



University of Kentucky
UKnowledge

Theses and Dissertations--Early Childhood,
Special Education, and Rehabilitation
Counseling

Early Childhood, Special Education, and
Rehabilitation Counseling


2020

EFFECTS OF AN ANCHORED CAREER-FOCUSED CURRICULUM ON THE KNOWLEDGE AND ATTITUDES OF AT-RISK HIGH SCHOOL STUDENTS

Megan E. Jones

University of Kentucky, mej8966@gmail.com

Author ORCID Identifier:

 <https://orcid.org/0000-0002-9299-1993>

Digital Object Identifier: <https://doi.org/10.13023/etd.2020.122>

[Right click to open a feedback form in a new tab to let us know how this document benefits you.](#)

Recommended Citation

Jones, Megan E., "EFFECTS OF AN ANCHORED CAREER-FOCUSED CURRICULUM ON THE KNOWLEDGE AND ATTITUDES OF AT-RISK HIGH SCHOOL STUDENTS" (2020). *Theses and Dissertations--Early Childhood, Special Education, and Rehabilitation Counseling*. 85.
https://uknowledge.uky.edu/edsrc_etds/85

This Doctoral Dissertation is brought to you for free and open access by the Early Childhood, Special Education, and Rehabilitation Counseling at UKnowledge. It has been accepted for inclusion in Theses and Dissertations--Early Childhood, Special Education, and Rehabilitation Counseling by an authorized administrator of UKnowledge. For more information, please contact UKnowledge@lsv.uky.edu.

STUDENT AGREEMENT:

I represent that my thesis or dissertation and abstract are my original work. Proper attribution has been given to all outside sources. I understand that I am solely responsible for obtaining any needed copyright permissions. I have obtained needed written permission statement(s) from the owner(s) of each third-party copyrighted matter to be included in my work, allowing electronic distribution (if such use is not permitted by the fair use doctrine) which will be submitted to UKnowledge as Additional File.

I hereby grant to The University of Kentucky and its agents the irrevocable, non-exclusive, and royalty-free license to archive and make accessible my work in whole or in part in all forms of media, now or hereafter known. I agree that the document mentioned above may be made available immediately for worldwide access unless an embargo applies.

I retain all other ownership rights to the copyright of my work. I also retain the right to use in future works (such as articles or books) all or part of my work. I understand that I am free to register the copyright to my work.

REVIEW, APPROVAL AND ACCEPTANCE

The document mentioned above has been reviewed and accepted by the student's advisor, on behalf of the advisory committee, and by the Director of Graduate Studies (DGS), on behalf of the program; we verify that this is the final, approved version of the student's thesis including all changes required by the advisory committee. The undersigned agree to abide by the statements above.

Megan E. Jones, Student

Dr. Brian A. Bottge, Major Professor

Dr. Melinda Ault, Director of Graduate Studies

EFFECTS OF AN ANCHORED CAREER-FOCUSED CURRICULUM ON THE
KNOWLEDGE AND ATTITUDES OF AT-RISK HIGH SCHOOL STUDENTS

DISSERTATION

A dissertation submitted in partial fulfillment of the
requirements for the degree of Doctor of Philosophy in the College of Education
at the University of Kentucky

By

Megan E. Jones

Lexington, Kentucky

Co- Directors: Dr. Brian A. Bottge, Professor of Special Education

and Dr. Allan Allday, Professor of Special Education

Lexington, Kentucky

2020

Copyright © Megan E. Jones 2020
<https://orcid.org/0000-0002-9299-1993>

ABSTRACT OF DISSERTATION

EFFECTS OF AN ANCHORED CAREER-FOCUSED CURRICULUM ON THE KNOWLEDGE AND ATTITUDES OF AT-RISK HIGH SCHOOL STUDENTS

Students with disabilities (SWD) face an unfavorable employment future because many drop out of school at a disproportionate rate. The employment outlook for SWD who graduate from high school is also a concern because current studies show that only about half of them find jobs. In addition, most jobs they do find are entry level and low paying. One predictor of post-secondary success is career awareness. The purpose of this study was first to develop a curriculum especially designed for teaching career awareness of SWD and then to test its effects with a pretest-posttest randomized trial. Results indicated that the SWD who taught with the new curriculum deepened their knowledge of careers and developed a more positive attitude toward career planning. Implications for further development and research are provided.

KEYWORDS: Transition, At-Risk, Curriculum, Post-Secondary Success, High School

Megan E. Jones

04/21/2020

Date

EFFECTS OF AN ANCHORED CAREER-FOCUSED CURRICULUM ON THE
KNOWLEDGE AND ATTITUDES OF AT-RISK HIGH SCHOOL STUDENTS

By
Megan E. Jones

Dr. Brian A. Bottge
Co-Director of Dissertation

Dr. Allan Allday
Co-Director of Dissertation

Dr. Melinda Ault
Director of Graduate Studies

4/21/2020

Date

DEDICATION

A Dio tutta la gloria! To the one who has never left my side and who continues to walk with me every day.

I dedicate this dissertation to my parents, brother, grandparents, friends and mentors who have tirelessly supported my endeavors and encouraged me in the valleys.

ACKNOWLEDGMENTS

The following dissertation, while an individual work, would not have been possible without the support of many professors, co-workers, family and friends. First, I want to recognize the best co-chairs imaginable. Thank you to the pillars of grace and wisdom: Dr. Brian Bottge and Dr. Allan Allday. You both supported me the entire way.

Dr. Bottge, you are an extremely gifted researcher, writer and teacher. I am so thankful and honored that I was able to spend many years learning from you. During my time at UK you constantly encouraged and believed in me. You helped me navigate every road block and frustration, and I learned as I watched you handle all adversity with kindness and laughter. I appreciate that you are “the people’s researcher”. You valued and encouraged every one of the teachers and students that participated in our studies. Working on the IES grant with you and Linda was the reason I completed a dissertation of this magnitude. You made an indelible impact on my life and future career. I will greatly miss lunch bunch, the funny stories and the unforgettable lunch slide shows. Also, thank you to Linda, Meg and BJ for making TEB a wonderful place to work. I will never forget our stress relieving breaks and fun food outings.

Dr. Allday, you have been an incredible mentor from the moment I started at UK. You spent countless hours through my years at the University helping me narrow down my big ideas and find direction. You are a person of great integrity and I think I learned even more from watching your interactions with students and other professionals. People gravitate towards you because of your compassionate heart for all students and your academic excellence. You helped me teach my first class and write my first academic article. Your ABA courses gave me valuable tools that I will impart to

others in the future. Thank you for preparing me from all angles, supporting my directions, and training me on the technical aspects of higher education. You and Dr. Bottge are surely the forefathers of my “academic family tree”!

I would also like to thank all of my committee members including Dr. Ma, Dr. Shepley and Dr. Kleinert for your feedback, support and technical expertise throughout the process. The five of you made my committee meetings fun, enjoyable and productive. I am honored that you took part in my academic journey. I would also like to thank the department and the following sources for making my dissertation a financial possibility. Thank you to the Arvle and Ellen Turner Thacker award (2019), the Blackhurst Student Research Fund (2019), the Wallis Charles Hill Endowment (2020), and department block funding (2020). I would also like to thank Dr. Ault for exposing me to a variety of presentation and teaching opportunities.

I would like to acknowledge the high school at which my teaching career began. In light of confidentiality I will use initials, but thank you RC and HP for being the most outstanding and supportive Principals I have ever met. You and my other co-workers from that school are family. Thank you for being an enormous part of my life these last years. And thank you to the participating study teachers, students and community members. Wow, this would not have been possible without you all.

Finally, thank you to my parents for cheering me on my entire life. You encouraged me to keep going and sacrificed for me an endless number of times. You taught me how to work hard, love God and love others. And to my “broski”, you are my sunshine and laughter on the cloudy days. I’m thankful we’ve been in it together from the day you were born.

TABLE OF CONTENTS

ACKNOWLEDGMENTS.....	iii
LIST OF TABLES	viii
LIST OF FIGURES	ix
CHAPTER 1. Statement of the Problem.....	1
1.1 Predictors for Post-Secondary Transition.....	1
1.1.1.1 Predictors of Post-Secondary Success	3
1.2 Categories of Career Awareness	3
1.2.1 Awareness of the Financial Ramifications for Dropping out of High School	4
1.2.2 Employment Goal Setting	4
1.2.3 Creation of Quality Resumes.....	5
1.2.4 Employer Expectations during Job Interviews.....	5
1.3 Transition Curricula	6
1.3.1 A Nationwide Scan.....	6
1.3.2 School to Work Programs and Curriculum.....	6
1.3.3 Existing Career Curriculum Studies.....	7
1.4 Cognitive Theory	8
1.4.1 Activating Prior Knowledge.....	8
1.4.2 Active Learning.....	9
1.4.3 Metacognition.....	9
1.4.4 Transfer Knowledge.....	10
1.4.5 Curriculum Length and Depth of Topic.....	11
1.4.6 Cognitive Theory and the 21 st Century Classroom	11
1.5 Anchored Instruction.....	12
1.6 Best Practice in Curriculum Design and Implementation.....	15
1.6.1 Teacher Classroom Structures, Routines, and Conditions	15
1.6.2 Learning Goals and Assessments.....	16
1.6.3 Spaced Learning	17
1.6.4 Graphic Descriptions and Abstract Thinking	17
1.6.5 Questioning Techniques	18
1.7 Conclusion.....	19
1.8 Research Questions.....	20
CHAPTER 2. Methods.....	21
2.1 Participants and Settings.....	21
2.1.1.1 Student Demographics.....	23

2.2	<i>Description of Intervention: Career Focused Curriculum</i>	24
2.2.1	CFC Content Rationale	24
2.2.2	CFC Curriculum Map	24
2.2.2.1	CFC Curriculum Map	26
2.2.3	CFC Instructional Materials	26
2.2.3.1	Curriculum Contents Overview	27
2.2.4	Videos	27
2.2.4.1	Video Descriptions	28
2.2.5	Guided Video Worksheets	30
2.2.6	Lesson Plans	30
2.2.7	Teacher Binder and Online Materials	31
2.3	<i>Research Design</i>	31
2.3.1.1	Randomization at the Class Level	32
2.4	<i>Measures</i>	33
2.4.1	Career Awareness Test	33
2.4.2	Career Awareness Survey	33
2.4.3	Student and Teacher Interviews	34
2.4.4	Teacher Calendar	35
2.4.5	Fidelity of Implementation	35
2.5	<i>Procedures</i>	36
2.5.1	Teacher Implementation Training	36
2.5.2	Consent	38
2.5.3	Student Demographic Forms	39
2.5.4	CAT and CAS Pretest Measures	39
2.5.5	BAU Lesson Procedures	40
2.5.6	CFC Lesson Procedures	42
2.5.7	CAT and CAS Posttest Measures	46
2.5.8	Student and Teacher Interviews	47
2.5.9	Data Analysis Procedures	48
CHAPTER 3.	Results	49
3.1	<i>Performance on the Career Awareness Test</i>	49
3.2	<i>Performance on Career Awareness Survey</i>	49
CHAPTER 4.	Discussion	59
4.1	<i>Effectiveness of Career Focused Curricula</i>	59
4.2	<i>Elements of Curriculum Best Practice Strategies in the CFC</i>	60
4.3	<i>Effects of Anchored Instruction in the CFC in Relation to the CAT</i>	60
4.4	<i>Student Demographic Variables in Relation to the Career Awareness Test</i>	62
4.5	<i>Evaluation of CAT Pretest Scores</i>	63
4.6	<i>Career Awareness Survey Outcomes</i>	63
4.7	<i>Limitations</i>	65

4.8	Conclusion.....	66
APPENDICES		68
	APPENDIX 1. INSTITUTIONAL REVIEW BOARD STUDENT ASSENT DOCUMENT	69
	APPENDIX 2. INSTITUTIONAL REVIEW BOARD PARENTAL CONSENT FOR CHILD PARTICIPATION DOCUMENT	70
	APPENDIX 3. PROJECT 1 CONTENT GUIDE.....	71
	APPENDIX 4. PROJECT 1 EVALUATION RUBRIC.....	73
	APPENDIX 5. PROJECT 2: HIRSCH INTERVIEW RUBRIC	74
	APPENDIX 6. BUSINESS VIDEO EMPLOYER QUESTIONS	76
	APPENDIX 7. CAREER AWARENESS TEST (CAT).....	77
	APPENDIX 8. GUIDED VIDEO NOTES EXAMPLE.....	81
	APPENDIX 9. LESSON PLAN EXAMPLE.....	82
	APPENDIX 10. QUICK NOTES LESSON PLANS EXAMPLE.....	84
	APPENDIX 11. CAREER AWARENESS SURVEY (CAS)	85
	APPENDIX 12. STUDENT AND TEACHER INTERVIEW QUESTIONS.....	87
	APPENDIX 13. TEACHER CALENDAR EXAMPLE	88
	APPENDIX 14. TEACHER FIDELITY CHECKLIST	89
	APPENDIX 15. RESEARCHER CLASSROOM OBSERVATION NOTES.....	90
	APPENDIX 16. TEACHER TRAINING FIDELITY CHECKLIST	97
	APPENDIX 17. PRE AND POSTTEST TEACHER COLLECTION PACKETS	98
	APPENDIX 18. TEACHER AND STUDENT DEMOGRAPHIC FORMS AND COLLECTION PACKETS	100
	APPENDIX 19. ASSENT AND CONSENT COLLECTION PACKETS.....	103
	APPENDIX 20. MOCK INTERVIEW PARTICIPANT INSTRUCTIONS.....	104
	APPENDIX 21. MOCK INTERVIEW PARENT EMAIL.....	110
	APPENDIX 22. STUDENT SCHEDULE EXAMPLE.....	111
	APPENDIX 23. EMPLOYER SCHEDULE EXAMPLE	112
	APPENDIX 24. OVERVIEW SCHEDULE AND ROTATION SCHEDULE EXAMPLE PER HOLDING ROOM.....	113
REFERENCES		117
VITA.....		122

LIST OF TABLES

Table 3.1 Descriptive Statistics Based on Career Awareness Test Scores.....	51
Table 3.2 Reliability of the Career Awareness Test Based on Pretest and Posttest.....	52
Table 3.3 Regression Results Based on Career Awareness Test Scores	53
Table 3.4 Descriptive Statistics Based on Career Awareness Survey Scores.....	51
Table 3.5 Reliability of the Survey Based on Pretest and Posttest.....	52
Table 3.6 Regression Results Based on Survey Scores	53
Table 3.7 Proportion of Variance Explained (R^2) and Effect Size for Multiple Regression Based on Knowledge and Survey Score.....	57

LIST OF FIGURES

Figure 1.1.1.1 Predictors of Post-Secondary Success.....	3
Figure 2.1.1.1 Student Demographics.....	23
Figure 2.2.2.1 CFC Curriculum Map.....	26
Figure 2.2.3.1 Curriculum Contents Overview	23
Figure 2.2.4.1 Video Descriptions	28
Figure 2.3.1.1 Randomization at the Class Level.....	32

CHAPTER 1. STATEMENT OF THE PROBLEM

Current statistics reveal an unfavorable employment future for students with disabilities (SWD) exiting high school. Nearly one million SWD dropped out of school during 2010 resulting in a loss of \$337 billion due to decreased wages, productivity and taxes (Perry & Wallace, 2012). Similarly, nearly a quarter of SWD in each disability category failed to complete high school (Zablocki & Krezmien, 2013). The outcomes of SWD who graduate from high school are also disappointing as only 50% gained employment (Morningstar, Trainor, & Murray, 2015) or attempted a post-secondary degree (Rabren, Eaves, Dunn, & Darch, 2013). The most common jobs of SWD five years after graduating from high school were entry level such as food preparation, retail, trade jobs, cleaning, and construction (Morningstar et al., 2015). Even for the SWD who were employed in entry level jobs, they were more likely to earn less income than the general population (U.S. Department of Education, 2003).

1.1 Predictors for Post-Secondary Transition

These outcomes indicate that the current educational model has not adequately prepared SWD for future employment as promised by the Individuals with Disabilities Education Act (IDEA) (Gragoudas, 2014). Due to these outcomes, the 2004 reauthorization of IDEA mandated a clearer focus on transition planning for SWD. The transition planning mandated by IDEA showed great potential for promoting post-graduation success. However, most plans were not effective in helping SWD with post high school outcomes because of faulty design or inadequate delivery (Miller-Warren, 2015; Morningstar et al., 2010). For example, Miller-Warren (2015) found that a majority

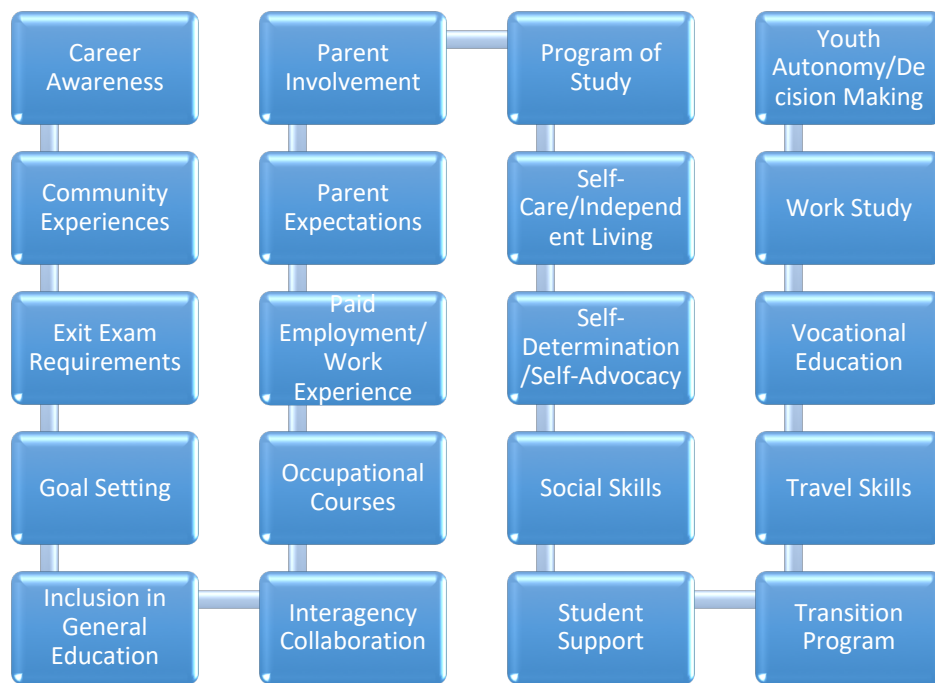
of assessed transition plans were not of good quality, adequate, or implemented to fidelity according to the indicator criteria of the National Secondary Transition Technical Assistance Center (NSTTAC). The content of the plans also lacked evidence-based criteria or predictors of success (Miller-Warren, 2015).

In an effort to improve the outcome of transition plans, educators are encouraged to use Kohler's predictors for transition success to help students gain positive post-secondary job attainment and to increase transition-based fidelity (Test et al., 2009). Currently there are 20 known predictors that have been identified to support increased post-secondary success (Figure 1.3.1.1; Mazzotti et al., 2016). Specifically, research has shown that paid high school employment is one of the highest predictors of transition and graduation success (Alfred, Stephen, Robert, & Robert, 2011; Landmark, Ju, & Zhang, 2010; Wehman et al., 2015). This could be because work placements during high school help to teach students workplace norms and provide students with directional clarity regarding future employment (Zegwaard & Coll, 2011).

According to Mazzotti and colleagues (2016), career awareness is another predictor closely associated with post-secondary success. Career awareness includes (1) learning about various occupational pathways, (2) choosing a career that matches the student's abilities, interests, and strengths, and (3) learning about education, skills, and opportunities needed to succeed (Mazzotti, 2016). This included showing students how to search for and obtain a job. Prior to receiving paid employment (the top predictor), students must be exposed to career awareness skills, opportunities, and education needed for their career pathways of interest (Mazzotti, 2016). More specifically, a literature review conducted by Test and colleagues (2009) noted that in studies where students

learned employment skills, completion of job applications, specific employment skills, and self-management related to goal setting, there were moderate effects that led to improved outcomes. Moderate level statistical evidence was defined as either (a) group designs including 1 high quality study or 2 acceptable quality studies, or (b) single case studies including 3 acceptable or high-quality studies relating to the topic (Test et al., 2009).

1.1.1.1 Predictors of Post-Secondary Success



[Figure 1.1.1.1 Predictors of Post-Secondary Success]

1.2 Categories of Career Awareness

According to Mazzotti and colleagues (2016), career awareness includes multiple aspects of selecting the right occupational pathway and obtaining the desired job. For this reason, the following topics are discussed in relation to how they support students in transition: (a) awareness of statistical financial outcomes (Zablocki & Krezmien, 2013),

(b) employment goal setting (Bangser & National High School, 2008; O'Neill, 2000; Peterson et al., 2013), (c) the creation of quality resumes (Akpan & Notar, 2012), and (d) an understanding of employer expectations during job interviews (Akpan & Notar, 2012).

1.2.1 Awareness of the Financial Ramifications for Dropping out of High School

According to Zablocki and Krezmien (2013), students who receive below-average grades, expulsion, and grade retention are more at risk for dropping out of high school. Students categorized 'at-risk' and students with learning or behavioral disorders (specifically students with emotional behavior disorders) are at an even greater risk of not completing high school. After being surveyed in the most recent National Longitudinal Transition Study (NLTS), it was reported that nearly a quarter of students from each disability category reported dropping out [Emotional Behavior Disorder (48.2%), Learning Disabilities (26.8%), Other Health Impairment (24.7%), and Speech-Language Impairments (25.2%); (Zablocki & Krezmien, 2013)]. Additionally, students without a high school diploma make an average of \$182 less per week than students with a high school diploma and an average of \$594 less per week than students with a bachelor's degree (Zablocki & Krezmien, 2013). For this reason, it is crucial that students understand the financial ramifications of such decisions.

1.2.2 Employment Goal Setting

Student focused transition planning should begin early in high school. Such planning includes career exploration and awareness, setting short-and long-term goals, and monitoring progress towards future employment goals (Bangser & National High School, 2008). Specifically, creating SMART (specific, measurable, attainable, results-

oriented, and time-based) goals has proven effective in the classroom setting (O'Neill, 2000). SMART goals have additionally been recommended in the use of post-secondary transition goals to help students prepare for their future careers (Peterson et al., 2013).

1.2.3 Creation of Quality Resumes

Learning the components of a job application is important to understanding how to attain employment (Test et al., 2009). Prior to receiving a job interview, students must create a resume that captures the attention of the employer and professionally conveys skills, experiences, and strengths (Akpan & Notar, 2012). To accomplish this goal effectively, students must learn proper content, formatting, and grammar techniques associated with resume writing.

1.2.4 Employer Expectations during Job Interviews

Students must learn what employers are looking for during the interview in regard to dress and interactions. Employers seek individuals who have exceptional communication, math, reading, writing, and critical thinking skills (Akpan & Notar, 2012). Employers also assess personal values such as honesty, integrity, tenacity, dependability and professionalism during the interview (Hansen, 2008), including the professional dress of the applicant (Carnevale & Smith, 2013). After learning to communicate expertise in such work-related transferable skills, students should be given the opportunity to practice delivering the information through a mock interview practice session. Mock interview results, scored by a potential employer, have typically resulted in a direct indication of student success in an authentic job interview setting (Hirsch, 2017).

1.3 Transition Curricula

1.3.1 A Nationwide Scan

According to the Center for Community College Student Engagement (2016), too many graduates are unprepared for college despite efforts to strengthen high school graduation requirements (Fay, Barnett, Chavarín, & Columbia University, 2017). A recent national scan of transition curriculum in the United states conducted by Fay and colleagues (2017) sought to discover the common goals, content and delivery models used in these curricula. Findings showed that these programs were offered in 39 states in either statewide or local efforts. A majority of the transition curricula were defined as remedial course efforts in the areas of math, reading and science. The study also concluded that there is still very little that we know about transition curriculum, design and outcomes (Fay et al., 2017).

1.3.2 School to Work Programs and Curriculum

Although the primary transition focus in many school systems has been related to standardized testing and college readiness preparation, other transition predictors exist and have shown outcomes of post-secondary student success. One such predictor is career awareness (Mazzotti et al., 2016). Career awareness training, amongst Kohler's other predictors, has shown positive moderate effects regarding post-secondary transition and need to be actively incorporated within the academic school day ("Predictor implementation school/ district self-assessment," 2013; Test et al., 2009). Although work placement and school-based transition programs are numerous and attempt to encompass these promising transition practices, the literature suggests that they lack overall uniformity (Wittenburg, Golden, & Fishman, 2002). According to Curry and colleagues

(2013), very few programs expect general educators to integrate career information into lectures apart from the work of a guidance counselor. Nevertheless, a few states such as South Carolina have required that teachers acquire the skills necessary to integrate career guidance into the preK-12 curriculum (Curry, Belser, & Binns, 2013). Countless school to work (STW) titles exist such as youth apprenticeship, (DeVos & Ryder, 2017) career-technical education (CTE; Barba, 2015; Perry & Wallace, 2012), cooperative education (Stern, Finkelstein, Stone III, Latting, & Dornsife, 1994), Vocational Rehabilitation, and school-based enterprises (DeVos & Ryder, 2017). Many states have created their own individual STW programs, but a dearth of formal experimental studies exist regarding these programs.

1.3.3 Existing Career Curriculum Studies

There are few studies that focus on career awareness curriculums for high school students. Most of these studies were surveys, descriptors or articles describing a program. For example, Donlevy (2002) described a program by the United States Postal Service (USPS) regarding a school-to-career curriculum that included career exploration, resume writing, and interview skills. A formal experimental study has not been conducted concerning this curriculum. However, one study by Martinez and colleagues (2017) used a pretest-posttest quasi-experimental group design to determine the effects of a career awareness curriculum for high school students. The curriculum was administered by a guidance counselor on a 1:1 student basis. The program included eight modules with topics such as knowing your setting, creating SMART goals, exploring college-based careers, and the cost of post-secondary education. It was determined that the effects of the curriculum were statistically significant (Martinez, Baker, & Young, 2017). A study by

Hirsch (2017) found that implementing a guided curriculum regarding transferable work-based skills has proven effective and was found to double the hiring rate in mock interview settings, indicating increased success in authentic interview situations. At this time, no known anchored instruction career curriculums, including video-based problem-solving opportunities, have been taught by educators, created, or statistically evaluated.

1.4 Cognitive Theory

Cognitive theory provides curriculum designers with research-based insight regarding effective conceptual strategies and principles needed to guide the construction of lesson materials, activities and assessments. Four main principles of cognition are as follows: (a) prior knowledge, (b) active learning, (c) metacognition, and (d) transfer knowledge. Researchers must consider these strategies prior to curriculum creation and implementation in order to create an effective curriculum.

1.4.1 Activating Prior Knowledge

A well-constructed curriculum helps guide teacher implementation (Anderson & Rogan, 2011). First, it is imperative that educators activate their students' prior knowledge before introducing new material (Bransford, 1999; Swiderski, 2011; Wetzels, Kester, van Merriënboer, & Broers, 2011). Students are not empty vessels, but they bring many pre-existing ideas to the learning environment (Ashman & Conway, 2002). For this reason, curriculum developers should naturally incorporate and provide teachers with guiding problem-solving activities that draw out this information (Ashman & Conway, 2002; Bransford, 1999; Wetzels et al., 2011) ". This prior knowledge should also be used

to determine the starting point of instruction and to monitor changes in student ideology throughout the course of the unit (Bransford, 1999; Swiderski, 2011).

1.4.2 Active Learning

Twenty-first century classrooms should emphasize student-centered learning environments and active engagement (Care, Kim, Vista, Anderson, & Brookings Institution, 2018). Active learning and engagement should not focus solely on the project or experience alone, resulting in the completion of an activity that may be engaging but lacks connection to content knowledge attainment (Bransford, 1999; Care et al., 2018; Swiderski, 2011). For example, a teacher may ask students to create a bottle rocket to teach an engineering concept; however, when asked, the highly engaged students do not understand why they created the rocket (Bransford, 1999). Ideally, students should participate in the bottle rocket project and attain the embedded content knowledge. Active learning activities should ultimately lead students towards content mastery (Bransford, 1999; Care et al., 2018; Swiderski, 2011).

1.4.3 Metacognition

Students should engage in metacognitive thinking. Metacognition is defined as a student's ability to predict task performance, to evaluate current levels of understanding and mastery, and to take steps to further knowledge (Bransford, 1999; Care et al., 2018; Marra, Jonassen, Palmer, & Luft, 2014; Nappi, 2017). A curriculum should provide students with the ability to self-assess, reflect on their work and decide what needs improvement to promote metacognitive abilities (Bransford, 1999; Care et al., 2018). Additionally, it is recommended that students receive the opportunity to assess their

peers' work to engage in further reflection. Students who received these opportunities showed a fundamentally superior understanding regarding the given topic. This reflective practice has also proven effective in increasing students' abilities to transfer content knowledge to applicable settings (Bransford, 1999; Nappi, 2017).

1.4.4 Transfer Knowledge

Transfer knowledge is the learner's ability to gain understanding rather than simply attaining factual information. This understanding should be generalized within multiple contexts beyond the original lesson (Bransford, 1999; Care et al., 2018). First, a student's ability to transfer knowledge can be increased through the mastery of the content area (Bransford, 1999; Topolinski & Reber, 2010). Experts gain fluency of information through means of deliberate practice and repetition of facts to quickly recall and apply information to multiple contexts. If individuals do not have a solid grasp on factual material, it is more difficult for them to transfer learning (Bransford, 1999). Similarly, experts are able to create meaningful patterns in information, chunk information to enhance short term memory for the purposes of transferring knowledge, and use existing knowledge to gain new information. Chunking can also be used in classroom settings. This strategy is considered the grouping of smaller pieces of information into larger categories for the purposes of memory retention (Bransford, 1999; Swiderski, 2011). For example, 4 to 10-year-old students were shown a series of pictures of a cat, rose, train, hat, airplane, horse, tulip, boat, coat, among others. Students who noticed that the words could be placed in four categories remembered far more words than their peers. However, it must be noted that the individuals had to comprehend factual information about the words in order for chunking to occur (Best & Ornstein,

1986). Finally, experts learn facts in context of applicability rather than memorizing facts in isolation. This allows individuals to scaffold understanding and more easily transfer knowledge to other contexts. For this reason, a curriculum should include multiple opportunities for practice, and information should be placed in context and within natural categories to aid in chunking (Bransford, 1999).

1.4.5 Curriculum Length and Depth of Topic

Bransford (1999) noted “the amount of time it takes to learn material is roughly proportional to the amount of material being learned” (p.58). In other words, learning cannot be hurried. When creating a curriculum, it is important to allow enough time for students to grapple with new material, learn content knowledge and work on problem solving skills (Pashler et al., 2007). Similarly, lessons should provide many examples within one topic so that students can attain a solid factual foundation prior to the transfer and application of knowledge. Each lesson level should not be so challenging that it causes discouragement, but challenging enough to foster engagement (Bransford, 1999).

1.4.6 Cognitive Theory and the 21st Century Classroom

Students should be given the opportunity to confront pre-existing ideology and discuss new information prior to a lecture (Pashler et al., 2007; Wetzels, Kester, van Merriënboer, & Broers, 2011). Students who work through this discussion process are better able to transfer knowledge than students who are solely given direct instruction (Dös et al., 2016). For this reason, it is important that a lesson includes both content knowledge and problem-solving skills (Ashman & Conway, 2002). In fact, according to an article by Care and colleagues (2018), today’s instructional developers should include

metacognition and transfer knowledge to create an effective curriculum. Specifically, the top three 21st century transferable skills necessary for today's students include "collaboration, critical thinking, and problem solving" (Care et al., 2018, p. 16). Regardless the curricular topic, students tend to increase in engagement when the content knowledge is simultaneously presented with deliberate connections to everyday life application (Bottge, Rueda, LaRoque, Serlin, & Kwon, 2007; Pashler et al., 2007). It is important for students to know that the information they are learning can affect their lives personally or corporately (Bransford, 1999; Care et al., 2018).

1.5 Anchored Instruction

Problem solving can be defined as the "application of knowledge to achieve a desired outcome" (Ashman & Conway, 2002, p.1). This is a key foundation of anchored instruction as it is designed to move students from inert knowledge to the meaningful application of knowledge through the use of problem-solving. Alfred North Whitehead first studied inert knowledge in 1929 and claimed that most information is presented for the purposes of knowledge attainment only without giving students opportunity to transfer the knowledge past the final exam. Information gathered in this way is factual and can be recalled; however, it is not often transferred into other contexts or spontaneously used for the purposes of critical thinking (Love, 2004). Anchored instruction addresses the need to move past inert knowledge through the use of problem solving and giving instruction in meaningful contexts (Love, 2004; Nix & Spiro, 1990).

Anchored instruction was first conceptualized by researchers at Vanderbilt University (Love, 2004). Anchors are video stories or scenarios meant to teach

knowledge in engaging and realistic contexts to promote problem solving and the transfer of knowledge (Love, 2004; Nix & Spiro, 1990). Anchored instruction begins with a problem situation or an event that students can use to build context and understanding. For example, the anchor may ask students to plan a trip to Sub Sahara Africa or to improve the efficiency of a company. Students must solve sub goals and problems within the anchor. According to Nix and Spiro (1990), anchors are more effective when delivered in a video format rather than through text or audio. When problem solving, video allows students to gain rich visual information in addition to audio and text. Similarly, teachers can rewind and pause the video at specific frames to focus on a part of the video that may need more analysis (Nix & Spiro, 1990).

Anchored instruction has proven effective in a variety of grade levels from elementary aged children to college students. For example, researchers have shown that a problem-solving anchored video was effective in improving children's comprehension and problem-solving skills (Bottge, Rueda, Serlin, Hung, & Kwon, 2007; Bransford, 1999). According to Nix and Spiro (1990), college students also benefited from anchored instruction and were able to transfer complex topics from inert knowledge to a level of understanding. Overall, students of all ages who were exposed to anchored instruction were more likely to remember the information they learned and used the content knowledge to problem solve in a variety of scenarios (Nix & Spiro, 1990).

In the past, videos were used as lectures to teach content knowledge in the form of direct instruction. However, anchored videos should be realistic stories used to solve problems and construct active knowledge within contexts of application (Love, 2004). Students are natural problem solvers; therefore, anchored instruction builds on a child's

natural motivation to explore, learn and understand information. According to Bransford (1999), students are better able to transfer knowledge when a second, similar anchored problem is provided after the first scenario is presented. Teachers should also foster “what if” discussions concerning alternative possibilities or solutions to increase flexibility of thought (Bransford, 1999). When engaging in such discussion, teachers can ask probing questions and provide instructional support as needed (Bottge et al., 2015; Bransford, 1999). Students also benefit from regular opportunities for reflection and feedback regarding progress (Bransford, 1999).

Finally, the design of an anchored instruction curriculum should be directed by seven key principles (Love, 2004). (a) First, the researcher should choose an anchor that is appropriate for the curriculum’s goals and objectives. (b) Shared expertise should then be created around the anchor. Students should be allowed to watch the video anchor several times to understand the complexity of the information and to gain a sense of expertise regarding the situation. The discussion should shift from teacher-led to student generated through the progression of the lesson. Information should connect to the students’ experiences and other areas of the curriculum. (c) It is appropriate to expand the anchor and use more than one video to interest students and to build a deeper construct of knowledge. (d) Knowledge should also be used as a tool. The anchor video can be used to teach new content knowledge, but the information should then be used to solve problems and to connect concepts. Anchored instruction naturally helps students transfer information across contexts. (e) Instructors should teach using the anchor by referring to it often and connecting it to curriculum goals. As the students gain a sense of expertise with the anchor, they are more likely to transfer information from one context to another.

(f) The anchor should be used in tandem with literacy skills such as reading, writing and oral presentations. (g) Finally, students should be given access to view and explore the anchor video to further their sense of expertise (Love, 2004). Overall, it is important that an anchored instruction curriculum use anchored videos intentionally to provide students ample opportunity to become experts in the material and increase the chances of transferring inert knowledge to practical application.

1.6 Best Practice in Curriculum Design and Implementation

Curriculum can be defined as the “teaching, learning, and assessment practices and materials available for a specific course or program” (Anderson & Rogan, 2011, p. 65). The design of such curriculum should be founded on but not limited to the following principles of curriculum design and implementation: (a) Carefully crafted teacher routines, conditions and structures (Guthrie, Wigfield, & VonSecker, 2000), (b) learning goals tied to appropriate assessment (Anderson & Rogan, 2011), (c) spaced learning (Carpenter, Pashler, Cepeda et al., 2007), (d) graphic descriptions (Pashler et al., 2007), (e) and effective questioning techniques (Beesley, Apthorp, Mid-continent Research for, & Learning, 2010). Though many curricular foundations can be set to ensure a solid foundation, it is recommended that a curriculum not remain unchanged once it is created; instead, it should be revised yearly according to teacher and student feedback (Anderson & Rogan, 2011).

1.6.1 Teacher Classroom Structures, Routines, and Conditions

Teachers may use a variety of teaching styles to meet the standards of the curriculum. There is no sole universal teaching method. Instead, teachers should use the

most appropriate teaching style related to their personalities necessary to meet both student needs and curriculum objectives (Anderson & Rogan, 2011; Bransford, 1999). Regardless of teaching style, Guthrie and colleagues (2000) discussed six classroom structures, routines, and conditions proven to increase student motivation and engagement. First, it is imperative that the teacher is genuinely caring while simultaneously setting consistently high expectations. This can be achieved academically when the teacher sets clearly stated, explicit learning goals at the beginning of each lesson. Next, students have shown increased motivation and engagement when the teacher provides a variety of interesting and relatable texts, offers opportunities for collaboration, and allows student choice. Lastly, it is highly recommended that lesson materials contain clear real-world application and include opportunities for hands on learning.

1.6.2 Learning Goals and Assessments

When constructing a curriculum, one must first construct appropriate learning goals and objectives that will guide corresponding curriculum structure, content and assessments. Assessments should not only appropriately align with the original goals and objectives (Anderson & Rogan, 2011; Care et al., 2018), but should include both formative and summative assessment techniques to monitor student thinking and knowledge attainment (Anderson & Rogan, 2011; Bransford, 1999). Formative assessments are embedded throughout instruction while summative assessments occur post instruction (Bransford, 1999). Authentic assessments may also be collected from work samples, portfolios, and observations. Such authentic samples give greater indication regarding whether the learner can apply information to problems and real-life

situations (Ashman & Conway, 2002). Assessments aligned with main curriculum goals should guide lesson progression and should provide teachers with an opportunity to refine their own teaching practices (Bransford, 1999; Care et al., 2018). Instructors should implement “active monitoring” when giving opportunities to practice new material. This feedback, regarding a student’s progress, is crucial to student learning and should be provided frequently (Anderson & Rogan, 2011; Bransford, 1999).

1.6.3 Spaced Learning

Students should be exposed to main concepts at least twice in the course of instruction. Students retain more information if re-exposure to the material is spaced over the course of the unit (Pashler et al., 2007). For example, one study found that a group of eighth grade students was able to recall history facts at almost 100% accuracy after a 16-week delayed review compared to those who reviewed and re-tested one week after initial exposure (Carpenter et al., 2007). According to Pashler and colleagues, the concern of creating too much space is almost a non-issue compared to the implications of executing too short of a delay in review and assessment. Therefore, it is recommended that the length of instruction is long enough to create ample spacing prior to testing. Homework, quizzes, in-class reviews, and cumulative testing are strategies used to implement the space and re-exposure needed to support a student’s long-term memory and increase the transfer of knowledge (Pashler et al., 2007).

1.6.4 Graphic Descriptions and Abstract Thinking

Students absorb more information when written content knowledge or key concepts are combined with audio or visual representation. These graphic descriptions

should be simultaneously explicated through verbal or written text and key concepts should be highlighted (Pashler et al., 2007). Such visual representations help students grasp abstract concepts and can be portrayed through real world scenarios, problem solving opportunities, hands-on projects, movie clips, and stories (Bottge, Rueda, LaRoque, et al., 2007; Pashler et al., 2007). In fact, when students are initially taught using an abstract idea they may struggle more at first, but are more likely to transfer knowledge to different contexts than if first taught through a concrete form (Pashler et al., 2007). Low and high achieving students have shown academic improvement when both abstract and concrete representation are interwoven in a given lesson (Bottge, Rueda, LaRoque, et al., 2007).

1.6.5 Questioning Techniques

Questions have been used to activate the cognitive skills of students for centuries beginning with the teaching of Socrates in the 5th century BCE (Dös et al., 2016). This technique has been considered one of the top nine effective teaching strategies (Beesley et al., 2010) and has been linked to improvements in learning and comprehension. Questions can be used to activate pre-existing beliefs by promoting deep, intensive reasoning (Pashler et al., 2007; Sahamid, 2016) in the context of interacting with others to create a framework of knowledge (Heritage & Heritage, 2013). This method can lead students to develop problem solving techniques, engage in critical thinking skills and achieve further metacognitive thinking habits (Dös et al., 2016; Nappi, 2017). Teachers can either ask closed-ended convergent questions or open-ended divergent questions. The latter is recommended to increase the likelihood of higher-order thinking and to promote the transfer of knowledge (Dös et al., 2016). Specifically, teachers should ask questions

starting with phrases such as “what caused, what if, what-if-not, how did this occur, compare and contrast, why is this important etc” to foster desired critical and metacognitive processing (Pashler et al., 2007).

1.7 Conclusion

In conclusion, it is essential that educators and researchers consider the 20 predictors of post-secondary student success when creating transition curricula (Mazzotti et al., 2016). Creating uniform STW school curriculum and programming may present itself as daunting, but it is a vital requirement needed to combine academic and vocational needs appropriately in the school system (Gregg, 2007; Sprunger, Harvey, & Quick, 2018; Stern et al., 1994). Evidenced based research and creative solutions for uniformed STW programming and curriculum must occur; similarly, school systems must be willing to change in order to remedy the dismal post-secondary outcomes faced by SWD (Gregg, 2007).

When creating a curriculum within the framework of the cognition theory, it is important to include the following foundational principles discussed within this chapter. Anchored instruction is one way to foster problem-solving within student learning. Finally, it is important to create a curriculum using best practice strategies including the use of carefully crafted teacher routines (Guthrie et al., 2000), learning goals tied to appropriate assessment (Anderson & Rogan, 2011), spaced learning (Carpenter, Pashler, Cepeda et al., 2007), graphic descriptions (Pashler et al., 2007), and effective questioning techniques (Beesley et al., 2010).

1.8 Research Questions

My research interest will lead me to future studies to address the need of a unified STW curriculum using anchored instruction. Prior to creating and examining an entire curriculum, I propose an experimental study to determine the effect of one unit of a career awareness transition curriculum. In light of this problem, my research question focused on answering the following questions:

1. In what ways, if any, can a career-focused curriculum lead to a better understanding of the transition concepts for the career preparation of at-risk high school students?
2. Do the attitudes of students concerning their career goals change as the result of successfully completing the career-focused curriculum? If so, how do they change?

CHAPTER 2. METHOD

2.1 Participants and Settings

The study was conducted at an alternative high school located in the southeastern portion of the U.S. The school offered small class sizes ranging between 5-20 students per class, reduced teacher-to-student ratios and a focus on school to work transition. Specifically, their school focused on teaching employable soft skills, taking students on bi-weekly field trips to local businesses and organizations, and granting students exposure to trade skills such as wood-working, horticulture, apiology, and media production.

The school consisted of 208 students in grades 8-12, most of whom were considered at-risk of dropping out of high school. All students attending this school had to apply to attend, whether they were referred by their home school or elected to attend. These students were often unsuccessful behaviorally and/or academically in their previous school environments. In their home high school, prior to attending the alternative high school, students either failed most of their classes, possessed significant behavioral referral records or suffered from severe anxiety or depressive traits. At the time of the study, the alternative school's waiting list was so long that they were able to make applicant-based selections rather than accept only forced placements as in the case of many alternative programs.

The study included a sample of 88 students from this alternative high school and 5 content area teachers. Figure 2.1.1.1 provides demographic information about the participating students and teachers. According to student disclosed information, 23% of students worked in paid positions and 4% of students worked in unpaid internships.

Student self-reported data indicated that 47% of students had one or more parents who at least held a bachelor's degree.

Five teachers (English, Science, Family-Consumer Life Sciences, Health, Certified Careers) volunteered to participate in the study after the researcher described its purpose and details of their responsibilities at a faculty-staff meeting. These individuals also exhibited diverse demographic characteristics and a variety of classroom experiences. Three teachers in this study were male and two teachers were female. Four of the instructors were Caucasian and one was African American. The teachers also had a variety of teaching experience. All of the teachers had primarily taught grades 8 to 12, and they had taught from a range of 2 to 18 years. More specifically, two teachers taught for 2 years, one teacher taught for 5 years, another teacher taught for 10 years, and one other teacher taught for 18 years. All teachers had completed their bachelor's degree, two teachers had completed a master's program, and two teachers were working to complete a master's program at the time of the study.

Traditional classes (i.e., English, Math, Science, Social Studies) along with two elective classes (e.g., Art, P.E., Child Development) were scheduled every day from 1st-6th period except bi-weekly on Wednesdays. These core content classes made up a bulk of the school day. During 7th period, all students were exposed to hands-on experiences such as horticulture, media production, apiology, woodworking and creative writing. All classes from 1st-7th period were 55 min in duration. During the 2019-2020 school year, the school expanded the career focus to include bi-weekly "Working Wednesdays", a day set aside for students to go into the community to work, volunteer or shadow businesses.

This study took place during traditional class periods (1st– 6th) due to school scheduling and school preference.

2.1.1.1 Student Demographics

	Students		χ^2	<i>p</i>
	BAU	CFC		
	(<i>n</i> = 32)	(<i>n</i> = 42)		
Gender			0.667 ^a	0.414
Boys	22	25		
Girls	10	17		
Grade			15.109 ^a	0.004
8	5	1		
9	15	7		
10	5	14		
11	6	16		
12	1	4		
Ethnicity			3.231 ^a	0.405
Caucasian	19	28		
Latino	3	1		
African American	9	9		
Biracial & Other	1	4		
Accommodation Plans			1.982 ^a	0.434
With an IEP	2	7		
With a 504 Plan	9	12		
Without a Plan	21	23		
Free/subsidized lunch			1.566 ^a	0.502
No	0	2		
Yes	32	40		

Note. Values in parentheses represent degree of freedom. BAU = Business as Usual; CFC = Career Focused Curriculum; IEP = Individualized Education Plan; 504 Plan = Student Accommodation Plan; Grade, Ethnicity, and Free/subsidized lunch have missing data on 11 students due to parent consent permissions. IEP has missing data on 13. Accommodation Plan has missing data on 14.

[Figure 2.1.1.1 Student Demographics]

2.2 Description of Intervention: Career Focused Curriculum

2.2.1 CFC Content Rationale

The Career Focused Curriculum (CFC) consisted of one career awareness unit. Career awareness is 1 of the 20 predictors of post-secondary success and includes learning about various occupational pathways, choosing a career that matches the student's abilities, interests and strengths, and learning about education, skills and opportunities needed to succeed (Mazzotti et al., 2016). This singular predictor was addressed in this CFC unit to promote both depth of learning and spaced learning. According to Bransford (1999), curriculum designers should cover few topics in depth rather than multiple topics in a short period of time. Similarly, it is recommended that the length of instruction regarding a given topic is long enough to create opportunities for re-exposure to the material prior to testing to support a student's long-term memory and increase the transfer of knowledge (Pashler et al., 2007). For this reason, the CFC consisted of one career awareness unit that was designed to take place over a 6-8-week period.

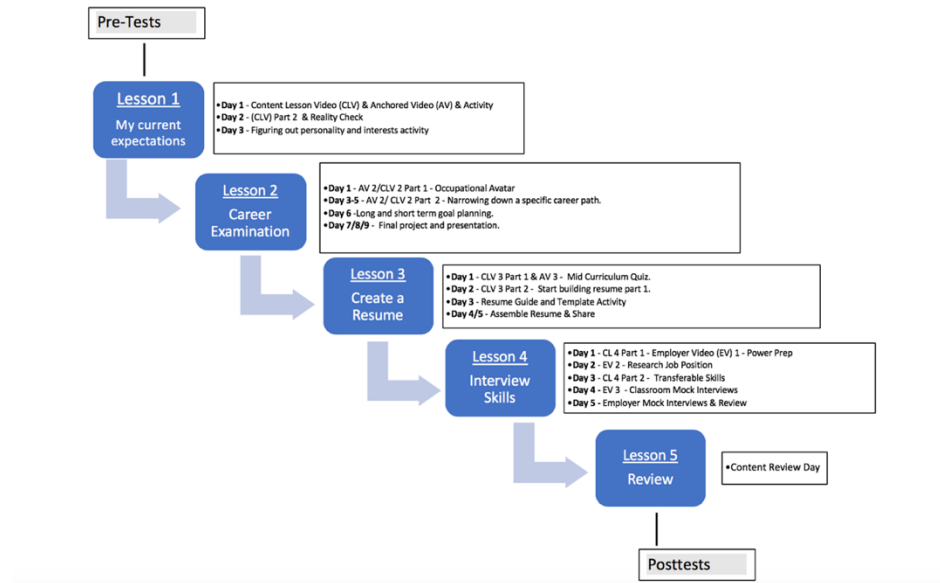
2.2.2 CFC Curriculum Map

The CFC was comprised of five total lessons. Specific topics covered in lessons 1-5 are as follows (See figure 2.2.2.1). Lesson 1 "reality check", guided students into activating prior knowledge by discussing their current career goals and financial expectations. Lesson 2 "career examination", focused on helping students determine their career clusters, possible job interests and culminated in a final project where students presented research about a potential future career path of their choice. Students learned how to create a quality resume in lesson 3, "resume creation", and then prepared for

professionally scored mock interviews in lesson 4 “interview skills”. Finally, lesson 5 acted as a review lesson to help students study for the final summative assessment. Each lesson was taught across several days to allow students to receive the information in manageable portions and to allow for re-exposure and spaced learning (Pashler et al., 2007).

Each lesson was designed to build on knowledge gained from the previous lesson. For example, students needed to select a career before creating a resume to obtain that job in the mock interview. All lesson activities in “My Current Expectations” and “Career Examination” were scaffolded to help students research all necessary components for Project 1 (Appendixes 3,4). Similarly, all lessons in “Resume Creation” and “Interview Skills” were scaffolded to help students complete all tasks for Project 2 (Appendix 5). According to van Geert and Steenbeek (2005), scaffolding is effective in educational contexts. Scaffolding is a strategy used by teachers to assist with skills that students would not otherwise be able to perform without help (Anderson-Inman, 2009; van Geert & Steenbeek, 2005), and is a strategy that can be used with students with disabilities. Teachers should gradually fade the scaffolded support as the student becomes more independent in the task (van Geert & Steenbeek, 2005). The curricular layout, material scaffolding, and lesson plan formatting were examined, revised, and approved by a Ph.D. in the area of curriculum design prior to intervention.

2.2.2.1 CFC Curriculum Map



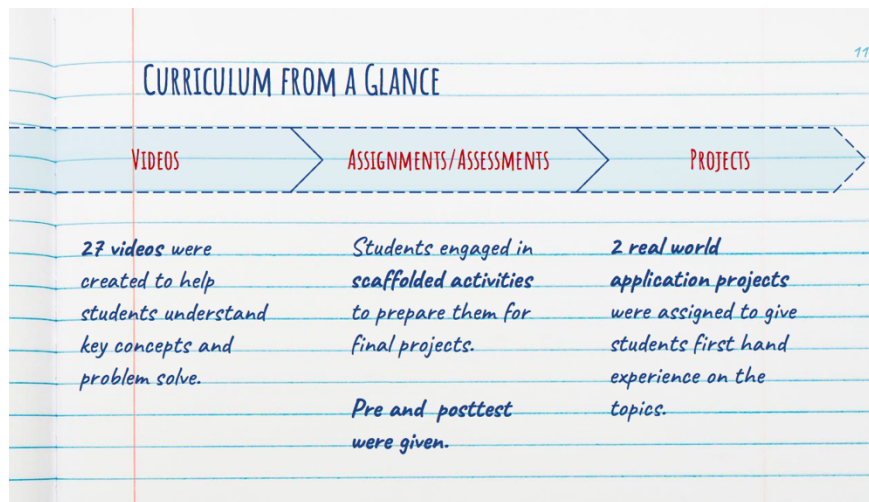
[Figure 2.2.2.1 CFC Curriculum Map]

2.2.3 CFC Instructional Materials

The CFC included several materials based on principles of the cognition theory (Anderson & Brookings Institution, 2018; Ashman & Conway, 2002; Care et al., 2018; Marra et al., 2014; Nappi, 2017) and anchored instruction (Bottge, 2001; Love, 2004). For this reason, all lessons were first anchored with a problem-solving, anchored video. Students then learned career awareness content through the use of content videos (lessons 1-3), employer videos (lesson 4 only), corresponding activities, and projects (Figure 2.2.3.1). Each teacher received a lesson plan binder and online material access to video links, activity worksheets, project guides, project rubrics, and assessments. All materials were created by the researcher. Few select activities were adapted from “MyMnCareerPlan” workbook (2014), the University of Arizona’s “Take Charge Today” career exploration program (2013), and “The Resume Workbook: For High School

Students” by Yana Parker (2001). All adapted CFC assignments noted the source in the activity footnotes.

2.2.3.1 Curriculum Contents Overview



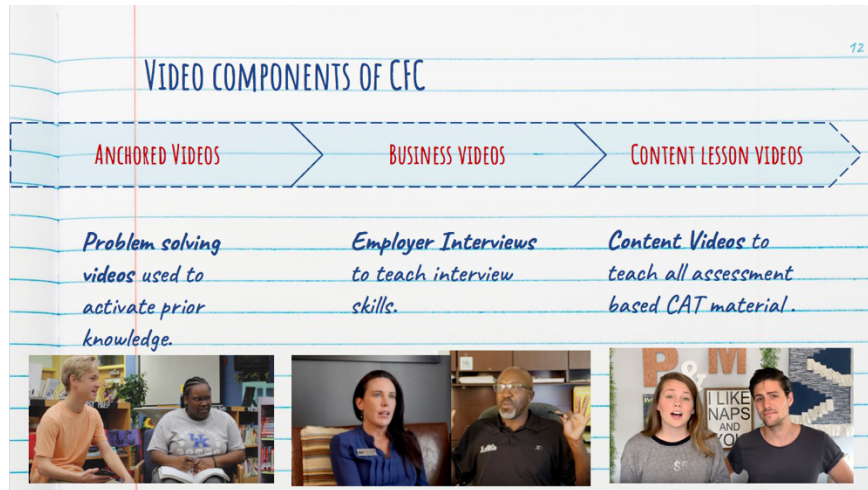
[Figure 2.2.3.1 Curriculum Contents Overview]

2.2.4 Videos

The primary researcher videotaped and edited a total of 27 videos encompassing anchored videos, employer interview videos, and content videos (Figure 2.2.4.1). Video clips ranged from 3-12 minutes in length. The primary researcher created a script for both the anchored videos and content videos based on research-validated instruction regarding the following topics: (a) awareness of statistical financial outcomes (Zablocki & Krezmien, 2013), (b) employment goal setting (Bangser & National High School, 2008; O'Neill, 2000; Peterson et al., 2013), (c) the creation of quality resumes (Akpan & Notar, 2012), and (d) an understanding of employer expectations during job interviews (Akpan & Notar, 2012). Business videos were created from employer interviews based on questions created by the primary researcher (Appendix 6). Employers spoke from

personal experience regarding the hiring of potential candidates. In the editing stage, the primary researcher selected video clips that closely reflected research-based suggestions (Akpan & Notar, 2012).

2.2.4.1 Video Descriptions



[Figure 2.2.4.1 Video Descriptions]

Anchored video instruction in this curriculum was to provide students with an interactive problem that students could solve in context. Many societies and cultures learn from the context of daily life, not only from lectures and direct instruction (Bottge, 2001). These video vignettes were intended to help students personally identify with the career awareness problems of other students in context for lessons 1-3. Each anchored video portrayed a scene of high school students discussing pertinent topics and challenges they faced in regards to achieving their next step career goals after high school.

Professional actors from a local university and acting company volunteered time in assisting in the creation of this product. An outside anchored instruction expert, from the university where anchored instruction originated, was asked to review the scripts and ensure that the content was appropriate and relevant. The videos displayed scenarios of

students (a) discussing if they had previously thought about job attainment, (b) confronting pre-existing career ideas to determine realistic aspirations, and (c) finding accurate information regarding how to create a professional resume.

Additionally, a series of employer video interviews were recorded for lesson 4 to prepare students for their mock interviews. Six employers and three job coaches were asked questions individually in a semi-structured interview format (Appendix 6). The primary researcher went to each individual's place of business to record the interviews in order to minimize the employer's time spent away from work. Employers provided students with an in-depth understanding regarding the interview process. Each business person answered questions on the video such as "What impresses us most in an interview?", "How should you dress for an interview?", "How did I choose my career path?", and "What traits do we look for in our candidates?" Each recording session lasted between 30 mins to 2 hrs in length depending on the brevity of the interviewee; however, videos were only 5-12 mins in length per topic after post-production occurred.

Finally, content videos were created to ensure implementation fidelity across the four experimental classrooms. If each teacher played all recommended CFC content videos, then the students would be exposed to all necessary content knowledge without potential risk of the teacher omitting content or potentially teaching concepts incorrectly. Two social media personalities with a pre-existing high school audience were chosen for the creation of the content videos due to their experience being on camera and speaking to an 8th-12th grade population. These individuals were given a script written by the primary researcher covering material regarding (a) the awareness of statistical financial outcomes (Zablocki & Krezmien, 2013), (b) employment goal setting (Bangser &

National High School, 2008; O'Neill, 2000; Peterson et al., 2013), (c) the creation of quality resumes (Akpan & Notar, 2012), and (d) an understanding of employer expectations during job interviews (Akpan & Notar, 2012). The videos covered content knowledge directly related to the final Career Awareness Test (CAT) assessment questions (Appendix 7), and each content video was paired with a set of guided notes. Filming lasted between 2-3 hours for the videos for all four lessons; however, each lesson video ranged between 8-20 mins after post-production. Additionally, the primary researcher was present during the filming session to offer clarification and to ensure correct delivery.

2.2.5 Guided Video Worksheets

Guided notes were paired with the content videos and administered to the students for the purposes of engagement and retainment of relevant knowledge. A meta-analytic review of guided notes revealed that note-taking is not only effective, but improves student performance, increases accuracy, and fosters active engagement (Konrad, Joseph, & Eveleigh, 2009). Guided notes were created by the researcher, and the notes tied directly to the content videos and assessment materials covered in the CAT (Appendix 8). An answer key was created for teacher use and a fill-in-the-blank version was created for students to fill in as they watched the content videos.

2.2.6 Lesson Plans

The researcher created and provided teachers with lesson plans for each day of the CFC. Lesson plans included the title and day of the lesson, recommended grade levels, average time to complete, common core standards, lesson plan objectives, materials, an

essential question, curricular questions, a starter, procedural lesson instructions, and an exit slip (Appendix 9). Due to early teacher feedback, the researcher also provided a “quick notes” version of the lesson plans, which included the title, day of the lesson, essential question, lesson plan objectives and procedural lesson instructions (Appendix 10). Lessons not only provided a step-by-step manual, but also encouraged teachers to utilize an inquiry-based approach during instruction through the use of divergent questioning to promote the use of metacognition, critical thinking and problem-solving methods (Dös et al., 2016; Nappi, 2017). Therefore, all lesson plans included a series of carefully crafted question prompts to guide teachers into appropriate divergent, open-ended questioning techniques.

2.2.7 Teacher Binder and Online Materials

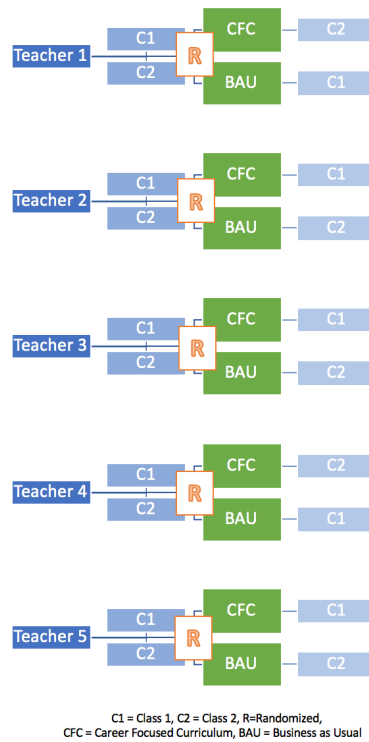
During the initial teacher training, each educator received a 1-inch binder filled with a teacher fidelity checklist, a CFC table of contents, tips for best practices in delivering the materials (Bransford, 1999; Guthrie et al., 2000), a teacher calendar, daily lesson plans and printed links to the CFC videos. All CFC videos were stored on private YouTube links for easy teacher access. Additional to the teacher binder, each instructor received an invitation to a personalized Google Drive folder including all materials found in the teacher binder plus all activity worksheets. Teachers could view, download and print materials from the Google Drive.

2.3 Research Design

The design for this study was a pretest-posttest randomized control trial to examine the efficacy of the CFC in an alternative high school for students at risk of dropping out.

Using a within-teacher design, two classes from each of the five teachers were randomly assigned to the CFC or a business-as-usual (BAU) condition. Each teacher taught the CFC in one class and their own content area lessons in the other (BAU). Only students in the experimental condition received the CFC intervention. Those in the BAU condition did not receive the curriculum and teachers taught their usual curriculum. Teachers were not to teach any CFC concepts in the BAU condition to prevent crossover.

2.3.1.1 Randomization at the Class Level



[Figure 2.3.1.1 Randomization at the Class Level]

2.4 Measures

2.4.1 Career Awareness Test

The author developed a 17-item test called the Career Awareness Test (CAT) to measure student understanding of career awareness concepts before and after instruction (see Appendix 7). The CAT was utilized as both a pre and posttest measure for the CFC and BAU conditions. Questions were formatted and structured according to the topic and level of difficulty, and each item was worth either 1 or 2 points resulting in 22 total points. Questions with only one part were allotted one point, and questions with two parts were allotted 2 points. The CAT directly addressed content taught from four specific career awareness areas: (a) knowledge regarding statistical financial outcomes (Zablocki & Krezmien, 2013), (b) employment goal setting (Bangser & National High School, 2008), (c) the creation of quality resumes (Akpan & Notar, 2012), and (d) an understanding of employer expectations during job interviews (Carnevale & Smith, 2013). The questions were tied to corresponding research and reflected the objectives of each lesson. A state-certified career and technical education coach in the school's district examined both the career awareness test and the substance of the curriculum. The expert reviewer reported that the CFC subject matter was directly in line with expected career awareness standards for the state.

2.4.2 Career Awareness Survey

The Career Awareness Survey (CAS) included 10 career awareness questions. Each teacher administered the pretest and posttest for both CFC and BAU conditions (Appendix 11). Questions 1-8 were derived from the Student Transition Questionnaire (STQ). The STQ has test-retest reliability (.81-.91), and has good internal consistency

(α 's= .76 - .88) (Collier, Griffin, & Wei, 2016). This questionnaire was based on five factors related to (a) independent living skills; (b) school, community, and work settings; (c) future planning and goal attainment; (d) disability awareness and personal empowerment; and (e) vocational rehabilitation. However, only the section pertaining to future planning and goal attainment was utilized. Students completed the questionnaire by rating each question on a 7-point Likert scale (0 = disagree and 6 = strongly agree) (Collier et al., 2016). Two questions were added to the end of the CAS to fit the purposes of the given career curriculum. Question 9 stated, "I know how to create a resume" and was titled Resume Creation (RC). Question 10 stated, "I know what characteristics employers are looking for when I interview" and was titled Interview Characteristics (IC). The survey followed conventional wisdom (Krosnick & Presser, 2009) in areas such as avoiding double negatives, beginning with easy questions to build rapport, asking one question at a time, and using simple syntax. Additionally, teachers were allowed to read survey questions aloud to the class to assist students at any reading level. However, teachers were instructed to read questions to students individually only if the student asked for help.

2.4.3 Student and Teacher Interviews

Student and teachers were interviewed after the administration of the posttest (see Appendix 12). Teachers were asked questions regarding the ease of lesson implementation, relevancy of activities, and content application in a semi-structured interview setting. Six students volunteered and were asked questions about their experience with the curriculum, the degree of content knowledge learned and perceived engagement level with lessons and activities in a semi-structured interview format. Three

students were recorded on camera, and three students were interviewed and recorded via audio. The average interview time per teacher and student was 30 min. This information resulted in additional anecdotal data. Qualitative data (interviews, teacher calendar data and observations) were not analyzed at this time, but only quantitative measures were analyzed for the purposes of this paper.

2.4.4 Teacher Calendar

Calendar data were collected from teachers throughout the whole CFC unit. Each day, teachers were asked to write down the lesson day, any student absences and other non-curriculum related activities (e.g. snow days, holidays, field trips). This information was used to determine the number of days the curriculum was taught, the length of time spent on each lesson, and the number of student absences per lesson (Appendix 13).

2.4.5 Fidelity of Implementation

The experimental group used the CFC curriculum for six to eight weeks (i.e. 3-9 days per lesson). Not all teachers completed the curriculum at the same pace due to special assemblies, field trips, teacher absences and student completion rates.

Observations of implementation fidelity were collected for both the BAU and CFC conditions. The BAU group taught their own content areas as usual; however, BAU lesson content could not overlap with the CFC lessons in any way. To ensure CFC concepts were not taught in the BAU condition, the primary researcher collected fidelity of implementation using in-class observations, teacher calendar data, and teacher conversations. In each instance, the researcher wrote down the topic of the BAU lesson and if any CFC concepts were mentioned.

Observations of implementation of fidelity were also determined for the CFC group. Teachers were given a fidelity checklist for each lesson plan following the guidelines of Belford including the preparing curricular materials, presenting the material in scaffolded steps, allowing opportunities for practice, providing constructive feedback, and reviewing previous content (Belford, 2013) (Appendix 14). CFC classroom observations (N=85; 52% of all lessons taught) were conducted to ensure correct curricular implementation and for the purposes of future curricular revision (Appendix 15). Teacher fidelity was collected and recorded by the observer (A= All of the lesson was taught to fidelity (93%); M = Most of the lesson was taught to fidelity (6%); S = Some of the lesson was taught to fidelity (1%)). Interobserver agreement was collected across all CFC classrooms for 12% of all observations. The observer was a University employee who had already attained an Ed.D.

2.5 Procedures

2.5.1 Teacher Implementation Training

The researcher conducted the teacher implementation training during the staff's professional development day at the start of the fall semester and prior to study implementation. The meeting was held in the school's front conference room, which contained a display screen that the author used to exhibit training materials and sample videos. Upon arrival to the meeting room, all teachers received a clear tote containing consent and assent forms, the teacher binder, and a teacher implementation training folder. The teacher implementation training folder contained the training PowerPoint, teacher CFC and BAU schedules, end of the curriculum teacher and student interview

questions, a sample of the teacher calendar, the teacher fidelity checklist, the researcher's classroom observation form, and lesson 2 and 4 project rubrics.

A task analysis was created of all components that needed to be taught during the teacher training (Appendix 16). A secondary observer also attended the teacher meeting to observe the researcher's fidelity of implementation during the training (96%). The only error in fidelity was that there was not enough time in the training to extensively model the inquiry discussion techniques. First the researcher trained teachers on fidelity measure procedures regarding the pre and posttests, the teacher calendar data, consent and assent forms, and student/teacher demographic forms. All of these measures needed to be collected by the teacher for both the BAU and CFC conditions. Next, the researcher described specific CFC procedures. For example, the primary author trained teachers to use the CFC lesson fidelity checklist (Appendix 14) and access online materials and videos on Google Drive. Teachers were also shown the major project rubrics on the large display screen and explained how activities were scaffolded to help students complete the projects. Finally, teachers learned how to conduct inquiry-derived discussion based on the guided prompts in the lesson plans. The researcher explained that it was important to ask open-ended questions and foster discussion student-to-student as well as student-to-teacher to increase student participation in the class sessions.

After showing components of the final projects, activities and clips of CFC videos, the researcher discussed that classroom observations would frequently take place throughout the study. The researcher explained that these frequent observations would provide valuable knowledge and insight into future curriculum development, and provide a resource for teachers should they have questions. The five instructors were given clear

instruction that CFC concepts were not to be taught in the BAU condition. The researcher emphasized that the calendar data log and frequent classroom observations would help ensure that fidelity was maintained and that cross-over had not occurred between conditions. It was explained that in addition to classroom observations, teacher and student interviews would be conducted at the completion of the study to give the researcher further insight regarding curricular changes. The selected interview questions were provided to the teachers for review (Appendix 12).

At the end of the 1-hour session, teachers were given the opportunity to ask questions and clarify instructions. Once all inquiries were answered, teachers took their binder to their classrooms so they could review materials prior to the first week of instruction. The training was a one-time event prior to implementation; however, the researcher was at the alternative high school daily for classroom observations and was available to answer further teacher questions in person, through email or by phone call.

2.5.2 Consent

Prior to instruction, the researcher described and administered the consent and assent forms as given by IRB (Appendix 1). The researcher described the meaning of the forms to students to avoid asserting teacher power over students in regards to attaining consent and assent. When students returned consent and assent forms, teachers were instructed to place the documents in the given orange envelope, record the students' names on the front of the envelope and then place the envelope in the clear teacher tote for safe keeping (Appendix 19).

2.5.3 Student Demographic Forms

Each teacher was given a clear tote at the teacher implementation training and was responsible for filling out a variety of forms throughout the course of the study. The instructors were given an orange envelope titled “Student and Teacher Demographics”; teachers were asked to fill in the information for themselves and for students once institutional review board (IRB) permission was attained. Once the forms were completed, teachers were asked to place the demographics back in the original orange envelope, place corresponding student names on the front of the envelope and place the completed envelope back in the clear tote for safe keeping (Appendix 18).

2.5.4 CAT and CAS Pretest Measures

Teachers administered the CAT and CAS pretests one day prior to instruction to both the CFC and BAU classes. The CAT and CAS were printed on paper and stapled separately. Students were given the exam at the start of the class period and were allotted the duration of the class. According to observation data, it took students an average of 22 minutes to complete both assessments. Each student took the exam independently of peer or teacher help; however, the instructor was allowed to read each question aloud to help students with a below average reading comprehension. Students with an IEP or accommodation plan were allowed to access all permitted testing accommodations such as a reader, scribe, or extended time. If students asked content related questions, teachers answered with a statement such as “do your best” or “make your best educated guess”. Teachers were asked to keep a record of pretest completion by filling out a document on the front of a researcher-given orange envelope used to store all pretests (Appendix 17).

The document included a place to insert student name, a check mark for completed tests, and a checkmark to indicate if students had been given both assent and consent for researcher access to tests. Teachers collected all pre-tests and placed them in the appropriate place inside the clear teacher tote for safe keeping.

2.5.5 BAU Lesson Procedures

After giving the initial BAU pre-test measures (CAT and CAS), teachers returned to their regular curriculum. During the BAU condition, teachers taught their typical content and teachers were told not to discuss any topics covered in the CFC. The five teachers each had a different area of emphasis including English, science, family-consumer life sciences, health, and certified career coaching for Jobs for America's Graduates. Each class was between first and sixth period and lasted an average of 55 mins. At the beginning of every class, teachers were asked to use the teacher calendar to record the lesson content title for the day. The primary researcher observed BAU classes, but also relied on teacher calendar data and teacher discussion throughout the course of the study.

The English teacher started every BAU class with sustained silent reading, which allowed the students to read silently and independently for 10 minutes at the beginning of class. In the English class, students spent the entire BAU portion learning parts of speech. After the students finished sustained silent reading, the teacher usually taught a mini 'parts of speech' grammar lesson (15 minutes on average). The instructor also used a fictional book to teach parts of speech and allow time for students to write reflections on the book emphasizing grammatical construction. This teacher used Google Classroom to organize his lessons and administer student assessments. Similarly, the science teacher

started every class with a starter, which was a question that students answered on individual pieces of paper within a 5 min time frame. The structure of the science lessons varied per lesson, however, the teacher taught physics concepts the entire BAU condition. The teacher used direct teaching via PowerPoint and utilized various media clips, science experiments and groupwork to teach the physics concepts.

The other three special interest classes were conducted with various levels of structure. The physical health class met in the gymnasium much of the time but and occasionally went back to their classroom for certain pencil-paper tasks. When they had class in the gymnasium, each day, students immediately sat on the gymnasium bleachers to wait for teacher instruction. Once the class received the information, they proceeded with the day's activity. Over the course of the BAU condition, students engaged social skill and teamwork building activities such as soccer, golf, badminton, volleyball, basketball and frisbee. The teacher used the first portion of class to teach students how to play each sport and then allowed immediate practice in small or large groups. In the family consumer life sciences class, the instructor taught early life span child development through the course of the entire BAU condition. The teacher placed instructions on the SMART board and students were expected to take their seat upon entering class and follow the given directions. The instructor taught using direct instruction from a Power Point and utilized a variety of activities such as worksheets, videos, and guest speakers. Every Tuesday the teacher had a community volunteer come to the class to teach students how to cook and maintain a proper diet for developmental purposes. Finally, the Jobs for America's Graduates teacher generally began his class talking to students and building rapport prior to instruction. During the course of the

BAU condition, this class learned about entrepreneurship and business management. The teacher utilized games, social team-building and group projects throughout the course of study. Due to the closeness in topics to the CFC, the teacher often consulted with the researcher to validate if his BAU curriculum avoided crossover. Due to these conversations, no crossover existed.

2.5.6 CFC Lesson Procedures

The same five teachers in the BAU group also taught one class in the CFC condition. Each class was between first and sixth period and lasted an average of 55 mins. At the beginning of every class, teachers were asked to use the teacher calendar to record the lesson content title for the day, initials of absent students, and record any other activities that may have taken place outside the CFC (e.g. snow days, field trips, special assemblies). The primary researcher observed CFC classes (N=85; 52% of all lessons taught). Teacher calendar data were utilized to glean any information regarding content taught on days that the researcher was not present. Additionally, interobserver agreement was collected across all CFC classrooms for 12% of all observations.

Teachers were permitted to begin teaching the CFC after pre-tests were collected and placed in the clear tote. During the CFC condition, instructors were given a teacher checklist to guide implementation. Prior to each daily lesson, teachers were encouraged to review lesson plans, download and print activities from the Google Drive, load CFC videos and prepare lesson specific materials as listed in the individual lesson plans. Instructors could write the given lesson plan objectives on the board prior to class or discuss them with students at the beginning of class (Guthrie et al., 2000).

Teachers were instructed to place a lesson starter slip on students desks prior to their arrival. The starter slip consisted of 1-2 intentional questions that either activated prior knowledge or reviewed previous CFC material. Students were expected to work quietly for 5 minutes on the starter slip before discussing the question as a class. Most teachers used the initial 5 min to take attendance and input daily information into the CFC calendar data. After discussing the starter question, teachers were instructed to follow the lesson plan activity steps which often included presenting CFC videos, guided notes, activities and projects. Teachers were encouraged to use the open-ended inquiry question prompts provided in the lesson plans to foster further discussion and to increase student engagement. Once all work was completed, teachers gave each student an exit slip during the last 5 min of class that consisted of one question reviewing a key concept from that day's lesson. Teachers were instructed to provide feedback on exit slips, major activities or project assessments and use the findings to reteach any misunderstood concepts the following day if necessary.

Procedures for project 1 and project 2 strayed from the typical lesson format. Project 1 took place at the end of lesson 2 and was intended to last 3 days. Students were instructed to create a presentation based on their expectations and career search activities scaffolded in lessons 1 and 2. At the beginning of the project, teachers explained the project expectations using a rubric (Appendix 3). First, students worked independently filling out a project outline that helped them gather all information from the lessons into one form to help them create their presentation (Appendix 4). Then the teacher walked around the room to answer questions, offer feedback and implement prompting strategies for off-task students. Students were allowed to choose a number of presentation modes

such as PowerPoint, Prezi, websites, board games etc. However, all students were required to include all pertinent information into their project as stated in the rubric. Teachers were to give students a deadline. Once projects were completed, individual students presented their projects to the class. Teachers encouraged nervous students and set a supportive tone to the other students by asking them to clap for their peers and ask questions at the end of each presentation. During presentations, each student received a peer-evaluation form in which they rated the overall presentation, made notes about the content of the presentation and wrote two things that they either learned or had questions about. The instructors scored the students presentations on the given rubric as the student presented. The day after the presentations, students were given their scored rubrics and then participated in a think, pair, share. In this activity, students were given about 5 minutes to review the teacher and student feedback, then they were paired with another student to reflect on their presentation and then students were able to share about their experience with the whole class. In this reflective practice, students were also able to think about further insights regarding their future career paths and about their presentation strengths and weaknesses (Kaddoura, 2013).

Project 2, the mock interviews, took place after lesson 4 and built on all of the material learned throughout CFC lessons 1-4. Two weeks before the event, The researcher received a list of all student career interests from the teachers based on lessons 1 and 2. The first author then matched students with a best fit volunteer employer in a similar career path. The researcher worked with the teachers to prepare all of the details for the event 2-3 weeks prior. Instructions were created for all involved (Appendix 20). Meanwhile, in lessons 3 and 4, students created a quality resume for the mock interview

and practiced interview skills in the classroom. The day before the event, students were instructed to come well rested and appropriately dressed for the interviews. Teachers also emailed parents to notify them of the change in schedule (Appendix 21). They were allowed to take home some example interview questions to practice if they desired. The mock interviews took place on a Working Wednesday, from 9:00 am to 12:00pm when all students were out at other schools; however, the CFC students remained at the school through an in-school field trip to engage in their interviews. This largely provided the researcher with ample space to station volunteer employers in the cafeteria and library.

The morning of the event, 16 employers arrived at the school building at 8:30 am and met in the library for about 45 mins with the researcher and the school principal to receive a folder with their rotation schedule (Appendix 23), the mock interview scoring rubrics (Appendix 5), and student resumes. The researcher read and explained each question on the rubric, and the principal gave employers an overview of the school, the students and how to respond to any potential behavior issues. Once all information was delivered, employers were allowed to go to their pre-designated station to look over all materials and rubrics for 15 min prior to the first student's arrival; stations were labeled the day before with the employers' names.

Students arrived to the school building at 9:00 am. They checked in with their homeroom teachers and were instructed to go to the gym where a CFC teacher and the school's behavior coach gave students behavioral expectations and their schedules for the day. Twenty-five minutes later, students were dismissed to their designated classroom or interview sessions. Students who were waiting for their interview time slot or had finished their interview were assigned to classrooms that rotated every 30 minutes

(Appendix 22). Four guest speakers (college recruiter, job placement coach, a college alum, and a school counselor) were paired with a classroom teacher and volunteered their time to give students more information about how to be prepared for college and the workplace (Appendix 24). All interviews and sessions ended at 11:30am; at that time, students were scheduled to meet in a small group with the employer they interviewed with earlier in the day. Two employers and a classroom teacher were assigned to each room with the students they had interviewed. The groups were allotted 30 minutes to reflect on the interviews for that day and gave students a chance to ask any questions about the working environment in that specific career pathway.

Throughout the CFC unit, teachers conducted grading practices in a variety of ways. One teacher asked all students to submit assignments to Google Classroom for easy grading access. Other teachers asked students to place all work in individual student binders. Students were instructed to keep their binders in the classroom so that risk of losing the binders was minimized. Some teachers who utilized student binders conducted weekly binder checks on Fridays, which entailed meeting with students individually at the end of class to verify completion and grade assignments. Some teachers graded assignments at the end of each lesson rather than the end of each week.

2.5.7 CAT and CAS Posttest Measures

Posttests were administered to the students upon the conclusion of the CFC. Students in the CFC and BAU groups were given both the CAT and CAS posttest measures during the same week. Students were allotted the entire class period to complete the documents; however, students completed the tests in 16 mins on average. The CAT and CAS were printed on paper and stapled separately. Each student took the

exam independently of peer or teacher assistance; however, the instructor was allowed to read each question to help students with below average reading comprehension. Students with an IEP or accommodation plan were allowed to access all permitted testing accommodations such as a reader, scribe or extended time. Teachers were asked to keep a record of posttest completion by filling out a document on the front of a researcher given orange envelope used to store all pre-tests (Appendix 17). The document included a place to insert student names, a check mark for completed tests, and a checkmark to indicate if students had been given both assent and consent for researcher access to tests. Teachers collected all posttests in the given orange envelopes and placed them in the appropriate clear teacher tote for safe keeping.

2.5.8 Student and Teacher Interviews

After the study ended, the author conducted teacher and student interviews. These semi-structured interviews allowed individuals to reflect on their experiences regarding the curriculum. Separately, the researcher asked teachers and students to discuss what they thought about the curriculum and to share what they viewed were the strengths and weaknesses of the program. These sessions were audio recorded for the purposes of remembering the discussion for later curricular revision. Separately, the author also video recorded three student interviews with the intention of use for future research-based trainings. The researcher asked students to recall some of the most memorable activities from the curriculum, to share their favorite components, and to suggest potential changes.

2.5.9 Data Analysis Procedures

Two multiple regression analyses were run to address each research question. These analyses were equivalent to ANCOVA (i.e., performing ANCOVA in the regression framework). First, the researcher regressed the outcome variable (CAT or CAS) on the treatment variable (BAU vs CFC) and pretest scores as a covariant. Then, the same outcome variable was regressed on the treatment variable, pretest scores and three student background variables (Grade, IEP, Gender) as covariates. The first analysis referred to the absolute treatment effect whereas the second analysis referred to the relative treatment effect. A more robust treatment effect can be assumed when both the absolute and relative treatment effects reach statistical significance. All analyses were conducted in SPSS version 26.

CHAPTER 3. RESULTS

3.1 Performance on the Career Awareness Test

Table 3.1 showed means and standard deviations of pretest and posttest scores on each outcome measure for students according to gender, grade and individualized education plans (IEP) by each type of treatment condition (BAU, CFC). Reliability co-efficient alpha levels of CAT pretest and posttest scores were .29 and .89, respectively (Table 3.2). Table 3.3 provided the final regression results directly relevant to the first research question. The output from Table 3.3 represents the estimated difference between the means of the BAU and CFC posttest scores on the CAT. The absolute treatment effect was adjusted for pretest scores. Next, a relative treatment effect was estimated by introducing or controlling for the background variables gender, grade and IEP.

Overall, regression results indicated that both the absolute and relative treatment effects were statistically significant and similar in magnitude based on CAT outcome measures, indicating that the treatment is robust. The relative effects show that students in the CFC treatment group scored 10.53 points higher on the CAT than students from the BAU control group. According to the results, 80.5% of the variance in the CAT has been accounted for by the relative effect model (Table 3.7).

3.2 Performance on Career Awareness Survey

Table 3.4 showed means and standard deviations of pretest and posttest scores on each outcome measure for students by gender, grade and individualized education plans (IEP) by each type of treatment condition (BAU vs. CFC). Reliability co-efficient alpha levels of CAS pretest and posttest scores were .80 and .83 respectively (Table 3.5). Table

3.6 provided the final regression results directly relevant to the second research question. The CAS was separated into three components: Questions 1-8 represented the STQ along with the added questions 9 (RC) and 10 (IC). The output from Table 3.6 represented the estimated difference between the means of the BAU and CFC postscores on the CAS. The same multiple regression framework was used to determine the CAS outcome scores. In this case, each CAS posttest is the dependent variable and corresponding pretest is the covariate. Independent variables included the treatment dummy, and student variables. The absolute treatment effect was adjusted for pretest scores. Next, a relative treatment effect was estimated by introducing or controlling for the background variables gender, grade and IEP.

Overall, regression results indicate that both the absolute and relative treatment were statistically significant for the RC portion of the CAS outcome measures, indicating that the treatment effect is robust. According to the results, 35.4% of the variance in the CAS has been accounted for by the relative effect model (Table 3.7). However, regression results indicated that only the absolute treatment effect was statistically significant for the IC portion of the CAS outcome measures. Furthermore, there was no significant treatment effect of any kind on the STQ portion of the CAS. In the case of RC, the relative treatment effect shows that students in the CFC treatment group scored 1.95 points higher on the CAS than students from the BAU control group.

[Table 3.1 Descriptive Statistics Based on Career Awareness Test Scores]

	Pretest						Posttest					
	BAU			CFC			BAU			CFC		
	M	SD	N	M	SD	N	M	SD	N	M	SD	N
Total	6.71	2.24	31	7.32	2.67	41	6.81	2.82	31	17.71	3.47	41
Gender												
Male	6.64	2.04	22	7.56	2.79	25	6.77	3.13	22	18.12	3.64	25
Female	6.89	2.80	9	6.94	2.52	16	6.89	2.03	9	17.06	3.19	16
Grade												
8-10	6.83	2.39	24	7.71	2.31	21	6.67	2.91	24	16.90	3.56	21
11-12	6.29	1.70	7	6.90	3.01	20	7.29	2.63	7	18.55	3.25	20
IEP												
Yes	6.00	1.41	2	7.14	2.91	7	3.5	2.12	2	16.29	4.11	7
No	6.76	2.29	29	7.28	2.73	32	7.03	2.75	29	18.06	3.26	32

Note. BAU = control; CFC = treatment; M = mean; SD = standard deviation; N = number. The total number of IEP has two missing, that is why they are not equal to 41.

[Table 3.2 Reliability of the Career Awareness Test Based on Pretest and Posttest]

	Pretest	Posttest
alpha	.30	.89

[Table 3.3 Regression Results Based on Career Awareness Test Scores]

	Absolute Effect	SE	Relative Effect	SE
Treatment (CFC vs BAU)	10.51***	0.65	10.53***	0.71
Pretest			0.47***	0.14
Gender			-0.81	0.72
IEP			-2.89**	1.04
Grade			2.30**	0.75

Notes, * $p \leq 0.050$; ** $p \leq 0.010$; *** $p \leq 0.001$.

[Table 3.4 Descriptive Statistics Based on Career Awareness Survey Score]

	Pretest						Posttest					
	BAU			CFC			BAU			CFC		
	M	SD	N	M	SD	N	M	SD	N	M	SD	N
STQ	4.08	1.12	30	3.94	1.13	40	4.25	0.96	30	4.33	1.11	40
Gender												
Male	4.29	1.04	21	3.79	1.16	24	4.32	0.94	21	4.31	1.25	24
Female	3.57	1.21	9	4.16	1.08	16	4.08	1.03	9	4.34	0.89	16
Grade												
8-10	4.02	1.07	23	3.76	1.13	20	4.24	0.96	23	4.08	1.33	20
11-12	4.27	1.35	7	4.12	1.13	20	4.29	1.02	7	4.58	0.79	20
IEP												
Yes	4.44	1.50	2	3.48	0.96	7	4.13	0.53	2	3.55	1.67	7
No	4.05	1.12	28	3.99	1.17	31	4.26	0.98	28	4.50	0.93	31
RC	2.50	2.19	30	1.90	1.89	40	2.73	2.08	30	4.40	1.60	40
Gender												
Male	2.62	2.31	21	1.83	1.97	24	2.81	2.11	21	4.54	1.62	24
Female	2.22	1.99	9	2.00	1.83	16	2.56	2.13	9	4.19	1.60	16
Grade												
8-10	2.26	2.22	23	1.35	1.79	20	2.52	2.06	23	4.10	1.92	20
11-12	3.29	2.06	7	2.45	1.88	20	3.43	2.15	7	4.70	1.17	20
IEP												
Yes	2.00	2.83	2	1.43	1.13	7	1.50	2.12	2	3.71	2.06	7
No	2.54	2.20	28	1.87	2.01	31	2.82	2.09	28	4.52	1.53	31
IC	3.33	1.88	30	3.38	2.08	40	3.88	1.79	30	4.75	1.48	40
Gender												
Male	3.48	1.91	21	3.00	2.04	24	3.98	1.90	21	4.50	1.62	24

Female	3.00	1.87	9	3.94	2.08	16	3.67	1.58	9	5.13	1.20	16
Grade												
8-10	3.22	1.88	23	2.95	2.26	20	3.59	1.85	23	4.40	1.64	20
11-12	3.71	1.98	7	3.80	1.85	20	4.86	1.22	7	5.10	1.25	20
IEP												
Yes	3.50	2.12	2	2.57	2.23	7	6.00	0.00	2	3.71	2.36	7
No	3.32	1.91	28	3.52	2.10	31	3.73	1.76	28	4.97	1.20	31

Notes, BAU=control, CFC= treatment, M=mean, SD=standard deviation, N=number.

The total number of IEP has two missing, that is why they are not equal to 40.

STQ = Q's 1-8, RC = Q9, IC = Q10.

[Table 3.5 Reliability of the Survey Based on Pretest and Posttest]

	Pretest	Posttest
alpha	.80	.83

[Table 3.6 Regression Results Based on Survey Score]

	Absolute Effect	SE	Relative Effect	SE
RC				
Treatment (CFC vs BAU)	1.98*	0.34	1.95*	0.42
PreTest	0.47***		0.41***	
Gender			-0.40	0.42
IEP			-0.94	0.61
Grade			0.47	0.45
IC				
Treatment (CFC vs BAU)	0.90**	0.32	0.71	0.40
PreTest	0.27**		0.22	
Gender			0.07	0.41
IEP			-0.47	0.59
Grade			0.82	0.42
AveSTQ				
Treatment (CFC vs BAU)	0.22	0.18	0.19	0.20
PreTest	.67***		.59***	
Gender			-0.08	0.20
IEP			-0.67*	0.29
Grade			0.29	0.21

Notes, * $p \leq 0.050$; ** $p \leq 0.010$; *** $p \leq 0.001$.

[Table 3.7 Proportion of Variance Explained (R^2) and Effect Size for Multiple Regression based on Knowledge and Survey Score]

	Absolute Effect R^2	Effect size	Relative Effect R^2	Effect size
Knowledge				
	0.767	3.29	0.805	4.13
Survey				
S9	0.404	0.68	0.354	0.55
S10	0.151	0.18	0.149	0.18
AveS1-8	0.441	0.79	0.453	0.83

CHAPTER 4. DISCUSSION

The primary goals of this study were to test the effects of a newly developed curriculum package (CFC) on the career planning knowledge and attitudes of at-risk high school students. Results indicated positive effects of CFC on both the student knowledge of career awareness and attitude outcomes. Scores on the knowledge test were slightly higher for students without IEPs compared to students with IEPs. Students in grades 11 and 12 performed better on the CAT than students in grades 8 through 10. The CAS posttest scores varied slightly although two of the questions having to do with resume and interview skills indicated improved attitudes by students in the intervention classes.

4.1 Effectiveness of Career Focused Curricula

The CFC showed a significant effect in the attainment of knowledge concepts of alternative high school students. The results support findings from Martinez and colleagues (2017) who utilized a career readiness guidance curriculum in a high school setting. The guidance curriculum was administered to students by a school counselor in a 1-1 setting. The CFC was administered by teachers with different content backgrounds (i.e., English, Math, Science, Social Studies). This could show that the CFC can be implemented by a variety of teachers and prove effective. Similarly, to the CFC, the career readiness guidance curriculum, created by Martinez and colleagues, demonstrated a significant treatment effect regarding the curriculum's knowledge-based test. The study also included a perceptions scale to determine the attitudes relating to real or perceived barriers. The outcomes of the scale did not show an effect in perceptions, very similar to

the results of the STQ in the current study (Martinez et al., 2017). Findings regarding the effectiveness of the CFC align with and extend the findings of Martinez and colleagues. Future research is needed to determine the reason why the effects of perception-based survey research did not prove significant with high school students in the area of career awareness curricula.

4.2 Elements of Curriculum Best Practice Strategies in the CFC

The design of the CFC was created with the intent of addressing best practices in curriculum design. According to the following researchers, curriculum construction should be founded on but not limited to the following principles of curriculum design and implementation: (a) Carefully crafted teacher routines, conditions and structures (Guthrie et al., 2000), (b) learning goals tied to appropriate assessment (Anderson & Rogan, 2011), (c) spaced learning (Carpenter, Pashler, Cepeda et al., 2007), (d) graphic descriptions (Pashler et al., 2007), (e) and effective questioning techniques (Beesley et al., 2010). It is clear from the results that building a curriculum based on these tenants was successful in achieving a statistically significant increase in CAT knowledge. It is not clear if a singular tenant was more or less influential in the results or if it is the combination of tenants that led to student growth. Further research is necessary to determine which of the tenants produces the greatest impact on student achievement.

4.3 Effects of Anchored Instruction in the CFC in Relation to the CAT

The CFC included concepts of anchored instruction to foster students problem solving and the transfer of knowledge to applicable settings (Love, 2004; Nix & Spiro, 1990). Bottge and colleagues (2015) used a video based anchored curriculum with SWD

in the area of middle school math. The researchers discovered that anchored instruction was effective within the curriculum and SWD showed gains in math content knowledge. The results regarding the CFC and the use of anchored instruction showed similar results as Bottge and colleagues (2015). Students participating in the CFC showed significant effects in CAT scores compared to students in the BAU group. These findings extend the anchored instruction research of Bottge and colleagues to a different population of students. Future research is also needed to further investigate the effects of the CFC with and without the use of anchored instruction.

The cognitive theory was the foundational approach in the creation of the CFC. According to Anderson and Rogan (2011), a well-constructed curriculum will guide teacher implementation and the success of the curriculum. CFC included cognitive components such as (a) prior knowledge (Swiderski, 2011; Wetzels et al., 2011), (b) active learning (Bransford, 1999; Care et al., 2018), (c) metacognition (Marra et al., 2014; Nappi, 2017), and (d) transfer knowledge (Bransford, 1999; Swiderski, 2011). The cognitive theory has proven effective in curriculum design (Bottge et al., 2015; Cognition and Technology Group et al., 1992), and all four of these components are deemed crucial tenants to the theory (Bransford, 1999). Results of the CFC show that when you consider the elements of the cognitive theory in curriculum design (i.e., prior knowledge, active learning, metacognition, and transfer knowledge), a significant effect occurs in knowledge-based attainment. This reflects the findings of previous studies (Bottge et al., 2015; Cognition and Technology Group et al., 1992) which both utilized components of the cognitive theory and anchored instruction in curriculum development and achieved a significant effect in knowledge attainment. Though similar outcomes resulted from the

CFC, it cannot be said which of the elements of the cognitive theory created the biggest impact for the success of the CFC and thus further research is necessary to determine which components were most effective.

4.4 Student Demographic Variables in Relation to the CAT

Students in 11th and 12th grade may have performed better on the CAT due to more extensive exposure of transition concepts than younger counterparts. Literature states that transition concepts should be taught and plans be formulated starting at or earlier than 14 years of age but no later than 16 (Mazzotti et al., 2009). If this standard is adhered to, 9th and 10th grade students will have received less guidance regarding transition and post-secondary goal setting than 11th and 12th grade students. Additionally, students in 8-10th grade may have less access to paid and unpaid work experience. According to the U.S. Department of Labor, laws prohibit students from working prior to the age of 14, and hourly restrictions are placed on individuals under the age of 16. Therefore, students below 16 years of age may have less work experience than their older peers.

Likewise, students with an IEP scored lower on the CAT than students without an IEP. These findings reflect literature regarding overall test scores between students with and without IEP documents. Fifty percent of students with a disability reported greater difficulty achieving academic success compared to the only 37% of students without disabilities who experienced academic struggle (Lipscomb et al., 2017; Lipscomb et al., 2018). Although the researcher wishes to conduct future studies to determine solutions

for the testing deficits of students with disabilities, results from the current study are currently commensurate with the findings of Lipscomb and colleagues (2017, 2018).

Finally, females tended to perform better on the CFC than males. According to Goldin and colleagues (2006), female high school students perform better on tests in every subject area. The findings from these studies reflect the outcomes of the CAT. Further research is necessary to determine the reasoning for the gender differentiation.

4.5 Evaluation of CAT Pretest Scores.

This study was conducted in a career-oriented alternative high school. Students received career mentoring and were given the opportunity to shadow, intern and visit business organizations on bi-weekly Wednesdays. Additionally, they were taught a skill in a specific area during the last hour of each school day (e.g. woodworking, photography, gardening, and audio production). For this reason, pretest means and BAU posttest means (pretest BAU avg = 6.71; pretest CFC avg = 7.32; posttest BAU avg = 6.81) may have been elevated due to students' prior exposure to interactive career activities. Potentially, the CFC may have added even a stronger effect if implemented in a typical school.

4.6 Career Awareness Survey Outcomes

While the outcomes of the CAT assessment and a portion of the CAS assessment proved significant, STQ questions 1-8 of the CAS were not found significant. In a study conducted by Collier and colleagues (2016), the STQ was found significant in distinguishing the transition perceptions of 186 SWD regarding personal areas of growth and weakness. The study was a pilot and noted in the limitations that further research of

the tool was needed among diverse populations. Though the STQ proved a valuable tool for measuring student perspectives of vocational knowledge, Collier and colleagues did not perform a pre-post test to determine changes to perceptions. The current study showed that student perspective did not significantly improve on the questions associated with the STQ. A variety of reasons may explain this occurrence. First, the original STQ included five sections within transition such as independent living skills, participation in school, community and work, planning and goal attainment, disability awareness and personal empowerment and knowledge and understanding of vocational rehabilitation (Collier et al., 2016). However, only the planning and goal attainment section fit the purposes of the CFC and was used for the CAS. This could have changed the effect of the STQ within the CAS and may have been more effective if all five sections were utilized. Additionally, the STQ could have been too broad for the scope of this present study as the CFC was very specific. Finally, the broad questions of the CFC may not have shown an effect as the participating alternative high school was a well-known career focused establishment. It is possible that students had thought about future careers, strengths, interesting classes, possible steps and advocacy at some point during their experience at the career focused school. The survey was not able to measure the depth of knowledge in each area. For example, it is possible that students may have indeed thought about future careers; however, anecdotal data showed that a majority of students held unrealistic views regarding future careers. Regardless, it is evident that the STQ was not effective in this study. It may be more beneficial in the future to ask more detailed questions using an adaptation of the STQ or determine a different form of assessment that could more directly measure specific outcomes related to the CFC.

Regardless, the CAS showed significant results indicating that students believed they were better prepared to create a resume and better prepared to determine the characteristics employers looked for in interviewees. Both absolute and relative values proved statistically significant for question 9, but only absolute values were significant for question 10. One reason for this occurrence may have been the finite nature of creating a resume. Once students completed the resume, teachers helped them refine the piece into a quality final product ready for employer review. Students created a refined and polished resume and would only need to add to the resume as they incurred more related experiences. For this reason, students may have felt more comfortable rating themselves higher on question 9 on the posttest.

Conversely on question 10 of the CAS, students showed statistically significant absolute value effects, but were not statistically significant after controlling for student demographic variables. One possible reason that students may not have scored themselves as high on the CAS rating scale may have been due to the feedback regarding further development. During the mock interview experience, employers rated students on a Likert scale created by Hirsch (2015) regarding the quality of response to interview questions (e.g. reason for applying for the job, relative work experience, ability to work with colleagues) and soft skill implementation such as appropriate eye contact and posture (Appendix 5).

4.7 Limitations

Although these results are promising, they are not without limitation. First, five teachers were included in the study and each teacher taught both a BAU and CFC group.

Additionally, due to the nature of school scheduling, the randomized assignment of classes created an overlap for a few students. In these situations, the student participated in the CFC class and not the BAU group to avoid content contamination in the control group. For this reason, this created a natural threat to internal validity due to the potential risk of crossover between the control and experimental groups. On the other hand, teaching skills were largely controlled for in this design. Large scale studies by top researchers have used this within treatment design successfully (Vaughn et al., 2017).

Finally, the researcher needs to modify the curriculum based on collected anecdotal observations, student interviews, and teacher feedback (Anderson & Rogan, 2011). Students and teachers reported having a positive experience with the curriculum, but they also provided excellent insight into future curricular changes. Common threads were detected through anecdotal and interview-based data: revising select lesson activity formatting, changing video construction, and adding some additional components into future curricular revisions.

4.8 Conclusion

In conclusion the CFC was successful in increasing the understanding of transition concepts for the career preparation of high school students at risk of dropping out of school. The curriculum also showed some significant results regarding the improvement of knowledge and attitudes of students' future career readiness. Students exhibited a significant increase in their ability to create resumes and utilize effective interview skills. In future studies, further curricular revisions will be made according to teacher, student and anecdotal feedback. The researcher intends to use the revised curriculum to embark

on a large-scale study across multiple schools and classrooms. Additionally, observations indicated that a knowledge-based career assessment and a questionnaire alone may not be sufficient in demonstrating gained skills in the area of career research, resume building and interviewing. For future studies, additional performance-based assessments may be added to assess the additional outcome measures. Finally, the researcher will evaluate the relevance regarding the use of the STQ portion of the questionnaire (Q1-8). Such measures will be re-evaluated for further studies.

APPENDICES

APPENDIX 1. INSTITUTIONAL REVIEW BOARD STUDENT ASSENT DOCUMENT

IRB Approval
8/20/2019
IRB # 51264
ID # 181505



Consent to Participate in a Research Study

KEY INFORMATION FOR TRANSITION BASED CAREER CURRICULUM TO ENHANCE POST-SECONDARY OUTCOMES:

We are asking you to choose whether or not to volunteer for a research study about career awareness including information about career paths, resumes, and interview skills. We are asking you because you teach at The Learning Center. This page is to give you key information to help you decide whether to participate. We have included detailed information after this page. Ask the research team questions. If you have questions later, the contact information for the research investigator in charge of the study is below.

WHAT IS THE STUDY ABOUT AND HOW LONG WILL IT LAST?

The purpose of the project is to develop and evaluate new ways of teaching career awareness to students. We are testing the effectiveness of this new career awareness curriculum by studying the knowledge attainment and perception of knowledge attainment before and after implementing the materials. Depending on the results of this study, the methods used in this project may lead to the adoption of this curriculum in other school districts around the country.

By doing this study, we hope to learn the effects of a career awareness curriculum. Your participation in this research will last about 2 months.

WHAT ARE KEY REASONS YOU MIGHT CHOOSE TO VOLUNTEER FOR THIS STUDY?

Teachers may benefit from this study by learning a new curriculum to benefit low-achieving students. In general, your willingness to participate may help our schools better educate these students in career awareness topics in the future.

WHAT ARE KEY REASONS YOU MIGHT CHOOSE NOT TO VOLUNTEER FOR THIS STUDY?

To the best of our knowledge, the activities you will engage in as part of this research project have no more risk of harm than you would experience in everyday teaching activities.

DO YOU HAVE TO TAKE PART IN THE STUDY?

If you decide to take part in the study, it should be because you really want to volunteer. You will not lose any services, benefits, or rights you would normally have if you choose not to volunteer.

WHAT IF YOU HAVE QUESTIONS, SUGGESTIONS OR CONCERNS?

The person in charge of this study is Megan Jones of the University of Kentucky, Department of Early Childhood, Special Education and Rehabilitation. If you have questions, suggestions, or concerns regarding this study or you want to withdraw from the study his/her contact information is: megan.jones4@uky.edu.

If you have any questions, suggestions or concerns about your rights as a volunteer in this research, contact staff in the University of Kentucky (UK) Office of Research Integrity (ORI) between the business hours of 8am and 5pm EST, Monday-Friday at 859-257-9428 or toll free at 1-866-400-9428.

APPENDIX 2. INSTITUTIONAL REVIEW BOARD PARENTAL CONSENT FOR
CHILD PARTICIPATION DOCUMENT

IRB Approval
8/20/2019
IRB # 51264
ID # 181506



Consent to Participate in a Research Study

**KEY INFORMATION FOR TRANSITION BASED CAREER CURRICULUM TO ENHANCE POST-
SECONDARY OUTCOMES:**

We are asking you to choose whether or not your child will volunteer for a research study about career awareness including information about career paths, resumes, and interview skills. We are asking you because your child attends The Learning Center. This page is to give you key information to help you decide whether your child will participate. We have included detailed information after this page. Ask the research team questions. If you have questions later, the contact information for the research investigator in charge of the study is below.

WHAT IS THE STUDY ABOUT AND HOW LONG WILL IT LAST?

The purpose of the project is to develop and evaluate new ways of teaching career awareness to students. We are testing the effectiveness of this new career awareness curriculum by studying the knowledge attainment and perception of knowledge attainment before and after implementing the materials. Depending on the results of this study, the methods used in this project may lead to the adoption of this curriculum in other school districts around the country.

By doing this study, we hope to learn the effects of a career awareness curriculum. Your child's participation in this research will last about 2 months.

WHAT ARE KEY REASONS YOUR CHILD MIGHT CHOOSE TO VOLUNTEER FOR THIS STUDY?

There is no guarantee that your child will benefit from this study. However, we do expect that children who participate in the new curriculum condition may improve their career awareness. This improvement may be reflected in their ability to interview for a job. We also expect that most children will improve their attitude toward future career planning once they experience the learning activities.

WHAT ARE KEY REASONS YOUR CHILD MIGHT CHOOSE NOT TO VOLUNTEER FOR THIS STUDY?

Students in this study will not be exposed to any harm either physically or mentally. Your child will receive the curriculum during the normal school day.

DOES YOUR CHILD HAVE TO TAKE PART IN THE STUDY?

Your child will get to decide to take part in the study, and it should be because he/she wants to volunteer. Your child will not lose any services, benefits, or rights he/she would normally have if he/she chooses not to volunteer. Not participating will have no impact on your child's grades.

WHAT IF YOU HAVE QUESTIONS, SUGGESTIONS OR CONCERNS?

The person in charge of this study is Megan Jones of the University of Kentucky, Department of Early Childhood, Special Education and Rehabilitation. If you have questions, suggestions, or concerns regarding this study or you want your child to withdraw from the study his/her contact information is: megan.jones4@uky.edu.

If you have any questions, suggestions or concerns about your rights as a volunteer in this research, contact staff in the University of Kentucky (UK) Office of Research Integrity (ORI) between the business hours of 8am and 5pm EST, Monday-Friday at 859-257-9428 or toll free at 1-866-400-9428.

APPENDIX 3. PROJECT 1 CONTENT GUIDE

Final Project Guide

To get a great score on your Lesson 2 Final Project, make sure you include the following... *you can use this to help organize your thoughts!*

Life Expectations:

Include realistic and clear depiction of future car, house, family etc. Include personal goals you set in this area.

What was your “**Personality Color**” and what about it reflects who you are and how you might interact in a job.

USING YOUR DIVE DEEPER WORKSHEET, ANSWER THE FOLLOWING QUESTIONS:

What job have you selected: _____

Job Duties:

Working Conditions:

Training/Education Requirements:

Earning Levels:

Employment Prospects:

CONCLUSION: Talk about some realistic goals you have set to move you closer to the life you've described.

Goal 1: _____

Goal 2: _____

Goal 3: _____

APPENDIX 4. PROJECT 1 EVALUATION RUBRIC



LESSON 2: Career Exploration

Name: _____

Date: _____ Teacher: _____

Final Project Rubric

	4	3	2	1	Rating	Weight	Score
Life Expectations	Included a realistic and clear depiction of future car, house, family etc.	Included a moderately realistic and clear depiction of future car, house, family etc.	Included a vaguely realistic and clear depiction of future car, house, family etc.	Did not include any life expectations in the presentation.		1	
Job Duties	The job duties and responsibilities are clearly, thoroughly, and accurately recorded.	Information was accurate but many details of the job duties and responsibilities were not included.	Information was a vague description of the job duties and responsibilities.	The job duties and responsibilities were not described and could not easily be understood.		1	
Work Conditions	Included the expected hours per week, work atmosphere, vacation time, etc. of the working conditions.	Information was accurate but many important details of the working conditions were not included.	Information was a vague description of the working conditions.	The working conditions were not described and could not easily be understood.		1	
Training Requirements	Described the education, work experience, leisure activities, and personal skills required.	Information was accurate but many training requirements were not included.	Information was a vague description of the training requirements.	The training requirements were not described and could not easily be understood.		1	
Earning Levels	Recorded the average yearly income or the wage rate for the career being researched.	Recorded the average yearly income or wage rate for a related career.	Recorded the average yearly income or wage rate for an unrelated career.	Did not record the average yearly income or the wage rate for any career.		1	
Employment Prospects	Gave the estimated number of future jobs available for the career being researched.	Gave the estimated number of future jobs available for a related career.	Gave the estimated number of future jobs available for an unrelated career.	Did not record the estimated number of future jobs available for any career.		1	
Presentation	Presentation was well thought out, clear, organized, with visuals that clearly matched the project's goals.	Presentation was thought out, but could have taken more time to better clarify, organization, and visuals.	Presentation was not well thought out and could have used better clarity, organization, and visuals.	Did not present the topic or create a final product.		1	
Total Points Earned							
Total Points Available							
Percentage							

Adapted from the University of Arizona "Take Charge Today" Career Exploration Program

APPENDIX 5. PROJECT 2: HIRSCH INTERVIEW RUBRIC EXAMPLE

**Mock Job Interview
EMPLOYER COPY**

Adapted from Barton J. Hirsch's Northwestern University Study

Youth's Name: _____
Job Youth is Applying For: _____
Date: _____ Time: _____
Interviewer Name: _____

"Hello, I'm _____ and I'm happy to meet you. During this interview, we'll talk about your application, then I will ask you a number of questions, and finally, I will give you some feedback on how I think the interview went. Does that sound alright with you?"

[Interviewer: read over and discuss the student's job application form.]

"Let me tell you a little about what we're looking for."

[Note: If the position is for a summer internship, you may substitute that term for "job". Be aware, however, that some high school students are not familiar with the concept of an internship.]

Your notes on the youth's response should be written below each question. Ratings should be made after the Interview and feedback sessions is completed and the youth has left the room.

1A. What made you decide to apply for this job?

1	2	3	4	5
Was unable to provide a good reason for applying for the job.		Provided one good reason for applying for the job.		Provided three or more good reasons for applying for the job.

2A. What do you think you could bring to this sort of job; what kinds of experiences have you had in school, an after-school program, a volunteer position, or a part-time job that could apply here?

1	2	3	4	5
Provided only a general answer and did not relate the experiences to the job described.		Provided at least one specific answer, but did not relate the experiences to the job described.		Provided at least one specific answer and identified two or more ways the experiences could be applied to the job described.

3A. Can you tell me about a recent goal and what you did to try to achieve it? (if needed, specify that recent = within the past 6-9 months)?

1	2	3	4	5
Provided only a general answer (e.g., I worked it out) that did not identify personal effort or problem solving.		Provided an example that identified one or two specific instances of personal effort or problem solving.		Provided an example that identified two or more instances of intensive personal effort or problem solving.

APPENDIX 6. BUSINESS VIDEO EMPLOYER QUESTIONS

Employer Interview Instructions and Questions

Total Time: approx. 45 mins

Goal: The purpose of this interview is to provide high school students with first hand insight into the interviewing and hiring process.

(5-10 mins)

At the beginning of your interview session you can give a summary including your name, your company, and a brief synopsis on what you do on a daily basis, and how you got into the business. *I will prompt you so no need to memorize the questions!*

(15-20 mins)

1. What are traits you look for in your employee's as you are hiring? (Also think about the number one trait you look for when hiring.)
2. What do you look for in a resume/what method do you use to find potential employees?
3. What impresses you most in an interview? (feel free to provide anonymous examples)
4. What has least impressed you in an interview that students can steer clear of? (Feel free to provide anonymous examples.)
5. Does dress matter? What do you recommend they wear to an interview?
6. What are steps students could still take while they are in high school? How can they be pro-active to help their interview and grow their skills/hirable traits? You can include what you did to help you get where you are today.
7. Does it help if the person researches your company before coming?
8. Any other words of wisdom?

Extra Footage (15 mins)

Plan to take about 15 mins after the interview for B-roll (footage of you in action at your job). For example, news reports often use this type of footage to make the interview more engaging for the viewer. I would love to film you talking to employees, working etc to show what life on the job looks like for you.

**I will arrive about 20 mins early to set up camera, audio and lighting.*

APPENDIX 7. CAREER AWARENESS TEST (CAT)

Name: _____ Date: _____

Posttest

Directions:

Fill in or select the best answer in each section.



You have done a great job in this unit! Just do your best and answer the questions accurately and carefully! If you need your teacher to read a question to you, quietly raise your hand and ask.



1. At what age should students start thinking about a future career?

- a. 20-22
- b. 13-14
- c. 25-27
- d. 16-19

2. What top career cluster is right for you?

3. What is the number one indicator for student success after high school graduation?

- a. Never Expelled
- b. Job while in High School
- c. Writing a Quality Resume
- d. High GPA

4. As degree levels go  **up**, **unemployment** goes _____  Or  (up or down).

As degree levels go  **up**, median **weekly earnings** go _____  Or  (up or down).

5. About how much of a financial difference is between each degree?

Difference

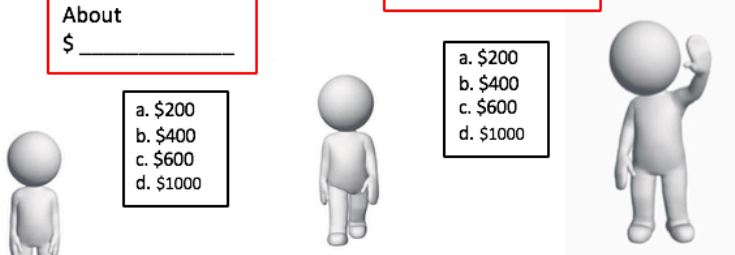
Difference

About
\$ _____

About
\$ _____

a. \$200
b. \$400
c. \$600
d. \$1000

a. \$200
b. \$400
c. \$600
d. \$1000



No High School Diploma High School Diploma College Diploma

6. About how much is the starting pay for the career that you researched in depth?

\$ _____

7. What does a SMART goal stand for?

- a. Support Maintain Assess Research Teach
- b. Subtle Mature Artistic Recognized Themed
- c. Senile Masters All Ready (for) Take-over
- d. Specific Measurable Attainable Realistic Time-Based

8. Why should we use SMART goals in preparing for our future career? (1-3 sentences).

9. What should you do before you start writing your resume?

- a. Call a Friend
- b. Type a Letter
- c. Research
- d. Get a Job



10. What is the MAIN purpose of creating a resume?

- a. To pass this class.
- b. To show an employer that you are the best for the job.
- c. To keep a record of all your accomplishments.
- d. To show you are better than the company's existing employees.

11. What is a transferable skill?

- a. A skill that puts money in your bank account.
- b. A skill that is new and easy to learn.
- c. A skill that can be used outside of America.
- d. A skill that can be used in multiple job settings.

12. Compare & Contrast: How should you dress for an interview vs. not dress for an interview?

13. When writing a resume why are professional references preferred more than personal ones?

- a. It is illegal to provide personal references
- b. Professional references tend to be more intelligent
- c. Professional references are biased
- d. Personal references are biased

14. Which of the following is **NOT** one of the 5 parts of a resume?
- a. Objective b. Values
c. References d. Experience
15. What does **CAR** stand for regarding an interview?
- a. Camera Action Ready
b. Career Aptitude Readiness
c. Career Aptitude Reality
d. Candidate Adapts (and is) Ready
16. How can you use the **CAR** method in an interview (2-4 sentences)? Describe what each letter of the acronym means and how you can use it in an interview.



17. Name one of the top 3 traits (according to research) that employers are looking for in an employee.

APPENDIX 8. GUIDED VIDEO NOTES EXAMPLE



LESSON 2: Career What?

Name: _____
Date: _____ Teacher: _____

Best way to start determining career paths...

My Top 3 Career Clusters

▶ _____
▶ _____
▶ _____

RESEARCH SHOWS....

People who **WRITE** their goals down...
SHARE their goals with someone else...
and **SEND** weekly updates to that friend
are _____% more _____
to **ACCOMPLISH** their goals
than those that just **THINK** about it!

SMART GOALS STAND FOR:

S = _____
M = _____
A = _____
R = _____
T = _____

APPENDIX 9. LESSON PLAN EXAMPLE

LESSON 2
“Career Examination”
DAY 1

Recommended Grade Levels	Average Time to Complete
8-12	60 minutes

Common Core Standards	Lesson Plan Objectives
<ul style="list-style-type: none"> ● WR: Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation. ● S&L: Evaluate a speaker’s point of view, reasoning, and use of evidence and rhetoric. ● S&L: Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience. 	<p>Upon completion of this lesson, participants will be able to:</p> <ul style="list-style-type: none"> ● Determine the fictitious students’ place on the reality scale and discuss how the student could determine the right job fit. ● Create an occupation avatar to determine the top 5 most important characteristics of an occupation.

MATERIALS	
Materials Provided in this Lesson Plan	Materials to Acquire Separately
<ul style="list-style-type: none"> ● Starter Slip ● Anchored Video Lesson 2 Part 1/2 ● Occupation Avatar Task ● Exit Slip 	<ul style="list-style-type: none"> ● Student Chromebooks ● Timer on Smart Board

LESSON FACILITATION		
Prepare	Instruct	Customize
<i>Visual indicators to help prepare the lesson. modifications to lesson facilitation.</i>		
<p>Essential Question:</p> <ul style="list-style-type: none"> ● What types of characteristics or qualities are important to you in a job? 	<p>Starter:</p> <ul style="list-style-type: none"> ● Starter slips should be on student desks before they enter the room. <ul style="list-style-type: none"> ○ Recommendation: Put a 5-minute timer on the Smart Board to remind students use their time wisely. ○ Collect all slips before moving into the lesson. 	<i>Potential</i>

<p>Curriculum Questions:</p> <ol style="list-style-type: none"> 1. Is it ok for you to select a job in this lesson and it not end up being the job you take in the future? 2. Have you ever taken a career assessment before and what do you think the benefits are? 3. What are the top 5 job characteristics you are looking want when you think of a job? 	<ul style="list-style-type: none"> o Feel free to briefly discuss the answers with the students after they are collected. <p>Lesson:</p> <ul style="list-style-type: none"> ● Review or re-teach anything students struggled to understand or complete (as reflected by the exit slip). ● Introduce the new unit. <ul style="list-style-type: none"> o If helpful, put the content map back on the wall or Smart Board and check off the first unit. o Tell students that at this point, they've explored their personalities and interests. It's time to move into figuring out what type of job could potentially fit them best. o Like the characters in the video, we will take a series of career aptitude assessments to determine this. o Explain to students that this process is supposed to be a model of how to explore the job field. Even if they decide on a job in this unit, it doesn't mean that the direction won't shift in the future. It's ok, for things to shift – just remember this process if you need to start back to the drawing board. o You can even explain to students that many times people think they know what they want to do, but realize when they get out into the field that they don't like it at all. They then have to re-assess and that's ok. o But let them know that sometimes it takes starting out in a direction to get to the right destination "You can't steer a parked car." ● Play Anchored Video 2. ● Discuss the video with the students. <ul style="list-style-type: none"> o Where would these students fall on our scale of reality from a few lessons ago? o Have you taken a career assessment before? If so, what type? o Do you think there is value in figuring direction out now? ● Hand out the Occupation Avatar. <ul style="list-style-type: none"> o Students can use their chrome books to create an online avatar. o Remind them that the main goal is to showcase their top 5 most important and realistic characteristics of the job. o Ask students to send a picture of the avatar to you through email or some method if they did not create an avatar on paper. o Students can share their creation with the class after they finish. <p>Exit:</p> <ul style="list-style-type: none"> ● Hand out the exit slips 5 minutes before the end of class. <ul style="list-style-type: none"> o Students should turn in their slip to you before they leave.
--	---

APPENDIX 10. QUICK NOTES LESSON PLANS EXAMPLE

LESSON 2
“Career Examination”
DAY 1

Essential Question	Lesson Plan Objectives
<ul style="list-style-type: none"> • What types of characteristics or qualities are important to you in a job? 	<p>Upon completion of this lesson, participants will be able to:</p> <ul style="list-style-type: none"> • Determine the fictitious students’ place on the reality scale and discuss how the student could determine the right job fit. • Create an occupation avatar to determine the top 5 most important characteristics of an occupation.

1. **Starter**
2. **Review or Reteach**
3. **Introduce Lesson**
 - a. Tell students that at this point, they’ve explored their personalities and interests. It’s time to move into figuring out what type of job could potentially fit them best.
 - b. Like the characters in the video, we will take a series of career aptitude assessments to determine this.
 - c. Explain to students that this process is supposed to be a model of how to explore the job field. Even if they decide on a job in this unit, it doesn’t mean that the direction won’t shift in the future. It’s ok, for things to shift – just remember this process if you need to start back to the drawing board.
4. **Play Anchored Video 2**
5. **Discuss the Video**
 - a. Where would these students fall on our scale of reality from a few lessons ago?
 - b. Have you taken a career assessment before? If so, what type?
 - c. Do you think there is value in figuring direction out now?
6. **Pass out Occupation Avatar Handout.**
 - a. Students can use their chrome books to create an online avatar or they can draw one.
 - b. Remind them that the main goal is to showcase their top 5 most important and realistic characteristics of the job.
 - c. Ex: (Draw yourself alone if you want to work by yourself. Draw a calendar that says Doctor if you want paid sick days etc etc).
 - d. Ask students to send a picture of the avatar to you through email or some method if they did not create an avatar on paper.
7. **Students can share their Avatars at the end of Class.**
8. **Exit Slip**

APPENDIX 11. CAREER AWARENESS SURVEY (CAS)

Survey
POSTTEST

Name: _____

What is your age? _____

What grade are you in? _____

What is your gender? _____

Do you receive free and reduced lunch? Yes No I'm not sure

Do you have an IEP? Yes No I'm not sure

Do you have a 504? Yes No I'm not sure

Did one or both of your parents attend college? Yes No I'm not sure

I have worked or currently work as a paid employee while in high school.

Yes No I'm not sure

I work in an unpaid internship position. Yes No I'm not sure

Student Transition Questionnaire	Rating
<small>Scale: 0 (lowest), 6 (highest)</small>	
III. Planning and Goal Attainment	
I know what I want to do when I finish high school (training, education, or job related).	0 1 2 3 4 5 6
I have strengths that make me good at some classes or some types of work.	0 1 2 3 4 5 6
I can name some classes or work that interest me.	0 1 2 3 4 5 6
I am interested in some sort of training or going to college after high school.	0 1 2 3 4 5 6
I am taking steps that help me achieve my goal (training, education, or job related).	0 1 2 3 4 5 6
I am willing to adjust or change my plans and actions to get better results.	0 1 2 3 4 5 6
I know how to make my housing meet my needs (ramps, railing, special equipment).	0 1 2 3 4 5 6
I am willing to ask for help when I need it.	0 1 2 3 4 5 6
I know how to create a resume.	0 1 2 3 4 5 6
I know what characteristics employers are looking for when I interview.	0 1 2 3 4 5 6

APPENDIX 12. STUDENT AND TEACHER INTERVIEW QUESTIONS

Interview Questions

Student

1. What did you think about the curriculum?
2. Do you feel like the curriculum helped prepare you for a future career? If so, how?
3. What was your favorite part of the curriculum?
4. What would you like to see added or taken away in the curriculum?
5. What did you think about the anchored videos?
6. Did you think the lessons kept your attention? If so, how?

Teacher

1. What did you think about the curriculum?
2. What portions allowed you to teach this curriculum with ease?
3. What parts of this curriculum could be made more efficient for your use?
4. How would you rate the relevancy of the activities to the topics?
5. Do you think this curriculum could help your students in the future?

APPENDIX 13. TEACHER CALENDAR EXAMPLE

2019 September						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1 L/D - Abs - Other -	2 L/D - Abs - Other -	3 L/D - Abs - Other -	4 L/D - Abs - Other -	5 L/D - Abs - Other -	6 L/D - Abs - Other -	7 L/D - Abs - Other -
8 L/D - Abs - Other -	9 L/D - Abs - Other -	10 L/D - Abs - Other -	11 L/D - Abs - Other -	12 L/D - Abs - Other -	13 L/D - Abs - Other -	14 L/D - Abs - Other -
15 L/D - Abs - Other -	16 L/D - Abs - Other -	17 L/D - Abs - Other -	18 L/D - Abs - Other -	19 L/D - Abs - Other -	20 L/D - Abs - Other -	21 L/D - Abs - Other -
22 L/D - Abs - Other -	23 L/D - Abs - Other -	24 L/D - Abs - Other -	25 L/D - Abs - Other -	26 L/D - Abs - Other -	27 L/D - Abs - Other -	28 L/D - Abs - Other -
29 L/D - Abs - Other -	30 L/D - Abs - Other -					

Lesson/Day = L/D (If you taught lesson 3 Day 2 you would mark "L3/D2")

Absences = Abs (Use student initials here for any absent students. (Ex: SD, MW, RE)

Other = Oth (Here you can write in any holidays, school events or non related content tasks)

APPENDIX 14. TEACHER FIDELITY CHECKLIST

Teacher Checklist

To check the box: Click on the box twice, right click and choose the check mark button.

- Enter today's lesson and absences in the calendar.
- Review previous days material as needed.
- Present new content/skills.
 - Play corresponding videos.
 - Facilitate student activities/discussion (and check understanding).
- Feedback and correctives (and reteach if necessary).
- Assess Exit Slips and Enter Grades

APPENDIX 15. RESEARCHER CLASSROOM OBSERVATION NOTES

CLASSROOM OBSERVATIONS

Curriculum Fall 2019

Class Information

Observer: _____ Date: _____
School: _____ Time: _____ Period Length: _____
Teacher: _____ Grade: _____ Class Time End: _____
Observer Type: _____ Students Present: _____ Students Absent: _____
Condition: _____ Unit Day: _____

1 Alignment to starter task in lesson plan = _____
1a. Comment on your rating

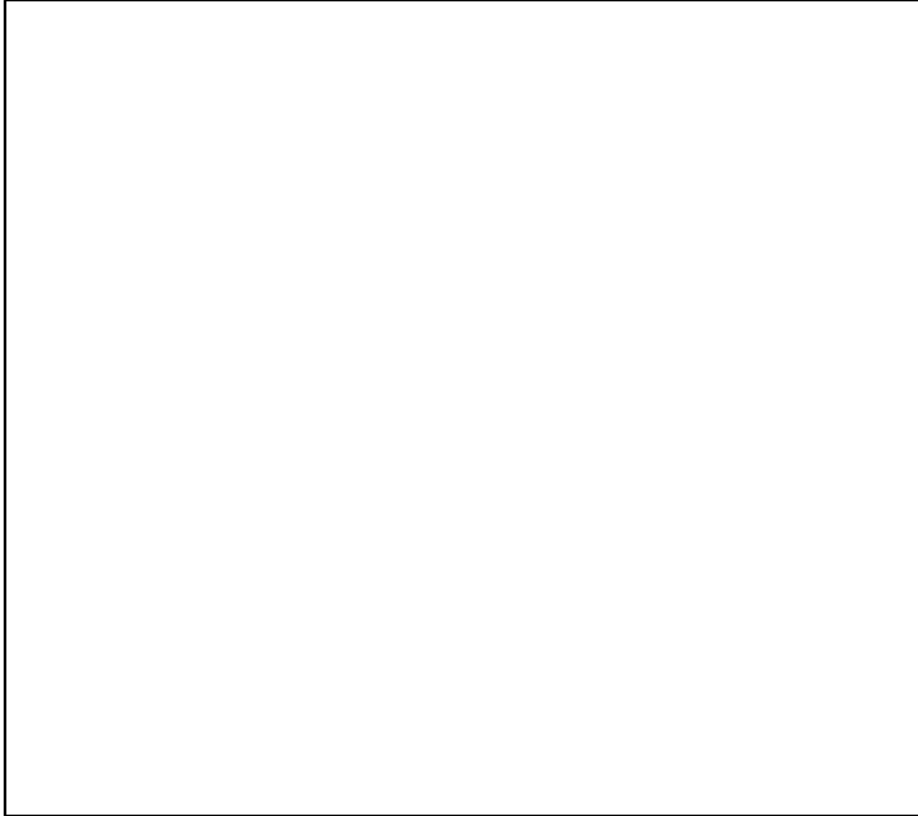
A = All taught
M = Most taught
S = Some taught
N = Not taught

CLASSROOM OBSERVATIONS

Curriculum Fall 2019

2 Alignment to main activities in lesson plan = __
2a. Comment on your rating

A = All taught
M = Most taught
S = Some taught
N = Not taught



CLASSROOM OBSERVATIONS

Curriculum Fall 2019

3 Alignment to exit task in lesson plan = ____

3a. Comment on your rating

A = All taught

M = Most taught

S = Some taught

N = Not taught

4. General Notes

During teacher-led/whole-group instruction:

5. What was the quality of the students' inquiry discussion? ____

1. Students did not get the opportunity to answer any questions.
 2. Students answered questions with yes or no answers and the teacher had to ask multiple questions to draw out any type of discussion.
 3. Students answered the teacher's questions related to the topic and gave generally thoughtful answers. However, students did not add additional original comments and thoughts to their peers or teachers' thoughts. For example, the teacher may ask a question and one student may give a good thoughtful answer; however, the discussion moves on to the next question rather than another student adding to the first student's thoughts.
 4. Students engage in rich discussion and add additional original comments and thoughts to their peers and teacher's thoughts. The students are continuing the discussion with less continual prompting from the teacher. For example, the teacher may ask a question and one student may give a good thoughtful answer; additionally, another student adds to the first student's thoughts on the same question.
-

During teacher-led/whole-group instruction:

6. What was the origin of the inquiry discussion related to the teacher? ____

1. The teacher generally moved from activity to activity without pausing to ask questions and engage students in discussion.
2. The teacher asked a few of the listed discussion questions but struggled to get students to answer any of the questions. The teacher told students that they were right or wrong instead of leading them into further discussion.
3. The teacher asked one question at a time and did not ask follow up questions related to the first question. The teacher generally asked the question, got a generally good answer from one student and then moved on to the next question without further probing the students' thoughts.
4. The teacher asked one question and asked follow up questions related to the original question. For example, if the teacher asked if the students' life expectations were realistic, he/she asked for a few student's opinions and asked follow up questions such as "So you think you're on the "realistic side" of the reality scale. Who have you had in your life that has encouraged you to see things realistically? Do you think that makes a difference?" The teacher generally did not tell students that their answers were right or wrong, but asked the right questions to lead the discussion in the right direction.

During group work time (select one group on which to focus each day):

7. What was the nature of the group's collaboration? ____

N/A Students spent nearly all of the class period involved in independent work or teacher-led instruction.

1. One student in the group typically did most of the work or gave answers to other members of group without explanation.
 2. Few students in the group were sharing ideas in discussion or group work. Although students physically sat together, there was little exchange in ideas or assistance. Many of the students in the group were working on different parts of the assignment and at different paces.
 3. Some students in the group were exchanging ideas or providing assistance to their classmates; however, a few students relied on other members of the group to answer questions. Contributions to solving problems were not made equally by all students.
 4. Most students in the group were involved with their classmates in solving problems and made sure that other group members were caught up and understood before moving on to the next problem.
-

Across entire class period:

8. What was the level of student engagement in the lesson? ____

1. Disruptive disengagement. Students were frequently off task, as evidenced by gross inattention or serious disruptions by many. This was the central characteristic during much of the class.
 2. Passive disengagement. Students appeared lethargic and were only occasionally on task carrying out assigned activities. For substantial portions of time, many students were either clearly off task or nominally on task but not trying very hard.
 3. Sporadic or episodic engagement. Most students, some of the time, were engaged in class activities, but this engagement was inconsistent, mildly enthusiastic, or dependent on frequent prodding from the teacher.
 4. Widespread engagement. Most students, most of the time, were on task pursuing the substance of the lesson. Most students seemed to take the work seriously and were trying hard.
-

Approximate percentage of time spent on

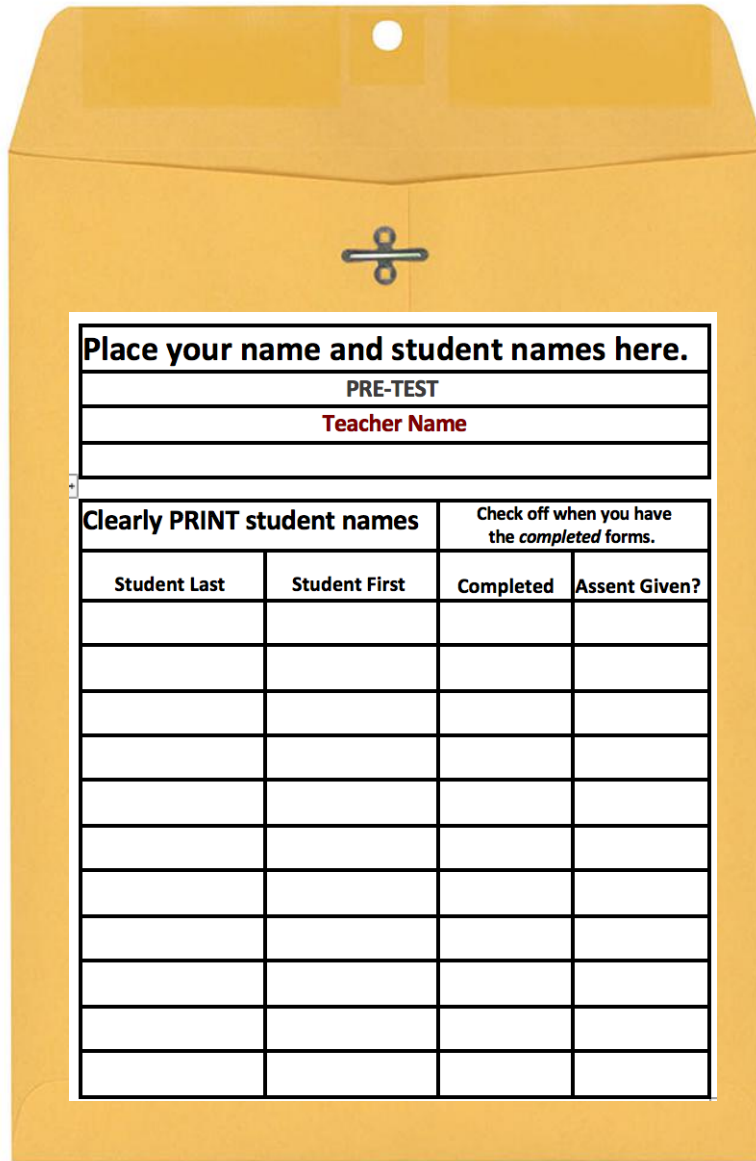
12. Teacher-led/whole-group instruction: _____
 13. Individual work time: _____
 14. Group work time: _____
 15. Other (not research related): _____
-

APPENDIX 16. TEACHER TRAINING FIDELITY CHECKLIST

Fidelity Training Checklist

- Discuss pre-test and posttest procedures.**
 - Paper only
 - Place ALL of them in the given pocket folder (with their name and student numbers on them.)
 - I will ONLY take the ones that have given consent/assent (I need to figure out the code).
 - I will make a copy of these and then give you the originals for your grading purposes.
- Go over curriculum calendar and how to fill it out.**
- Discuss consent/assent process.**
- Discuss student/teacher demographic forms.**
- Discuss fidelity checklists and daily requirements.**
 - Entries into calendar – describe how to do this.
 - Review and reteach previous day's material.
 - Present new content/skills
 - Feedback and Correctives
 - Exit slips and Enter Grades
- Discuss my process of classroom observations.**
 - Talk about how I will be in about twice a week.
 - Describe what I will be measuring.
 - Discuss how I will have another person in the room about 20% of the time.
- Go over curriculum components on Google Classroom.**
 - Go over formative assessments each day and talk about building a routine and sharing the student folder with students.
- Describe the usage of the videos/Guided Notes.**
- Discuss the concept of Inquiry/Discussion regarding the lessons.**
 - We want to create an experience for the students and help them discover learning.
 - Model how to ask questions so that they meet the observation form requirements. Ask follow up questions to students thoughts to make them really think.
- Go over the lesson 2 project and the option variations.**
- Discuss the lesson 4 mock interview process|**
- Discuss teacher and student interviews at the end of the unit.**
- Give Consent and Assent Forms**

APPENDIX 17. PRE AND POSTTEST TEACHER COLLECTION PACKETS



The image shows an orange envelope with a white label. The label contains the following text and tables:

Place your name and student names here.

PRE-TEST			
Teacher Name			

Clearly PRINT student names		Check off when you have the <i>completed</i> forms.	
Student Last	Student First	Completed	Assent Given?

Place your name and student names here.

POSTTEST

Teacher Name

Clearly PRINT student names		Check off when you have the <i>completed</i> forms.	
Student Last	Student First	Completed	Assent Given?

APPENDIX 18. TEACHER AND STUDENT DEMOGRAPHIC FORMS AND COLLECTION PACKETS

Teacher Demographic Form

Name	
Gender	
Ethnicity	
Grades taught	
Subject taught	
Highest Degree Earned	Examples: BS; BS + how many credit hours; MA; MA + how many credit hours...
Certification Area(s)	
Years Teaching	

Student Demographic Form

Student Name			
Teacher Name			
Grade Level		Class Period (time)	
Gender		Race / Ethnicity	
Free or Reduced Lunch? (Y or N)		English as a Second Language? (Y or N)	
Receives Special Education Services?			
Receives 504?			
School Employability Score		Date of School Employability Score	

Below, for Office Use

	Agree to Participate	Agree to be Interviewed	Agree to be Videotaped	Agree for Video to be used for Training
Parent Consent				
Student Assent				

Place your name and student names here.

Teacher Name

Did you fill out teacher demographics?

Clearly PRINT student names		Check off when you have the <i>completed</i> forms.
Student Last	Student First	Student Demographic Form

APPENDIX 19. ASSENT AND CONSENT COLLECTION PACKETS

Place your name and student names here.

Teacher Name

Clearly PRINT student names		Check off when you have the <i>completed</i> forms.	
Student Last	Student First	Student Assent	Parent Consent

APPENDIX 20. MOCK INTERVIEW PARTICIPANT INSTRUCTIONS

Employer Interview Instructions

Greeting your Student:

1. You can use the prompt on the given paper, however you can also greet them in your own way.
2. Ask their name, what position they are applying for and their career objective
 - a. Some students will be applying for a high school job. but in the future they will build their resume to fit their career.

Conducting your Interview:

1. Ask the exact questions on the mock interview form.
2. You can ask follow up questions to certain questions but it is not required.
3. Score the student for every question you ask.
 - a. Be kind but honest about your scoring. They need to know the truth from an employer perspective.

Concluding your Interview:

1. Ask your student to step into the “on deck” section of students while you finish scoring the form.
2. Ask the student to come back over to you. Go over their strongest area in the interview first and then give them an area that they can work on.
3. You can also make a note about the quality of their resume.
 - a. This is when you can give constructive feedback (write on their resume with changes you would make.)
 - b. Also, you can give them advice about other things they need to do/get involved with to make a better resume in their field.
4. Ask the students to take their scored sheet and resume and hand it to the teacher in charge of your area.

Employer Breakout Group Instructions

Getting to the Room:

3. All breakout classrooms will be in the hallway to your right.
4. Find your classroom with the corresponding name and room number.
 - a. Teachers should be in the halls or nearby if you get lost.
 - b. If you are extremely lost for some reason, call the researcher.
5. Take a few minutes to get settled in your classroom and meet your teacher.
6. You don't need a presentation but if you want to put something on the board, your teacher can help you.

Starting your Session:

4. The teacher should get the class quiet, set expectations and introduce you.
5. You will have an informal conversation with students.
 - a. You can speak for about 15-20 mins about what you do, how you got in that position, and any other pieces of wisdom you have for students wanting to get in your field.
6. Student Q&A
 - a. Give students a chance to ask you questions. The teacher should prompt them if they are shy and don't ask any questions.
 - b. They should each have 3 questions written down for you.

Researcher Outline for Morning Talk

8:30-8:40: Coffee and Bagels and greeting employers.

8:40-8:45: Introduction of myself and thanking them for coming + general outline of morning meeting.

8:45-8:47: Principal greet and thank everyone.

8:47-8:53: CTE teacher will put in a plug for their volunteer system.

8:55-9:00: Researcher will go over expectations

- Describe our school and student population (a lot of anxiety/lack of motivation)
- Students will be nervous so just be friendly/cordial.
- There is a chance that a student will be absent... if so, then we will have you move on to the next student. It is a school it is likely that not everything will go to plan.
- If you have any issues at all, talk to the teacher in your interview area.

9:00-9:10: Go over basic forms/their folders

- Go over their employer instruction sheet.
- Go over the mock interview scoring rubric.
- Go over the resume form.

9:10/9:15-9:30: Give employers time to get to their stations and review resumes.

Instructions for Cafeteria/Library 'Station Manager'

Our job is to keep the students moving for interviewers and address any problems.

- We should use the walkie or text the corresponding classroom teacher to put students "on deck".
- Use the master list to do keep students moving.
- Use text or walkie to confirm that the student you sent back made it back to their classroom.
- If students are sitting in the "on deck" section, they should keep talking to a whisper to be respectful.
- If employers are not sure what to do, refer to employer or instructions or text the researcher

When a student finishes their interview, they should bring you their resume and scored interview rubric.

- Put it in the folder with their name on it.
- At 11:20, you need to send that folder to the teacher with their name on it.
- After 11:20, students are responsible to carry their resume and rubric back with them.

Classroom Teacher Basic Instructions:

- **MAJOR THING TO REMEMBER:**
 - Students are not to take their scored rubrics and resumes home with them. Please place them in a folder by the last class and hand them to the researcher before you leave at 12:40
- Station managers will text you for on deck students so keep an eye on your phone.
- Students should take their resumes and their schedule with them to the interview. They should leave their resume and scored sheet with station manager at the interview site. They will only bring back their schedule.
- Know that we may have students absent so some students will interview earlier than expected. The time frame will be subject to change so prepare students for that.
- If a student is absent – place appropriate students in their place to receive the opportunity to interview twice.
- Also, some other students are interviewing twice (those in the medical and police field) and if they ask questions, just let them know we had a few extra, great employers that wanted to join + it's great experience for them.

Student Expectation Instructions for Teacher and Behavior Coach – 9am

- Outline of what to cover for Behavior Coach.
 - Expectations on manners towards guests.
 - We expect their best behavior and that they put their best
 - How to handle transitions from the interview spaces (library/cafeteria). Don't wander off – go straight back to your classroom.
 - Any other expectations you can think of.

- Teacher can pass out folders to the students so they have their schedule.
 - Take time to answer schedule questions.
 - Keep your schedule with you at all times. Don't lose this folder.
 - Teacher can share his acronym of how to look people in the eye etc.
 - Remind them about voice level and body language in an interview.
 - Remind them that first impressions are everything.

9:05/9:10 – Student should arrive to the gym.

AT 9:25 – the following students need to go straight to their interview

- REMOVED FOR STUDENT PROTECTION|

At 9:35 or 9:40 all students need to go to the first class on their given schedule.

APPENDIX 21. MOCK INTERVIEW PARENT EMAIL

Email that teachers can send to the parents the day before.

Dear family,

For the past few weeks your student has had the opportunity to explore their career paths, create a professional resume and work on their speaking and interview skills.

December 11th from 9:00-12:30 the students will have the opportunity to interview with a real employer. To best prepare for our time together, please remind your student to:

- Dress to impress in interview clothing.
- Practice their interview skills to make sure they are ready to impress.
- Make sure their resumes have been completed and are ready to give to employers.

As best as possible, we are matching student interests to employer interests. If a student really stands out, an employer may make a note of it on their resume and potentially reach out to hire them.

Thank you for your continued support!

APPENDIX 22. STUDENT SCHEDULE EXAMPLE

STUDENT 1

**** Make sure you take your resume with you to your interview.**

Time	Activity	Location
9:00 - 9:40	Expectations/Schedule	Gym
	<i>5 Minute Transition</i>	
9:45 - 10:15	“Resources after High School” by Job Organization	Teacher A’s Room
	<i>5 Minute Transition</i>	
10:20-10:50	“Reality of College”	Teacher B’s Room
	<i>5 Minute Transition</i>	
10:55-11:25	“How to Apply to College”	Teacher C’s Room
	<i>5 Minute Transition</i>	
11:30-11:55	“Review Interview Results”	Teacher D’s Room
	<i>5 Minute Transition</i>	
12:00-12:40	Q&A with Employer	SEE ROOM ASSIGNMENT BELOW

YOUR MOCK INTERVIEW AND BREAKOUT SCHEDULE

Time	Activity	Location
10:45-11:15	Mock Interview	Cafeteria Station 11 <i>Employer: Mr. ABC</i>
12:00-12:40	Q&A with Employer	Teacher E’s Room 147

Is this information correct about you?
If not, let the researcher know.

LAST	FIRST	Career Cluster	Career	Starting Salary Range
(Insert)	(Insert)	Education	Elementary Teacher	\$35,000 - 45,000

APPENDIX 23. EMPLOYER SCHEDULE EXAMPLE

Employer 1's (Insert Name) Schedule

Time	Student	Location
8:30-9:15	Overview/Given Materials and Student Resumes for Preview	Library
9:25-9:55	Student Name 1 – Police	Cafeteria
9:55-10:25	Student Name 2 – Police	Cafeteria
10:25-10:55	Student Name 3 – Army Officer	Cafeteria
10:55-11:25	Student Name 4 – Police	Cafeteria
11:25-11:55	Student Name 5 - Police	Cafeteria
12:00- 12:40	Breakout Group	Ms. B's Room 141 Teacher – Ms. B

Breakout Group Details

Employer	Students	Room	Supporting Teacher
- Officer B	-List Student Names	8. Ms. B's Room 141	Ms. B

APPENDIX 24. OVERVIEW SCHEDULE AND ROTATION SCHEDULE EXAMPLE
PER HOLDING ROOM

Mock Interviews

School Name
9:00am – 12:30pm
December 11th

Morning Description:

The students have been engaging in a career curriculum during this fall semester. This should be a great opportunity for them to practice, but it may also lead to job opportunities for them in the future!

Mandatory for Participating Students:

All students on this list are required to attend the interviews for their grade. They should not go to working Wednesday for this week.

Set Up For Interviews:

Location 1 – Classrooms (Holding Tank)

- Teacher 1 – Name of Teacher
- Teacher 2 – Name of Teacher
- Teacher 3 – Name of Teacher
- Hallway Floater - Name of Teacher

Location 2 – Library (Name of Teacher), Conference Room and Cafeteria (Name of Teacher) - (Individual Interviews)

****Need walkie talkies.***

Employer Names and Area

- Employer Name – Business and Finance (Speakers)
- Employer Name – Leads Non-Profit Jubilee Jobs (Speakers)
- Employer Name – Valvoline
- Employer Name – Sales
- Employer Name – Hotel Manager and Hospitality Director
- Employer Name - Photographer
- Employer Name – Juvenile Detention/ Caleb Brill? – Law Enforcement
- Employer Name – Speech Pathologist
- Employer Name – Police
- Employer Name – Financial Aid Advisor/Non-Profit Organizer
- Employer Name – Nursing
- Employer Name - Counseling
- Employer Name – Prison Guard
- Employer Name – Nursing PhD

Interview Stations:

Library – 6 employers there (Teacher Name)

Cafeteria – 6 employers there (Teacher Name)

Floater: - Teacher Name

Rooms: Use Walkie Talkies for Transition/ Have an on-deck section in each room.

8:00 AM	Researcher will get to the library to set up snacks and waters for employers.
8:30 AM	Principal will say a word of greeting to the employers in the library.
8:35 AM	Researcher will go over employer expectations, rubrics, schedules, give resumes etc.
8:30-9:00 AM	We will need one person at the front door who can help employers check in and get to the library.
9:15 AM	Take employers to their interview spot so they can get settled in.
9:25 AM	All teachers will send students from the mock interview list to the gym.
9:05 AM	Behavior coach/teacher will give expectations to all of the students. (Be respectful, these could be your future employers, use manners, make sure your hair is not all messed up, sit up straight, look them in the eye, remember to expand and not just give 1-3-word answers, do not get lost in the hallways).
9:20 AM	First set of students will be sent (with their schedules in hand) to the library or cafeteria.
9:30 AM	Rest of the students will head to their assigned holding rooms (also on their schedules).

Host/Hostess Jobs:

- *Bringing waters to employers –
- *Greeting at the door in the morning –
- *Restrooms/unlocking restrooms -
- *Telling People Where to Go –
- *Runner –

Holding Room 1

Students – Rotate – Group 1

9:00-9:45	9:45-10:15	5min	10:20-10:50	5min	10:55-11:25	5min	11:30-11:55	5 min	12:00 – 12:40
Gym – Behavior coach and teacher	Job Coach/ Teacher A	Transition	Teacher B	Transition	Teacher C	Transition	Teacher D	Transition	Breakout Groups
Room & Group	Room: Teacher A's Group 1		Room: Teacher B's Group 1		Room: Teacher C's Group 1		Room: Teacher D's Group 1		
Expectations and transition back to the classroom.	Resources after High School		Reality of College		Review Game		Reflect on Interview Score and write 3 questions for the employer.		Q&A with employer in their field.

Group 1

List all student names in group 1 rotation here.

REFERENCES

- Akpan, J., & Notar, C. E. (2012). How to write a professional knockout resume to differentiate yourself. *College Student Journal*, 46(4), 880-891.
- Alfred, W. D., Stephen, C. D., Robert, M. B., & Robert, F. (2011). Postschool goals and transition services for students with learning disabilities. *American Secondary Education*, 39(2), 77-93.
- Anderson, T. R., & Rogan, J. M. (2011). Bridging the educational research-teaching practice gap: Curriculum development, part 1--components of the curriculum and influences on the process of curriculum design. *Biochemistry and Molecular Biology Education*, 39(1), 68-76.
- Anderson-Inman, L. (2009). Supported text: Literacy scaffolding for students with disabilities. *Journal of Special Education Technology*, 24(3), 1-8.
- Ashman, A. F., & Conway, R.N.F. (2002). *An introduction to cognitive education: Theory and applications*. Routledge.
- Carpenter, S.K., Pashler, H., Cepeda, N.J., and Alvarez, D. (2007). Applying the principles of testing and spacing to classroom learning. In D.S. McNamara and J.G Trafton (Eds.) *Proceedings of the 29th Annual Cognitive Science Society* (p.19). Nashville, TN: Cognitive Science Society.
- Bangser, M., & National High School, C. (2008). Preparing high school students for successful transitions to postsecondary education and employment. Issue brief: National High School Center.
- Barba, E. (2015). Cultural change in the twenty-first century shop class. *Design Issues*, 31(4), 79-90. doi:10.1162/DESI_a_00353
- Beesley, A. D., Apthorp, H. S., Mid-continent Research for, E., & Learning. (2010). Classroom instruction that works, second edition: Research report: Mid-continent Research for Education and Learning (McREL).
- Belford, R. E. (2013). Review of learning theories: An educational perspective, 6th edition. *Journal of Chemical Education*, 90(2), 150-151. doi:10.1021/ed300874q
- Best, D. L., & Ornstein, P.A. (1986). Children's generation and communication of mnemonic organizational strategies. *Developmental Psychology*, 22, 845-853.
- Bottge, B. A. (2001). Reconceptualizing mathematics problem solving for low-achieving students. *Remedial & Special Education*, 22(2), 102. doi:10.1177/074193250102200204
- Bottge, B. A., Rueda, E., LaRoque, P. T., Serlin, R. C., & Kwon, J. (2007). Integrating reform-oriented math instruction in special education settings. *Learning Disabilities Research & Practice*, 22(2), 96-109. doi:10.1111/j.1540-5826.2007.00234.x
- Bottge, B. A., Rueda, E., Serlin, R. C., Hung, Y.-H., & Kwon, J. M. (2007). Shrinking achievement differences with anchored math problems: Challenges and possibilities. *The Journal of Special Education*, 41(1), 31-49. doi:10.1177/00224669070410010301
- Bottge, B. A., Toland, M. D., Gassaway, L., Butler, M., Choo, S., Griffen, A. K., & Ma, X. (2015). Impact of enhanced anchored instruction in inclusive math classrooms. *Exceptional Children*, 81(2), 158-175. doi:10.1177/0014402914551742

- Bransford, J. D. (1999). *How people learn brain, mind, experience, and school*. Washington, D.C.: Washington, D.C. : National Academy Press : U.S. Dept. of Education, Office of Educational Research and Improvement, Educational Resources Information Center.
- Care, E., Kim, H., Vista, A., Anderson, K., & Brookings Institution, C. f. U. E. (2018). *Education system alignment for 21st century skills: Focus on assessment*. Retrieved from <http://ezproxy.uky.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED592779&site=ehost-live&scope=site>
- Carnevale, A. P., & Smith, N. (2013). Workplace basics: The skills employees need and employers want. *Human Resource Development International*, 16(5), 491-501. doi:10.1080/13678868.2013.821267
- Cognition and Technology Group at, V. (1992). The jasper series as an example of anchored instruction: Theory, program description, and assessment data. *Educational psychologist.*, 27(3), 291-315. doi:10.1207/s15326985ep2703_3
- Collier, M. L., Griffin, M. M., & Wei, Y. (2016). Facilitating student involvement in transition assessment: A pilot study of the "student transition questionnaire". *Career Development and Transition for Exceptional Individuals*, 39(3), 175-184.
- Curry, J. R., Belser, C. T., & Binns, I. C. (2013). Integrating postsecondary college and career options in the middle level curriculum. *Middle school journal.*, 44(3), 26-32. doi:10.1080/00940771.2013.11461852
- DeVos, B., & Ryder, R. (2017). A transition guide: To postsecondary education and employment for students and youth with disabilities. *Office of Special Education and Rehabilitation Services*.
- Dös, B., Bay, E., Aslansoy, C., Tiryaki, B., Çetin, N., & Duman, C. (2016). An analysis of teachers' questioning strategies. *Educational Research and Reviews*, 11(22), 2065-2078.
- Fay, M. P., Barnett, E. A., Chavarín, O., & Columbia University, C. C. R. C. (2017). *How states are implementing transition curricula: Results from a national scan. Ccrc research brief*. Retrieved from <http://ezproxy.uky.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED579002&site=ehost-live&scope=site>
- Goldin, C., Katz, L. F., & Kuziemko, I. (2006). The homecoming of american college women: The reversal of the college gender gap. *Journal of Economic Perspectives*, 20(4), 133-A134. doi:10.1257/jep.20.4.133
- Gragoudas, S. (2014). Preparing students with disabilities to transition from school to work through self-determination training. *Work*, 48(3), 407-411. doi:10.3233/WOR-131782
- Gregg, N. (2007). Underserved and unprepared: Postsecondary learning disabilities. *Learning Disabilities Research & Practice (Wiley-Blackwell)*, 22(4), 219-228. doi:10.1111/j.1540-5826.2007.00250.x
- Guthrie, J. T., Wigfield, A., & VonSecker, C. (2000). Effects of integrated instruction on motivation and strategy use in reading. *Journal of educational psychology.*, 92(2), 331-341. doi: 10.1037/0022-0663.92.2.331

- Hansen, R. S. H., K.H. (2008). Quinessential careers: What do employers really want? Top skills and values employers seek from job-seekers. http://www.quintcareers.com/printable/job_skills_values.html
- Heritage, M., & Heritage, J. (2013). Teacher questioning: The epicenter of instruction and assessment. *Applied Measurement in Education*, 26(3), 176-190. doi:10.1080/08957347.2013.793190
- Hirsch, B. J. (2017). Wanted. *The Phi Delta Kappan*., 98(5), 12-17. doi:10.1177/0031721717690359
- Kaddoura, M. (2013). Think pair share: A teaching learning strategy to enhance students' critical thinking. *Educational Research Quarterly*, 36(4), 3-24.
- Konrad, M., Joseph, L. M., & Eveleigh, E. (2009). A meta-analytic review of guided notes. *Education and Treatment of Children*, 32(3), 421-444.
- Landmark, L. J., Ju, S., & Zhang, D. (2010). Substantiated best practices in transition: Fifteen plus years later. *Career Development for Exceptional Individuals*, 33(3), 165-176.
- Lipscomb, S., Haimson, J., Liu, A. Y., Burghardt, J., Johnson, D. R., Thurlow, M. L., . . . Mathematica Policy Research, I. (2017). *Preparing for life after high school: The characteristics and experiences of youth in special education. Findings from the national longitudinal transition study 2012. Volume 1: Comparisons with other youth. Executive summary. Ncee 2017-4017*. Retrieved from <http://ezproxy.uky.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED573341&site=ehost-live&scope=site>
- Lipscomb, S., Laco, J., Liu, A. Y., Haimson, J., National Center for Education, E., Regional, A., & Mathematica Policy Research, I. (2018). *Preparing for life after high school: The characteristics and experiences of youth in special education. A summary of key findings from the national longitudinal transition study 2012. Ncee evaluation brief*. Retrieved from <http://ezproxy.uky.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED583066&site=ehost-live&scope=site>
- Love, M. S. (2004). Multimodality of learning through anchored instruction. *Journal of Adolescent and Adult Literacy*, 48(4), 300-310.
- Marra, R. M., Jonassen, D. H., Palmer, B., & Luft, S. (2014). Why problem-based learning works: Theoretical foundations. *Journal on Excellence in College Teaching*, 25(3), 221-238.
- Martinez, R. R., Baker, S. B., & Young, T. (2017). Promoting career and college readiness, aspirations, and self-efficacy: Curriculum field test. *Career development quarterly*., 65(2), 173-188. doi:10.1002/cdq.12090
- Mazzotti, V. L. (2016). Predictors of post-school success: A systematic review of nlts2 secondary analyses. *Career development and transition for exceptional individuals*., 39(4), 196.
- Mazzotti, V. L., Rowe, D. A., Kelley, K. R., Test, D. W., Fowler, C. H., Kohler, P. D., & Kortering, L. J. (2009). Linking transition assessment and postsecondary goals. *Teaching Exceptional Children*, 42(2), 44-51. doi:10.1177/004005990904200205
- Mazzotti, V. L., Rowe, D. A., Sinclair, J., Poppen, M., Woods, W. E., & Shearer, M. L. (2016). Predictors of post-school success: A systematic review of nlts2 secondary

- analyses. *Career Development and Transition for Exceptional Individuals*, 39(4), 196-215.
- Miller-Warren, V. (2015). Examining the quality of secondary transition plans against research-based criteria in preparing students with disabilities for postsecondary success. *Journal of Special Education Apprenticeship*, 4(1).
- Morningstar, M. E., Frey, B. B., Noonan, P. M., Ng, J., Clavenna-Deane, B., Graves, P., . . . Williams-Diehm, K. (2010). A preliminary investigation of the relationship of transition preparation and self-determination for students with disabilities in postsecondary educational settings. *Career development for exceptional individuals : official journal of Division on Career Development, the Council for Exceptional Children.*, 33(2), 80-94. doi:10.1177/0885728809356568
- Morningstar, M. E., Trainor, A. A., & Murray, A. (2015). Examining outcomes associated with adult life engagement for young adults with high incidence disabilities. *Journal of Vocational Rehabilitation*, 43(3), 195-208. doi:10.3233/JVR-150769
- Nappi, J. S. (2017). The importance of questioning in developing critical thinking skills. *Delta Kappa Gamma Bulletin*, 84(1), 30-41.
- Niederle, M., & Vesterlund, L. (2010). Explaining the gender gap in math test scores: The role of competition. *Journal of Economic Perspectives*, 24(2), 129-144. doi:10.1257/jep.24.2.129
- Nix, D., & Spiro, R. J. (1990). *Cognition, education, and multimedia : Exploring ideas in high technology*. Hillsdale, N.J.: Hillsdale, N.J. : L. Erlbaum.
- O'Neill, J. (2000). Smart goals, smart schools. *Educational Leadership*, 57(5), 46.
- Pashler, H., Bain, P. M., Bottge, B. A., Graesser, A., Koedinger, K., McDaniel, M., . . . Institute of Education Sciences, W. D. C. (2007). *Organizing instruction and study to improve student learning. Ies practice guide. Ncer 2007-2004*. Retrieved from <http://ezproxy.uky.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED498555&site=ehost-live&scope=site>
- Perry, J. C., & Wallace, E. W. (2012). What schools are doing around career development: Implications for policy and practice. *New Directions for Youth Development*, 2012(134), 33-44. doi:10.1002/yd.20013
- Peterson, L. Y., Burden, J. P., Sedaghat, J. M., Gothberg, J. E., Kohler, P. D., & Coyle, J. L. (2013). Triangulated iep transition goals. *Teaching exceptional children.*, 45(6), 46-57. doi:10.1177/004005991304500606
- Predictor implementation school/ district self-assessment. (2013). *National Post-School Outcomes Center*
National Secondary Transition Technical Assistance Center
- Rabren, K., Eaves, R. C., Dunn, C., & Darch, C. (2013). Students with learning disabilities' satisfaction, employment, and postsecondary education outcomes. *Journal of Education and Learning*, 2(2), 14-22.
- Sahamid, H. (2016). Developing critical thinking through socratic questioning: An action research study. *International Journal of Education and Literacy Studies*, 4(3), 62-72.

- Sprunger, N. S., Harvey, M. W., & Quick, M. M. (2018). Special education transition predictors for post-school success: Findings from the field. *Preventing School Failure, 62*(2), 116-128.
- Stern, D., Finkelstein, N., Stone III, J. R., Latting, J., & Dornsife, C. (1994). <research_on_stw_transition_programs.Pdf>.
- Swiderski, S. (2011). Transforming principles into practice: Using cognitive active learning strategies in the high school classroom. *Clearing House, 84*(6), 239. doi:10.1080/00098655.2011.590549
- Test, D. W., Fowler, C. H., Richter, S. M., White, J., Mazzotti, V., Walker, A. R., . . . Kortering, L. (2009). Evidence-based practices in secondary transition (Vol. 32, pp. 115-128): Career Development for Exceptional Individuals.
- Topolinski, S., & Reber, R. (2010). Gaining insight into the “aha” experience. *Current directions in psychological science, 19*(6), 402-405. doi:10.1177/0963721410388803
- U.S. Department of Education. (2003). *Twenty-fifth annual report to Congress on the Implementation of the Individuals with Disabilities Education Act*. Washington, DC: Education Publications Center, Author.
- van Geert, P., & Steenbeek, H. (2005). The dynamics of scaffolding. *New Ideas in Psychology, 23*(3), 115-128. doi:10.1016/j.newideapsych.2006.05.003
- Vaughn, S., Martinez, L. R., Wanzek, J., Roberts, G., Swanson, E., & Fall, A.-M. (2017). Improving content knowledge and comprehension for english language learners: Findings from a randomized control trial. *Journal of educational psychology, 109*(1), 22-34. doi:10.1037/edu0000069
- Wehman, P., Sima, A. P., Ketchum, J., West, M. D., Chan, F., & Luecking, R. (2015). Predictors of successful transition from school to employment for youth with disabilities. *Journal of Occupational Rehabilitation, 25*(2), 323-334. doi:10.1007/s10926-014-9541-6
- Wetzels, S. A. J., Kester, L., van Merriënboer, J. J. G., & Broers, N. J. (2011). The influence of prior knowledge on the retrieval-directed function of note taking in prior knowledge activation. *British Journal of Educational Psychology, 81*(2), 274-291.
- Wittenburg, D. C., Golden, T., & Fishman, M. (2002). Transition options for youth with disabilities: An overview of the programs and policies that affect the transition from school. *Journal of Vocational Rehabilitation, 17*(3), 195.
- Zablocki, M., & Krezmien, M. P. (2013). Drop-out predictors among students with high-incidence disabilities: A national longitudinal and transitional study 2 analysis. *Journal of Disability Policy Studies, 24*(1), 53-64. doi:10.1177/1044207311427726
- Zegwaard, K. E., & Coll, R. K. (2011). Using cooperative education and work-integrated education to provide career clarification. *Science Education International, 22*, 4.

VITA

Megan Jones received her Bachelors' degree in Elementary Education (K-5) and Special Education (K-12) at Asbury University. She also received her Masters' degree in Teacher Leadership from Asbury University. Prior to coming to the University of Kentucky, she worked as special education at a public alternative high school serving 8-12 grade students. Since being at the University of Kentucky she has received a variety of scholarships, worked as a grant assistant on a Goal 5 IES grant, and presented at national conferences. Megan Jones has numerous publications under review and has a published article in the Journal of Applied Behavior Analysis.