculum online and how to monitor student activities. This was confirmed by comments made by S4, S5, T1, and T6.

To help teachers deal with these diverse opinions of online learning, the school and teachers need to develop a flexible curriculum that is learner-centered and blended with choices built into the curriculum to meet the learning needs of the diverse student body. Students who struggle with reading will need different options than those who do not struggle and need to be challenged. This again requires the teachers to have more training in how to prepare curriculum that is learner-centered within a blended learning model.

Theme 3: Development of Structure

Developing a structure that allows students to excel and at the same time help students who are not responsible or motivated to go to class and learn has been an issue since the start of this transition. Transitioning from a traditional school class schedule of four classes a day for nine weeks to a flexible schedule to accommodate a diverse group of at-risk students has been difficult. During 2016-2017 school year, the school tried the flex model (Horn & Staker, 2015) where the curriculum was online, and the students

could choose whether to attend class or not. T5 explained what happened, “The first year was the realization that the kids had no responsibility towards their course work and the result is nobody went to any of the sessions they didn’t want to or needed to.” S4 expressed frustration with this change by noting that the student had earned 15 credits in the traditional model in 2015-2016, only 8 credits the following year and one credit last year. S6 also had difficulty with the change and stated, “Yeah, that was a problem [referring to the flex model] because I would stay in one classroom a lot with my friends and just not get things done.”

Nine of the thirty-two 16 and 17-year-old students who took the fall 2017 district survey also indicated they needed and desired more structure. G2 agreed by stating, “There needs to be more structure and more rules.” However, other students were able to earn more credits under this new structure. G4 stated, “I got like 22 [credits] in one year.” S2 mentioned, “And like a friend of mine, when she graduated, she needed 28 credits in one year and then she got those 28 credits in that one year.” Thus, the school needs to decide how to develop a structural system that can handle this diverse group of students.

The teachers also mentioned they wanted more structure and provided different reasons for it. T1 stated, “When you make the class sessions mandatory for the students to be in and you make it to where we are in lesson planning and we are doing it properly, they love it.” T4 agreed, “I definitely would like mandatory sessions but short sessions to where it was like 20 minutes of instruction and kind of interactive stuff and then you could work on your work.” Finally, T5 noted, “I would like to see more structure in that I know when I can send kids to specific teachers for help at specific times.”

G3 provided a compromise between the traditional and flex models. G3 stated, "Sessions helped a lot. Because I feel you should have the choice to attend the session or skip it if you don't need help." G3 went on to state, "But if it was mixed between more structure and less structure in a way that could work then it is perfect." S3 and S4 agreed and had similar proposals that referred to mandatory class sessions but with this option as stated by S3, "I feel like they gave you the choice to leave class early or you could help, stay and help the students. I really liked that because it's like you don't have to stay here and do nothing." T1 offered another option, "I would love to see a blended school where kids were taking 4 classes every single quarter and inside those classes were a flexible system that is designed by the teacher."

Attendance. Student attendance in all their class sessions has been an issue since the implementation of this learner-centered blended learning model. The data indicated that students who did attend class benefited from the face-to-face component of blended learning. Some of those who did not attend class sessions excelled, while others fell behind. The school changed the attendance policy for the 2017-2018 school year to the students must attend class. Then for the 2018-2019 school year, attendance became required. This was confirmed by T4 who stated, "They still don't go to all the classes even though it is a non-negotiable." S5 stated, "And that did not work last year with the sections that people were supposed to go meet with teachers because no one kept up with that." T5 agreed stating, "Students take advantage of the system to hide out and stay away from doing work or they are just not capable of doing the work by themselves and they languish falling further and further behind." This lack of student attendance has been

a frustration for the teachers. T4 expressed this frustration by commenting, “Like today I think I had like 5 in my class, but I have I think 16 or 17 enrolled and only had 5 show up.”

All the teacher participants indicated a desire to have a strict and enforced attendance policy that required students to go to all their classes with an accountability component that included consequences for not attending class. In addition, the teachers expressed having difficulty teaching their classes at the level of rigor and interaction they preferred due to inconsistent student attendance. Once attendance is no longer an issue, teachers can develop lesson plans that will promote learner-centered instructional strategies resulting in more student academic success.

The need for more students to be successful academically became apparent through the interviews with the students, graduates, and teachers who indicated that the goal for the change to learner-centered instructional strategies used within a blended learning model with at-risk high school students was to raise the school’s graduation rate and better prepare students for life after high school. G3 alluded to this by stating,

> I think that is what they are trying to do [by] shifting towards this blended learning and they will get there eventually, but they have to fix a lot of things with this system before they can start preparing students for college.

G2 alluded to life after high school by stating, “I thought I was prepared for college, but I realized like halfway through my first semester that I probably was not as ready as I thought I was.”

Research Question 2

What learner-centered instructional strategies within the blended learning model do teachers, recent graduates, and current students 18 years old or older at VAHS perceive as encouraging students to take ownership and responsibility for their own learning?

Learner-centered instructional strategies used within a blended learning model with at-risk high school students requires the students to be responsible and take ownership of the own education or someone else must do that for the students (Weimer, 2013). This qualitative case study was developed to discover how VAHS was dealing with the issue of motivation and responsibility under this new school system and what was being implemented to help students who were not self-motivated to take responsibility and ownership of their own education.

One way the school was helping the students was through teachers being facilitators. Weimer's (2013) noted that teachers need to transition from the traditional role of teacher as dispenser of knowledge to the teacher being a facilitator of knowledge. Two of Weimer's (2013) main components (principles) of learner-centered instruction, related to students taking more ownership and responsibility for their own learning. Principle 1 stated, "Teachers let students do more learning tasks" (p. 72). One example of this would be after the students were involved in a discussion, they summarized what they have learned instead of the teacher doing this. The other principle that Weimer (2013) encouraged teachers to follow was principle 2 which stated, "Teachers do less

telling, so that students can do more discovering" (p.74). For students to do this, they need to take ownership and responsibility for their own learning.

All student and graduate participants were asked semistructured questions about how they took ownership and responsibility for their own education. The teachers were also asked semistructured questions on how they perceived the students to be taking ownership and responsibility for their education. All groups were asked to provide examples as to how they knew someone was taking ownership or responsibility for their own education. The students who took the district survey were asked to indicate how successful they were in managing their time and if they were learning skills and behaviors that were important for achieving future goals.

After the interviews were translated verbatim, I read each one line by line and noted in the margins concepts, themes, patterns, ideas, and examples that dealt with ownership and responsibility. I also organized the data from the student surveys by question and age group and found the percentage of students in each age group that answered strongly agree, agree, neutral, disagree, and strongly disagree. From the triangulation of the student, graduate, and teacher interviews along with the student survey data, I was able to identify 19 open codes. Next to each of these 19 open codes, I recorded excerpts from the interviews, observations, and student surveys (see Appendix I). From these 19 codes, there emerged 5 axial or temporary codes which then led to two themes (see Table 7). These two themes were:

1. Student takes responsibility and ownership of own education.

2. Teacher helps student to be responsible and take ownership of own education.

In Table 7, the first six open codes are the characteristics identified by the participants of a student who was taking responsibility and ownership of their education. The next set of open codes identified the roles of the teacher. This was followed by what a teacher, the school, or fellow peers needed to do to help a student take ownership of their education. The last set of open codes described what a student did that was preventing them from taking ownership and responsibility of their education.

Table 7

Research Question 2: Open Codes, Axial Codes, and Themes

Open code	Axial code/Temporary Theme	Theme
• Ask for help • Ask for new classes • Go to class	Responsible	Student takes responsibility and ownership of own education
• Self-motivation • Feel empowerment • Time management skills	Ownership	
• Facilitator • Mentor • Facilitation plan • Helps students	Teacher	Teacher helps students to be responsible and take ownership of own education.
• Teach motivational skills • Teach coping skills • Credit recognition • Peer help	Mentoring goals	
• Dealing with stress • Lazy • Procrastination • Too much freedom • Credits given, not earned	Reasons for failing	

Theme 1: Student Takes Responsibility and Ownership of Own Education

Students and graduates stated they took responsibility for their education by asking questions, asking for new classes, and going to class. S2 stated. "One of the biggest things they teach here is never be afraid to ask for help." S2 continued this thought by saying, "If I am struggling with something, I can go to my teacher and say I am struggling with this. Help me." S5 agreed and gave the example, "I am not just sitting there, I am actually seeing the teacher and can say, 'Hey, I would like some help. Can I get some help?'" G3 commented, "If I needed help, I went and asked." These comments were supported by T5 who stated, "There is increased amount in a number of students to seek out the teacher that can get them the help." However, the students who did not have the skills to go ask a teacher for help found themselves falling behind. Because many of these students also did not attend class, it made it difficult for the teachers to help them progress academically.

Another area where the students demonstrated that they were taking responsibility for their education was identified by G4 who stated, "The way I got so many credits is because I would ask and add a lot of classes because I could take a lot at once." T6 supported this notion by stating, "Students will request more classes." Non-motivated students were not as inclined to ask for additional classes. The students who made academic progress were taking responsibility for their education by asking for help, asking for more classes, and attending their class sessions.

Self-motivation and time management. Self-motivation and time management were identified as two of the characteristics of students who were taking ownership and

responsibility for their own education. Regarding self-motivation, T2 stated, “The kids who are motivated and are driven are really flying high.” T3 agreed with this statement and said, “I have seen that ownership piece take hold and then everything else from there went up.” S2 noted, “Teachers here taught me to be able to use myself as a motivator.”

However, T5 suggested, “The model addresses only those students that are capable of handling themselves and does nothing to help those who can’t and that leaves the teachers out.” T1 corroborated that statement with, “That’s probably the biggest thing we have seen is a lack of student buy in as well as a lot of success when students buy in because they are taking responsibility.” When a student does take responsibility and ownership of their own education, T5 stated, “They feel empowered by it. They can choose what they want to do, when they want to do it, and get it done.” G2 described responsibility as, “I think taking responsibility for your own education is really a personal thing but overall I think it is something that you have to want, and you never have to stop trying.”

Once a student decided to take ownership and responsibility for their education, time management became very important in this learner-centered blended learning model. Most students aged 14 to 19 who took the district student survey felt the school expected them to learn time management skills. S2 stated this about this model, “It’s teaching you how to do time management because if you don’t, you will go way behind, and you won’t even know it until it happens.” T5 described the students who have taken responsibility and ownership of their own education as, “They can make choices for their own personal workload and they can schedule their own time and they are competent.”

Theme 2: Teacher Helps the Student to be Responsible and Take Ownership of Own Education.

Once the teachers discovered that many of the students were not taking responsibility and ownership of their own education, especially during the first year of implementation under the flex model, they realized that something needed to change. Weimer (2013) indicated that learner-centered instruction required the student to be more responsible for their learning. Students needed to accept that the learning process was something they must do and not the teachers (Weimer, 2013). Teachers needed to hold the students accountable for being unprepared for class and tardy to class for students to learn to be responsible (Weimer, 2013). One way the teachers helped the students to take ownership and responsibility for their own education was the development of a facilitation plan, mentoring program, and recognition program. The teachers realized they needed to provide motivation and coping skills training for the students. They also realized they needed to develop learner-centered blended learning courses that were engaging and motivated the students to learn.

Facilitation plan. The facilitation plan was a computerized spreadsheet that the teachers created on a daily, weekly, or monthly basis to inform the students as to when they had class with a specific teacher. The facilitation plan was implemented during the 2016-2017 school year. Each teacher had access to the plan and then told their students when their classes were for that day. The facilitation plan was made assessible to all students for the 2018-2019 school year, instead of just the teachers. The teachers entered the names of the students by their class periods, so the students and teachers knew when a

student had a class. The plan could change daily, weekly, or monthly depending on the teacher. The purpose for the facilitation plan was to inform the students and their mentors when students had class and to make sure the students went. It was noted during the classroom observations, that teachers 2, 3, and 6, had written the day's facilitation plan on the board so the students and everyone else in the classroom knew where every student was supposed to be throughout the day. In addition, the teachers were required to indicate on the plan if a student did not attend class so the mentor teacher could address the issue of skipping class with that student.

T2 referred to the facilitation plan that the teachers created on a daily, weekly, or monthly basis. T2 stated, "I do the facilitation plan every day because I think that helps with them [students] taking ownership if they know where they need to be and with us having the expectation that they will be there." T6 noted the difference between students by stating, "Students will actually go to their classes based on what they see on the facilitation plan on the board. Then of course, you have the complete opposite of that where students aren't going to their classes." T4 recognized, "Getting kids to go to class is the biggest thing with having the mentor on board and if they are not on board it is tough to get them [the students] there." T3 described another way to use the facilitation plan, "I group students based on their academic needs and schedule those groups for the least amount of conflict. So, definitely the facilitation plan helps."

T5 stated, "With the facilitation plans where it seems to be changing daily, I do not have time to look at it daily." In addition, it was noted that some teachers indicated if a student did not show up for class while other teachers did not. However, there was no

consequence for not showing up for class. Thus, with the students asking for more structure and the need for a facilitation plan that worked for everyone, there seemed to be a need to develop a different plan or one that was more consistent that supported the students' academic progress and the teachers' time to implement the plan.

Mentoring. A mentoring program was implemented in the school with the intention of teachers getting to know a small group of students well, advocate for those students, and help the students learn to be self-motivated and responsible for their own education, as well as learning coping, teamwork, and collaboration skills. Each teacher mentored 12 to 16 students who were randomly assigned to that teacher to create a diverse group of students by age, gender, ability level, and interest in school. Teachers mentored their students as a group and individually. Students and teachers found this to be very helpful. T3 mentioned, "My favorite role has got to be the mentor piece because I just see the culture shifting when we talk about relationship with students being number one." G2 commented, "I also think that that mentor thing really helps because there are not that many of them [students] in there, teachers can understand the person." This comment was supported by G3 who stated, "Mentoring is helpful because if you are like struggling you can go talk with your mentor and they can figure out what to do." However, T1 noted, "We have some teachers that are very good at mentoring kids and we have some teachers who are not very good at mentoring kids." Thus, professional development for some of the teachers on how to be a mentor and what activities or discussions to have with their mentees was indicated.

Recognition programs. Recognition programs were ways to congratulate a student for completing a course. The graduates indicated during the interviews that they liked the two recognition programs that were implemented to encourage students to earn credits. G2 identified a program that was implemented during the 2017-2018 school year and was still being used that motivated students to earn credits. G2 described this positive activity that occurred each time a student earned a credit,

> But when they went oh, that is so cool. It was so awesome that you get praise from the teacher. You get praise from your mentor. You get to walk down to the office. You get praise from the principal and praise from the secretary and you get a piece of candy. It was very simple, but it makes you feel like it is worth it.

The school implemented another recognition program for the 2018-2019 school year that the students found motivating. Every time a student earned a credit their name and the total number of credits earned up to that point by the total student body was written on a paper flag and pasted to the wall in the office next to the flag of the last student who earned a credit (school secretary, personal communication, January 10, 2019).

Motivation. Motivation is an important factor in determining whether students were succeeding academically or not. Motivation at the study site refers to the students putting in the time and effort to complete their courses on time. Graduates, students, and teachers indicated that motivation was one of the reasons the students were excelling or struggling in their ability to take ownership and responsibility for their education. T1 explained, “We have to teach them how to find success.” T2 echoed this sentiment by

stating, “The kids who are not as driven, I think they are struggling a little bit only because they are used to being spoon fed and so they are struggling.” Thus, T3 suggested that all teachers, “Teach the habits of success.” Once the students learn how to motivate themselves, G4 stated, “If you motivate them, they will want to do more.” G4 continued this thought with, “It just matters that they are doing it and if they feel motivated. You want them to feel confident in what they are doing.” S1, S2, S3, and S6 all stated that the teachers were teaching them how to be self-motivated.

Coping skills. Coping skills were specified by half of the teachers as something these at-risk students needed to develop if they were to become responsible and take ownership of their own education. At-risk students, as defined by the state, come to school with many issues that impact their ability to learn (see Appendix B). T2 stated, “Most of the need they have is that emotional need and they need that support not only in the classroom but just in life.” T2 also mentioned, “We need to teach them how to have empathy and patience.” Because these are at-risk students, T3 noted, “I would want them with me all the time to really make sure their basic needs are good and that their relationships are solid and then teaching them coping skills.” T5 followed this line of thinking by stating, “We will never be able to solve their problems but teach the kids how to cope with them, address them, and have the teachers understand more where the kids are coming from.” Learning how to cope with their own situation, might enable the students to have the energy and resources to motivate themselves to take responsibility and ownership of their own education within the learner-centered blended learning model.

Reasons for failing to take ownership and responsibility. The current students provided very specific reasons why they or their peers were not taking ownership and responsibility for their own education. S2 stated, "I think the students that dropped out, it is the stress of the change or they just didn't want to do it." S4 stated, "I was lazy and didn't come to school enough." Meanwhile, S6 provided the reason as, "Oh, my teachers didn't help me, I will blame them. What was really my fault." S6 continued with, "I didn't graduate last year due to procrastination." Others felt there was too much freedom and the students could not discipline themselves to work. This was noted by S4 who stated, "It gives me time to slack, easily." Also, S6 mentioned, "It was a lot like freedom. I would stay in one classroom a lot with my friends and just not get things done."

However, the one area that the graduates believed where the teachers could have taught the students how to be responsible was the course content. The individual courses needed to be consistent and all students needed to be held to the same level of completion for students to learn responsibility. The graduates expressed the belief that reducing course content near the end of the semester so some students could complete the courses and graduate affected a student's sense of responsibility. These graduates had completed all the course content and then found out some of their fellow graduates only completed part of the course and still got the course credit. They thought this was unfair to those who did all the work. But they also felt it was an injustice to those students who did not complete the whole course. G2 explained this as,

> How are they supposed to get out in the real world and know where to start when you are teaching them right now that the real world is just going to hand them

> things and they do not have to work for anything because they will just cry or bat their eyes and then they will get things that they want.

G3 also commented on this by stating, "Because when that happens you are just not prepared for life in general or what you are going to learn in school." If the students were required to go to class and the courses were structured to contain learner-centered instructional strategies, such as small group discussions and choice of activity, and have online components, having to cut the curriculum so students could earn their credits should not be necessary.

Discrepant Cases

I discovered discrepant cases when I was analyzing the data. The discrepant cases dealt with differences of opinion regarding the structure of the learner-centered blended learning model. The views of all the teachers, students, and graduates were evenly divided amongst embraced the new model, wanted to see some changes implemented, or wanted a more traditional model. Furthermore, the freshmen and sophomores indicated they had choice in what they did in their classes, while the junior and seniors did not.

Evidence of quality

Creswell (2012), Glesne (2012), and Merriam and Tisdell (2016) stated that triangulation enabled the researcher to corroborate evidence from different data sources which increased the credibility and trustworthiness of the research study. Thus, I triangulated the data from the interviews, classroom observations, and archived student surveys to develop an understanding of how the learner-centered instructional strategies were being implemented and supporting students in a blended learning model (Bogdan &

Biklen, 2007). Obtaining the perspectives of teachers, current students, and graduates provided depth to the study as each group agreed and/or disagreed on certain aspects of the learner-centered blended model. The archived district student surveys enabled me to obtain the views of students in grades 9 – 12 who completed the survey which further increased the quality of my study. Member checking was conducted three times during this research study to increase the credibility and internal validity of my research study (Merriam & Tisdell, 2016; Yin, 2014). Members were provided the verbatim transcript of their interview, a summary of the classroom observation to see if the teachers used other learner-centered strategies, and finally a 2-page summary of the study. I collected their feedback and reviewed it for consideration in my analysis of the data. One teacher added more information to her interview. All the teachers indicated other learner-centered strategies that they used in their classrooms. The students and graduates confirmed that what I provided them was accurate.

Sample transcripts from the interviews, observation field notes, and survey responses to the two research questions can be found in Appendixes H and I. In addition, my research log is attached in Appendix J. It contains the dates of my data collection, my biases, and a sample of a classroom observation summary. These samples provided evidence of how the data was collected and the procedures followed to ensure the accuracy of the data.

Outcomes

The school district and the VAHS principal knew there was a problem as the at-risk students were not graduating on-time and they believed it was a result of using a

traditional school structure and traditional delivery of the curriculum instead of learner-centered instructional strategies within a blended learning model. This became more evident when the graduation rate for the 2017-2018 school year increased but at a lower rate than expected. The district research coordinator and VAHS's principal began to wonder how the new learner-centered instructional strategies within the blended learning model were being implemented and why they did not produce the expected results of increased student success as indicated by the literature. The purpose of this qualitative case study was to explore how learner-centered instructional strategies were implemented within a blended learning model to support the students attending VAHS to succeed academically and take ownership and responsibility for their own learning. The data collected from the interviews, classroom observations, and district student surveys indicated some of the students excelled academically by earning more than the required 12 credits each year under the new model. However, many of the students did not excel as indicated by them earning far less than 12 credits each year which resulted in the continuation of a graduation rate far below the state average. In addition, there were indications that some students needed training in how to be responsible and take ownership of their own education.

The data indicated the teachers had limited knowledge of learner-centered instructional strategies. Weimer (2013) acknowledged that teaching in a learner-centered instructional model is hard and messy when one is focused on learning. It is the teaching in the learner-centered instructional setting that motivates and empowers the students. and helps the students learn how to collaborate and reflect on their learning (Weimer,

2013). Horn and Staker (2015) expanded on the learner-centered instructional strategies by incorporating blended learning where the students' have personalized instruction (meaning they can progress at their own pace with the online curriculum) and must demonstrate mastery of the skills. This leads to the students developing a sense of responsibility and ownership of their own education (Horn & Staker, 2015).

It became evident by analyzing the data the teachers needed more training in how to instruct using whole group, small group, and one-on-one instruction within a learner-centered environment. The students and teachers recognized the benefits of one-on-one instruction but forgot about the need for students to learn communication, critical thinking, creative thinking, and collaboration skills which can only be accomplished in small group or whole group discussion settings.

Blended learning became another area where the data indicated the teachers needed more training to increase their understanding and knowledge of how to implement a blended learning curriculum that involved both face-to-face instruction and online instruction. Face-to-face instruction is not synonymous with one-on-one instruction. Face-to-face instruction involves interacting with the teacher and peers in discussions, group projects, student presentations, and other collaborative activities. Currently, all the curriculum is online, and the students do not have to attend class to complete the courses. This indicated that the curriculum may not contain any activities that required the students to interact with their peers and teachers in whole group or small group discussions. This limited the students' ability to learn the 21st century skills of communication, critical thinking, creative thinking, and collaboration. Some of the

teachers, students, and graduates indicated a desire to have discussions included in their courses. Two teachers did conduct whole group instruction during their classroom observations and tried to promote discussions, but only a few students were engaged in the discussions. This lack of student engagement in class discussions indicated the teachers needed professional development in how to engage their students in small group discussions.

The school day structure was frequently mentioned by the participants as an issue. However, there were disagreements over what needed to be changed. Some teachers and students preferred the current structure, others wanted a few changes, and some wanted to revert to the traditional system. Developing a system that met the needs of all students and teachers while promoting learner-centered instructional strategies will be challenging. However, it must be done to improve the graduation rate, and the preparation of students to take responsibility and ownership of their education.

Students and graduates who were self-motivated and responsible were able to succeed under this new school structure and curriculum. These students and graduates indicated they asked for help, asked for new classes, and went to class. However, the students who did not possess these characteristics struggled under this new structure. They were reluctant to ask for help, they could not manage their time, and they frequently did not go to class.

Because some students were not demonstrating self-motivation and responsibility for their own education, it became evident to the teachers that they needed to teach these skills to the students. They also expressed the need to help the students learn coping skills

so the students could focus on their education. These skills could be taught during the mentoring sessions, but the teachers would need training in how to teach these skills.

Weimer (2013) suggested that focusing on one strategy at a time was more effective than trying to cover all of them at once. Thus, following the experiences and desires of the teachers, graduates, and students, as expressed in the interviews, learning how to facilitate and plan for small group instruction that focused on discussion should be the first focus. As of now, the teachers have not received any formal professional development on learner-centered instructional strategies or how to write blended learning online curriculum that involved discussion and group projects. The training that the teachers did receive involved how to use the computer learning management system and identifying the skills required to pass a specific course.

Once the teachers and students experience and understand the benefits of small group discussion, a meeting with teachers, student representatives, and the administration needs to occur to determine how to structure the school day to allow for mandatory small group sessions. This structure must be flexible enough to allow the very motivated students to work at their rapid pace while encouraging the reluctant students to engage and become motivated to be responsible and take ownership of their education.

Conclusion

In this qualitative bounded case study, I explored how teachers, current students 18 years old or older, and recent graduates perceived how the learner-centered instructional strategies were being used within a blended learning model with at-risk students at AVHS. I incorporated the ideas and components of learner-centered

instruction as identified by Wiemer (2013) and Kohn (1996) as well as the four major themes of path, place, pace, and time in blended learning from Horn and Staker (2015).

The qualitative data were collected using semistructured interviews with teachers, current students, and graduates along with classroom observations of those teachers and a district student survey that was administered in the spring of 2016 and the fall of 2017 to explore the following research questions: How are the learner-centered instructional strategies within a blended learning model being implemented by the teachers at VAHS as perceived by the teachers, recent graduates, and current students who were 18 years old or older to facilitate learning, so students graduate on-time? What learner-centered instructional strategies within the blended learning model do teachers, recent graduates, and current students 18 years old or older at VAHS perceive as encouraging students to take ownership and responsibility for their own learning? Six teachers, six current students, and four recent graduates from VAHS formed the sample of participants for this study.

From the data I obtained through the interviews, classroom observations, and district student surveys, it became evident that the teachers needed professional development in the area of learner-centered instructional strategies and blended learning, specifically concerning small group discussion. I created a project study that consisted of a 3-day professional development project followed by monthly hour-long meetings after school for the teachers. The purpose for this professional development project is to increase the teachers' knowledge and usage of different types of questioning to promote and/or encourage small group class discussions. The 3-day professional development will

enable the teachers to experience and increase their knowledge about three of Francis' (2016) types of questioning that lead to discussion. The monthly meetings will continue the learning and experiencing with five more different types of questioning that promote discussion that were developed by Francis (2016). Time will be reserved for the teachers to share the discussion strategies they are using in their classrooms and the outcomes. Teachers will also be encouraged to share what challenges they are having with their students, courses, and/or school structure.

It is my intention that when the study site implements this professional development and the teachers start inserting small group discussions into their courses more students should be completing their courses and learning to be self-motivated and responsible for their own education. In addition, there could be a positive social change where these at-risk high school students graduate, instead of dropping out, and become productive members in their communities. Furthermore, this 3-day professional development project could be implemented at other alternative schools to help their students be more successful academically and thus graduate from high school. The description of the project study and the implementation plan of this project are outlined in Section 3.

Section 3: The Project

Introduction

For this qualitative bounded case study, I interviewed six teachers who had taught at the school for 3 or more years, six current students who were at least 18 years old, and four recent graduates who were also at least 18 years old. The participants had mixed feelings about the new school structure that combined online learning with face-to-face learning. They either embraced it, were neutral, or preferred the traditional model. However, all noted the effectiveness of one-on-one instruction. Many participants noted a desire for more discussions and small group instruction. Classroom observations revealed that many students were not attending class and the teachers were working with the students one-on-one. Student surveys supported the conclusions from the interviews and classroom observations. The school district had provided the teachers with professional development on the online platform and some curriculum development. However, no professional development was provided on learner-centered instructional strategies other than a few books to read. A project in the form of 3 consecutive days of professional development with follow-up monthly meetings (Brown & Militello, 2016) on how to embed discussion into the lessons would benefit the teachers and ultimately the students. All professional development sessions would enable the teachers to understand how to use different types of questioning to promote discussion as a learner-centered instructional strategy through reflection, collaboration, creation of lessons, feedback, revision, and practice with their peers.

Description of the Project

My doctoral study is a 3-day professional development project with monthly follow up sessions for teachers at VAHS. The professional development days will occur the week after school gets out or the week prior to the beginning of the following school year. Monthly collaboration sessions will occur after school during the school year on a day that is convenient for the teachers (Jones & Dexter, 2014). These monthly sessions will focus on the current needs of the teachers and the five remaining types of questions developed by Francis (2016) to engage students in small group discussions. The teachers will also be encouraged to meet frequently in informal collaboration sessions with a few of their peers throughout each week to share, reflect, and collaborate on how they are implementing what they are learning in the professional development sessions and any struggles they are having (Kim, Kang, Kuusinen, & Park, 2017).

Purpose and Goals of the Project

The purpose for this 3-day professional development project and the monthly follow up sessions is to increase the teachers' knowledge and usage of different types of questioning to promote and/or encourage small group class discussions. The teachers will be experiencing how to write good standards-based questions that lead to different types of discussions, and how to implement small group discussions into their courses which was identified by many of the participants as a need in this learner-centered blended learning model. For the teachers to be able to facilitate small group discussions, they need to learn how to develop trust and a safe environment so the participants will share,

reflect, and provide feedback with their colleagues as well as with their students in a collaborative setting (Lane, 2018).

The major goal of this project is to increase teachers' knowledge and ability to effectively incorporate and implement the learner-centered instructional strategy of small group discussions within their lessons. Supporting goals focus on teachers understanding of Zwiers and Crawford's (2011) list of skills desired by employers, the five core skills of academic conversations, how to incorporate depth of knowledge and Bloom's taxonomy into good standards-based questions, and how incorporating these into a learner-centered blended learning model helps the students become academically successful, responsible, and take ownership of their learning. In addition, the teachers will learn Francis' (2016) eight types of questioning to encourage discussions and how to implement these in their classrooms. The specific sub goals of the 3-day professional development sessions based on the work of Zwiers and Crawford (2011) and Francis (2016) will provide the teachers with the knowledge to:

- define facilitator of learning;
- explain why discussions are important;
- identify five skills desired by employers that are related to learner-centered instruction;
- identify the five core skills of academic conversations;
- write good standards-based questions incorporating depth of knowledge and Bloom's taxonomy;
- lead a Socratic Circle;

- identify the four types of essential questions;
- identify the three types of factual questions;
- identify the four types of analytical questions; and
- increase the number of discussions in their lesson plans each quarter.

Rationale

Project Content Rationale

The school district and the VAHS principal knew there was a problem as the at-risk students were not graduating on-time and they believed it was a result of using a traditional school structure and traditional delivery of the curriculum instead of learner-centered instructional strategies within a blended learning model as suggested by Wiemer (2013) and Horn and Staker (2015). This project is the cumulation of the data collection and analysis of the results. The interviews with the participants and the classroom observations indicated that the study site had transitioned to an online program with the teachers conducting most instruction in one-on-one tutoring sessions instead of a learner-centered blended learning model. Students who went to their classes and asked for help were able to complete their courses. The students who had the ability to complete courses on their own did and excelled under this new model. However, the students who did not take responsibility and ownership of their learning, did not have the academic skills, did not attend class, and/or did not have the social skills to ask for help struggled to complete their courses.

The data collected from the interviews, classroom observations, and student surveys indicated the participants wanted more face-to-face time between teachers and

students and/or students and students which included small group discussions and less online time. Five of the six students interviewed indicated they spent the whole day online. Some of the teachers indicated they missed the benefits of having small group discussions with their students. Others wanted time to conduct whole group sessions on difficult topics or concepts and then time to work one-on-one or in small groups with their students.

The graduates explained that they were able to graduate on-time because they would ask their teachers for help and they had peers to support them. However, once they attended college, they realized they did not have the critical thinking, creative thinking, and communication skills to be successful. This resulted in two of the three college students dropping out of college after one semester.

The data also indicated most students needed help to be motivated to complete their courses. The two incentive plans which recognized the students as they completed a course helped to motivate many of the students. However, the students who were not motivated by these incentive plans, did not ask for help from their teachers, and/or did not have peer pressure and/or support still struggled to complete their courses.

Finally, the classroom observations indicated the teachers needed help in learning how to develop questions that would lead to classroom discussions. They also needed to understand and expand on their current knowledge of how to encourage students to be engaged and participate in small group discussions. Thus, the need for professional development focused on providing the teachers with the knowledge and skills in how to incorporate small group discussions into their courses.

Project Genre Rationale

The best way for teachers to strengthen their pedological skills is through focused professional development over a period of continuous days followed by monthly collaboration sessions (Brown & Militello, 2016). Thus, I chose the genre of professional development for my project study. For the professional development to be successful, the facilitator and participants need to recognize the knowledge and experiences the teachers already process (Jones, & Dexter, 2014). Then the teachers need to personally experience learner-centered instructional strategies to be able to implement them into their courses, collaborate with other teachers, and reflect on how their students are doing (Dole et al., 2016).

Review of the Literature

I presented Weimer's (2013) conceptual framework of learner-centered instructional strategies and Horn and Staker's (2015) work on blended learning in Section 1 of this qualitative case study. The literature review in that section focused on learner-centered strategies, the advantages of learner-centered instruction, and the process for changing to a learner-centered model. The advantages and challenges of a blended learning model, as well as the implementation process for such a model, were also presented. In this literature review, the focus will be on professional development and what constitutes an effective professional development program. The major components discussed in this review are current teacher knowledge, facilitation, collaboration, reflection, revision, and trust. I chose to focus on these six areas because these were mentioned by the participants as areas of need, mentioned by Killion and Roy (2009) on

how to implement professional development programs for teachers, and/or mentioned by Knight (2013) and Weimer (2013) on effective instructional strategies. The search terms used in the Walden University Library to meet saturation on this topic were *professional development, professional development and high school teachers, collaboration, teacher collaboration, adult learners,* and *teaching adults*. In addition, I used specific articles referred to by different researchers to conduct my research through the Walden University Library.

Project Genre

Professional development was the chosen genre for this project study because teachers needed to be trained in learner-centered instructional strategies and blended learning if they were expected to facilitate learning using these strategies. Most current teachers attended schools that were teacher-centered, and their teacher education programs were teacher-centered (Dole et al., 2016; Marbach-Ad, & Rietschel, 2016; Weimer, 2013). Thus, they need to be exposed to this new way of teaching. Teachers are familiar with professional development and recognize its effectiveness if it is focused on the needs of the teachers and/or students (Darling-Hammond, 2017). Capraro et al. (2016) noted that professional development should last at least 14 hours. Other researchers insisted effective professional development must be continuous and not just last a few days at a workshop or conference (Bayar, 2014; Brown & Militello, 2016). The teachers at VAHS indicated during their interviews a desire to have more training in how to teach in this learner-centered blended learning model. The students also indicated they

wanted their teachers to incorporate more small group discussions into the courses, so they were not spending the whole day on their laptops doing assignments.

Professional development is a process where schools and districts with the support of their teachers, universities, and experts, help the school address the needs of their teachers and students to improve student achievement (Killion & Roy, 2009). Professional development also involves active learning and reflection on the part of the teachers (Girvan, Conneely, & Tangney, 2016). The teachers at VAHS who participated in the interviews, indicated they needed more training in this learner-centered blended learning model, and they knew it would require a time commitment. For this professional development to be effective it needed to be classroom/student centered, concentrated on the needs identified by the teachers, and continuous (Seals, Mehta, Wolf, & Marcotte, 2017). Because the curriculum is online and the students submit their assignments online, there was a need for the professional development to not only support the teachers but also provide technology support for the teachers and students (Horton, Shack, & Mehta, 2017).

Besides the initial 3 days of intensive professional development, the teachers need to meet continuously throughout the school year (Bayar, 2014; Brown & Militello, 2016; Hilliard, 2015; Kim, Kang, Kuusinen, & Park, 2017; Seals et al., 2017). They need this continuity, in order to have time and space to incorporate what they are learning into their lessons (Kelly & Cherkowski, 2015).

For teachers to gain the most out of professional development sessions, they need to collaborate and respect each other's experiences and opinions. They also need to look

at the data on their students' academic achievement, test scores, and graduation rates. Kelly and Cherkowski (2015) mentioned that collaboration, relationships, and reflection need to be incorporated into the professional development. These need to occur for the training to be successful in getting teachers to try new learner-centered instructional strategies. In addition, through professional development, the teachers develop relationships with mentors who can also provide support (Jones & Dexter, 2014). Addae (2016) expanded on the concept of relationships to include seeing how the data relates to the teachers' personal experiences. The teachers needed to determine whether the data on student achievement and engagement matched their experiences and observations.

Collaboration

Collaboration is a major component to effective professional development. Once the teachers have developed trusting relationships, they can respect each other's experiences and discuss new ideas as to how to help their students (Kelly & Cherkowski, 2015). Through collaboration with other teachers, the teachers will learn how to enhance their courses, so they are more learner-centered (Marbach-Ad & Rietschel, 2016). The teachers need to learn how to collaborate effectively with their colleagues before they can help their students learn this skill. By collaborating with their peers, the students will learn how to be independent thinkers, be accountable for their work, learn social skills, learn how to have productive face-to-face interactions, and learn how to work as a group member (Burns, Pierson, & Reddy, 2014). All these skills need to be taught to the students, so they can be productive team members after high school.

Reflection and Feedback

Reflection is another component of effective professional development. Teachers need time to process what they are learning, how they are implementing what they are learning, and what impact these new learner strategies are having on their students (Addae, 2016). Once the teachers have incorporated a new learner-centered instructional strategy, they need to reflect on their practice, the students' responses, and share that information with their colleagues (Dole et al., 2016; Girvan et al., 2016; Horton et al., 2017). Having the teachers videotape themselves teaching and sharing this with their peers to receive feedback is another way to improve one's teaching (Xiao, & Tobin, 2018). Thus, by working with their colleagues, teachers can plan lessons, implement the lesson, reflect on the lesson, adjust the lesson, and implement a similar type of lesson incorporating the changes (Blumberg, 2016). Professional development allows the teachers to collaborate with their peers to analyze data, reflect on the results, and understand their own practice (Garces & Granada, 2016). Students also need to learn how to reflect on their work. Korthagen and Kessels (1999) noted that Hans Freudenthal, who initiated the Freudenthal Institute in the Netherlands to help teachers teach math, indicated that students needed to use inquiry and reflection with a group to learn math.

Feedback is vital for learning and professional growth. Addae (2016) stated that adults need feedback to motivate them to learn and make meaning out of what they are learning. High school students also need feedback to help them learn. Teachers need to ask the students what they want the teacher to provide feedback on and how they want to receive the feedback. Similarly, Goodyear and Dudley (2015) stated that teachers need to

provide feedback and praise to their students. The feedback needs to match the criteria and/or outcomes of the assignment or activity (Blumberg, 2016). The students can then use the feedback to improve their projects or assignments. However, one must be careful that the student has the resources available to make the revisions. Otherwise, the feedback could hinder the students' ability to complete the work (Guarino, Whitaker, & Jundt, 2017). This is also true for teachers. Without the necessary resources to implement the revisions to a lesson, some of the feedback may only frustrate the teachers as they learn how to be facilitators of learning.

Outcomes

Garces and Granada (2016) noted that, through professional development where the teachers collaborated, shared student data, reflected, and discussed, the outcome was a better learning opportunity for the teachers. As the teachers transition to learner-centered instructional strategies, they need to collect student data and analyze them with their peers to determine if students are making academic progress. Positive changes may not occur right away as teachers become facilitators of learning and students start taking on ownership and responsibility for their own learning. By keeping focused on planning learner-centered activities and thinking about desired outcomes for the students, the teacher will gain knowledge and skills to develop activities that promote student learning and the desired outcomes (Bradley, Munger, & Hord, 2015). Through frequent and different types of assessments the teachers can determine if the students are exhibiting the expected outcomes (Addae, 2016). As schools transition to more project-based learning and competencies, more professional development will be required for the teachers to

collaborate to develop consistent criteria for assessing student work at different levels of outcome (Aslan & Reigeluth, 2016).

Discussion

Spalding (2014) suggested that as schools transition to a different educational system, they do not alienate the students but help them learn to teach themselves. One way to help students realize they can teach themselves is through discussions. As the students, under the guidance of their teacher, debate, challenge, question, and require evidence to support claims, they realize that they are teaching themselves and their peers. In a discussion format, the teacher and students share the responsibility for dispersing knowledge (Addae, 2016). By engaging the students in discussions, teachers are helping students develop their cognitive and thinking skills, as well as their understanding of the material (Sedova, Sedlacek, & Svaricek, 2016). Either the teacher or a student starts the discussion with an open-ended question. During the discussion, it is the teacher's responsibility to comment on the correctness of the comments made by students and the content of the students' responses (Sedova et al., 2016). By incorporating discussions into the lesson plans, teachers can let students provide their voice to the discussion and present their ideas, challenge each other, and provide conflicting thoughts resulting in the students having a better understanding of the material being discussed (Sedova, 2017). Samuelsson (2016) identified four types of discussions for which teachers will have to receive training as to how to implement them into their lessons: explorative, problem solving, predetermined, and democratic. Learning how to interact in these different types

of discussion is a skill that students need to learn to be productive members of a democratic society and effective team members in a company.

Project Description

As the teachers shifted from a traditional learning model to learner-centered instructional strategies within a blended learning model there became an over emphasis on the online component at the expense of the face-to-face component. To assist the teachers to incorporate more learner-centered instructional strategies, I proposed conducting a 3-day professional development project on learner-centered instructional strategies with a focus on discussion. In addition, monthly follow-up sessions for teachers will take place after school to discuss different types of questions that lead to good discussions. Time will be incorporated into the after school monthly sessions to discuss how the teachers are implementing discussion into their lessons, student responses, challenges, and successes. As part of this professional development, teachers will spend part of the first day of the professional development developing trust amongst themselves (Yin & Zheng, 2018). For honest discussions to take place in the classroom, there also needs to be a level of trust amongst the students and the teacher.

It is expected that all 13 teachers will attend this 3-day professional development project which will ideally occur during teacher in-service days in August right before school starts. The principal and instructional coach will also be invited to attend. It will be up to the principal as to whether attendance at this professional development project will be required or voluntary. It is hoped that all teachers will attend because the

participant interviews indicated all teachers could use additional training in how to implement and maintain a discussion in their classrooms.

I will conduct the initial 3-day professional development project over 3 consecutive days. The training will start at 8:00 am and end at 3:15 pm with an hour for lunch where teachers can relax, discuss, and reflect on what they have learned during the morning sessions. An hour-long lunch will take place around noon with a 15-minute break in the morning and another 15-minute break in the afternoon. The breaks are necessary for the teachers to process what they are learning. Lunch may or may not be provided by the school. However, in previous years, the school provided lunch during one of the professional development days. If this is possible, I would suggest to the principal that the school provide lunch on the first day of the professional development to maintain the focus on developing trust.

The morning session of the first day will consist of trust building activities. This is necessary because the staff has not had time to develop trust over the last few years due to high levels of teacher turnover and 31% of the staff being new for the 2018-2019 school year. In addition, the teachers will discuss what it means to be a facilitator of learning and the importance of discussion. The afternoon session will focus on what does an effective discussion look like in a classroom. Different videos from the Danielson Framework and other resources will be used to demonstrate different techniques to engage students in discussions. After each video, the teachers will be asked to assess what they observed and how it applies to their teaching. The day will end with the teachers discussing what they have learned and/or noticed that day.

The second day of professional development will focus on the different aspects of discussion and questioning. The teachers will learn about and discuss the five core skills of academic discussion and the attitudes that lead to effective conversations (Zwiers & Crawford, 2011). They will spend time learning how good questions relate to depth of knowledge, Bloom's taxonomy, and the purpose behind asking good questions. The afternoon session will focus on writing good standards-based questions following the format developed by Francis (2016). Then the teachers will participate in a Socratic circle (Brown, 2016; Styslinger & Overstreet, 2014) to discuss how they plan on implementing what they have learned today into their classrooms.

The last day of this 3-day professional development project will focus on writing good discussion questions. The morning will start with an overview of the eight types of questions (Zwiers & Crawford, 2011). Then the teachers will spend the rest of the morning learning about, collaborating, and writing in their content area the four types of essential questions which are universal, overarching, topical, and driving (Zwiers & Crawford, 2011). The afternoon session will involve learning about factual and analytical questions. This will be followed by the teachers collaborating with colleagues in similar content areas to write factual and analytical questions.

Resources, Supports, and Potential Barriers

I will need the following resources to conduct this 3-day professional development project: laptop, projector, internet access, links to the videos, poster paper, markers, 2 Break Out Boxes with instructions, and a whiteboard. For the participants I will need 4 small tables to sit 4 to 6 people, 15 to 20 chairs, and a copy of Francis' (2016)

book, *Now That's a Good Question! How to Promote Cognitive Rigor Through Classroom Questioning* for each participant. In addition, I will need name tags for group assignments, lined paper, pens, pencils, sticky notes, exit tickets, copies of the handouts, pre and postassessments, and 2 balls of string. I will need access to the library which is where staff meetings and other professional development sessions have been held. I will bring a copy of Weimer's (2013) book, *Learner-Centered Teaching* and Zwiers and Crawford's (2011) book, *Academic Conversations: Classroom Talk That Fosters Critical Thinking and Content Understandings* for teachers to browse and/or borrow.

The biggest barrier that I could encounter is if the principal determines that this professional development is optional for the teachers. With the input I received from the teachers I interviewed, the shift to more face-to-face time with the students for the next school year, and the format of this professional development project which enables the teachers to work on their current classes, this barrier should be alleviated. The monthly follow-up sessions with the teachers could also be an issue if the teachers have too many demands on their after-school hours. Working with a local university to provide a credit for the 3-day sessions and another credit for the monthly sessions might help alleviate this barrier. Also, the teachers will realize after the 3-day sessions that the follow-up sessions will be focused on different types of questions which the teachers will be able to implement into their current lessons and any challenges they would like to discuss.

Another barrier would be no funding for Zwiers and Crawford's (2011) book. However, VAHS usually does at least one book study a year so it is possible that I would be able to obtain enough books for the participant teachers. If it is not possible to obtain

the books, I will still be able to conduct the 3-day professional development project. The book would be beneficial for the teachers to be able to refer to what was covered in the sessions and to deepen their knowledge. Technical issues could arise with the district working on the internet during the time of the professional development. The district's technical department will be contacted to ensure that the internet is functioning during the 3 days. Links to the videos could also not work, so I will have backup videos in case this happens.

Project Implementation

I will be the facilitator or activator as Hattie (2009) would call my role in this 3-day professional development project. The teachers will be participating in group trust building activities and collaborating with different teachers throughout the 3 days. I will be exemplifying how the teachers need to be conducting learner-centered strategies in their classrooms. As Barnett (2016) noted in her study, at-risk students feel isolated and the teachers do not care about them. By having the teachers participate in activities requiring them to engage with each other, listen to each other's opinions, and care about each other, they will come to understand how important this is to do in their classrooms, so the students become engaged and believe the teachers care about them. Martin and Gonzalez (2017) mentioned in their article that when teachers take the time to listen to their students and understand their thought processes, they can help students progress in their learning. Classroom discussions are a way to understand a student's thought process and then the teacher can correct any misunderstandings, misconceptions, and/or encourage a student to expand their thinking. In addition, several students at VAHS have

Asperger's disorder or attention deficit hyperactivity disorder and listening to them express their needs and then making accommodations for these students will help them to succeed academically (Baric, Hellberg, Kjellberg, & Hemmingsson, 2016). By providing the teachers with multiple opportunities to observe videos on classroom discussions, collaborate, discuss, challenge, and try new instructional strategies, they should have the tools and confidence to implement these into their classrooms.

The first two days of the 3-day professional development project will have videos focused on an aspect of discussion. All 3 days will have activities for the teachers to participate in, such as Socratic circles and group discussions. Teachers will have time to develop their own questions to use during their classroom instruction to increase student engagement in discussions. Each day will end with time to reflect on what was presented that day and if the teachers have any questions, concerns, and ideas for further professional development. Each follow-up monthly session for the teachers will focus on one of the following types of question: reflective, hypothetical, argumentative, affective, or personal. Ten to 15 minutes at the beginning of each session will be allowed for the teachers to reflect on the challenges and successes of implementing more discussion into their lessons. A detailed agenda with times for each activity can be found in Appendix A.

Roles and Responsibilities of Participants

The teachers, principal, and instructional coach will be asked to bring their school issued laptop and a 3-ring binder for the handouts. It is expected that the participants will be willing to participate in the activities, collaborate with their colleagues, engage in the writing of good questions, and be open to trying new things in their classrooms. This will

require the participants to trust and respect each other. My role as the facilitator/activator is to ensure that the activities are meaningful, and I listen to the opinions, needs, and concerns of the teachers. This is especially true for the follow-up sessions. Because many teachers are overwhelmed with the number of things they are required to do outside of their class time, I need to ensure that the sessions meet the needs of the teachers in learning how to implement small group discussions into their courses and are engaging and productive.

Project Evaluation Plan

Evaluation is a vital component of any professional development project. If the professional development is not meeting the needs of the teachers, it is a waste of the teachers' and facilitator's time (Killion & Roy, 2009) and the district's or school's funds. Addae (2016) noted that adult learners/teachers need to be respected for their lived experiences, presented with new information, allowed to discuss and make meaning out of the new information, and then encouraged to apply this new information or strategy immediately with their colleagues and/or students. This professional development project is designed to follow Addae's (2016) advice. Receiving feedback from the teachers in the form of an assessment/evaluation at the beginning, after each session, and at the end is necessary to determine if the professional development is meeting the teachers' needs and if they feel confident to implement small group discussions in their classrooms.

Types of Evaluations Planned for This Project

I will use an evaluation plan described by Wyse, Long, and Ebert-May (2014) where multiple sources of data are used to evaluate the effectiveness of a professional

development project. The assessments used in my professional development project will be formative, summative, and goal based. At the beginning of the first day of the professional development, teachers will be required to complete a preassessment to determine what they already know about the specific aspects of the content planned for the 3-day professional development project on facilitating small group discussions and why these are important. Throughout the day, teachers may provide the facilitator with feedback on the professional development by posting questions, concerns, or praises on a poster on one of the walls in the room where the professional development is occurring. At the end of each day, the teachers will complete an exit ticket to determine what they learned that day on small group discussions, strategies or content that need to be repeated for clarification, strategies and/or concepts that were, or were not, helpful, and general information the teachers want to share. At the end of day 3, the teachers will be required to complete the post assessment which is like the preassessment and has a few extra questions concerning how the teachers want the monthly follow-up sessions to be structured to help them improve their skills in conducting small group discussions. The teachers will also note what day of the week and time would work best for them for the monthly follow-up sessions. The pre and postassessments and exit tickets can be found in Appendix A. During all 3 days of professional development, the facilitator will be conducting formative assessments by listening to the teachers as they discuss the activities in pairs, small groups, and whole group. Lastly, the teachers will be asked to highlight in their lesson planes throughout the quarter when they incorporated small group discussion. The students at the end of each quarter will be asked for their opinion

by completing three Likert scale questions on how small group discussions are supporting their academic achievement.

Justification for This Type of Evaluation

The data analysis from the interviews indicated that the teachers needed help in learning how to start and maintain productive small group discussions. The preassessment will inform the facilitator what the teachers already know about being a facilitator of learning who can promote classroom discussions. The information received from the preassessment will be compared to what the study participants stated, and the classroom observations revealed. This information will be used to expand and/or change some of the content or activities planned for the next two days. An exit ticket will be completed by the teachers at the end of days one and two to inform the facilitator if some concepts need to be revisited the next day and whether the sessions are meeting the needs of the teachers in learning how to conduct productive small group discussions. The post assessment will be given at the end of day 3 to determine if the goals for the professional development were met and what changes or improvements need to be made in the content, activities, and/or delivery system before the beginning of the monthly sessions for the teachers. The number of times the teachers are incorporating small group discussions into their lessons will be tracked from quarter to quarter to determine if the number of small group discussions are increasing throughout the school year. In addition, the teachers will be asked at the end of the school year to state whether they strongly agreed, agreed, were neutral, disagreed, or strongly disagreed on whether the small group discussions were supporting their students' academic progress. The opinions of the

students on how discussions were supporting their academic progress will be obtained at the end of each quarter.

Overall Goals of the Project

The overall goals of this project focus on increasing teachers' knowledge and ability to effectively incorporate and implement the learner-centered instructional strategy of small group discussion within their lessons. The first goal is for the teachers to become facilitators/activators of learning (Knight, 2013; Weimer, 2013) that lead to effective small group discussions where all students are engaged in the discussion. Students can demonstrate their engagement orally, typing comments on a computer which are then projected for all to see, and/or using a peer to relay the comments and/or ideas.

The second goal is for the teachers to learn and then teach their students the five core skills of academic conversations (Zwiers & Crawford, 2011). Zwiers and Crawford (2011) identified these skills to increase the depth of a class discussion by encouraging the students to elaborate and clarify, support ideas with examples, build on or challenge an idea, paraphrase what others have stated, and synthesize main points that were presented. Learning these skills will help students have a better understanding of the concepts presented in their classes. In addition, these discussion skills will help the students be more capable as they pursue higher education and/or a career.

The third goal is for teachers to teach the skills that employers are looking for in their employees that can be learned in the classroom. Many of these skills center around communication, critical thinking, problem solving, collaboration, recognizing bias, and

being able to analyze and synthesize information (Zwiers & Crawford, 2011). These skills can be supported by the teachers providing opportunities for the students to discuss an issue using one or more of these skills.

Lastly, this goal requires the teachers to be proficient in writing standards-based questions using depth of knowledge and Bloom's taxonomy (Francis, 2016) that lead to productive discussions. The teachers need to incorporate different types of questions that will lead to different types of discussions. These questions are classified as essential, factual, analytical, reflective, hypothetical, argumentative, affective, and personal (Francis, 2016). The first three types of questions are presented during the 3-day professional development. The remaining five types will be presented during the follow-up sessions as the teachers become ready to learn a new type of questioning. Teachers need time to learn and then apply what they are learning to become proficient (Weimer, 2013). Students also need time to learn these new skills (Weimer, 2013).

Overall Evaluation Goals

It is important to evaluate the effectiveness of a professional development project to ensure it is meeting the needs of the participants and the goals established for the project. To evaluate this project, I have focused on four evaluation goals. The first evaluation goal is to determine through the pre and postassessments (see Appendix A) whether the teachers' knowledge and ability to effectively incorporate and implement the learner-centered instructional strategy of small group discussions within their lessons increased. The second evaluation goal is to determine if the teachers perceived the professional development to be helpful and informative which will be asked on the post

assessment. The third goal is to determine if the teachers indicated on the post assessment that their knowledge and understanding improved in each of the following areas: the role of a facilitator/activator; the five core skills of academic conversation; how to write standards-based questions incorporating depth of knowledge and Bloom's taxonomy; and how to write and incorporate into their small group discussions essential questions, factual questions, analytical questions, and Socratic circles. The fourth evaluation goal will be assessed quarterly to determine if the teachers are incorporating and implementing more small group discussions into their lessons. This will be evaluated based on teacher lesson plans of when they conducted small group or whole group discussions.

Project Evaluation Tools and Process

I have developed a pre and post assessment (see Appendix A) that covers the goals established for this professional development project for all teachers to complete at the beginning and end of this 3-day professional development project. I will frequently conduct informal formative assessments looking for engagement, understanding, and misconceptions by listening to and participating in the small group teacher discussions as I move from one teacher group to another. I developed a different exit ticket (formative assessment) for each day (see Appendix A) for all participants to complete at the end of each professional development day to determine which learner-centered discussion activities were successful, or not, and which strategies presented during the day that the teachers need more practice to enable them to use these strategies effectively with their students. Cai and Sankaran (2015) indicated that using formative and summative assessments using participants' experiences, reflections, and applications of what they

learned are effective ways to determine the effectiveness of a professional development program.

In addition, I will ask the teachers to highlight in their lesson plans when they implemented small group discussions with their students. This will be used to determine if the number of times the students participated in discussion is increasing throughout the school year as teachers learn more learner-centered discussion strategies. Weimer (2013) indicated that obtaining student input is important in a learner-centered classroom. Thus, the students will be asked to complete a 3 question Likert scale survey created by me at the end of each quarter on their perspective of class discussion and its impact on their academic achievement (see Appendix A).

Project Implications

Social Change

The social change that could result from this 3-day professional development plan is students attending VAHS completing their courses and graduating from high school within 4 years with the skills to be productive members of society instead of dropping out. This will be accomplished by the teachers at VAHS being equipped with the skills to effectively incorporate and implement small group discussions into their curriculum. As the teachers incorporate more small group discussions into their lessons, the students will learn how to add to the conversation, ask questions for clarification, and/or challenge what is being presented by others. From the discussions, the students should develop a better understanding of the course content which should lead to the students completing

their courses and graduating from high school within the traditional 4 years instead of 5 to 6 years or dropping out.

In addition, with the incorporation of discussions into all the courses, the students will learn how to: communicate effectively, ask critical and insightful questions, collaborate, problem solve, evaluate evidence, listen, and use other skills that will help them be more employable (Zwiers & Crawford, 2011). These skills will also enable the students to have the skills to help them be active members in solving problems in their own communities instead of possibly causing the problems.

For the teachers, the initial 3-day professional development project and the follow-up monthly sessions will enable the teachers to learn how to incorporate small group discussion into their learner-centered blended learning courses. It will help provide them with the skills and knowledge they need to help their students learn the questioning and discussion skills identified by Zwiers and Crawford (2011) that will enable them to be successful as they pursue a career after graduation or attend a postsecondary educational institution. The follow-up sessions will allow the teachers a safe place to collaborate and share their challenges, successes, and new ideas/knowledge with their peers. This will enable to teachers to grow professionally and as a team.

District Level

If this professional development project does increase the number of discussions the students participate in, it should result in more student engagement in their classes, higher on-time completion of courses, and an increased graduation rate. If this happens, the district will probably start implementing this professional development project at

other alternative schools within the district. There will also be interest in providing teachers in traditional schools with the knowledge to incorporate more discussion at the elementary, middle, and high school levels to provide the students with the skills they need to be successful in school and after graduation.

Statewide Level

This professional development project, if successful, could be expanded to other school districts within the state. Currently, the state has 19 pilot projects throughout the state trying different ways to increase student achievement. I would be available to consult with other districts to incorporate my professional development project into their schools. It is best if the presenters are known and respected by the teachers or are willing to spend time with the teachers to learn their specific needs and those of their students. Even though discussion is a common learning tool, how it is implemented in a classroom may depend on the comfort level of the teachers and students. Time may need to be spent on developing trust and encouraging students to interact in topics outside of the content area before it can be implemented with content specific topics. Once trust is established, then content specific discussions can start occurring.

Section 4: Reflections and Conclusions

Introduction

This 3-day professional development project along with monthly follow-up sessions was the result of the analysis of the data I collected from interviews with six teachers, four recent graduates, and six current students who were 18 years old or older, classroom observations, and two achieved district surveys on the perspectives of some of the students in grades 9 through 12 who attended VAHS in previous years.

Project Strengths and Limitations

Strengths

Learner-centered instructional strategies have been proven to be more effective than teacher-centered strategies (Mesecar, 2015; Rufatto et al., 2016; Suprabha & Subramonian, 2015; Weimer, 2013). In addition, blended learning has been proven to be more effective than traditional face-to-face instruction or total online instruction (Akgunduz & Akinoglu, 2016; Chang, Shu, Liang, Tseng, & Hsu, 2014; Herlo, 2014; Horn & Staker, 2015; Wong et al., 2016; Yapici, 2016). By combining both strategies at VAHS, the students can become more successful in completing their courses and graduating. The first strength of this professional development project is providing the teachers with the knowledge and strategies to implement more discussion into their lessons and less one-on-one or total online instruction. The second strength of this project is demonstrating to the teachers how the different discussion strategies help their students become more successful academically. The strength of the project itself is the teachers will learn how to enable students to develop their ability to participate in a discussion,

how to communicate and support their ideas with evidence, and have skills that employers desire. These skills will also help the students be successful in a postsecondary environment. Lastly, the monthly follow-up sessions will provide the teachers with a safe place to collaborate on how to implement discussions and other learner-centered strategies into their daily lessons which will have a positive impact on the teachers' ability to conduct small group discussions and on their students' academic achievement.

Limitations

This project is limited to the learner-centered instructional strategy within a blended learning model of small group discussions at one alternative high school. It may also be limited by the abilities of the teachers to incorporate and implement small group discussions into their courses. The fact that the school is struggling in devising a school structure that serves the needs of all students and teachers may also limit the success of this project. Until the students regularly attend class, implementing class discussions will be difficult. Furthermore, if teachers find it difficult to attend the monthly follow-up sessions, they will not learn all eight types of questions (Francis, 2016). This could result in the possibility of some teachers not fully implementing discussions into their daily lessons.

Recommendations for Alternative Approaches

A problem arose at VAHS when the graduation rate for the 2017-2018 school year increased but not as much as was hoped and the district research coordinator and VAHS's principal began to wonder how the new learner-centered instructional strategies within the blended learning model were being implemented and why they did not

produce the expected results of increased student success as indicated by the literature (Mesecar, 2015; Rufatto et al., 2016; Suprabha & Subramonian, 2015; Weimer, 2013). The data that I collected from participant interviews, classroom observations, and the archived district surveys indicated two key issues. The first issue was the students were spending most of their time online and not interacting with their peers and/or teachers. This meant the blended learning component was missing. The second issue was the students were not attending class sessions with their teachers. Instead of focusing on the first issue, I could have focused on why the students were not attending class. The school structure of no bell schedule and no set class times could have been a contributing factor for the students not completing their courses on time. In addition, the professional development could have focused on creating a school structure that allowed students who excelled under the current system to continue under this system and developing a different school structure that met the needs of the students who needed more structure and accountability.

Another alternative approach to supporting the at-risk students to complete their courses on time and graduate would be to look at the online curriculum. Some of the graduates stated that having a course syllabus with due dates was very helpful for them to complete their online college courses. Incorporating online discussions where the students had to post their thoughts on a topic and respond to two or three other students' posts would be a way to involve the students and their teachers in discussions. Providing an online mechanism for the students to ask for and get help online in clarifying ideas or

concepts from their peers and/or teachers could also improve student understanding of the material leading to course completion.

Scholarship, Project Development and Evaluation, and Leadership and Change

Working on this doctoral project for Walden University has taught me how to be objective, collect data, analyze data, use the Walden library to find peer reviewed articles on my topic, obtain approval to conduct a research project, and recruit participants.

Scholarship

Conducting research has many aspects that I was not aware of when I started the doctoral program at Walden University. I learned that it takes time and many rewrites to develop a clear focus for one's study. Then it takes perseverance to search for recent peer reviewed academic research articles that discuss, support, and/or disagree with the focus of one's study. In addition, finding a conceptual framework that was appropriate for my study also took much research. I learned how to use the Walden library and other resources to discover articles and books that pertained to my project. From the articles and books, I learned about the advantages and concerns of learner-centered instructional strategies and blended learning. I also learned about the different methodologies for conducting research. At first, I considered doing a quantitative study because I am a high school math teacher. However, from the research I conducted, I discovered that a qualitative study would be more appropriate because I wanted to hear how the teachers, recent graduates, and current students felt about the new educational structure and model that was implemented at VAHS.

Because I had worked at VAHS for twelve years until I retired in June 2018, I had participated in the changes at the school and knew the feelings of most of the teachers and many of the students about the change. Bias could then become an issue. I had to recognize and own my biases and not let them influence the study. I knew I had to get a diverse group of teachers, students, and recent graduates so as not to bias my study one way or another. Fortunately, I was able to obtain a diverse group of participants which provided depth to my study.

As an educator and scholar who wants to keep contributing to the educational system, I believe the training I received at Walden University will enable me to keep having a positive impact on teachers, student teachers, and students. By working with my doctoral committee and conducting this research project, I feel confident that I can complete another study that will be more focused on the needs of at-risk students and their teachers.

Project Development

When I became a doctoral student at Walden University, I knew I wanted to study the educational system that was being implemented at my school. There were so many changes occurring at the school from writing new course content, daily schedule, number of credits needed to graduate, teacher turnover, new philosophy on teaching, new technology, and transitioning from a traditional school structure to a learner-centered blended learning model. Due to all these changes, it was difficult for me to narrow my study to a topic that was focused and manageable. Once I was able to focus my project, I looked forward to doing the actual study and finding out what the students and teachers

needed to help the at-risk students be more successful. From the data I collected, I was able to determine an area that needed to be improved. This led to the development of a professional development 3-day professional development project followed by monthly sessions to help the teachers understand the need for small group and whole group classroom discussions. The professional development sessions focused on the different types of discussions with the teachers participating in these types of discussions so they would understand how important discussions are in helping students learn the content as well as skills they need in postsecondary education, getting and keeping a job, and participating in their communities to help make them a better place to live.

Leadership and Change

Having worked in education for over 30 years, I have held many leadership positions in my school, district, and state. I have been president and/or board member of state and national professional organizations, trainer of teachers for a company and university, and coordinated many state conferences. I have also received school, district, state, and national awards connected to teaching. These leadership positions and awards have resulted in requests from legislators, journalist, and other stakeholders to provide my opinion on different educational issues. Through my studies at Walden University, I have learned how to conduct research so that when I am asked for my opinion on an educational topic, I can support it with evidence from the research community. Having the tools to now conduct my own research, I will be in a better position to help schools, districts, university teacher preparation programs, and my state make the transitions that

are necessary to help the student body population under their care to receive the best possible education.

Change is difficult for students, teachers, administrators, parents, and communities. With an understanding of how to help these stakeholders deal with change, I will be able to provide the assistance they need to make the educational changes that will improve the quality of education for the students. Walden University has helped me increase my confidence in my abilities to enable change to occur in the educational community.

Scholar. When I started the doctoral program at Walden University, I considered myself to be a scholar because I have a Bachelor of Arts, a Master of Arts, and a Master of Science. During the course work, I still held that belief because I maintained a 4.0 gpa. However, once I started the actual research for my project study, I discovered I was not a scholar. I needed to learn how to conduct research, how to take criticism of my work to improve it, how to be discerning in what I was reading, and how to write and use scholarly language. In addition, I learned that bias can impact a research study. Analysis of data is important and must be done in a thorough manner until redundancy occurs. Then the data from the study must be presented in a logical manner to support one's conclusions. From my studies at Walden University, I now feel confident that I could develop and conduct a scholarly research project.

Practitioner. I have learned how to be a practitioner. I currently work with student teachers who must conduct research for one of their classes. I am now able to help them develop their research study and provide valuable feedback. I would not have

been able to do this without having gone through the doctoral study process at Walden University. In addition, I feel confident to present my project study to the current teachers at VAHS and other teachers who work with at-risk students. I also realize that I must constantly be reading and analyzing new research on how to work with at-risk students, especially those with Asperger's syndrome, attention deficit hyperactivity disorder, and dyslexia. I am passionate about finding ways to help these students succeed academically and know that teachers struggle in determining the best methods and practices to help meet the needs of these students.

Project developer. This is the area where I have made the most growth. I had completed a research study for my bachelor's degree many years ago. However, it was a quantitative study and did not involve the amount of research required for my doctoral study. I now appreciate the amount of research required to produce a scholarly doctoral study. In the future, I will narrow my research more so I can focus my interview questions on a very specific issue. Thus, the data I receive should provide more consistency and depth on that one issue.

Once the data were collected and analyzed, I decided to develop a 3-day professional development project. I had to learn how to develop several sessions that would engage the teachers, help them understand why a change needed to occur in their instructional practices, and enable them to take what they were learning back to their classes and implement it. Many professional development workshops are conducted by experts who come to a district or school for a day or two and lecture to the participants. I did not want my professional development to be in that format. I developed mine to be

interactive where the teachers experienced what they were to implement in their classrooms. The professional development was also for the whole school year, so the teachers could collaborate, try new strategies, reflect with their peers, share experiences, and develop better lessons for their students.

Reflection on Importance of the Work

As an educator who has worked with at-risk students for many years, I am committed to helping preservice teachers and teachers learn how to provide an educational environment where these students can thrive. With the school structure and academic changes that are occurring in my state, it is important that educators take the time to collect data and analyze it to determine if the changes being implemented are helping at-risk students succeed or are creating barriers to their academic progress. In addition, I have discovered the importance of administrators listening to their teachers to provide them with the support they need to incorporate the changes into their instructional practices. It is also important to listen to the students to understand how the changes are impacting them as individuals and academically. I discovered through my interviews with teacher, graduate, and current student participants that they are willing to try new instructional strategies, but they want their concerns and ideas listened to by the administration.

Implications, Applications, and Directions for Future Research

This project has the potential benefit of teachers incorporating and implementing small group discussions into their courses which will support at-risk students to become more successful academically due to their engagement in the small group discussions and

possibly graduating from high school in the traditional 4-years. This would have a positive impact on the students by enabling them to graduate instead of spending one to two extra years in high school or dropping out. Once the students graduate, they can help support their families by working full time or part time while they attend a post-secondary institution. The students who choose to work full time should have developed skills from the small group discussions that would be beneficial to an employer such as communication, critical thinking, problem solving, and collaboration.

It also has the potential of guiding other alternative schools in how to implement learner-centered instructional strategies within a blended learning model into their schools. However, it is important to recognize that the students attending alternative schools are not all the same. Each school and community have their own unique characteristics which must be considered when implementing a new program. What may work at VAHS may not work at another alternative school.

This project was grounded on Weimer's (2013) and Doyle's (2011) research on learner-centered instruction and teaching. Their work combined with the research by Horn and Staker (2015) provided me with the theoretical background to conduct my study. The literature review provided information to support the need to transform the current traditional educational system to be more learner-centered instead of teacher-centered and to incorporate blended learning into the curriculum.

Potential Impact for Social Change

As the transition to learner-centered instruction and blended learning occurs, teachers will need more professional development and time to process these new

instructional strategies until they become confident in implementing them in their classrooms. During the implementation of learner-centered instructional strategies within a blended learning model, it is important to listen to and collect input from teachers, students, parents, guardians, and the community. Change is not easy, but it can be accomplished if all stakeholders are informed about the need to change and how the change will benefit the at-risk students in their academic studies and thus result in a positive social change in their community.

Directions for Future Research

Throughout my research, I discovered there was little research being conducted on the impact of different instructional strategies on at-risk high school students. Many of the graduates and some of the current students I interviewed had Individual Educational Plans. This meant they had additional support through small group discussions with the paraprofessionals in the special education department in completing their courses. The interviews also pointed out the need for the other students to get this same type of support which was why I focused on small group discussions as being important to incorporate into the daily lessons to help these students progress in their academic studies.

There are different types of at-risk students. Some have Asperger's syndrome, attention deficit hyperactive disorder, health issues, legal issues, drug issues, dysfunctional home lives, or other issues that affect their ability to do well in school. More research needs to be conducted to determine which learner-centered instructional strategies described by Weimer (2013), Doyle (2013), and Horn and Staker (2015) work best with each of these types of at-risk students. From this research, teachers will have a

better understanding of how to work with these students and provide the structure and instructional strategies that will enable these students to progress academically.

Conclusion

Learner-centered instructional strategies are important for helping students succeed academically (Doyle, 2011; Mesecar, 2015; Rufatto et al., 2016; Suprabha & Subramonian, 2015; Weimer, 2013). Blended learning has proven to be more effective than traditional or online instruction (Akgunduz & Akinoglu, 2016; Chang et al., 2014; Herlo, 2014; Horn & Staker, 2015; Wong et al., 2016; Yapici, 2016). Thus, it is important that these strategies are being implemented with at-risk high school students. At-risk students earn this label by being identified as potentially becoming a dropout. It is important that the academic needs of these students are met so they do not drop out and instead become high school graduates. The use of small group discussions is a way to help these students learn the content in their courses by requiring them to present their ideas supported by evidence. It enables them to ask questions which will help them clear up misunderstandings and misconceptions. In addition, to helping the students with their academic studies, discussion encourages the students to learn the skills of communication, problem solving, teamwork, listening, asking questions, organizing one's thoughts, and collaborating with others which employers are looking for in their new hires.

References

Acree, L., Gibson, T., Mangum, N., Wolf, M. A., Kellogg, S., & Branon, S. (2017). Supporting school leaders in blended learning with blended learning. *Journal of Online Learning Research, 3*(2), 105-143. Retrieved from https://www.aace.org/pubs/jolr

Addae, D. (2016). Promoting effective teaching and learning in adult education: a model-based approach. *Turkish Journal of Education, 5*(4), 184-192. doi:10.19128/turje.267909

Adekola, J., Dale, V., Gardiner, K., & Fischbacher-Smith, M. (2017) Student transitions to blended learning: An institutional case study. *Journal of Perspectives in Applied Academic Practice, 5*(2), 58-65. Retrieved from https://jpaap.napier.ac.uk/index.php/JPAAP/article/view/273/336

Akgunduz, D., & Akinoglu, O. (2016, April). The effect of blended learning and social media-supported learning on the students' attitude and self-directed learning skills in science education. *Turkish Online Journal of Educational Technology - TOJET, 15*(2), 106-115. Retrieved from www.tojet.net

Aldalalah, O. A., & Gasaymeh, A. M. (2014). Perspectives of blended learning competencies and obstacles among educational technology students in light of different anxiety levels and locus of control. *Contemporary Educational Technology, 5*(3), 218-238. Retrieved from www.cedtech.net

Alijani, G. S., Kwun, O., & Yu, Y. (2014). Effectiveness of blended learning in KIPP New Orleans' schools. *Academy of Educational Leadership Journal, 18*(2), 125-

141. Retrieved from https://www.abacademies.org/journals/academy-of-educational-leadership-journal-home.html

Anderson, I. G., & Anderson, S. C. (2017). Student-centered instruction and academic achievement: linking mechanisms of educational inequality to schools' instructional strategy. *British Journal of Sociology of Education, 38*(4), 533-550. doi:10.1080/01425692.2015.1093409

Arbaugh, J. B. (2014). What might online delivery teach us about blended management education? Prior perspectives and future directions. *Journal of Management Education, 38*(6), 784-817. doi:10.1177/1052562914534244

Asarta, C. J., & Schmidt, J. R. (2015). The choice of reduced seat time in a blended course. *Internet and Higher Education, 27*, 24-31. Retrieved from http://dx.doi.org/10.1016/j.iheduc.2015.04.006

Asarta, C., & Schmidt, J. (2017). Comparing student performance in blended and traditional courses: Does prior academic achievement matter? *Internet and Higher Education, 32*, 29-38. Retrieved from http://dx.doi.org/10.1016/j.iheduc.2016.08.002

Aslan, S., & Reigeluth, C. M. (2016). Examining the challenges of learner-centered education. *Phi Delta Kappen, 97*(4), 63-68. Retrieved from www.kappenmagazine.org

Baepler, P., Walker, J. D., & Driessen, M. (2014). It's not about seat time; Blending, flipping, and efficiency in active learning classrooms. *Computers & Education, 78*, 227-236. doi:10.1016/j.compedu.2014.06.006

Banditvilai, C. (2016). Enhancing students' language skills through blended learning. *The Electronic Journal of e-Learning, 14*(3), 220-229. Retrieved from www.ejel.org/

Baric, V. B., Hellberg, K., Kjellberg, A., & Hemmingsson, H. (2016). Support for learning goes beyond academic support: Voices of students with Asperger's disorder and attention deficit hyperactivity disorder. Autism, 20(2), 183-195. doi:10.1177/1362361315574582

Barnett, K. (2016). The at-risk student's journey with online course credit: Looking at perceptions of care. *Journal of Online Learning Research, 2*(4), 367-398. Retrieved from https://www.learntechlib.org/primary/p/172568

Barrett, D. D. (2017). *A mixed methods study to measure the impact of mastery-based learning on at-risk student achievement.* (Doctoral dissertation). Retrieved from ProQuest Dissertations Publishing, (10287327).

Bayar, A. (2014). The components of effective professional development activities in terms of teachers' perspective. *International Online Journal of Educational Sciences, 6*(2), 319-327. Retrieved from http://dx.doi.org/10.15345/iojes.2014.02.006

Bernard, R. M., Borokhovski, E., Schmid, R. F., Tamim, R. M., & Abrami, P. C. (2014). A meta-analysis of blended learning and technology use in higher education: From the general to the applied. *Journal of Computing in Higher Education, 26*(1), 87-122. Retrieved from https://link.springer.com/article/10.1007/s12528-013-9077-3

Bishop, C. F., Caston, M. I., & King, C. A. (2014). Learner-centered environments:

Creating effective strategies based on student attitudes and faculty reflection. *Journal of the Scholarship of Teaching and Learning, 14*(3), 46-63. doi:10.14434/josotl.v14i3.5065

Blumberg, P. (2016). Assessing implementation of learner-centered teaching while providing faculty development. *College Teaching, 64*(4). 194-203. Retrieved from http://dx.doi.org/10.1080/87567555.2016.1200528

Boddy, C. R. (2016). Sample size for qualitative research. *Qualitative Market Research: An International Journal, 19*(4), 426-432. doi:10.1108/QMR-06-2016-0053

Bogdan, R. C., & Biklen, S. K. (2007). *Qualitative research for education: An introduction to theories and methods.* Boston, MA: Pearson Education Press.

Bowering, E. R., Mills, J., & Merritt, A. (2017). Learning how to learn: A student success course for at risk students. *Canadian Journal for the Scholarship of Teaching and Learning, 8*(3), 1-14. Retrieved from https://doi.org/10.5206/cjsotl-rcacea.2017.3.12

Bradley, J., Munger, L., & Hord, S. (2015). Focus first on outcomes when planning change, improved student learning is the ultimate goal. *Journal of Staff Development, 36*(4), 44-47, 52. Retrieved from www.learningforward.org

Brodersen, R. M., & Melluso, D. (2017). *Summary of research on online and blended learning programs that offer differentiated learning options* (REL 2017-228). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Central. Retrieved from http://ies.ed.gov/ncee/edlabs

Brown, A. C. (2016). Classroom community and discourse: How argumentation emerges during a Socratic circle. *Dialogic Pedagogy: An International Online Journal, 4*, A81- A97. doi:10.5195/dpj.2016.160

Brown, C., & Militello, M. (2016). Principal's perceptions of effective professional development in schools. *Journal of Educational Administration, 54*(6), 703-726. doi:10.1108/JEA-09-2014-0109

Burns, M., Pierson, E., & Reddy, S. (2014). Working together: How teachers teach and students learn in collaborative learning environments. *International Journal of Instruction, 7(*1), 17-32. Retrieved from http://www.e.iji.net

Cai, W., & Sankaran, G. (2015). Promoting critical thinking through an interdisciplinary abroad program. *Journal of International Students, 5*(1), 38-49. Retrieved from https://jistudents.org/

Capraro, R. M., Capraro, M. M., Scheurich, J. J., Jones, M., Morgan, J., Huggins, K. S., ... Han, S. (2016). Impact of sustained professional development in STEM on outcome measures in a diverse urban district. *Journal of Educational Research, 109(*2), 181-196. Retrieved from http://dx.doi.org/10.1080/00220671.2014.936997

Chang, C.-C., Shu, K.-M., Liang, C., Tseng, J.-S., & Hsu, Y.-S. (2014). Is blended e-learning as measured by an achievement test and self-assessment better than traditional classroom learning for vocational high school student? *International Review of Research in Open and Distance Learning, 15*(2), 213-231. Retrieved from http://www.irrodl.org/index.php/irrodl/article/view/1708

Cheng, G., & Chau, J. (2016). Exploring the relationships between learning styles, online participation, learning achievement and course satisfaction: An empirical study of a blended leaning course. *British Journal of Education Technology, 47*(2), 257-278. doi:10.1111/bjet.12243

Costello, B., Wachtel, J., & Wachtel, T. (2010). *Restorative circles in schools: Building community and enhancing learning a practical guide for educators.* Bethlehem, PA: International Institute for Restorative Practices.

Crawford, C., Barker, J., & Seyam, A. (2014). The promising role of hybrid learning in community colleges: Looking towards the future. *Contemporary Issues in Education Research, 7*(3), 237-242. Retrieved from http://www.cluteinstitute.com

Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research.* Boston, MA: Pearson Educational, Inc.

Cucu, C. (2014). Blended learning using Moodle at the Decembrie University. *Annals of the University of Petrosani Economics, 14*(1), 41-48. Retrieved from http://www.upet.ro/annals/economics/pdf/2014/part1/Cucu_C.pdf

Darling-Hammond, L. (2017). Teacher education around the world: What can we learn from international practice? *European Journal of Teacher Education, 40*(3), 291-309. Retrieved from https://doi.org/10.1080/02619768.2017.1315399

Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2017). *Effective Teacher Professional Development*. Palo Alto, CA: Learning Policy Institute.

Darojat, O. (2016). Improving curriculum through blended learning pedagogy. *Turkish Online Journal of Distance Education-TOJDE, 17*(4), 203-218. Retrieved from

http://tojde.anadolu.edu.tr

Department of Education (n.d.). Idaho's K-12 Report Card. Retrieved from http://apps.sde.idaho.gov/ReportCard

Dole, S., Bloom, L., & Kowalske, K. (2016). Transforming pedagogy: Changing perspectives from teacher-centered to learner-centered. *Interdisciplinary Journal of Problem-Based Learning, 12*(1), 45-58. Retrieved from http://dx.doi.org/10.7771/1541-5015.1538

Douglass, C., & Morris, S. R. (2014). Student perspectives on self-directed learning. *Journal of the Scholarship of Teaching and Learning, 14*(1), 13-25. doi:10.14434/josotl.v14i1.3202

Downing, C. E., Spears, J., & Holtz, M. (2014). Transforming a course to blended learning for student engagement. *Education Research International, 2014,* 1-10. Retrieved from http://dx.doi.org/10.1155/2014/430732

Doyle, T. (2011). *Learner-centered teaching: Putting the research on learning into Practice.* Sterling, VA: Stylus Publishing, LLC.

Dweck, C. (2006). *Mindset: The new psychology of success*. New York, NY: Random House.

Erdem, M., & Kibar, P. N. (2014). Students' opinions on Facebook supported blended learning environment. *Turkish Online Journal of Educational Technology, 13*(1), 199-206. Retrieved from www.tojet.net

Florian, T. P., & Zimmerman, J. P. (2015). Understanding by design, Moodle, and blended learning: A secondary VAHS case study. *Journal of Online Learning and*

Teaching, 11(1), 103-111. Retrieved from http://jolt.merlot.org/vol11no1/Florian_0315.pdf

Francis, E. M. (2016). *Now that's a good question! How to promote cognitive rigor through classroom questioning*. Alexandria, VA: ASCD.

Freeman, W., & Tremblay, T. (2013). Design considerations for supporting the reluctant adoption of blended learning. *Journal of Online Learning and Teaching, 9*(1), 80-88. Retrieved from jolt.merlot.org/vol9no1/freeman_0313.pdf

Futch, L., deNoyelles, A., Thompson, K., & Howard, W. (2016). "Comfort" as a critical success factor in blended learning courses. *Online Learning, 20*(3), 140-158. Retrieved from http://dx.doi.org/10.24059/olj.v20i3.978

Garces, A. Y. C., & Granada, L. M. (2016). The role of collaborative action research in teachers' professional development. *PROFILE, 18*(1), 39-54. Retrieved from http://dx.org/10.15446/profile.v18n1.49148

Girvan, C., Conneely, C., & Tangney, B. (2016). Extending experiential learning in teacher professional development. *Teaching and Teacher Education, 58*, 129-139. doi:10.1016/j.tate.2016.04.009

Glesne, C. (2011). *Becoming qualitative researchers: An introduction* (4th edition). Boston, MA: Pearson Education, Inc.

Goodyear, V., & Dudley, D. (2015). "I'm a facilitator of learning!" Understanding what teachers and students do within student-centered physical education models. *Quest, 67*(3), 274-289. doi:10.1080/00336297.2015.1051236

Graham, C. R., Woodfield, W., & Harrison, J. B. (2013). A framework for institutional adoption and implementation of blended learning in higher education. *Internet and Higher Education,18*, 4-14. Retrieved from https://www.sciencedirect.com/science/article/pii/S1096751612000607

Guarino, S. N., Whitaker, V. L., & Jundt, D. K. (2017). Mastery goal orientation and cognitive ability effects on performance in learner-guided training. *Journal of Applied Social Psychology, 47*, 23-34. doi:10.1111/jasp.12414

Halix, M. D. (2014). A more critical pedagogy: could it reduce non-completer rates of male Latino high school students? The student perspective. *Pedagogy, Culture & Society, 22*(2), 251-274. Retrieved from http://dx.doi.org/10.1080/14681366.2013.825876

Halverson, L. R., Graham, C. R., Spring, K. J., Drysdale, J. S., & Henrie, C. R. (2014). A thematic analysis of the most highly cited scholarship in the first decade of blended learning research. *Internet and Higher Education, 20*, 20-34. Retrieved from http://dx.doi.org/10.1016/j.iheduc.2013.09.004

Harvey, S., & Goudvis, A. (2017). *Strategies that work: Teaching comprehension for understanding, engagement, and building knowledge.* Portland, ME: Stenhouse Publishers.

Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. Oxon UK: Routledge.

He, Y. (2014). Universal design for learning in an online teacher education course: Enhancing learners' confidence to teach online. *MERLOT Journal of Online*

Learning and Teaching, 10(2), 283-298. Retrieved from http://jolt.merlot.org/vol10no2/he_0614

Herlo, D. (2014). Benefits of using blended learning in performer education master program. *Journal Plus Education, 10*(2), 145-150. Retrieved from https://www.uav.ro/jour/index.php/jpe/article/view/271/286

Hilliard, A. T. (2015). Global blended learning practices for teaching and learning, leadership and professional development. *Journal of International Education Research, 11*(3), 179-188. Retrieved from http://cluteinstitute.com

Horn, M., & Staker, H. (2015). *Blended: Using disruptive innovation to improve schools*. San Francisco, CA: Jossey-Bass.

Horton, A., Shack, K., & Mehta, R. (2017) Curriculum and practice of an innovative teacher professional development program. *Journal of Computers in Mathematics and Science Teaching, 36*(3), 237-254. Retrieved from https://www.aace.org/pubs/jcmst/

Horvat, A., Dobrota, M., Krsmanovic, M., & Cudanov, M. (2015). Student perception of Moodle learning management system: A satisfaction and significance analysis. *Interactive Learning Environments, 23*(4), 515-527. doi:10.1080/10494820.2013.788033

House Bill 110, 63d Legislature (2015). Retrieved from https://legislature.idaho.gov/sessioninfo/2015

Iachini, A. L., Rogelberg, S., Terry, J. D., & Lutz, A. (2016). Examining the feasibility and acceptability of a motivational interviewing early intervention program to

prevent high school dropout. *Children & School, 38*(4), 209-217. doi:10.1093/cs/cdw033

Jacobs, J. (2014). Beyond the factory model: Oakland teachers learn how to bend. *Education Next,* 35-41. Retrieved from educationnext.org

Jacobs, J. (2016). High school of the future: Cutting edge model capitalizes on blended learning to take personalization further. *Education Next, 16*(3), 45-50. Retrieved from http://educationnext.org

Jahjouh, Y. M. (2014). The effectiveness of blended e-learning forum in planning for science instruction. *Journal of Turkish Science Education, 11*(4), 3-16. doi:10.12973/tused.10123a

Jones, W., & Dexter, M. (2014). How teachers learn: the roles of formal, informal, and independent learning. *Educational Technology Research and Development, 62(*3), 367-384. doi:10.1007/s11423-014-9337-6

Jovanovic, O., Simic, N., & Rajovic, V. (2014). Students at risk: Perspectives of Serbian teachers and implications for teacher education. *European Journal of Teacher Education, 37*(2), 220-226. Retrieved from http://dx.doi.org/10.1080/20619768.2013.858693

Kazu, I., & Demirkol, M. (2014). Effect of blended learning environment model on high school students' academic achievement. *Turkish Online Journal of Educational Technology, 13*(1), 78-87. Retrieved from www.tojet.net

Kebaetse, M., & Sims, R. (2016). Using instructional consultation to support faculty in learner-centered teaching. *Journal of Faculty Development, 30*(3), 31-40. Retrieved from http://www.newsforums.com

Keengwe, J., Onchwari, G., & Agamba, J. (2014). Promoting effective e-learning practices through the constructivist pedagogy. *Education Information Technology, 19*, 887-898. doi:10.1007/s10639-013-9260-1

Kelly, J., & Cherkowski, S, (2015). Collaboration, collegiality, and collective reflection: A study of professional development for teachers. *Canadian Journal of Educational Administration and Policy, 169,* 1-27. Retrieved from http://www.umanitoba.ca/publications/cjeap

Killion, J., & Roy, P. (2009). *Becoming a learning school.* Oxford, OH: National Staff Development Council.

Kim, J., Kang, H. S., Kuusinen, C. M., & Park, K. (2017). Exploring the relationship between teacher collaboration and learner-centered instruction. *KEDI Journal of Educational Policy, 14*(1), 3-24. Retrieved from http://eng.kedi.re.kr

Kim, J., Park, H., Jang, M., & Nam, H. (2017). Exploring flipped classroom effects on second language learners' cognitive processing. *Foreign Language Annals, 50*(2). 260-284. Retrieved from onlinelibrary.wiley.com/doi/10.1111/flan.12260/pdf

Knight, J. (2013). *High-impact instruction: A framework for great teaching*. Thousand Oaks, CA: Corwin.

Kohn, A. (1996). What to look for in a classroom. *Educational Leadership,* 54-55. Retrieved from https://www.alfiekohn.org

Korthagen, F., & Kessels, J. (1999). Linking theory and practice: Changing the pedagogy of teacher education. *Educational Researcher, 28*(4), 4-17. doi:10.3102/0013189x028004004

Kotok, S., Ikoma, S., & Bodovski, K. (2016). VAHS climate and dropping out of school in the era of accountability. *American Journal of Education, 122*(4), 569-599. doi:0195-6744/2016/12204-0004

Krasnova, T. I., & Vanushin, I. S. (2016). Blended learning perception among undergraduate engineering students. *International Journal of Emerging Technologies in Learning, 16*(1), 54-56. doi:10.3991/ijet.v11i1.4901

Krishnan, S. (2015). Student-centered learning in a first-year undergraduate course. *International Journal of Learning, Teaching and Educational Research,* 11(2) 88-95. Retrieved from https://www.ijlter.org/index.php/ijlter/article/view/353/147

Kuo**,** Y., Belland, B. R., Schroder, K. E., & Walker, A. E. (2014). K-12 teachers' perspectives of and their satisfaction with interaction type in blended learning environments. *Distance Education, 35*(3), 360-381. Retrieved from http://dx.doi.org/10.1080/01587919.2015.955265

Lai, M., Lam, K. M., & Lim, C. P. (2016). Design principles for the blend in blended learning: a collective case study. *Teaching in Higher Education, 21*(6), 716-729. Retrieved from https://www.tandfonline.com

Lane, J. O. (2018). Lived experiences of new faculty: Nine stages of development toward learner-centered practice. *Journal of the Scholarship of Teaching and Learning, 18*(3), 1-25. doi:10.14434/josottl.v18i3.23373

Leach, L., & Zepke, N. (2011). Engaging students in learning: A review of a conceptual organizer. *Higher Education Research & Development, 30*(2), 193-204. Retrieved from https://www.tandfonline.com/doi/abs/10.1080/07294360.2010.509761

Lewis, S., Whiteside, A., & Garrett Dikkers, A. (2014). Autonomy and responsibility: Online learning as a solution for at-risk high school students. *International Journal of E-Learning & Distance Education, 29*(2), 1-11. Retrieved from http://ijede.ca/idex/php/jde/article/view/883/1543

Lin, Y. C., Chung, P., Yeh, R. C., & Chen, Y. C. (2016). An empirical study of college students' learning satisfaction and continuance intention to stick with a blended e-learning environment. *International Journal of Emerging Technologies in Learning, 11*(2), 63-66. Retrieved from http://dx/doi.org10.3991/ijet.v11i2.5078

Lin, Y., Tseng, C., & Chiang, P. (2017). The effect of blended learning in mathematics course. *EURASIA Journal of Mathematics Science and Technology Education, 13*(3), 741-770. doi:10.12973/Eurasia.2017.00641a

Ma'arop, A. H., & Embi, M. A. (2016). Implementation of blended learning in higher learning institutions: A review of the literature. *International Education Studies, 9*(3), 41-52. doi:10.5539/ies.v9n3p41

Malterud, K., Siersma, V. D., & Guassora, A. D. (2016). Sample size in qualitative interview studies: Guided by information power. *Qualitative Health Research, 26*(13), 1753-1760. doi:10.1177/1049732315617444

Marbach-Ad, G., & Rietschel, C. H. (2016). A case study documenting the process by which biology instructors transition from teacher-centered to learner-centered

teaching. *CBE-Life Sciences Education, 15*(4), 1-14. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/27856550

Martin, T. S., & Gonzalez, G. (2017). Teacher perceptions about value and influence of professional development. In Galindo, E., & Newton, J., (Eds.), *Proceedings of the 39th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*. Indianapolis, 447-454.IN: Hoosier Association of Mathematics Teacher Educators.

Maxwell, J. A. (2013). *Qualitative research design: An interactive approach* (3rd ed.). Thousand Oaks, CA: Sage.

Mayer, G., Lingle, J., & Usselman, M. (2017). Experiences of advanced high school students in synchronous online recitations. *Journal of Educational Technology & Society, 20*(2), 15-26. Retrieved from https://www.jstor.org/journal

Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation* (4th ed.). San Francisco: Jossey-Bass.

Mesecar, D. (2015). Middletown personalizes learning to narrow achievement gaps. *Lexington Institute*. Retrieved from http://www.lexingtoninstitute.org/middletown-ny-personalizes-learning-to-narrow-achievement-gaps/

Mirriahi, N., Alonzo, D., McIntyre, S., Kligyte, G., & Fox, B. (2015). Blended learning innovations: Leadership and change in one Australian institution. *International Journal of Education and Development using Information and Communication Technology, 11*(1), 4-16. Retrieved from http://ijedict.dec.uwi.edu

Moodle. (n.d). Moodle Overview. Retrieved from https://moodle.com/moodle-lms

Nair, T. S. (2016). Effect of blended learning strategy on achievement in biology and social and environmental attitude of students at secondary level. *I-manager's Journal on School Educational Technology, 11*(4), 39-52. Retrieved from www.imanagerpublications.com

National Center for Education Statistics. (2018). *Public high school graduation rates.* Retrieved from https://nces.ed.gov.

National Institute of Health. (2011). *Protecting human research participants.* Retrieved from http://phrp.nihtraining.com/index.php

Northwest Evaluation Association. (2012). *Keeping learning on track.* Portland, OR: NWEA.

O'Flaherty, J., & Phillips, C. (2015). The use of flipped classrooms in higher education: A scoping review. *Internet and Higher Education, 25*, 85-95. Retrieved from http://dx.doi.org/10.1016/j.iheduc.2015.02.002

Oliver, K. M., & Stallings, D. T. (2014). Preparing teachers for emerging blended learning environments. *Journal of Technology and Teacher Education, 22*(1), 57-81. Retrieved from https://www.learntechlib.org/p/112374

Owston, R., & York, D. (2018). The nagging question when designing blended courses: Does the proportion of time devoted to online activities matter? *Internet and Higher Education, 36*, 22-32. Retrieved from http://dx.doi.org/10.1016/j.iheduc.2017.09.001

Parks, R. A., Oliver, W., & Carson, E. (2016). The status of middle and high school instruction: Examining professional development, social desirability, and teacher readiness for blended pedagogy in the southeastern United States. *Journal of Online Learning Research, 2*(2), 79-101. Retrieved from https://www.learntechlib.org/p/173236

Patton, M. Q. (1990). *Qualitative evaluation and research methods* (2nd ed.). Newbury Park, CA: Sage.

Patton, M. Q. (2015). *Qualitative evaluation and research methods* (4th ed.). Thousand Oaks, CA: Sage.

Poon, J. (2013) Blended learning: An institutional approach for enhancing students' learning experiences. *MERLOT Journal of Online Learning and Teaching, 9*(2), 271-289. Retrieved from jolt.merlot.org/vol9no2/poon_0613.pdf

Porter, W. W., Graham, C. R., Bodily, R. G., & Sandberg, D. S. (2016). A qualitative analysis of institutional drivers and barriers to blended learning adoption in higher education. *Internet and Higher Education, 28*, 17-27. Retrieved from http://dx.doi.org/10.1016/j.iheduc.2015.08.003

Porter, W. W., Graham, C. R., Spring, K. A., & Welch, K. R. (2014). Blended learning in higher education: Institutional adoption and implementation. *Computers & Education, 70,* 185-195. http://dx.doi.org/10.1016/j.compedu.2014.02.011

Reigeluth, C. M., Aslan, S., Chen, Z., Dutta, P., Huh, Y., Jung, E., . . . Watson, W. R. (2015). Personalized integrated educational system: Technology functions for the

learner-centered paradigm of education. *Journal of Educational Computing Research, 53*(3), 459-496. doi:10.1177/0735633115603998

Riel, J., Lawless, K. A., & Brown, S. W. (2016). Listening to the teachers: Using weekly online teacher logs for ROPD to identify teachers' persistent challenges when implementing a blended learning curriculum. *Journal of Online Learning Research, 2*(2), 169-200. Retrieved from https://www.aace.org/pubs/jolr/

Rivera, J. H. (2017, February). The blended learning environment: A viable alternative for special needs students. *Journal of Education and Training Studies, 5*(2), 79-84. doi:10.11114/jets.v5i2.2125

Roach, T. (2014). Student perspectives toward flipped learning: New methods to increase interaction and active learning in economics. *International Review of Economics Education, 17*, 74-84. Retrieved from http://dx.doi.org/10.1016/j.iree.2014.08.003

Rufatto, R., Dickin, H., Florescu, A., Lorch, C., Bremigan, R., & Lorch, J. (2016). Learner-centered pedagogy in a liberal arts mathematics course. *PRIMUS, 26*(9), 863-877. Retrieved from http://www.tandfonline.com/loi/upri20

Russell, B. Z. (2016). Idaho's virtual charter schools have 20 percent graduation rate. *The Spokesman-Review*. Retrieved from http://spokesman.com

Samuelsson, M. (2016). Education for deliberative democracy: A typology of classroom discussion. *Democracy & Education, 24*(1), 1-9. Retrieved from http://democracyeducationjournal.org

Saritepeci, M., & Cakir, H. (2015). The effect of blended learning environments on student motivation and student engagement: A study on social studies course.

Education and Science, 40(177), 203-216. Retrieved from https://www.researchgate.net/publication/276345062

Seals, C., Mehta, S., Wolf, L. G., & Marcotte, C. (2017). Theory and implementation of an innovative teacher professional development program. *Journal of Computers in Mathematics and Science Teaching, 36*(3), 219-235. Retrieved from https://www.aace.org/pubs/jcmst/

Sedova, K. (2017). A case study of a transition to a dialogic teaching as a process of gradual change. *Teaching and Teacher Education, 67*, 278-290. doi:10.1016/j.tate.2017.06.018

Sedova, K., Sedlacek, M., & Svaricek, R. (2016). Teacher professional development as a means of transforming student classroom talk. *Teaching and Teacher Education, 57*. 14-25. doi:10.1016/j.tate.2016.03.005

Siko, J. P. (2014). Testing the waters: An analysis of the student and parent experience in a secondary school's first blended course offering. *International Journal of E-Learning & Distance Education, 29*(2), 1-19. Retrieved from http://ijede.ca/index.php/jde/article/view/882/1560

Smith, D., Fisher, D., & Frey, N. (2015). *Better than carrots or sticks: Restorative practices for positive classroom management.* Alexandria, VA: ACSD.

Snodin, N. S. (2013). The effects of blended learning with a CMS on the development of autonomous learning: A case study of different degrees of autonomy achieved by individual learners. *Computers & Education, 61*, 209-216. Retrieved from http://dx.doi.org/10.1016/j.compedu.2012.10.004

Sorgenfrei, C., & Smolnik, S. (2016). Conceptual research: The effectiveness of e-learning systems: A review of the empirical literature on learner control. *Decision Sciences Journal of Innovative Education, 14*(2), 154-184. doi:10.1111/dsji.12095

Spalding, D.(2014). *How to teach adults: Plan your class, teach your students, change the world* (expanded edition). San Francisco, CA: Jossey-Bass.

Stevens, M. (2016). Space for all: middle level students in blended learning environments. *Voices from the Middle*, 24(2), 50-55. Retrieved from http://www.ncte.org/journals/vm/issues/v24-2

Stuckey, H. (2015). The second step in data analysis: Coding qualitative research data. *Journal of Social Health and Diabetes, 3*(1), 7-10. Retrieved from http://www.joshd.net

Styslinger, M. E., & Overstreet, J. F. (2014). Strengthening argumentative writing with speaking and listening (Socratic) circles. *Voices from the Middle, 22*(1), 58-62. Retrieved from https://www.ncte.org/journals/vm/issues/v22-1

Suprabha, K., & Subramonian, G. (2015). Blended learning approach for enhancing students learning experiences in a knowledge society. *I-manager's Journal of Educational Technology, 11*(4), 1-7. Retrieved from https://doi.org/10.26634/jet.11.4.3146

Tshabalala, M., Ndeya-Ndereya, C., & van der Merwe, T. (2014). Implementing blended learning at a developing university: Obstacles in the way. *Electronic Journal of e-Learning, 12*(1), 101-110. Retrieved from www.ejel.org

Tufford, L., & Newman, P. (2012). Bracketing in qualitative research. *Qualitative Social*

Work, 11(1), 80-96. doi:10.1177/1473325010368316

VanDerLinden, K. (2014). Blended learning as transformational institutional learning. *New Directions for Higher Education, 165,* 75-85. doi:10.1002/he.20085

Van Rijnsoever, F. J. (2017). (I can't get no) saturation: A simulation and guidelines for sample sizes in qualitative research. *PLOS One*, *12*(7), 1-17. Retrieved from https://doi.org/10.1371/journal.pone.0181689

Vaughan, N. (2014). Student engagement and blended learning: Making the assessment connection. *Education Science, 4,* 247-264. doi:10.3390/educsci4040247

Wang, Y., Han, X., & Yang, J. (2015). Revisiting the blended learning literature: Using a complex adaptive systems framework. *Educational Technology & Society, 18*(2), 380-393. Retrieved from http://www.ifets.info/journals/18_2/28

Weimer, M. (2002). *Learner-Centered teaching: Five key changes to practice.* Retrieved from http://www.dartmouth.edu/~physteach/ArticleArchive/Weimer_excerpt.pdf

Weimer, M. (2003). Focus on learning, transform teaching. *Change*, 48-54. Retrieved from www.tandfonline.com/doi/pdf/10.1080/00091380309604119

Weimer, M. (2013). *Learner-centered teaching: Five key changes to practice* (2nd ed.). San Francisco, CA: Jossey-Bass.

Whiteside, A., Garrett Dikkers, A., & Lewis, S. (2016). "More confident going into college: Lessons learned from multiple stakeholders in a new blended learning initiative. *Online Learning, 20*(4), 136-156. Retrieved from https://olj.onlinelearningconsortium.org/index.php/olj/article/view/1048

Williams, H. P., & Siebert, C. F. (2018). Influence of teaching self-regulation on

academic achievement of at-risk students. *International Journal of Pedagogy and Curriculum, 25*(1), 1-13. Retrieved from http://doi.org/10.18848/2327-7963/CGP/v25i01/1-13

Wong, K. T, Hamzah, M., Goh, P., & Yeop, M. (2016). Blended e-learning acceptance as smart pedagogical tools: An initial study in Malaysia. *Turkish Online Journal of Educational Technology, 15*(4) 25-33. Retrieved from tojet.net/articles/v15i4/1543.pdf

Wyse, S. A., Long, T. M., & Ebert-May, D. (2014). Teaching assistant professional development in biology: Designed for and driven by multidimensional data. *CBE Life Sciences Education, 13*(2), 212-223. doi:10.1187/cbe.13-06-0106

Xiao, B., & Tobin, J. (2018). The use of video as a tool for reflection with preservice teachers. *Journal of Early Childhood Teacher Education, 39*(4), 328-345. doi: 10.1080/10901027.2018.1516705

Yapici, I. U. (2016). Effectiveness of blended cooperative learning environment in biology teaching: classroom community sense, academic achievement and satisfaction. *Journal of Education and Training Studies, 4*(4). 269-280. Retrieved from http://dx.doi.org/10.11114/jets.v4i4.1372

Yeou, M. (2016). An investigation of students' acceptance of moodle in a blended learning setting using technology acceptance model. *Journal of Educational Technology Systems, 44*(3), 300-318. doi:10.1177/0047239515618464

Yin, H., & Zheng, X. (2018). Facilitating professional learning communities in China: Do leadership practices and faculty trust matter? *Teaching and Teacher Education*,

76, 140-150. https://doi.org/10.1016/j.tate.2018.09.002

Yin, R. K. (2014). *Case study research: Design and methods.* Thousand Oaks, CA: SAGE.

Zacharis, N. (2015). A multivariate approach to predicting student outcomes in web-enabled blended learning courses. *Internet and Higher Education 27,* 44-53. Retrieved from http://dx.doi.org/10.1016/j.ihedux.2015.05.002

Zhu, Y., Au, W., & Yates, G. (2016). University students' self-control and self-regulated learning in a blended course. *Internet and Higher Education, 30,* 54-62. doi:10.1016/j.iheduc.2016.04.001

Zwiers, J., & Crawford, M. (2011). *Academic conversations: Classroom talk that fosters critical thinking and content understandings*. Portland, MA: Stenhouse Publishers.

Appendix A: The Project

Learner-Centered Discussions with At-Risk Students Professional Development	
Purpose	The purpose for this 3-day professional development project and the monthly follow up sessions is to increase the teachers' knowledge and usage of different types of questioning to promote and/or encourage small group class discussions.
Target Audience	All teachers at the alternative school in this study. The principal, school counselor, instructional coach, and paraprofessionals are encouraged to attend.
Goals and Objectives	**Goal -** The major goal of this project is to increase teachers' knowledge and ability to effectively incorporate and implement the learner-centered instructional strategy of small group discussions within their lessons **Objectives** - The objectives for this project are: a) teachers will understand the five core skills of academic conversations, b) teachers will incorporate depth of knowledge and Bloom's taxonomy into good standards-based questions, c) teachers will include these questions in a learner-centered blended learning model to support the students to become academically successful, responsible, and take ownership of their learning, d) teachers will know Francis' (2016) eight types of questioning to encourage discussions, and d) teachers will implement these types of questions in their classroom.
Evaluation	Participants will complete pre and postassessments. Formative assessments to determine teacher understanding, misconceptions, and/or need for further explanations. Exit tickets to assess effectiveness of different activities at the end of days 1 and 2. Teacher lesson plans to determine number of small group discussions during a quarter and student surveys on impact of these discussions on their learning.
Resources/Materials	PowerPoint Presentation Projector Laptop Internet Access

Resources/Materials	Whiteboard PowerPoint Presentation emailed to participants Daily Schedule Handout Francis (2016) *Now That's a Good Question! How to promote cognitive rigor through classroom questioning* for each participant. Copies of figures from Francis' (2016) book on pages 12, 16, and 20-21 Weimer (2013) *Learner-Centered Teaching* Zwiers and Crawford (2011) *Academic Conversations: Classroom Talk That Fosters Critical Thinking and Content Understandings* Copies of pages 10, and 32-33 from Zwiers and Crawford (2011) book Horn and Staker (2015) *Blended: Using disruptive innovation to improve schools* Name Tags Coffee, tea, water, juice 12 Table tents Sign-in sheets Sticky notes Colored markers Pens and Pencils 2 Break Out Boxes with instructions Sharpies Poster paper Preassessment evaluation Post assessment evaluation Links to the videos Exit tickets Lined paper Each participant has their own school laptop 4 sets of Conversation Cards 4 pencil pouches

Learner-Centered Discussions with At-Risk Students

3-day Professional Development

Day 1

Focus: Importance of Classroom Discussions and Where to Start

Time	Activity
8:00 – 8:15	Sign in, handouts, drinks, group assignments
8:15 – 8:30	Welcome and Overview of Workshop Goals and Objectives
8:30 – 8:35	Administration of preassessment evaluation
8:35 – 9:00	Definition of facilitator
9:00 – 9:15	Why do we need discussion in the classroom?
9:15 -10:00	Break Out Box Activity
10:00 – 10:15	Break
10:15 -10:45	Skills and qualities desired by employers
10:45 – 11:00	Video and discussion
11:00 – 11:30	Why are conversations important?
11:30 -12:00	Develop norms for a classroom discussion
12:00 – 1:00	Lunch
1:00 – 2:00	Prioritize Conversation cards
2:00 – 2:15	Break
2:15 – 2:45	Discussion Activity – What can we do to make this school better?
2:45 – 2:55	Debrief Discussion Activity
2:55 – 3:15	Group reflection on the day's activities and exit ticket

Learner-Centered Discussions with At-Risk Students

3-day Professional Development

Day 2

Focus: Questions to Promote Discussion

Time	Activity
8:00 – 8:15	Drinks, handouts, group assignment, overview
8:15 – 8:45	Video and discussion
8:45 – 9:00	5 Core skills of academic conversation
9:00 – 9:15	Each group creates core skills dialogue
9:15 -9:30	Present core skills dialogues
9:30 – 9:45	Attitudes that lead to effective conversations
9:45 – 10:15	Table discussions on incorporating discussion into courses
10:15 – 10:30	Break
10:30 – 11:00	Revisit norms and revise posters
11:00 – 11:45	Good questions, Depth of Knowledge, Bloom's Taxonomy
11:45 – 12:00	What is the purpose of questions?
12:00 – 1:00	Lunch
1:00 – 1:30	Making good Standards-based questions
1:30 – 2:00	Video and discussion
2:00 – 2:15	Break
2:15 – 2:30	Socratic Circles - Introduction
2:30 – 3:00	Socratic Circle activity
3:00 – 3:15	Exit Ticket – formative assessment

Learner-Centered Discussions with At-Risk Students

3-day Professional Development

Day 3

Focus: Writing Essential, Factual, and Analytical Questions

Time	Activity
8:00 – 8:15	Coffee, sign in, handout, new group assignments by discipline and overview of today's goals and objectives
8:15 – 9:00	Creating Good Standards-based questions
9:00 – 9:45	Eight types of questions
9:45 – 10:00	Break
10:00 – 11:00	4 types of Essential Questions
11:00 – 11:45	Writing Essential Questions
11:45 – 12:00	Discussion: How will the questions you created improve students discussion skills and understanding of the content they are learning?
12:00 – 1:00	Lunch
1:00 – 1:15	Factual Questions
1:15 – 1:45	Activity on developing factual questions
1:45 – 2:00	Table and whole group reflection
2:00 – 2:15	Break
2:15 – 2:30	Analytical Questions
2:30 – 2:50	Activity on writing analytical questions
2:50 – 3:00	Table and whole group reflection
3:00 – 3:15	Exit ticket – post assessment evaluation

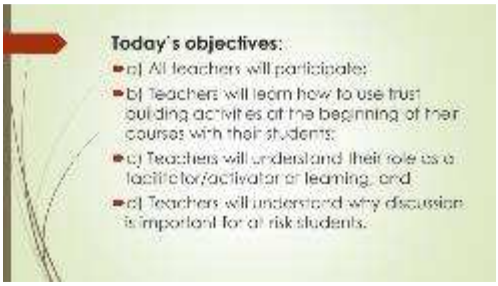
Power Point Presentation for 3-day Professional Development Project

The teachers involved in this professional development project all know each other so time will not be spent getting to know each other. However, each day the teachers will be placed in different groups to work. They will also be asked to work with different partners throughout the 3 days. It is hoped that this will enable the teachers to know each other better and be more willing to collaborate. Most directions on the slides will be shown one at a time.

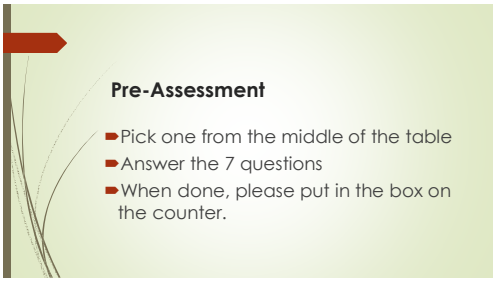
Note to trainer: Make sure all supplies are in pencil pouches on each table. Put copies of the preassessment in the middle of each table. Put Day 1 Highlights poster on the east wall. Set the 2 Break Out Boxes with instructions on the counter. Place sign in sheet and Day 1 schedule with handout attached on front table. Put drinks on the side counter. Upload link to Wordle.

Note to trainer: Each name tag will be prewritten and labeled with either A, B, or C. Teachers sit in groups of three – one each with A, B, and C. This was done to force the teachers to collaborate with teachers from a variety of disciplines. 15 minutes

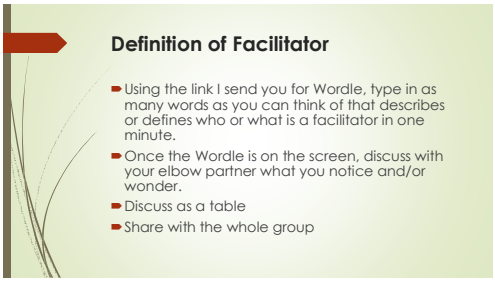
Note to trainer: Have different teachers volunteer to read each of these statements. 7 minutes.



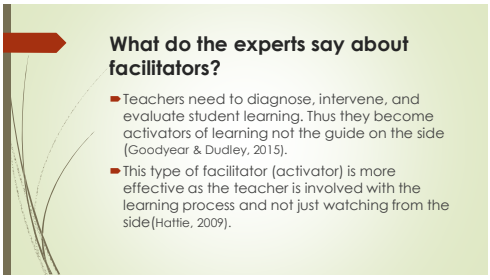
Note to trainer: Have different teachers volunteer to read each of these objectives. 8 minutes



Note to trainer: Teachers will have 5 minutes to take this and place it in the box on the counter.

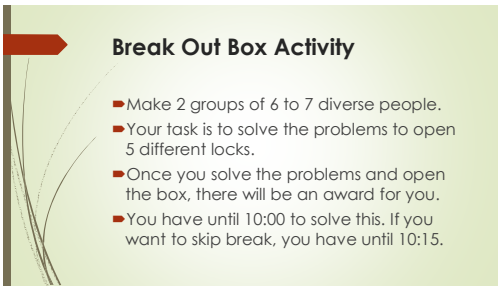


Note to trainer: Go over the items on the slide, then send the link to Wordle to the teachers to input their answers. Once all the answers are inputted, put up the Wordle picture for discussion. Teachers will first discuss with their elbow partner for 3 minutes and then as a table for 10 minutes. This will be followed by whole group discussion for 15 minutes.



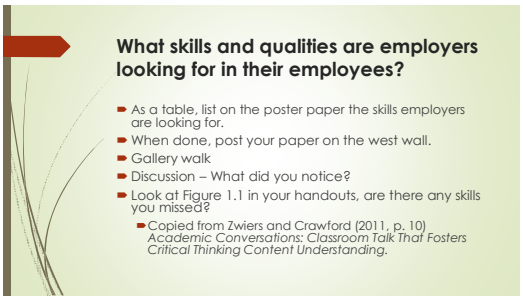
Note to trainer: Ask for a volunteer to read one of these. Then have another teacher read the other one. Discuss these two statements as a table for 2 minutes and then whole group discussion for 5 minutes.

Note to trainer: Recruit a volunteer to read the directions. Ask someone to paraphrase the directions. Teachers will stand and find a partner to share ideas – pros and cons. After 5 minutes, two sets of pairs will join to further the discussion for another 5 minutes. Teachers will then return to their tables to discuss for another 5 minutes. Whole group discussion of pros and cons for another 5 minutes. Trainer will monitor the discussions and this activity could end early which would allow more time for the next activity.



Note to trainer: Different volunteers read the directions. There are 5 different types of problems to solve. You must work as a team to solve these. Each lock is different, so look at the lock to get an idea of what the code needs to look like. Make sure you include everyone at your table and be aware of the roles people take and how the conversations occur while problem solving. (at least 45 minutes)

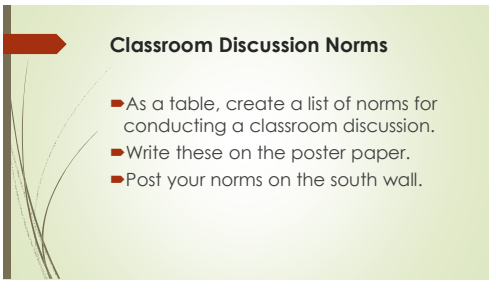
Note to trainer: Put poster paper on each table, make sure the link to the video, "The importance of high-quality discussion" works.



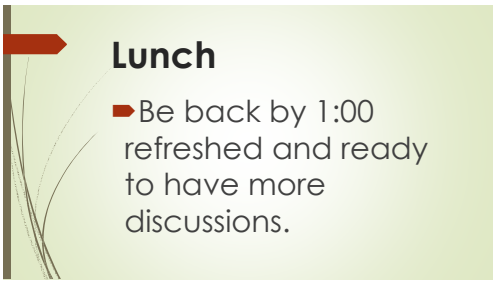
Note to trainer: Each table will list the skills employers are looking for on a poster paper (10 minutes). Once all the groups have hung their lists on the west wall, everyone will do a gallery walk and discuss what they notice with their peers (10 minutes). Then the teachers will return to their tables to compare their list with Zwiers and Crawford's' list (2011) (10 minutes). While teachers are doing this activity, walk around and join discussions by asking questions.

Note to trainer: https://www.teachingchannel.org/video/importance-high-quality-discussions Once everyone has seen this slide. Start the video. Once the video is finished (6 minutes) go over directions and then walk around, listen to discussions and hand out poster paper for the next activity (9 minutes).

Note to trainer: Have teachers discuss at their tables these 4 locations for 15 minutes. Then have a whole group discussion for 15 minutes.

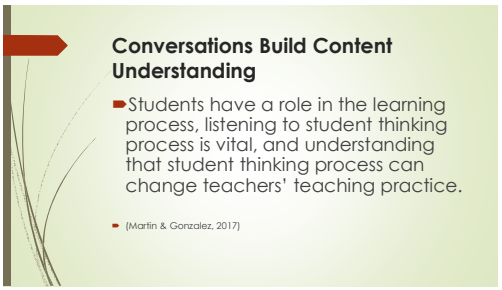


Note to trainer: Ask for volunteers to read the directions. Ask a few teachers to provide an example of a discussion norm. Make sure every table has poster paper and knows where the south wall is. Teachers will have 30 minutes to complete this activity.



During lunch put a set of 23 Conversation Cards on each table.

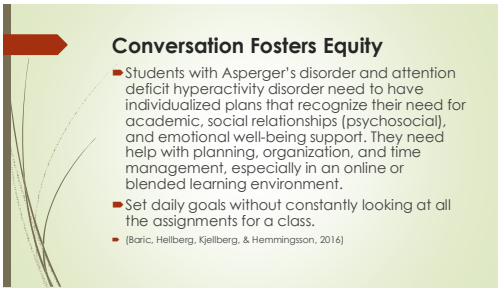
Note to trainer: As the teachers work on this activity, go around to the different groups and ask questions like, “Can you use that one in your classroom at the beginning of school or would you have to wait until later in the year?” “Why?” (20 minutes). Each table will post their top 5 conversation cards on the whiteboard. Tables that differ from the other groups will need to explain their reasoning (5 minutes).



Note to trainer: Ask for a volunteer to read this statement. 1 minute

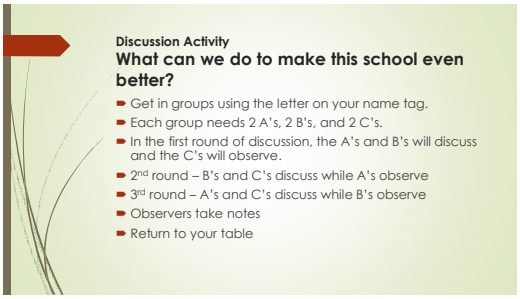
Note to trainer: Ask for a volunteer to read this statement. How many of you agree with this statement? Have teachers raise their hands. (1 minute)

Note to trainer: Have a volunteer read this slide. Is this what the school wants to become? Short 2- minute discussion.



Note to trainer: Read this one twice as it is very important due to the number of students attending the school with these disorders. Discuss as a group if there is time. (1 minute).

Note to trainer: Continue conversation from before break if necessary, after the break.



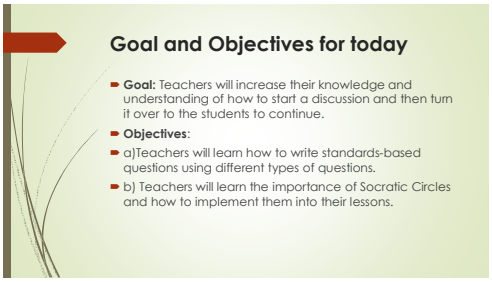
Note to trainer: Go over directions one at a time. After they have all been read, have someone paraphrase the directions. Have someone else paraphrase the directions. One group may have an extra person. Observers – watch for who is talking, body language, transitions, acceptance, etc. Each rotation is 5 minutes. While teachers are discussing, get two rolls of string. After 15 minutes, have the teachers combine into 2 groups. Hand a roll of string to the first person to talk. Teachers pass the roll of string to the next person who wants to talk without letting go of the string and continue this pattern as they discuss what skills and moves deepened the conversations. (10 minutes or less if continued the previous discussion before this activity.) Go to the next slide.

Note to trainer: Stop the discussion at 2:45 and have the teachers notice the paths of the string. What does this tell us? Use the questions on this slide to help direct your observations. (10 minutes)

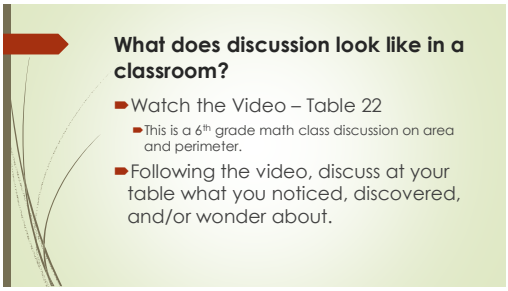
Note to trainer: Conduct a whole group discussion for 15 minutes. The sticky notes are in the pencil pouches on the tables. Instruct each teacher to write 2 take-aways on separate sticky notes and then put these on the Day 1 Highlights Poster. (5 minutes). Collect the sticky notes which will serve as the formative assessment of the first day. Analyze the

data from the sticky notes. What did I learn from the data? What do I need to revisit? Have the teachers complete the exit ticket for Day 1. Clean up and set up for tomorrow.

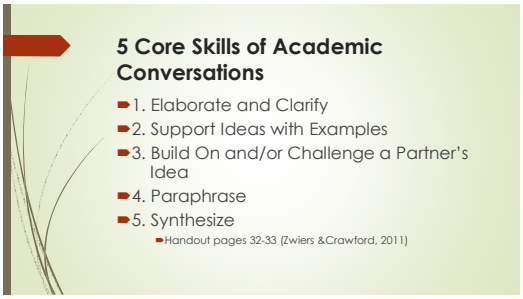
Note to trainer: Put sign in sheets and Day 2 schedule and handouts on front table. Put drinks on the side counter. Name tags are numbered 1 – 4. Make sure Video "Table 22" is ready to play. 10 minutes



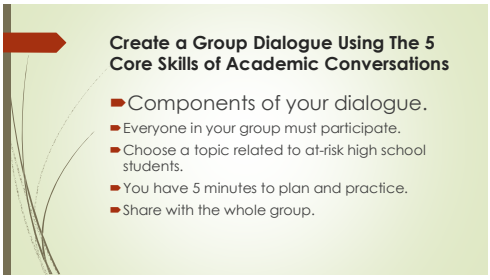
Note to trainer: Ask for 3 volunteers to each read one of these. 5 minutes



Note to trainer: https://www.teachingchannel.org/video/real-world-geometry-lesson. The video is 15 min. As teachers are watching the video, make sure everyone has Day 2 Handouts if we did not get copies of Francis' book. When video is done have the teachers discuss it at their tables for 5 minutes. Then whole group discussion for 10 minutes.

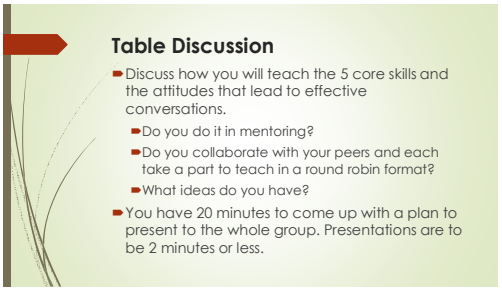


Note to trainer: Teachers are to open their handouts to figure 2.1 from Zwiers and Crawford (2011, pp. 32-33). Have the teachers discuss in their groups what these 5 core skills mean. Ask, "Did you see any of these occurring in the video discussion?" (15 minutes)



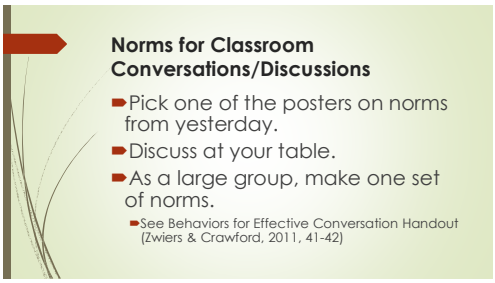
Note to trainer: The teachers are to create and perform a dialogue using all members at their table exemplifying the 5 core skills (5 minutes). Remind teachers when they have 1-minute left. There will be 3 groups. Each will present their conversation to the other two groups. Discuss what they noticed after each group. Ask "How hard was this to do? What would it take to get your students to do this?" 10 minutes

Note to trainer: Only show the first line (Discuss…). First have each table make a list of attitudes. Write the attitudes identified by the teachers on the whiteboard. Have each table give one attitude at a time until there are no more ideas. (10 minutes) Then show the rest of the slide one at a time to see if teachers agreed with Zwiers and Crawford (2011). (5 minutes)

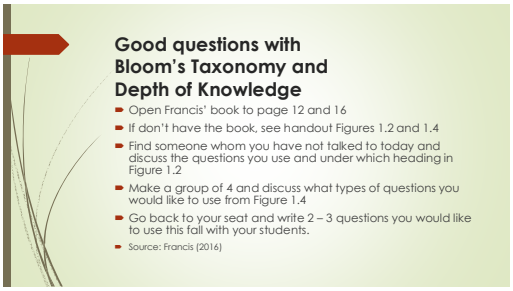


Note to trainer: Teachers are to discuss how they will teach the 5 core skills and attitudes to the students. Walk around and answer questions and/or ask questions.(20 minutes). Tables will then have 2 minutes each to present their plans. Whole group discussion on each plan. (10 minutes)

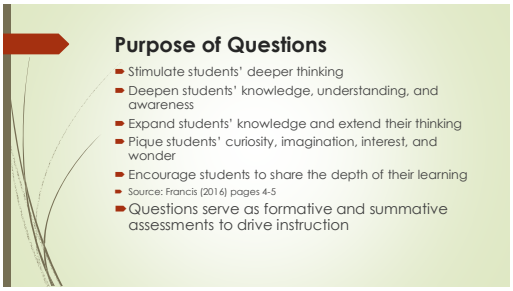
Note to trainer: Put yesterday's norms for conversations posters on the whiteboard. When teachers come back into the room, have them pick a poster.(15 minutes)



Note to trainer: This will be a whole group activity. Ask for a volunteer to lead this whole group creation of norms. Ask for another volunteer to be the scribe in making the new poster which is on the whiteboard so all can see. (20 minutes) Reflect as a group on how this discussion went. (10 minutes)



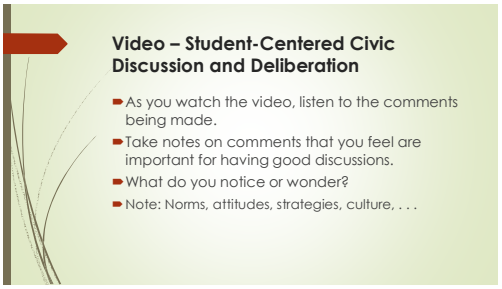
Note to trainer: Make sure everyone has Figures 1.2 and 1.4 which is in Day 2 Handout. Teachers get out of their seats and find someone whom they have not had a one-on-one talk and discuss Figure 1.2. After 10 minutes, teachers join another pair and discuss figure 1.4 for 15 minutes. Then teachers return to their tables and write at least 2 to 3 questions they would like to use in their classes. (15 minutes)



Note to trainer: Ask for different volunteers to read each statement. Discuss how one can use these as a formative or summative assessment. (15 minutes)

Note to trainer: Get video – Student-centered civic discussion and deliberation – ready. Talk with teachers to see if anything from this morning needs to be revisited.

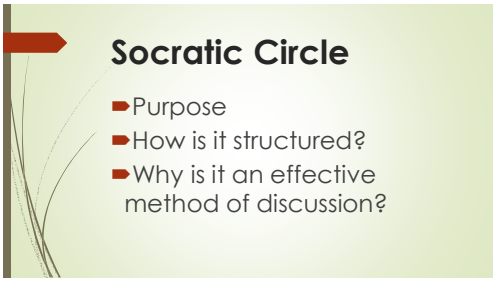
Note to trainer: Have the teachers find a new partner and discuss how they would use the examples in Figure 1.6 for 10 minutes. Teachers change partners and discuss with new partner for another 10 minutes. Whole group discussion until 1:30 which should be 10 minutes.



Note to trainer: https://www.teachingchannel.org/video/student-centered-civic-discussion-deliberation Show the video, "Student Centered Civic Discussion and Deliberations 10 minutes. Then go to the next slide.

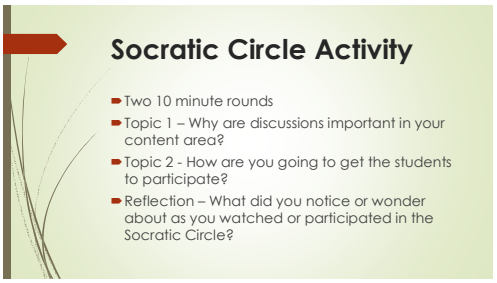
Note to trainer: After the video, have the teachers discuss if the 5 core skills were observed, the attitudes presented, and the types of questions asked with a partner for 3 minutes. Then table discussion for 10 minutes. Follow this by a short whole group discussion for another 10 minutes using the question, "How does what the students and teachers stated in the video relate to your classroom?"

Note to trainer: Arrange the room for Socratic Circle.

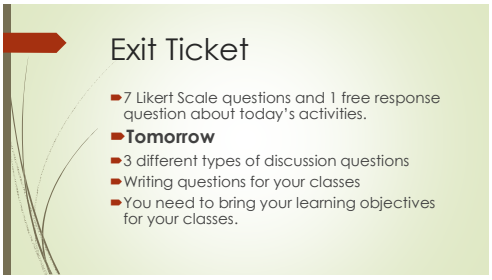


Note to trainer: Socratic Circle is a method to allow the students to run their own discussion. Each student must ask and/or answer at least 2 questions. It is best if students prepare their questions a day or two before, so the teacher can approve them.

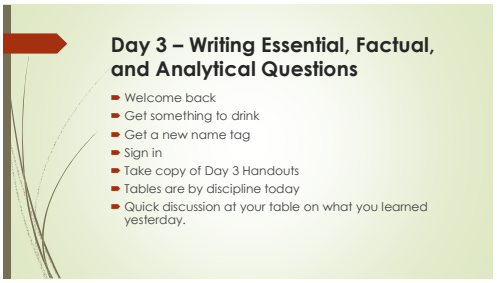
Half the class is in the inner circle where they do the talking and the other half is in the outer circle where they listen. One variation is where inner and outer students can change places after the inner circle student has asked their 2 questions and/or answers. Have teachers give examples of how they have used Socratic Circles. This is a great formative or summative assessment after a book study or unit. (15 minutes)



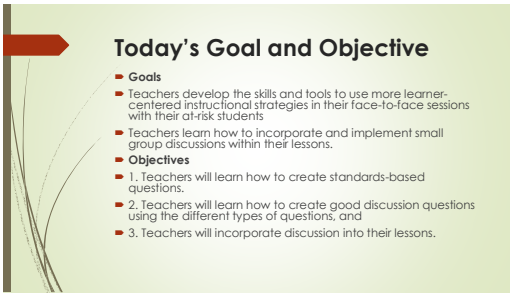
Note to trainer: Teachers sit in either the inner or outer circle. First group decides on which topic they want to discuss. Observe and intervene if someone is monopolizing the conversation. After 10 minutes, teachers change places and group 2 discusses the other topic for 10 minutes. Trainer leads the Reflection discussion for 10 minutes.



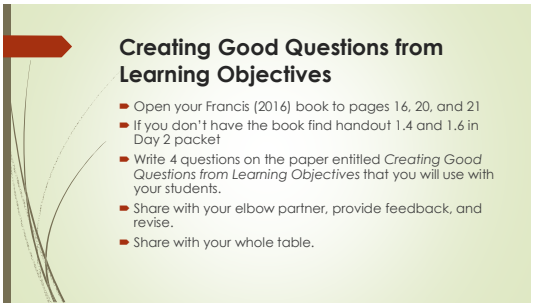
Note to trainer: Trainer explains what will be presented tomorrow and answers questions (10 minutes). Teachers then pull the Exit Ticket off the back of Day 2 Handout and complete (5 minutes) Teachers place the Exit Ticket in the box on the counter on their way out. Collect Exit Tickets. Collate the data. Analyze the responses. Note anything that needs to be discussed tomorrow.



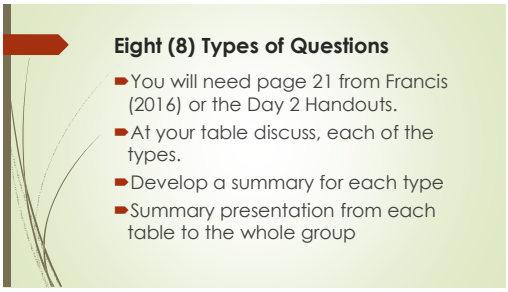
Note to trainer: Put sign in sheets and Day 3 schedule and handouts on front table. Put drinks on the side counter. Table assignments – Table 1 Math and Science, Table 2 Elective, and Table 3 Social Studies and English. (10 minutes)



Note to trainer: Ask for different volunteers to read a statement. (5 minutes)

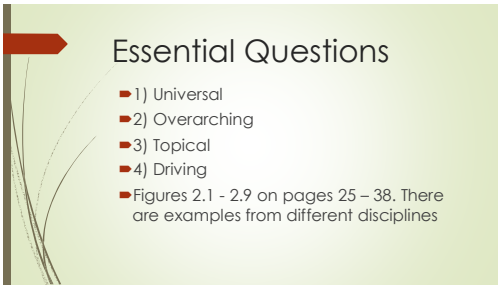


Note to trainer: Teachers need to have their learning objectives for their classes. They are to turn the learning objectives into good discussion questions following the suggestions on Figure 1.6 (Francis, 2016). They can work together on a unit or individually. They should write at least 4 questions on the paper entitled *Creating Good Questions from Learning Objectives in* the Handout or the online version. Share with a partner, revise if necessary, and then discuss the questions with their table. (30 minutes)

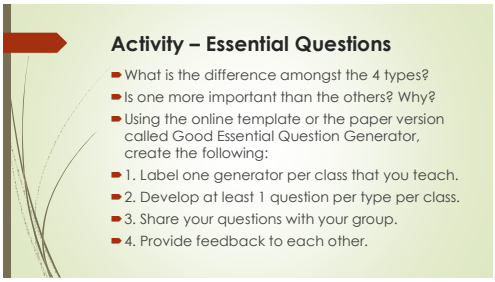


Note to trainer: Tables will be assigned 2 question types to summarize (10 - 15 min.) Then tables will present their summaries with examples to the whole group. Discussion will follow each summary (15 – 20 min.). (Total of 30 minutes for this activity.)

Note to trainer: Make sure everyone has their Francis (2016) book or Day 3 Handouts.



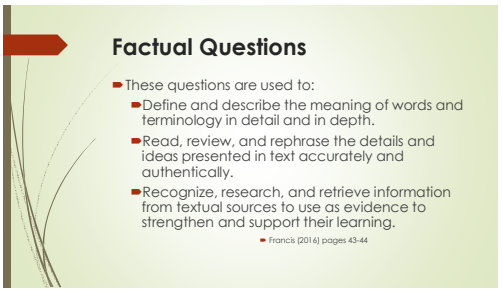
Note to trainer: Explain to the teachers that Figures 2.1 -2.9 are examples of how to write these types of essential questions. Teachers are to spend about 12 to 15 min. discussing each type and how they will use them in their classes at their table. If they finish early, they can return to writing questions from their learning targets.(60 minutes)



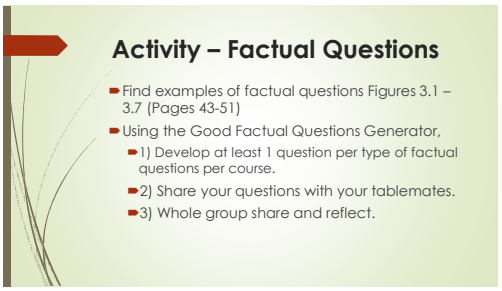
Note to trainer: Whole group discussion on the first two questions. Teachers were emailed the template at the beginning of the professional development project. Teachers will have until 11:45 to work as a group or individually to write their questions for all their classes. (45 minutes)

Note to trainer: Teachers will be given 3 min. to discuss this at their table. Teachers from each table will then share their ideas with the whole group. (Total time 15 minutes)

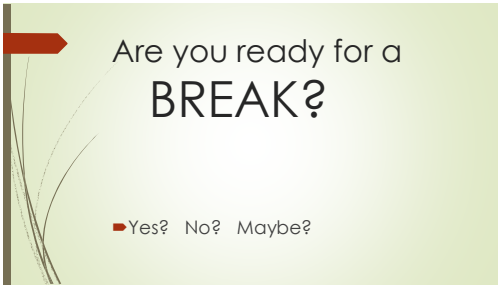
Note to trainer: Talk with teachers to determine if they have too much, right amount, or not enough time to write their questions.



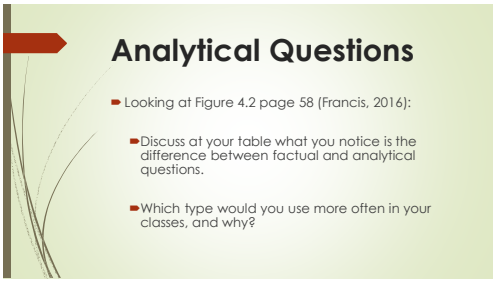
Note to trainer: Teachers volunteer to read sections. Discuss and then go right into next slide. (15 minutes)



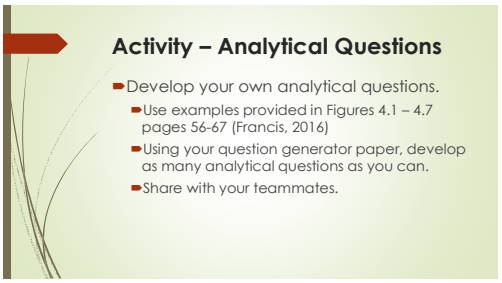
Note to trainer: Are there any questions? You have until 1:45 to write your questions. Then we will have a 15-minute whole group discussion on Essential and Factual questions and why they are important.



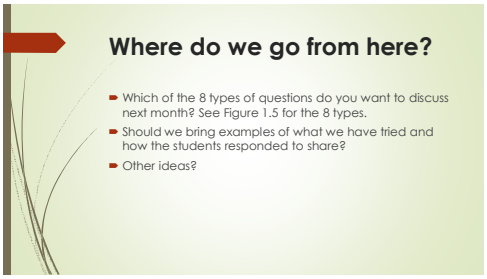
Note to trainer: Teachers will be given the option to keep on working and take breaks as needed for the rest of the day. (15-minute break)



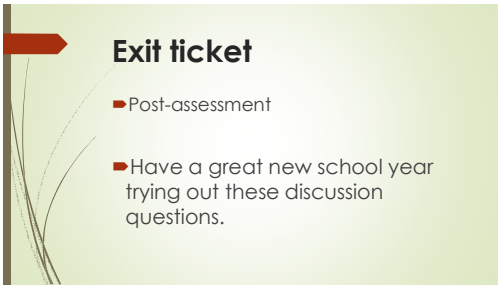
Note to trainer: Have teachers find Figure 4.2 in their Francis (2016) book. (2 minutes to find and read). Then have a table discussion for 5 minutes on these two questions. Then go to the next slide.



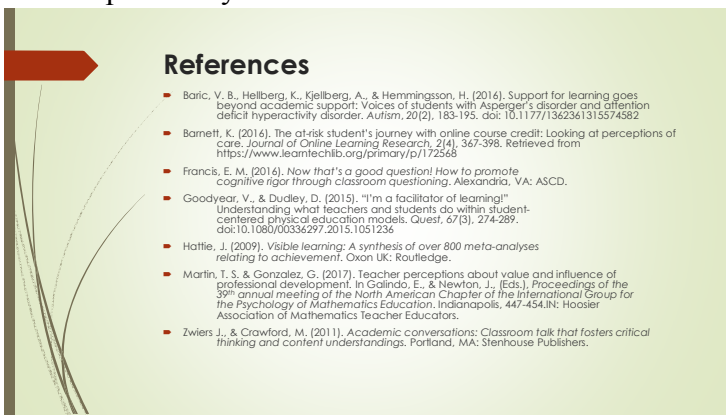
Note to trainer: Let teachers work on their analytical questions and enter them onto the paper question generator or online until 3:00. Walk around and observe, clarify, and/or ask questions.



Note to trainer: Spend about 10 minutes discussing these questions. Then go to the next slide.



Note to trainer: Hand out the Exit Ticket which is the postassessment. Have teachers put their completed assessments into the box on the counter. Thank the teachers and let them know you will be emailing them with the date and time for their first monthly follow-up session. Encourage teachers to write comments on the 3-day PD and suggestions for the follow-up monthly sessions.



Learner-Centered Discussions with At-Risk Students

3-day Professional Development

Day 1

Focus: Definition of Facilitator and Benefits of Classroom Discussions

Time	Activity
8:00 – 8:15	Sign in, handouts, drinks, group assignments
8:15 – 8:30	Welcome and Overview of Workshop Goals and Objectives
8:30 – 8:35	Administration of preassessment evaluation
8:35 – 9:00	Definition of facilitator
9:00 – 9:15	Why do we need discussion in the classroom?
9:15 -10:00	Break Out Box Activity
10:00 – 10:15	Break
10:15 -10:45	Skills and qualities desired by employers
10:45 – 11:00	Video and discussion
11:00 – 11:30	Why are conversations important?
11:30 -12:00	Develop norms for a classroom discussion
12:00 – 1:00	Lunch
1:00 – 2:00	Prioritize Conversation cards
2:00 – 2:15	Break
2:15 – 2:45	Discussion Activity – What can we do to make this school better?
2:45 – 2:55	Debrief Discussion Activity
2:55 – 3:15	Group reflection on the day's activities and exit ticket

Day 1 Handouts

Figure 1.1 Skills and Qualities Desired by Employers

Skills	Qualities
• Communicate effectively (#1 skill on most lists) (e.g., clearly listen, speak, and write complex and abstract concepts). • Ask insightful and critical questions. • Collaborate well with others (work in a team; lead and be led). • Solve problems logically, systematically, and creatively (define, plan, follow a plan, reflect, and improve over time). • Conduct logical, thorough research, and critically evaluate evidence. • Analyze, synthesize, prioritize, and organize ideas. • Weigh the relevance and importance of ideas. • Recognize bias. • See multiple perspectives on an issue and empathize. • Apply and generalize concepts to new domains. • Use technologies and visual literacy to learn, communicate, act, and produce.	• Strong work ethic • Initiative • Flexibility/adaptability • Honesty • Professionalism • Loyalty/trustworthiness • Enthusiasm/encouraging of others • Willingness to learn • Emotional intelligence • Curiosity/interest • Cross-cultural understanding • Leadership

Adapted from Casner-Lotto and Barrington 2006; Hansen and Hansen 2009; National Association of Colleges and Employers 2007; Wagner 2008.

Source: Zwiers & Crawford, 2011, p. 10

Exit Ticket for Day 1

On a scale of 1 – 4 with 1 being no help to 4 being very helpful, rate how each of these activities helped you understand the role of facilitator, how to prepare your students to engage in small group discussions, and the importance of small group discussions.

1. Definition of facilitator 1 2 3 4
2. Break Out Box activity 1 2 3 4
3. Skills and qualities desired by employers 1 2 3 4
4. Video – Importance of High-Quality Discussions 1 2 3 4
5. Norms for classroom discussions 1 2 3 4
6. Prioritization of conversation cards 1 2 3 4
7. Group discussion on "What we can do to make this school better?" 1 2 3 4

Please comment in the space below on today's activities and other activities and/or concepts you would like to discuss or need further explanation.

Learner-Centered Discussions with At-Risk Students

3-day Professional Development

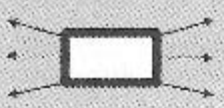
Day 2

Focus: Questions to Promote Discussion

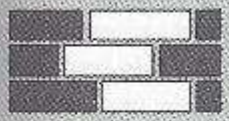
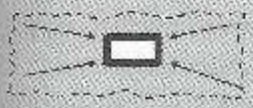
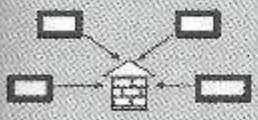
Time	Activity
8:00 – 8:15	Drinks, handouts, group assignment, overview
8:15 – 8:45	Video and discussion
8:45 – 9:00	5 Core skills of academic conversation
9:00 – 9:15	Each group creates core skills dialogue
9:15 -9:30	Present core skills dialogues
9:30 – 9:45	Attitudes that lead to effective conversations
9:45 – 10:15	Table discussions on incorporating discussion into courses
10:15 – 10:30	Break
10:30 – 11:00	Revisit norms and revise posters
11:00 – 11:45	Good questions, Depth of Knowledge, Bloom's Taxonomy
11:45 – 12:00	What is the purpose of questions?
12:00 – 1:00	Lunch
1:00 – 1:30	Making good Standards-based questions
1:30 – 2:00	Video and discussion
2:00 – 2:15	Break
2:15 – 2:30	Socratic Circles - Introduction
2:30 – 3:00	Socratic Circle activity
3:00 – 3:15	Exit Ticket – formative assessment

Day 2 Handouts

Figure 2.1 Core Academic Conversation Skills, with Symbols, Hand Motions, Prompt Frames, and Response Frames

Conversation Skills *(with symbols and hand motions)*	Frames for Prompting the Skill	Frames for Responding
Elaborate and Clarify  *(Pull hands apart)*	Can you elaborate on . . .? What do you mean by . . .? Can you tell me more about . . .? What makes you think that? Can you clarify the part about . . .? Can you be more specific? How so? How/Why is that important? I'd love to hear more about . . . How does that connect to . . .? I wonder if . . . How so? Can you unpack that for me? I am a little confused about the part . . .	I think it means that . . . In other words, . . . I believe that . . . An analogy for this might be . . . It is important because . . . It's similar to when . . .
Support Ideas with Examples (from this text, other texts, the world, and life)  *(Point thumb and three fingers up and place palm of other hand on top like a table; or point one index finger to the tip of the pinky of the other hand)*	Can you give an example from the text? Can you show me where it says that? What are examples from other texts? What is a real-world example? What is an example from your life? Are there any cases of that? What is the evidence for that . . .? Like what? Why do you say that? How do you justify that? What does that look like? Such as? What would illustrate that? Why is that a good example?	For example, . . . In the text it said that . . . One case showed that . . . An example from my life is . . . For instance, . . . According to . . . An illustration of this could be . . . On one occasion . . . In this situation . . . To demonstrate, . . . In fact, . . . Indeed, ... such as . . . Have you ever . . .?

Source: Zwiers & Crawford, 2011, p. 32

Build On and/or Challenge a Partner's Idea  *(Layer hands on each other and build up)*	What do you think about the idea that . . .? Can you add to this idea? Do you agree? What might be other points of view? What are other ideas? How does that connect to the idea . . . ? I am not sure if this is relevant, but . . . How can we bring this back to the question of . . . ?	I would add that . . . I want to expand on your point about . . . I want to follow up on your idea . . . (To challenge) Then again, I think that . . . Another way to look at this could be . . . Yet I wonder also if . . . If _____, then _____ What struck me about what you said is . . .
Paraphrase  *(Move both palms toward each other)*	I'm not sure that was clear . . . I can't remember all that I said. How can we relate what I said to the topic/question? What do we know so far? What is your take on what I said? I don't know. Did that make sense? What are you hearing?	So, you are saying that . . . Let me see if I understand you . . . Am I right in hearing you say that . . . ? In a nutshell, you are arguing that . . . In other words . . . What I am hearing is . . . Essentially, you think that . . . It sounds like you are saying that . . .
Synthesize Conversation Points  *(Start both arms out wide and then cup them into a ball)*	What have we discussed so far? How should we synthesize what we talked about? How can we bring this all together? What can we agree upon? What main points can we share? What was our original question? What key idea can we take away?	We can say that . . . The main theme/point seems to be . . . As a result of this conversation, we think that we should . . . How does this sound . . . ? What if we . . . ? The evidence seems to suggest that . . .

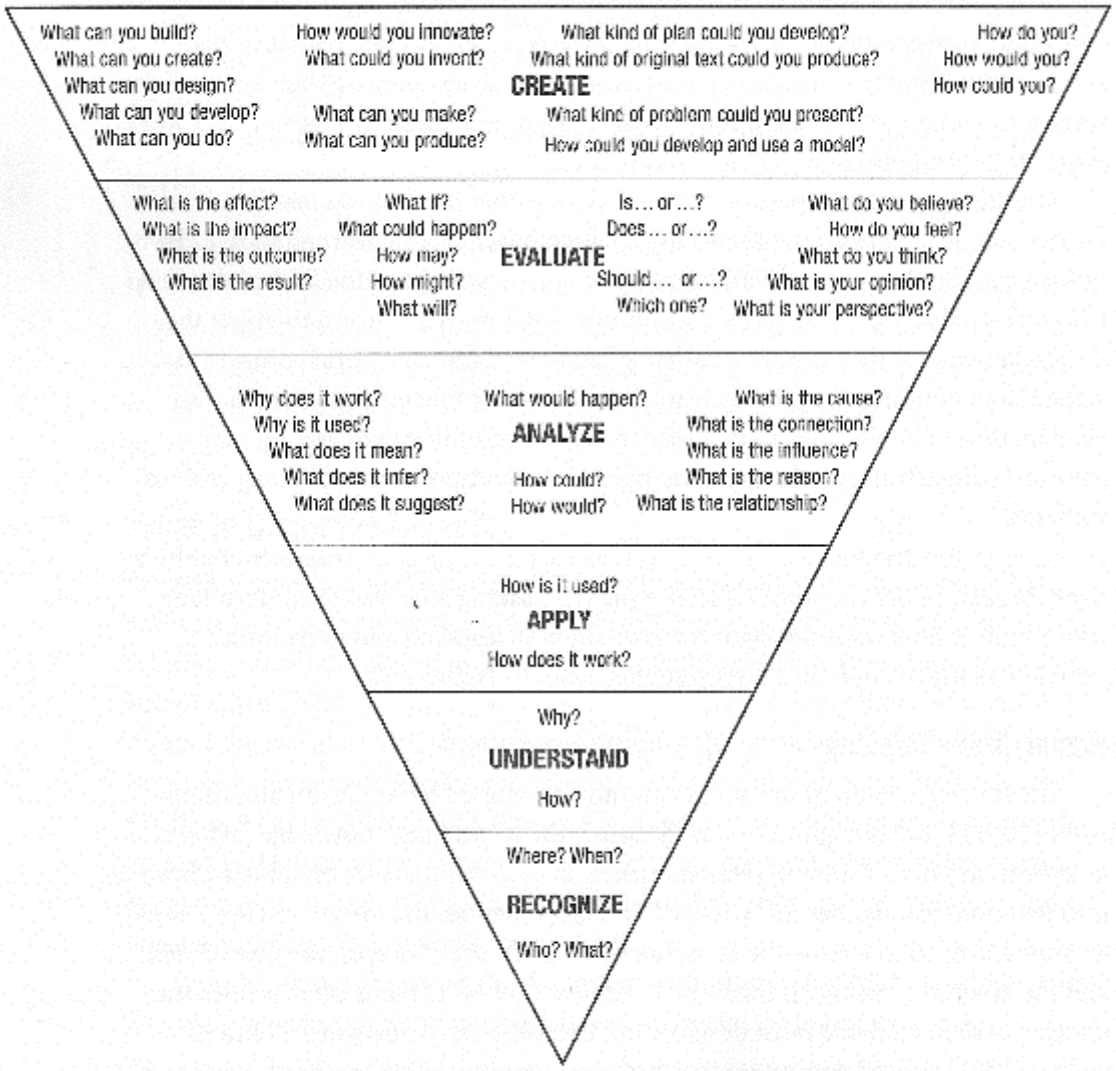
Source: Zwiers & Crawford, 2011, p 33

Norms for Classroom Discussions

- Appropriate eye contact (not always looking down or away or past the person – and not constantly staring either)
- Facing one another (with whole body)
- Attentive posture (leaning toward the person)
- Nodding head to show understanding
- Appropriate gesturing (not rolling eyes or sighing or looking bored with folded arms, and so on)
- Laughing, smiling, looking surprise, showing interest
- Using "keep talking" tactics (Uh Huh, Wow, Interesting, Hmm, Yes, Okay, I see, Go on, Really? Seriously?)
- Silence (to allow thinking and time to put thoughts into words)
- Prosody (changing voice tone, pitch, volume, and emphasis)
- Interrupting (by agreeing, asking for clarification, or using nonverbal signals)

Source: Zwiers & Crawford, 2016, pp. 41-42

Figure I.2 Good Questions and Bloom's Taxonomy



Source: Categories adapted from Anderson & Krathwohl, 2001

Source: Francis, 2016, p. 12

Figure I.4 Good Questions and Depth of Knowledge

What is the knowledge?	How can the knowledge be used?	Why can the knowledge be used?	What else can be done with the knowledge?
DOK-1	DOK-2	DOK-3	DOK-4
RECALL AND REPRODUCTION	BASIC APPLICATION OF SKILLS AND CONCEPTS	STRATEGIC THINKING	EXTENDED THINKING
Who?	How does it happen?	Why does it work?	What is the impact?
What?	How does it work?	Why is it the answer?	What is the influence?
Where?	How is it used?	Why is it the outcome?	What if?
When?	What is the answer?	Why is it the result?	What would happen?
How?	What is the outcome?	What does it infer?	What could happen?
Why?	What is the result?	What does it suggest?	What will?
	What can you do?	What is the cause/effect?	What else?
	How can you use it?	What distinguishes/ indicates?	How else?
	How would you use it?	What is the reason?	What do you believe/feel/ think?
		What is the relationship?	What can you build/ create/design/develop/ produce?
		How could you develop and use a model?	What kind of plan could you develop?
		How could you?	What kind of text could you write?
			What kind of problem could you present?

Source: Framework adapted from Webb 1997, 2002; Hess 2009a, 2009b

Source: Francis, 2016, p. 16

Figure 1.6 Making Good Standards-Based Questions

LEARNING OBJECTIVE	STARTER STATEMENT	HOT STEM	DOK CONTEXT
Distinguish long from short vowel sounds in spoken single-syllable words.	Show and tell	what distinguishes	long from short vowel sounds in spoken single-syllable words?
Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.	Show and tell	how	• can the central ideas and themes of text be determined? • do the central ideas and themes develop over the course of a text? • do the key supporting details and ideas support the central ideas and themes of a text?
Analyze how two or more authors writing about the same topic shape their presentations of key information by emphasizing different evidence or advancing different interpretations of facts.	Show and tell	how could	• two or more authors writing about the same topic shape their presentations of key information by doing the following? - emphasizing different evidence - advancing different interpretations of facts
Write arguments to support claims in an analysis of substantive topics or texts using valid reasoning and relevant and sufficient evidence.	Show and tell	how could you	write an argument that supports claims in an analysis of substantive topics or texts using valid reasoning and relevant and sufficient evidence?
Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.	Show and tell	what is the reason	the meaning of unknown and multiple-meaning words can be determined and clarified using the following? • context clues • meaningful word part • consulting general and specialized reference materials
Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.	Show and tell	how could you	• count to 120, starting at a number less than 120? • read and write numerals? • represent a number of objects with a written numeral?
Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9 × 80, 5 × 60) using strategies based on place value and properties of operations.	Show and tell	how could you	multiply one-digit whole numbers by multiples of 10 in the range from 10 to 90 using strategies based upon the following? • place value • the properties of operations

Source: Francis, 2016, p. 20

Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If f is a function and x is an element of its domain, then $f(x)$ denotes the output of f corresponding to the input x. The graph of f is the graph of the equation $y = f(x)$.	Show and tell	how	• does a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range? • does $f(x)$ denote the output of f corresponding to the input x if f is a function and x is an element of its domain? • is the graph of f the graph of the equation $y = f(x)$?

• **Essential questions** set the instructional focus and expectations for students to demonstrate deeper, more authentic learning about universal themes, core ideas, and topical understandings of a lesson or unit in their own unique way.

• **Factual questions** direct students to read, research, and recognize information about *who, what, where,* or *when.*

• **Analytical questions** challenge students to examine and explain *how* and *why, what is the meaning* or *message, what is the intent* or *purpose, what categorizes* or *characterizes, what determines* or *indicates, what are the similarities and differences,* and *what is inferred, represented, signified, suggested,* or *symbolized.*

• **Reflective questions** engage students to investigate and inquire *what are the cause and effects, impact and influences, reasons and results,* and *advantages and disadvantages.*

• **Hypothetical questions** prompt students to imagine *what if,* hypothesize *what would happen, what could happen, how may,* and *how might,* and predict *what will* or *how will.*

• **Argumentative questions** involve students in *making choices* and *defending decisions* supported with valid reasoning and relevant and sufficient evidence.

• **Affective questions** encourage students to share *what do* you *believe, feel,* or *think;* state *what is* your *opinion, perspective,* or *thoughts;* or show *how could* you or *how would* you address a particular issue, problem, or situation.

• **Personal questions** motivate students to take the initiative to explore *what do you want to learn* about the subjects and topics being taught and then share their learning with their classmates.

Source: Francis, 2016, p. 21

Exit ticket for Day 2

On a scale of 1 – 4 with 1 being no help to 4 being very helpful, rate how each of these activities helped you to learn how to implement small group discussions into your curriculum.

1. Video Table 22 1 2 3 4
2. 5 Core Skills 1 2 3 4
3. Attitudes that lead to effective conversations 1 2 3 4
4. Good questions and Depth of Knowledge handout 1 2 3 4
5. Making Good Standards-based Questions handout 1 2 3 4
6. Video – Student centered civic discussion & deliberation 1 2 3 4
7. Socratic Circle 1 2 3 4

Please comment in the space below on today's activities and other activities and/or concepts you would like to discuss or need further explanation.

Learner-Centered Discussions with At-Risk Students

3-day Professional Development

Day 3

Focus: Writing Essential, Factual, and Analytical Questions

Time	Activity
8:00 – 8:15	Coffee, sign in, handout, new group assignments by discipline and overview of today's goals and objectives
8:15 – 9:00	Creating Good Standards-based questions
9:00 – 9:45	Eight types of questions
9:45 – 10:00	Break
10:00 – 11:00	4 types of Essential Questions
11:00 – 11:45	Writing Essential Questions
11:45 – 12:00	Discussion: How will the questions you created improve students' discussion skills and understanding of the content they are learning?
12:00 – 1:00	Lunch
1:00 – 1:15	Factual Questions
1:15 – 1:45	Activity on developing factual questions
1:45 – 2:00	Table and whole group reflection
2:00 – 2:15	Break
2:15 – 2:30	Analytical Questions
2:30 – 2:50	Activity on writing analytical questions
2:50 – 3:00	Table and whole group reflection
3:00 – 3:15	Exit ticket – postassessment evaluation

Day 3 Handouts

Creating Good Questions from Learning Objectives

Name of Course _____

Learning Objectives	Starter Statement	Hot Stem	DOK Context
	Show and tell		
	Show and tell		
	Show and tell		
	Show and tell		

Source: Francis, 2016, Figure 1.7, p. 23.

Good Essential Questions Generator Course _____

ESSENTIAL	Universal What ideas, issues, themes, or topics are raised?	
	Overarching What are the core ideas of the academic subject that will be expanded upon?	
	Topical What are the key understandings that will be examined, explored, and explained?	
	Driving How will deeper learning be demonstrated and communicated in depth, insightfully, and inimitably using oral, written, creative, or technical expression?	

Source: Francis, 2016, Figure 2.10, p. 41

Good Factual Questions Generator Course _____

Task	Higher-Order Thinking	HOT STEM	DOK Context
Vocabulary Knowledge	Define Describe Explain Identify Understand	What What does it mean?	
Close Reading	Recognize Read Review	Who What Where When	
Information Literacy	Research Retrieve Record Refer to	Who is/are What is/are Where is/are When does/did	

Source: Francis, 2016, Figure 3.8, p. 54

Good Analytical Questions Generator **Course _____**

Examine Experiment with Explain	How			
	Why			
Procedural Knowledge	How does		work to	
	How can		be used to	
	Why does		work to	
	Why can		be used to	
Conceptual Knowledge	What categories			
	What characteristics			
	What classifies			
	What distinguishes			
	What indicates			
	What are the similarities			
	What are the differences			
Authentic Literacy	What is the intent			
	What is the purpose			
	What does the text infer			
	What is the meaning			
	What is the message			
	What does			represent?
	What does the author suggest			
	What does			symbolize?
	What is the tone			
	What is the author's purpose			

Source: Francis, 2016, Figure 4.8, p. 70

Preassessment Evaluation

1. Define Facilitator _____

_____

For the following questions, use the Likert scale and circle your choice.

1 = strongly disagree and 5 = strongly agree

2. I can explain why discussions are important. 1 2 3 4 5

3. I can identify five skills desired by employers that are related to learner-centered instruction. 1 2 3 4 5

4. I can write good standards-based questions incorporating depth of knowledge and Bloom's taxonomy. 1 2 3 4 5

5. I can identify the four types of essential questions. 1 2 3 4

6. I can identify the three types of factual questions. 1 2 3 4 5

7. I can identify the four types of analytical questions. 1 2 3 4 5

8. I use small group discussions in my courses. 1 2 3 4 5

9. I can lead a Socratic Circle. 1 2 3 4 5

Please provide any topics you would like to discuss during this 3-day professional development program or during the year-long monthly follow up sessions in the space below.

Postassessment Evaluation

1. Define Facilitator _____

_____

For the following questions, use the Likert scale and circle your choice.

1 = strongly disagree and 5 = strongly agree

2. I have a better understanding as to why discussions are important. 1 2 3 4 5

3. I can identify five skills desired by employers that are related to learner-centered instruction. 1 2 3 4 5

4. I can write good standards-based questions incorporating depth of knowledge and Bloom's taxonomy. 1 2 3 4 5

5. I can identify the four types of essential questions. 1 2 3 4

6. I can identify the three types of factual questions. 1 2 3 4 5

7. I can identify the four types of analytical questions. 1 2 3 4 5

8. I use small group discussions in my courses. 1 2 3 4 5

9. I can lead a Socratic Circle. 1 2 3 4 5

10. Should we bring examples of how we integrated discussion into our classrooms and how the students responded for the follow-up sessions? 1 2 3 4 5

11. Which type of questions or other topics should we focus on for the first monthly follow-up session for the teachers?

_____

_____

10. Follow-up Sessions: Day of the Week _____ Time of the day _____

Student Survey

Your feedback on the small group discussions is very important to help guide the teachers in their effort to support you to succeed academically. Please answer the following questions by circling the number that matches your beliefs. **1 indicates strongly disagree and 5 indicates strongly agree**. After you complete this anonymous survey, please return it to your mentor.

1. I like having small group discussions.	1	2	3	4	5
2. I learn more through discussions.	1	2	3	4	5
3. I wish my teachers would have more small group discussions.	1	2	3	4	5

4. What could we do to help you be more successful at this school?

_____

_____

Appendix B: Eligibility Requirements for At-Risk Students

ADMINISTRATIVE CODE IDAPA 08.02.03.110
State Board of Education Rules Governing Thoroughness

110. ALTERNATIVE SECONDARY PROGRAMS (SECTION 33-1002; 33-1002C; 33 -1002F, CODE).
Alternative secondary programs are those that provide special instructional courses and offer special services to eligible at-risk youth to enable them to earn a high school diploma. Some designated differences must be established between the alternative school programs and the regular secondary school programs. Alternative secondary school programs will include course offerings, teacher/pupil ratios and evidence of teaching strategies that are clearly designed to serve at-risk youth as defined in this section. Alternative high school programs conducted during the regular school year will be located on a separate site from the regular high school facility or be scheduled at a time different from the regular school hours. (4-1-97)

01. Student Qualifications. An at-risk youth is any secondary student grade seven through twelve (7-12) who meets any three (3) of the following criteria, Subsections 110.01.a. through 110.01.f., or any one (1) of criteria in Subsections 110.01.g. through 110.01.m. (3-30-07)
a. Has repeated at least one (1) grade. (4-1-97)
b. Has absenteeism that is greater than ten percent (10%) during the preceding semester. (4-1-97)
c. Has an overall grade point average that is less than 1.5 (4.0 scale) prior to enrolling in an alternative secondary program. (4-1-97)
d. Has failed one (1) or more academic subjects. (4-1-97)
e. Is two (2) or more semester credits per year behind the rate required to graduate. (4-1-97)
f. Is a limited English proficient student who has not been in a program more than three (3) years. (3-30-07)
g. Has substance abuse behavior. (4-1-97)
h. Is pregnant or a parent. (4-1-97)
i. Is an emancipated youth. (4-1-97)
j. Is a previous dropout. (4-1-97)
k. Has serious personal, emotional, or medical problems. (4-1-97)
l. Is a court or agency referral. (4-1-97)
m. Upon recommendation of the school district as determined by locally developed criteria for disruptive student behavior. (4-1-97)

(State code modified to remove name of state where study took place)

Appendix C: Teacher Interview Protocol

Teacher Interview Protocol

Opening Remarks (paraphrased)

Thank you for volunteering to be part of my project study. My name is Kim Zeydel and I taught math at this school for 12 years. I am now retired and am working on my Doctorate in Curriculum, Instruction, and Assessment at Walden University. This interview should last about 60 minutes and I will, with your permission, be recording it, so that your exact words can be transcribed verbatim after this interview is over.

The purpose of this study is to explore how you are implementing learner-centered instructional strategies within a blended learning model to facilitate the learning of students attending Meridian Academy, so they can succeed academically, graduate on-time, and take ownership and responsibility for their own learning.

The findings will be published, and a 1-2-page summary will be presented to the administration and teachers with the plan of creating a professional development program to help teachers learn how to implement learner-centered instructional strategies.

You have already signed the consent form to participate in this study. I would like to go over a few important points before we begin:

- You may excuse yourself form this interview at any time and for any reason.
- You may withdraw from this study at any time.
- I will not use your name or any identifying characteristics in any of my notes, conversations, or publications related to this study. You will be identified by a pseudonym.
- I will provide you with a draft of the 1-2-page summary for you to provide me with your comments on the content and accuracy.
- If you would like to review the final draft of this study, I will email you a copy and you can provide me with your comments on the content and accuracy.
- Do you have any questions before we get started?

Please tell me a little about yourself, where you were born, and what you like to do outside of school. I would now like to start the actual interview and if it is OK with you, I would like to start the recording. (Get permission to start the recording).

Questions for Teacher

1. What changes have you seen in your students since you changed to this instructional model?
2. What indications are you seeing that the students are taking ownership and responsibility for their own learning?
3. Describe the instructional strategies that you are implementing that you perceive facilitate the academic progress of your students? (If necessary, I will provide the teachers with the observation checklist which has a list of learner-centered instructional strategies and blended learning which they can use, or they can tell me about other strategies they use.)
4. How have your students responded to these learner-centered instructional strategies?
5. How would you describe your role as a teacher in this educational model?
6. How do you organize your instructional time with the students?
7. Approximately, how much time do your students spend in each type of student interaction (student/student, student/teacher, and student/laptop)?
8. Why do you think the graduation rates went down for the 2017=2018 school year?
9. Which of the following do you wish you had more professional development on: pedagogy, course content and design, and/or technology skills and usage?
10. Are there any changes you would like to see happen in this school?
11. If you could design your own school for at-risk students, what would it look like?
12. Do you have any questions or other comments to make?

For the classroom observation, I will be using this checklist (show the teacher) of learner-centered instructional strategies and blended learning to record when one is implemented and for my comments on what I observe, my reflections, and things I need to ask you. After the classroom observation and not during instructional time, I will meet with you for a few minutes to discuss what I observed for accuracy and, if necessary, further explanation.

Your classroom observation has been scheduled for _____ (teacher tells me what date and time for the observation).

Do you have any questions or concerns before we do the classroom observation?

Thank you for participating in this interview and allowing me to observe your classroom.

Appendix D: Student Interview Protocol

Student Interview Protocol

Opening Remarks (paraphrased)

Thank you for volunteering to be part of my project study. My name is Kim Zeydel and I taught math at this school for 12 years. I am now retired and am working on my Doctorate in Curriculum, Instruction, and Assessment at Walden University. This interview should last about 60 minutes and I will, with your permission, be recording it, so that your exact words can be transcribed verbatim after this interview is over.

The purpose of this study is to explore how you perceive the instructional strategies being used by your teachers to help you learn, so you can succeed academically, graduate on-time, and take ownership and responsibility for your own learning.

The findings will be published, and a 1-2-page summary will be presented to the administration and teachers with the plan of creating a professional development program to help teachers learn how to implement learner-centered instructional strategies.

You have already signed the consent form to participate in this study. I would like to go over a few important points before we begin:

- You may excuse yourself form this interview at any time and for any reason.
- You may withdraw from this study at any time.
- I will not use your name or any identifying characteristics in any of my notes, conversations, or publications related to this study. You will be identified by a pseudonym.
- I will provide you with a draft of the 1-2-page summary for you to provide me with your comments on the content and accuracy.
- Do you have any questions before we get started?

Please tell me a little about yourself, where you were born, and what you like to do outside of school. I would now like to start the actual interview and if it is OK with you, I would like to start the recording. (Get permission to start the recording).

Questions for Current Students

1. Why did you decide to attend this school?
2. What is it like to have all your curriculum on the laptop?

3. What does your teacher do that helps you learn? (If they cannot think of any, I will provide the students with the observation checklist which has a list of learner-centered instructional strategies and blended learning to help them.
4. What instructional strategies would you like your teachers to use, or use more often, to support your learning?
5. Why have these strategies helped you learn and earn credits?
6. If you are a 5th year senior, why is it taking you another year or two to graduate?
7. At this school, you get to determine the pace, path, place, and time for learning. How is that working for you? Which of these do you like the most and why?
8. Describe how you spend your time on a typical day at this school?
9. Follow up questions:
    a. Approximately, how much time do you spend in face-to-face small group or whole group instruction with your teacher?
    b. Approximately, how much time do you spend working one-on-one with your teacher?
    c. Approximately, how much time do you spend learning online?
10. How are you taking responsibility and ownership of your education? Has this changed since you came to this school or since last year?
11. Which of these skills has the school helped you to learn: self-motivation, collaboration, teamwork, communication skills, critical thinking skills, and/or creative thinking skills?
12. Is there anything you wished the school would do to help you with your courses?
13. Describe what an ideal school would look like for you.
14. Why do you think the graduation rate went down last year?
15. Do you have any questions or other comments to make?

Thank you for volunteering to be a participant in my study. You have been very helpful.

Appendix E: Recent Graduate Interview Protocol

Recent Graduate Interview Protocol

Opening Remarks (paraphrased)

Thank you for volunteering to be part of my project study. My name is Kim Zeydel and I taught math at this school for 12 years. I am now retired and am working on my Doctorate in Curriculum, Instruction, and Assessment at Walden University. This interview should last about 60 minutes and I will, with your permission, be recording it, so that your exact words can be transcribed verbatim after this interview is over.

The purpose of this study is to explore how you perceive the instructional strategies were implemented by your teachers to help you learn, so you can succeed academically, graduate on-time, and take ownership and responsibility for your own learning.

The findings will be published, and a 1-2-page summary will be presented to the administration and teachers with the plan of creating a professional development program to help teachers learn how to implement learner-centered instructional strategies.

You have already signed the consent form to participate in this study. I would like to go over a few important points before we begin:

- You may excuse yourself form this interview at any time and for any reason.
- You may withdraw from this study at any time.
- I will not use your name or any identifying characteristics in any of my notes, conversations, or publications related to this study. You will be identified by a pseudonym.
- I will provide you with a draft of the 1-2-page summary for you to provide me with your comments on the content and accuracy.
- Do you have any questions before we get started?

Please tell me a little about yourself, where you were born, and what you like to do outside of school. I would now like to start the actual interview and if it is OK with you, I would like to start the recording. (Get permission to start the recording).

Questions for Graduates

1. Why did you decide to attend this school?

2. What instructional strategies did your teachers use that supported your academic progress? (If they cannot think of any, I will provide the students with the observation checklist which has a list of learner-centered instructional strategies and blended learning to help them.)
3. What instructional strategies would you have liked your teachers to use or use more often to support your academic progress?
4. Why did these strategies help you learn and earn credits?
5. Are there any instructional strategies that your teachers used that did not help you learn?
6. If you could have changed anything at the school to make this a better learning environment for you, what would it have been?
7. How did you take responsibility and ownership of your education? Has this changed since you came to or left this school?
8. Which of these skills has the school helped you to learn: self-motivation, collaboration, teamwork, communication skills, critical thinking skills, and/or creative thinking skills?
9. Is there anything you wished the school had done to help prepare you for life after high school?
10. Describe what an ideal school would be for you.
11. Why do you think the graduation rate went down last year?
12. Do you have any questions or other comments to make?

Thank you for participating in my study. You have been very helpful.

Appendix F: Classroom Observation Checklist

	Good Signs	Check	Comments
Furniture	Chairs around tables to facilitate interaction		
	Comfortable areas for working		
Walls	Covered with student work		
	Evidence of student collaboration		
	Signs, exhibits, or lists created by students rather than all by teacher		
Sounds	Frequent hum of activity and ideas being exchanged		
Location of Teacher	Typically working with students so that it takes a moment to find him or her		
Teacher's Voice	Respectful, genuine, warm		
Instructional Strategies	Emphasis on thoughtful exploration of complicated issues		
	Different activities take place during class sometimes simultaneously		
	Whole Class Direct Instruction		
	Small Group Instruction		
	Peer Tutoring		
	Tutoring one-on-one		
	Teamwork Sessions		
	Practical Applications		
	Debates/Discussions		
Blended	Online independent work		
	Online discussion postings		
	Online research		
	Student choice of work location		
	Student choice of activity		
	Student self-reflection		
	Prompt feedback		

Adapted from the works of Kohn (1996), Horn & Staker (2015), and Weimer (2013)

Appendix G: District Student Survey

I will be using only the questions that provide specific demographic information, indicate student ownership of their own learning, blended learning, or learner-centered instructional strategies that are pertinent to my study. These questions are indicated in bold.

Mastery-based Learning Student Perception Survey

Demographics and other Questions:

1. *School*
   Building: 1, 2, 3 (Building names not listed for anonymity purposes)
2. ***Age***
   In years:
3. ***Gender m/f***
   Male Female Prefer Not to Select
4. *Favorite Subject*
   Art Computers/Business English Math Professional Technical Science Social Studies
5. *Least Favorite Subject*
   Art Computers/Business English Math Professional Technical Science Social Studies
6. *I get good grades in school.*
   Yes No
7. *Did either of your parents ever attend college?*
   Yes No
8. *Did either of your parents graduate from college?*
   Yes No
9. *Do you plan to attend college?*
   Yes No
10. *I plan to continue my education in some way following high school.*
    Yes No

Category 1: Motivation and Agency

Survey Items

1. ***I make decisions about the topics that I study in school.***
   Strongly Disagree Disagree Neutral Agree Strongly Agree
2. ***In this school environment, I am able to learn in a way that fits me.***
   Strongly Disagree Disagree Neutral Agree Strongly Agree
3. ***I am able to engage in school work during times that work best for me.***
   Strongly Disagree Disagree Neutral Agree Strongly Agree

4. ***I get helpful teacher feedback.***
   Strongly Disagree Disagree Neutral Agree Strongly Agree
5. ***The feedback I get at this school improves my understanding.***
   Strongly Disagree Disagree Neutral Agree Strongly Agree
6. *I get lots of opportunities to use feedback to improve my work.*
   Strongly Disagree Disagree Neutral Agree Strongly Agree
7. *I clearly understand the expectations of the lessons I do in this school.*
   Strongly Disagree Disagree Neutral Agree Strongly Agree
8. *I know precisely what quality work looks like*.
   Strongly Disagree Disagree Neutral Agree Strongly Agree
9. *I know what we are learning and why*.
   Strongly Disagree Disagree Neutral Agree Strongly Agree
10. *I set goals with the help of my teachers and/or mentors.*
    Strongly Disagree Disagree Neutral Agree Strongly Agree
11. *I am provided the opportunity to achieve my goals each day.*
    Strongly Disagree Disagree Neutral Agree Strongly Agree
12. *Lessons in this school are thought provoking and interest me.*
    Strongly Disagree Disagree Neutral Agree Strongly Agree
13. *The work I do in school is boring.*
    Strongly Disagree Disagree Neutral Agree Strongly Agree
14. *I know that what I am doing at this school will help me in the future.*
    Strongly Disagree Disagree Neutral Agree Strongly Agree

Category 2: Transactional Engagement

15. *My teachers and/or mentors push me to work hard.*
    Strongly Disagree Disagree Neutral Agree Strongly Agree
16. *I am getting a good education at my school.*
    Strongly Disagree Disagree Neutral Agree Strongly Agree
17. *The expectation in this school is not to waste time.*
    Strongly Disagree Disagree Neutral Agree Strongly Agree
18. ***I am expected to interact either digitally or face-to-face with others as part of my learning.***
    Strongly Disagree Disagree Neutral Agree Strongly Agree
19. ***Group work is a regular part of my activities.***
    Strongly Disagree Disagree Neutral Agree Strongly Agree
20. *I feel like my teachers or mentors are available.*
    Strongly Disagree Disagree Neutral Agree Strongly Agree
21. *Poor student behavior slows down my learning.*
    Strongly Disagree Disagree Neutral Agree Strongly Agree
22. *I have at least one teacher who makes me excited about the future.*
    Strongly Disagree Disagree Neutral Agree Strongly Agree

23. *I am happy to be at my school.*
    Strongly Disagree Disagree Neutral Agree Strongly Agree

Category 3: Institutional Support

24**.** *I regularly receive recognition or praise for achieving my learning goals.*
    Strongly Disagree Disagree Neutral Agree Strongly Agree
25**.** *This school is committed to building the strengths of each student.*
    Strongly Disagree Disagree Neutral Agree Strongly Agree
26. *Students in this school are thought of as individuals.*
    Strongly Disagree Disagree Neutral Agree Strongly Agree
27. *I feel like I "belong" in this school.*
    Strongly Disagree Disagree Neutral Agree Strongly Agree
28. *My teachers or mentors check-in with me on a regular basis.*
    Strongly Disagree Disagree Neutral Agree Strongly Agree
29. *I know when I achieve my goals in this school***.**
    Strongly Disagree Disagree Neutral Agree Strongly Agree
30. *The expectation at this school is that all students will be successful after high school.*
    Strongly Disagree Disagree Neutral Agree Strongly Agree
31. *I speak regularly with someone from the school about careers or college.*
    Strongly Disagree Disagree Neutral Agree Strongly Agree
32. *Students help shape decisions about this school.*
    Strongly Disagree Disagree Neutral Agree Strongly Agree
33. *Students suggestions about improving this school are valued.*
    Strongly Disagree Disagree Neutral Agree Strongly Agree

Category 4: Active Citizenship

34. *Students at this school are expected to develop time management skills.*
    Strongly Disagree Disagree Neutral Agree Strongly Agree
35. *I am learning skills and behaviors that are important for achieving my future goals.*
    Strongly Disagree Disagree Neutral Agree Strongly Agree

(Survey categories and items adapted from Leach & Zepke (2011) conceptual organizer for student engagement).
Source: Barrett, D. D. (2017). *A mixed methods study to measure the impact of mastery-based learning on at-risk student achievement.* (Doctoral dissertation). Retrieved from ProQuest Dissertations Publishing, (10287327). Reprinted with permission.

Free Response Questions – These were added after the original study by the school district.

1. **What can we do as a school to meet your needs as a student and help you to be successful?**
2. **What concerns do you have as a student with changing to a personalized mastery learning model delivered within the arena school model?**

Appendix H: Research Question 1 Open Coding Codes and Interview Transcript Excerpts, Classroom Observation Transcript, and Student Survey Data

Open Code	Transcript Excerpt
One-on-One	G1: One-on-one tutoring really helped me. G2: You could just go and sit down and just have them explain it to you face to face instead of in front of a bunch of people. S2: I like when teachers do one-on-one. S5: I am actually seeing the teacher and can say Hey, I would like some help. Can I get some help?" T1: The most important strategies are the one-on-one working with kids. T2: I know that I have had multiple students this year comment on how much they appreciate the one-on-one. S14 - S18: All wanted one-on-one time with a teacher. O4 – O6: Teachers were working with students one-on-one O1 – O3: Teachers stated they did one-on-one sessions with students.
Feedback	S2: The feedback I get is really helpful. S4: I do get some feedback. And then they actually put it on physical notes which I like S6: I like it because I get the feedback. T1: The feedback is key to this model of education because the feedback will help them understand what they need to do or where they are at. S14 – S19: All felt they get helpful teacher feedback. S14, S15, S17, S18, S19: All felt the feedback improved their understanding. O4 – O6: Students were provided with prompt feedback.
Revision	S2: She will do more revisions and sit down with me and help me go through it and get the final paper looking pretty. T2: I get out my laptop, they have theirs, and we revise together.

	T6: Students do many revisions.
Explanations	S6: Like I need full on detail of what I am doing. I need in one-on-one.
In-depth	G1: I needed more in-depth after the lecture or the class lesson.
Discussion	G4: Small group of 5 was easier to talk and discuss things when we were all on the same page. G4: Most of the work is on computers which I get, but some of the things you should have more discussion. S2: Class discussions also really help. S3: I do like small group discussions. S5: It has helped me because I can bounce ideas and whatever I need to get done with somebody, so it helps me go a little bit faster than I am. T4: And people can share their experiences, especially in my class, and I think it is good for people to see that. That's kind of been lost. O1, O2: Discussions occurred in the classroom. O3, O4: Teachers indicated they do class discussions
Teamwork	G1: Teamwork sessions really did help me. G4: More teamwork but everyone has to put in the same amount. T3: This system is really about teamwork It is the student and the teacher, so when students started seeing that hey teachers are meeting me halfway, I can meet them halfway too, a lot got done. S14-S19: All felt neutral or disagreed that group work was a regular part of their activities. O3: Teacher indicated that she uses teamwork sessions.
Peer support	G4: We got so many credits is because we would push each other as a group. S4: They stick by me until I know, they know that I can do it. That I got this. S4: They actually make sure that I get it done and on-time and well.

	O5: One student was helping another revise an essay.
Interactive	S5: If we did kind of like an activity that way, we actually got it down and not just in one ear and out the other. T3: That they have to have interaction and they have to do some group projects. T4: I definitely would like mandatory sessions but short sessions to where it was like 20 minutes of instruction and kind of interactive stuff and then you could work on your work.
Small Groups	G3: Small groups. I think they should have done that more. G3: So, when you work in small groups you can focus more. S2: I think more small group instructions. S5: I think the strategies that I would personally like would be like people who are in the same spot in a group. T2: It is just breaking it down into smaller more skills driven specific groups. T5: They are all at different points and there is no way to provide a class situation or mini session that covers all the points that they need.
Online has distractions	S3: I feel like having my curriculum on the laptop will take my attention away and I get distracted easily. S4: Because we wouldn't have the accessibility to the entire internet because most of it is not blocked anymore. T3: There are more distractions online.
Online is hard	S5: I don't like the curriculum to be online. I wish we would go back to paper and pencil that was a lot easier and it kept me on track a lot more. G4: Because it might be really hard, it was difficult for me. So, there are a lot of people who don't want to say that because I don't want people to think I am stupid because I don't know what I am doing. But I got the hang of it.

Students don't go	S5: And that did not work last year with the sections that people were supposed to go meet with teachers because no one kept up with that. T5: The first year was the realization that the kids had no responsibility towards their course work and the result is nobody went to any of the sessions they didn't want to or needed to. T5: Students take advantage of the system to hide out and stay away from doing work or they are just not capable of doing the work by themselves and they languish falling further and further behind.
Paper and Pencil	S1: A little more of the paper and all that. Because since a lot of times writing it down helps you remember stuff. S4: I wish we would go back to paper and pencil that was a lot easier and it kept me on track a lot more.
Resources online	G1: Here are a bunch of things you can refer to for this one question or word that you need. T4: That the curriculum is right there. The answers are all on the computer and you can re-watch that video so many times.
Syllabus of assignments/dates	G3: The sessions are printed out for the whole semester on what you are going to be doing.
Work at own pace	G2: There was not the pressure of like trying to keep up with everyone else. S1: Then I can do it on my own, on my own pace. S2: Pace is definitely one of my favorites and it is working really well for me. S3: The reason I like the pace is because like I said, if there is not really a deadline so no stressing out. T2: The students that I see that are really owning it again are those kids who recognize that this is at their own pace and nothing is holding them back unless it is them. T5: They feel empowered by it. They can choose what they want to do, when they want to do it, and get it done.

Choice of work location	G4: Like letting me choose my work location too because even in classrooms I get bothered quickly. S1: I think I just like the place because some places you can work better than others. O5 and O6: Students had choice of place to work.
Students choice of activity	G1: Probably the student choice of activity on how I would like to do an assignment. T2: Student choice in what book to read T3: Student choice in developing a course of their choice. T6: Students choose the theme for their project. S14, S15, S19: Believed they could make decisions about the topics that they studied in school. S16, S17, S18: Most believed they could not make decisions about the topics that they studied in school. O6: Students had choice of activity.
Student choice of courses	G4: Add another class as quick as I could but at my own pace. T4: Student choice in what class to take that I offer.
Set class time	G1: The only thing that I liked was the set schedule. S4: I want to go back to set class times.
Set one-on-one time	S4: I wish they would set time for teachers to work with individual students if they really need help.
More one-on-one	G4: I would like more mon-on-one time.
Whole school same schedule	G1: It would be nice to have the whole schedule the same. S4: I liked it when it was set sections. 4 classes a day. T4: Maybe set schedules too.
More structure	G2: There needs to be more structure and more rules. S4: In the traditional setting I earned 15 credits. The next year under the flex model, I earned 8 and each year after that has been less

	and last year, I earned 1 credit. (Summarized from comments made to three questions.) T1: When you make the class sessions mandatory for the students to be in and you make it to where we are in lesson planning and we are doing it properly, they love it. T4: I definitely would like mandatory sessions but short sessions to where it was like 20 minutes of instruction and kind of interactive stuff and then you could work on your work. T5: I would like to see more structure in that I know when I can send kids to specific teachers for help at specific times. S16, S17: Wanted more structure
Structure with flexibility	G3: But if it was mixed between more structure and less structure in a way that could work then it is perfect. T1: I would love to see blended school where kids were taking 4 classes every single quarter and inside those classes were a flexible system that is designed by the teacher.
Less free time	G3: Less free time. I think there is too much free time. S4: It gave me time to slack, easily.
Choice to attend or not	G3: I feel you should have the choice to attend the session or skip it if you don't need help. S3: I feel like they gave you the choice to leave class early or you could help, stay and help the students.

Note: T=Teacher, S=Student, G=Graduate, O=Observation, S14= Survey age 14

Appendix I: Research Question 2 Open Coding Codes and Interview Transcript Excerpts, Classroom Observation Transcript, and Student Survey Data

Open Code	Transcript Excerpt
Ask for help	T5: There is increased amount in a number of students to seek out the teacher that can get them the help. S2: One of the biggest things they teach here is never be afraid to ask for help. S2: If I am struggling with something, I can go to my teacher and say I am struggling with this. Help me. S5: I am not just sitting there, I am actually seeing the teacher and can say, "Hey, I would like some help. Can I get some help?" G3: If I needed help, I went and asked.
Ask for new classes	T6: Students will request more classes. G4: The way I go so many credits is because I would ask and add a lot of classes because I could take a lot at once.
Go to class	T2: I do the facilitation plan every day because I think that helps with them taking ownership if they know where they need to be and with us having the expectation that they will be there. T4: Getting kids to go to class is the biggest thing with having the mentor on board and if they are not on board it is tough to get them there. T6: Students will actually go to their classes based on what they see on the facilitation plan on the board. Then of course, you have the complete opposite of that where students aren't going to their classes.
Self-motivation	T2: The kids who are motivated and are driven are really flying high. T5: The model addresses only those students that are capable of handling themselves and does nothing to help those who can't and that leaves the teachers out.

	S2: Teachers here taught me to be able to use myself as a motivator. G2: But when I got to middle school and I realized it wasn't just like me being dumb, it was like the place I was in wasn't allowing me to thrive. G2: I think taking responsibility for your own education is really a personal thing but overall I think it is something that you have to want and you never have to stop trying.
Feel empowerment	T1:That's probably the biggest thing we have seen is a lack of student buy in as well as a lot of success when students buy in because they are taking responsibility. T3: I have seen that ownership piece take hold and then everything else from there went up. T5: They feel empowered by it. They can choose what they want to do, when they want to do it and get it done. S2: Being able to take responsibility for myself is actually kind of liberating.
Time management skills	T5: They can make choices for their own personal work load and they can schedule their own time and they are competent. S2: It's teaching you how to do time management because if you don't you will go way behind, and you won't even know it until it happens. S14 – S19: The majority felt the school expected them to learn time management skills.
Facilitator	T1: Not a lot of teachers are facilitators who know how to facilitate working with kids one-on-one. T3: I'm a facilitator of conversation and communication and honesty that day.
Mentor	T1: We have some teachers that are very good at mentoring kids and we have some teachers who are not very good at mentoring kids. T3: My favorite role has got to be the mentor piece because I just see the culture shifting when we talk about relationship with students being number one.

	G2: I also think that that mentor thing really helps because since there are not that many of them in there, teachers can understand the person. G3 Mentoring is helpful because if you are like struggling you can go talk with your mentor and they can figure out what to do.
Facilitation plan	T3: I group students based on their academic needs and schedule those groups for the least amount of conflict. So, definitely the facilitation plan helps. T5: With the facilitation plans where it seems to be changing daily, I do not have time to look at it daily.
Helps students	T1: It goes a lot into the kids taking, the teacher taking ownership of the students ability to learn. S2: It helped me with communication skills. S5: It helps with my communication skills. S6: My teachers are also like, you know, reminding me about graduating. They are also like really helping me too. G4: My mentor was really helpful by helping me.
Teach motivational skills	T1: We have to teach them how to find success. T2: The kids who are not as driven, I think they are struggling a little bit only because they are used to being spoon fed and so they are struggling. T3: Teach the Habits of Success. G4: If you motivate them, they will want to do more. G4: It just matters that they are doing it and if they feel motivated. You want them to feel confident in what they are doing. G2 – G4, S1 – S3, S6 felt the school taught them this skill.
Teach coping skills	T2: We need to teach them how to have empathy and patience. T2: Most of the need they have is that emotional need and they need that support not only in the classroom but just in life.

	T3: I would want them with me all the time to really make sure their basic needs are good and that their relationships are solid and then teaching them coping skills. T5: We will never be able to solve their problems but teach the kids how to cope with them, address them, and have the teachers understand more where the kids are coming from.
Credit recognition	T4: A lot of these kids are like taking a lot of like ownership and kind of pride in getting these credits. G2: But when they went Oh, that is so cool. It was so awesome that you get praise from the teacher. You get praise from your mentor. You get to walk down to the office. You get praise from the principal and praise from the secretary and you get a piece of candy. It was very simple, but it makes you feel like it is worth it.
Peer help	S4: I have two friends who stick by me until I know, they know that I can do it. That I got this. S4: I have started hanging out with them more and more. They have been motivating me. S5: Small groups so that if one person or x amount of people don't understand hopefully somebody in that group can help others understand. G4: Focus on my stuff with other people that would work with me and had the same classes and we would do our stuff together. G4: We got so many credits is because we would push each other as a group.
Dealing with stress	S2: I think the students that dropped out, it is the stress of the change or they just didn't want to do it. S3: It gives you time, but OK I am not getting stressed out about a deadline that I have to get his. I can work at my own pace. G2: There was no the pressure of like trying to keep up with everyone else.
Lazy	S4: I was lazy and didn't come to school enough.

	S6: Oh, my teachers didn't help me, I will blame them. What was really my fault.
Procrastination	S6: I didn't graduate last year due to procrastination.
Too much freedom	S4: It gives me time to slack, easily. S6: It was a lot like freedom. I would stay in one classroom a lot with my friends and just not get things done. G1: Students running around and not getting their work done and being a really big distraction. G3: I think there is too much free time. And not enough like instruction time.
Credits given, not earned	T4: I think like some teachers take some stuff out. G2: How are they supposed to get out in the real world and know where to start when you are teaching them right now that the real world is just going to hand them things and they do not have to work for anything because they will just cry or bat their eyes and then they will get things that they want. G3: Not cut out assignments for students. I just don't think I was fair. G3: Because when that happens you are just not prepared for like in general or what you are going to learn in school.

Appendix J: Research Log, my Biases, and an Example of a Classroom Observation Summary and Journal Posting

Research log of Dates I received forms, conducted interviews, and classroom observations

1/10/19
Received signed consent form from S4 (Current Student 4)
Received signed consent form from S2

1/11/19
Received signed consent form from T1 (Teacher 1)
Received signed consent form from T2
Received signed consent form from T5
Received signed consent form from T6
Received signed consent form from T3

1/15/19
Interview with T3
Interview with T1

1/16/19
Interview with T5
Interview with T6
Interview with S4

1/17/19
Received signed consent form from G2 (Graduate 2)
Interview with T2
Received signed consent form from S1

1/18/19
Interview with S1
Interview with G2
Received signed consent form from G1
Received signed consent form from G3

1/24/19
Interview with G1
Interview with G3
Interview with S2
Received signed consent form from G4

Received signed consent form from T4

1/25/19
Interview with G4
Interview with T4
Received signed consent form from S3
Received signed consent form from S5
Received signed consent form from S6

1/30/19
Observation O1 (Observation of Teacher 1)
Observation O6
Observation O4

1/31/19
Interview with S3
Interview with S5
Interview with S6

2/6/19
Observation O2
Observation O5

2/14/19
Observation O3

My Biases

1/6/19

I have identified the following biases that I have towards learner-centered instructional strategies and blended learning.

- Students on the Autism Spectrum need structure in order to succeed;
- Blended learning is an instructional strategy that is more effective than total online or whole class teacher-centered instruction;
- Learner-centered instruction facilitates student academic achievement more than teacher-centered instruction;
- One needs to scaffold the changes from a traditional school structure to a learner-centered structure for both teachers and students.
- Teachers need professional development in learner-centered instructional strategies;

- Teachers need professional development in how to develop blended curriculum
- Students need to be required to go to class or be ahead of the teacher. No students should be allowed to get behind a minimum progress level in the course.

In addition, my background knowledge from working with autistic students and the University of California at Irvine's ADHD program for children has made me realize the need for these students to have structure in their educational setting.

Sample of a Classroom Observation Summary
Teacher 4 Observation 11:30 – 12:00 January 30, 2019

This class started with 5 students sitting around a round table. Three more students came late and sat at the nearby round table. All students are working on their laptops. All are at a different place in the curriculum. The teacher goes around the two tables and provides feedback to a student on work turned in or helps with the assignment they are currently working on.

The teacher would spend one to four minutes with each student. Four of the students were worked with once. Four other students were worked with three different times. For one student, this was the first time she had been in the class. She had completed some assignments online and submitted them to be graded. Another student had only been to class once and today was the first time in a month that he had completed any assignments.

The feedback from the teacher and the need to do revisions was well received by the students. This is a mastery-based program and quality work is an expectation of all students. Students would not be talking about other issues when the teacher was at their table. Once he moved to the other table, some of the students would get off task.

Items checked on the observation list were:

Furniture	Chairs around round table to facilitate interaction
	Comfortable areas for working
Location of Teacher	Typically working with students so that it takes a moment to find him.
Teacher's Voice	Respectful, genuine, warm
Instructional Strategies	One-on-one Instruction
Blended	Online independent work
	Student self-reflection

	Prompt feedback

Conference with teacher after observation resulted in the following instructional strategies being identified as being used by the teacher but not demonstrated in this observation.

Instructional Strategies	Small Group Instruction
	Debates/Discussions
Blended	Online research
	Online independent work
	Online discussion postings
	Student self-reflection
	Prompt feedback

Sample of a Journal Entry Before an Interview

Pre-interview S4 – This student is a 5th year senior who earned 6 credits last year and does not like the changes that have occurred each year. She did well her freshman year but did not do well the next three years. I think some of this happens to be due to having a boyfriend that distracted her from her studies. She is outgoing and likes to help a teacher control his class. She made sure a freshman girl did attend her classes.

Post-interview – I was surprised to find out she has anxiety issues when in large groups. She said the only reason she is doing well this year is because of her two friends that are younger than her and are making sure she attends class, understands her work, and asks for help. She has one teacher who will help her, and she says the rest will not. She also said she earned all her credits when she was a freshman at this school, and we had a traditional 4 x 4 schedule. I will need to verify this. She did earn 15 out of 16 credits her freshman year and 6 credits her sophomore year.