Teaching Environmental/STEM College Access Curriculum in Two Western Washington Title I Elementary Schools

By Wendelin Dunlap

Accepted in Partial Completion of the Requirements for the Degree
Master of Education in Environmental Education

ADVISORY COMMITTEE
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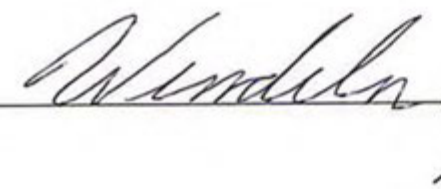
Signature  Date 12/2/16

Teaching Environmental/STEM College Access Curriculum in Two Western Washington Title I Elementary Schools

A Degree Project Presented to The Faculty of
Western Washington University

Accepted in Partial Completion of the Requirements for the Degree
Master of Education in Environmental Education

by Wendelin Dunlap
November 29, 2016

Abstract

This study attempts to answer the question: What are the best methods for designing Environmental/STEM College Access Curriculum for Title I Classrooms? Participants were 98 5th-graders in classes at two Title I schools. The treatment was 15 hours of College Access Curriculum: 7 hours occurred at the North Cascades Institute's Mountain School, eight hours in the students' regular classrooms. Western Washington University students received training to administer the curriculum as coaches. Data were gathered from elementary students (pre- and post-program surveys, retrospective questionnaire and open-ended question), coaches (essays and teacher evaluations) and teachers (feedback form).

Data gathered from elementary students yielded little reliable or conclusive data to answer the initial question. Coach and teacher data were used to create recommendations for integrating new curriculum into a multi-program project.

The six recommendations were: Meet with key people from each program at the beginning of the project to understand their plan. Obtain as much information about each program as possible by asking for schedules, syllabi and any other available program documents. Attend at least one day observing critical integration points of each program. Understand the demographics of the people being serving by each program. Develop a rough draft of key curricular components. Meet with each program again to make sure that everyone understands their involvement to ensure buy-in of the time and space needed for integration. Confirm expectations for each program by circulating a document that contains the final curriculum and responsibilities to be signed and returned.

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Introduction

Project Background

At the beginning of the second year of my Masters of Environmental Education degree, I accepted a position as an AmeriCorps College Access Corps (CAC) Member through Washington Campus Compact (WACC) working with Western Washington University's (WWU) Huxley College of the Environment (Huxley).

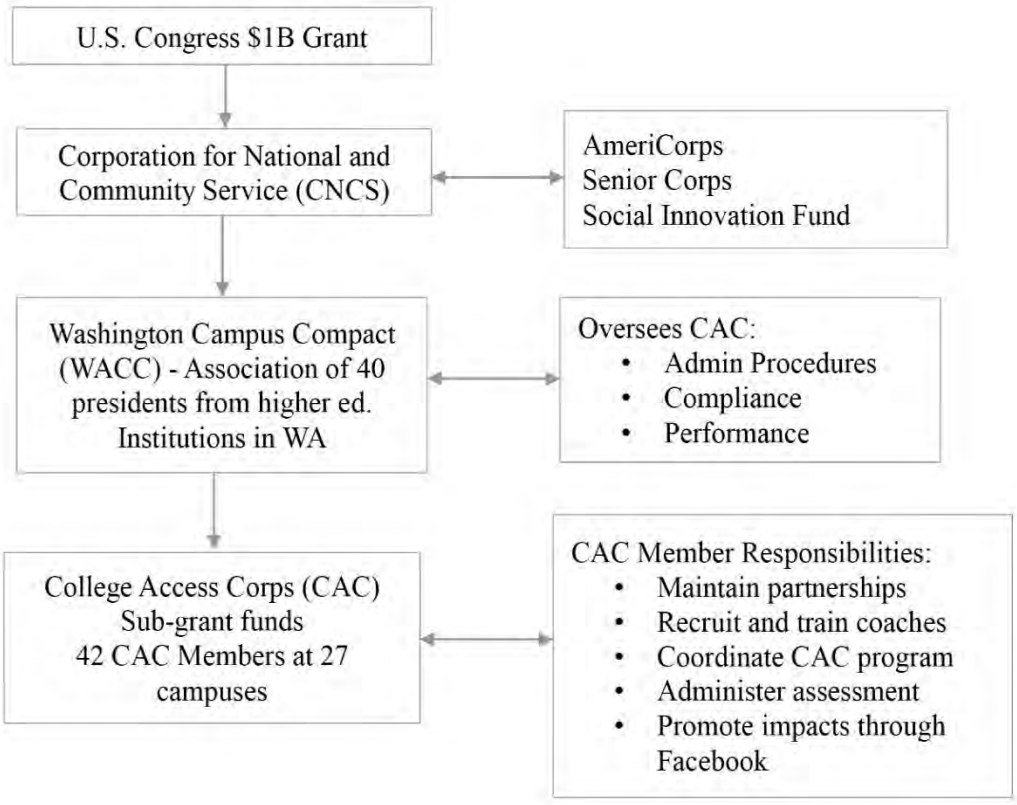
WACC was created in 1992 by then WWU President Kenneth Mortimer and included six other presidents of institutions of higher education in Washington State. WWU is still the host campus for this program that originally focused on developing service-learning opportunities for students, faculty and staff helping them to integrate with their local communities (Washington Campus Compact, n.d.). Today, WACC membership includes presidents from forty institutions. One of WACC's largest programs is CAC (McGinty, 2015a).

The CAC program is funded through a grant from the Corporation for National and Community Service (CNCS) "supporting local economically disadvantaged 4-12th graders to: Become more academically engaged in their education; increase preparedness for post-secondary education and become more knowledgeable about the college application and financial aid process" (McGinty, 2015a).

CAC defines "economically disadvantaged" as youth who attend schools where 50% or more students qualify for the National School Lunch Program (NSLP) that provides low-cost or free lunches to students each school day (McGinty, 2015a; United States Department of Agriculture, n.d.). CNCS programs are federally funded and include AmeriCorps, Senior Corps and the Social Innovation Fund. The figure below depicts the hierarchy of the

organizations involved.

Figure 1: CAC Organization Flow Chart (McGinty, 2015cMc)



The Washington State CAC program exists at 27 institutions of higher education and serves 4-12 graders in a variety of situations including in school programs, after school programs, community based programs and even at prisons for incarcerated youth. There are 43 CAC members across the institutions and six of them are in different departments at WWU. (McGinty, 2015c). I am the Huxley CAC member. Due to the number of programs and breadth of individual needs for the students we serve, there is no standard curriculum. Each program must develop its own curriculum based on four CAC resources (McGinty,

2015d):

1. CAC Performance Measures
    a. Number of youth who start in the College Access Corps (CAC) program
    b. Number of youth who completed at least 15 hours of college access intervention as part of the CAC program
    c. Number of youth who participated in the CAC program with improved academic engagement
2. CAC Framework (see Appendix A)
3. CAC Required Components (see Appendix A)
4. CAC Assessments: Pre-Program Survey (Pre-PS), Post-Program Survey (Post-PS), Retrospective Questionnaire (RQ) and Open-ended Question (OQ) (see Appendix B).

Since my position in the program is co-funded by Huxley, the project had a larger focus on academics and careers in environmental science, studies and education than other CAC programs. This was the first year of the Huxley program. Therefore, there was not any existing implementation. I needed to develop the curriculum, implement the program, then assess the quality of the program and impacts. Due to the environmental focus, I felt that it would be an excellent subject for my field project.

Program Background

Huxley's new CAC program was the vision of current Dean, Dr. Steve Hollenhorst. Dean Hollenhorst came to WWU in 2013. I was first introduced to Dean Hollenhorst in July 2014 as part of the interview process for being hired as a Co-Director of the service learning program: Learning, Environment, Action and Discovery (LEAD).

In various meetings with Dean Hollenhorst during the 2014-2015 academic year, the LEAD team of Co-Directors and work study students discussed ways to expand on LEAD's impressive history of environmental protection and restoration. Founded in the early 1990's, in the past fifteen years, LEAD recruited almost 10,000 volunteers who provided over 20,000

hours of environmental intervention through more than 500 service learning opportunities. We discussed ways to involve students across campus in environmentally focused programs, not just Huxley students. In the earliest years, LEAD had programs working with local kindergarten-twelfth (K-12) grade schools. We discussed bringing on an AmeriCorps person to help us expand our program to work with K-12 students again.

Dean Hollenhorst responded to the CAC Request for Proposals (RFP) that established him as the supervisor for the new Huxley LEAD CAC member position. We became part of the group of 27 supervisors and 43 Washington State members responsible for achieving the program goals.

The CAC Statewide program goals are, “To recruit and train 500 college students to act as CAC coaches.” Locate “4,300 economically disadvantaged 4-12 youth” to serve. Train the recruited coaches to “provide at least 15 hours of college access intervention” to those youths. The program should be designed so that, “at least 70% of participating economically disadvantaged 4-12 grade youth report, through a pre- and post- survey, improvement in academic engagement, preparedness for post-secondary education.” Additionally, “to recruit 1,580 volunteers for National Days of Service (NDS) and other community service events” (McGinty, 2015d).

Each CAC member’s individual goals are to recruit at least ten college student CAC coaches, serving one hundred 4-12th grade economically disadvantaged youth, having at least 70% of those youth indicate a positive effect on the CAC assessments and recruiting at least 75 volunteers for NDS. Since LEAD has a history of recruiting over 500 volunteers a year, partnering with LEAD to recruit 75 for the CAC program would be easy. LEAD would be able to provide over one-third of the 1,580 volunteers required for the program. That strong

recruiting power would also be used to locate at least ten WWU students to become CAC coaches.

To provide one hundred economically disadvantaged youth with fifteen hours of CAC curriculum, we relied on Huxley's long-standing partnership with the North Cascades Institute (NCI). Many schools in the Whatcom and Skagit County districts attend NCI's Mountain School (MS) for two and a half days at NCI's Environmental Learning Center (ELC) as part of their 5th grade Ecosystems Exploration program. Some of the schools that MS have 50% or more of their students qualifying for the National School Lunch Program so they are considered economically disadvantaged. Since MS connects to Washington State Guidelines for Integrated Environmental and Sustainability Education Standards 1, 2 & 3 (North Cascades Institute, n.d.); the curriculum is in line with our CAC program's focus on academics and careers in environmental science, studies and education. "For K4-6 schoolchildren, Mountain School is a nationally recognized residential environmental education program where students come to the North Cascades with their school class, teacher and chaperones to learn about the ecosystems, geology and natural and cultural history of the mountains. Mountain School uses the outdoors to get students excited about Science, Technology, Engineering, and Math (STEM), along with the humanities and social sciences" (Hollenhorst, 2015). Notably, however, NCI's existing staffing and investment in the MS program does not provide extended mentoring with the goal of increasing the likelihood of encouraging participants from less-represented background to envision and prepare for careers in environment-related fields.

Traditionally, LEAD has focused on providing service learning through environmental restoration and protection work parties. This new program helped LEAD

broaden the scope of service learning opportunities to include serving economically disadvantaged in their schools and attending MS with their classes. By using the environmental STEM learning experience at MS as a foundation for our CAC curriculum, we had the opportunity to educate the elementary students who attended about post-secondary studies and careers in those fields.

Rationale and Supporting Literature

Why should a CAC program be developed to focus on environmental-STEM education and careers for economically disadvantaged and ethnic minority 4-12 students? First, these students' communities are disproportionately impacted by environmental toxins (United Church of Christ. Commission for Racial Justice, 1987). Yet, they do not receive education and opportunities enabling them to contribute to solutions control or reduce those toxins. People from low-income and ethnic minority backgrounds are seriously under-represented in environmental occupations and the environmental movement. Second, those same individuals are also extremely underrepresented in STEM-related professions. Increasing low-income and minority involvement in environmental-STEM-focused livelihoods (also known as Green STEM) would grow overall participation, broaden the employment base so Americans from all walks of life are better equipped with opportunities to contribute to activities benefiting themselves and their communities.

What are Green STEM careers? In 2010, the United States Department of Labor's Bureau of Labor Statistics (BLS) began their Green Jobs Initiative. Part of the initiative was to collect information on green jobs to create an official definition of what makes a job green. The BLS defined two main categories: "Jobs that produce goods and provide services that benefit the environment or conserve natural resources and jobs in which workers' duties

involve making their establishment's production processes more environmentally friendly or use fewer natural resources." Additionally, these jobs must obtain their power from renewable resources; improve energy efficiency; reduce or eliminate environmental toxins while recycling and reusing materials; conserve natural resources; and increase environmental education and public awareness about environmental issues (Bureau of Labor Statistics, 2010).

Race is a leading factor in whether or not there will be hazardous wastes and environmental toxins affecting the air and water quality in a community (United Church of Christ Commission for Racial Justice, 1987). In a 2008 follow-up report, "Toxic Wastes and Race' at twenty: why race still matters after all of these years," Bullard, R. D., Paul, M., Saha, R., & Wright, B. found that "although *Toxic Wastes and Race* has had tremendous positive impacts, twenty years after its release, people of color and low-income communities are still the dumping grounds for all kinds of toxins." The report detailed that there are nine million Americans living within two miles of a hazardous waste treatment, storage or disposal facility (TSDF). Fifty-six percent were people of color "including 2.5 million Hispanics or Latinos, 1.8 million African Americans, 616,000 Asians/Pacific Islanders, and 62,000 Native Americans" (Bullard et al., 2008, p. 14). Additionally, people living in these areas had far lower post-secondary school achievement. Only 18% of people twenty-five years and over had a four-year college degree compared to non-TSDF neighborhoods in which 25% had degrees. Furthermore, their data revealed that incomes in TSDF neighborhoods are 15% lower than non-TSDF sites which lead to a 1.5 times greater poverty rate (Bullard et al., 2008, p.14). Imagine what an influx of green jobs that focus on reducing or removing toxins could do to improve the health and well-being of TSDF communities.

In her 2014 report, "The State of Diversity in Environmental Organizations: Mainstream NGOs, Foundations, Government Agencies," Taylor says that, "The current state of racial diversity in environmental organizations is troubling, and lags far behind gender diversity." She found that, "even though ethnic minorities and people of multi-racial backgrounds comprise about 38% of the U.S. population…the percentage of minorities on the boards or general staff of environmental organizations does not exceed 16%" (Taylor, 2014, p. 4). Taylor (2014) argues that environmental organizations have an unrecognized bias when attempting to recruit new employees or members. They often use word-of-mouth in their existing high-income, white-majority networks instead of reaching out to other organizations that attract minorities and working class people (Taylor, 2014). Aside from issues of equity, such hiring is a weakness because such people might possess knowledge of local culture, languages and communication patterns, and understanding of other stressors. Without such rapport, programs meant to serve these groups are less likely to succeed. This means that people who are most adversely affected by environmental injustice are least represented in environmental educational and career sectors that have the potential to create the most positive changes. Therefore, we need to reach out to organizations such as Title I schools to educate youth who grow up in these communities that there are possibilities to become involved in environmental fields and the environmental movement – and it can start by what they choose to study after high school.

STEM-related organizations are also in need of efforts to improve diversity. In "Making a Case for Diversity in STEM Fields," Chubin & Malcom relate, "At a time when STEM fields are increasingly important to our national security, health, and competitiveness we are neither supporting the research nor producing the diverse pool of scientists and

engineers we need to fuel our future" (2008). They go on to detail the effect on America's state of global competitiveness in higher education: "In many departments of physics, computer science, and engineering, it is difficult to find a graduate student who is a U.S. citizen. Across the STEM fields, the situation for faculty members is even more dire" (Chubin & Malcom, 2008). As the percentage of minorities grows within the U.S., STEM institutions continue the short-sighted practice of importing talent and outsourcing technology jobs instead of tackling the problem of recruiting more people already in America into those positions (Chubin & Malcom, 2008). However, to have a larger base of STEM educated individuals to choose from, we first need to have more Americans from all communities receiving STEM education.

Low-income and minority students who typically attend Title I schools are statistically less likely to graduate from high school and obtain careers in STEM. (Close, 2016). Not only can access to education about environmental STEM-related jobs increase the population of people with the tools they need to create change in their communities, it can help reduce the economic disparities. A report by Kerry Close noted that people who graduate with degrees in STEM fields will earn the highest starting salaries right out of school in 2016 with an average wage of $64,891 (Close, 2016). Unfortunately, these graduates tend not to be ethnic minorities. Even though whites and Asian Americans only make up 69% of the American workforce, they still dominate STEM careers accounting for 87% of engineers, 84% of computer professionals and 83% of those in advanced manufacturing. Although African-American and Latino workers make up 29% percent of the general workforce, only 16% are in advanced manufacturing, 15% work with computers and 12% are engineers (Bidwell, 2015). In a report on "*Improving educational outcomes for poor*

children," Jacob & Ludwig (2008) assert "one of the best ways to avoid being poor as an adult is to obtain a good education." The current numbers show that there is still a large gap between being poor and obtaining an education that will break the cycle of poverty.

As part of his "War on Poverty", Lyndon B. Johnson proposed the Elementary and Secondary School Education Act (ESEA) in 1965 which created Title I program. "Title I provides financial assistance to local educational agencies (LEAs) and schools with high numbers or high percentages of children from low-income families to help ensure that all children meet challenging state academic standards" (State of Washington Office of Superintendent of Public Instruction, 2016).

Another attempt to assist students at underfunded schools is the U.S. Department of Agriculture's "National School Lunch Program" (NSLP). "It provides nutritionally balanced, low-cost or free lunches to children each school day (United States Department of Agriculture, 2016). Despite having these two programs aimed at leveling the playing field, the numbers on representation of minorities in STEM fields show that previous attempts have failed to fix the gap between wealthy and low-income students' access to post-secondary education and high-paying careers.

We are still losing low-income and minority students to a system that does not support their needs. A report from The Executive Office of the President (2014) stated that 50% of people from high-income families have a bachelor's degree but only 10% of those from low-income families do. In a 1998 study of ethnic minorities in STEM-related fields, authors discovered, "one cannot understand why . . . minorities are underrepresented in science and engineering unless one understands that the related behaviors are formed . . . in the years prior to college. Although collegiate interventions . . . can increase minority

students' participation rates, the critical damage is done much earlier" (Leslie, McClure, and Oaxaca, 1998, p. 268). Therefore, more emphasis must be put on introducing STEM careers and effectively preparing students in grades K-12 (Museus, Palmer, Davis, Maramba, & AEHE, 2011). "When racial and ethnic minority students have greater access to information about careers in STEM and quality career guidance, they are more inclined to develop interests in mathematics and science fields" (Seymour and Hewitt, 1997).

As a nation, we need to try different methods for improving diversity and closing the opportunity gap. New programs such as the National Wildlife Federation's Global "Green STEM" Initiative, established in 2016, recognize the benefit of "Connecting students' curiosity about the natural world with innovation in STEM" (National Wildlife Federation, n.d.). Our program responds to this observation because it immerses elementary students experience 2.5 days of environment and STEM lessons and experiences. Their MS instructors and coaches accompany them during a mixture environmental and STEM-focused activities including trail hikes; lessons about water, glaciers, geology and climate; wildlife investigations into the web of life and forest food chains; and microscope lab learning what scientists do. By providing underrepresented students with time in wilderness while connecting it to STEM careers, the new CAC program offers a way to help low-income and minority students develop a mindset that they can join the new green jobs movement. Those activities combined with living in North Cascades National Park responds to the needs identified by the above-cited literature.

Purpose of Research

To evaluate the effectiveness of Environmental/STEM College Access Curriculum that I developed to be taught in two Western Washington Title I Elementary schools by Huxley-

trained CAC Coaches as part of a new CAC program. The research question was: What are the best methods for designing Environmental/STEM College Access Curriculum for Title I Classrooms?

In this study, effectiveness of the curriculum was evaluated by analyzing data collected assessing program value from elementary school teachers, CAC Coaches, and the elementary school students served. The goal is to highlight lessons learned and make recommendations for curriculum changes going forward.

Program Development

I developed the CAC program by bringing together two existing programs, Western Washington University Compass 2 Campus (C2C) program and the North Cascades Institute's Mountain School program. I linked the programs around the purpose of teaching elementary school students about environmental-STEM career tracks and helping them understand how they could pursue those careers by obtaining the necessary post-secondary school education.

The new CAC program was integrated into the existing C2C. The C2C program was developed by then WWU First Lady Cyndie Shepard to help students in Title I schools develop a college-going identity. "All 5th graders from participating schools visit and tour the WWU campus every fall. Their C2C mentors show them around and chat with them about what it is like to be a college student. The C2C mentors then visit their students throughout the school year for a minimum of 4 hours per week to tutor, develop relationships and mentor them" (Washington University: Compass 2 Campus, n.d.). Since the C2C program already placed WWU students in elementary school classrooms, it was a beneficial

partnership, especially for the first year of the CAC program. C2C does not use any specific curriculum in the classrooms; instead they function as classroom helpers. For my program, the C2C mentors/CAC Coaches[1] needed to learn the CAC curriculum that they would be teaching to the elementary school students.

In order to have a time and place to teach the coaches the CAC curriculum, I decided to collaborate with C2C Director Cyndie Shepard, Environmental Studies Professor Dr. Kate Darby and Vice Provost Dr. Steven VanderStaay to create a First-year Interest Group (FIG). A FIG is a group of three courses that students take simultaneously. It consists of two General University Requirement (GUR) courses and a two-credit seminar that links the main ideas of the two GURs (VanderStaay, 2006). The title of the FIG was Mentoring for Justice and Sustainability and consisted of three Western Washington University courses: C2C 203: Mentoring Towards Social Justice (SJ) Lecture/Lab taught by Cyndie Shepard (5 credits), ENVS 202: Environmental Studies and Sustainability (Sustainability) taught by Dr. Darby (3 credits) and SMNR 101: Perspectives on Learning taught by me (2 credits).

My seminar was used to instruct CAC coaches how to implement the treatment and its assessment. Chronologically, these elements consisted of CAC coaches administering the Pre-Program Survey (Pre-PS) followed by the CAC coaches teaching fifteen hours of CAC curriculum in the elementary students' classrooms and while attending MS with them and then administering the Post-Program Survey (Post-PS), Retrospective Questionnaire (RQ)

[1] C2C refers to the WWU students who serve in the elementary school classrooms as mentors. For legal reasons, CAC is not allowed to refer to its recruits as mentors, rather they are referred to as coaches. Coaches and mentors are two different names for the same individuals. In this document, I will refer to the WWU students who are teaching CAC curriculum to elementary school students in their classrooms and assisting MS Instructors at MS as CAC Coaches.

and Open-ended Question (OQ). The treatment is further detailed in the "treatment" section below.

Participant Selection

For the program, I needed to recruit at least ten WWU students to be CAC Coaches. I also needed to find local Title I elementary school classes who participated in C2C and MS between April 18 and May 27 2016. My goal was to find one classroom for each CAC Coach to serve.

Before any participants began the program, I submitted a Human Subject Research Proposal (HSRP) to WWU's Institutional Review Board. I received approval to run this study from April 10th 2016 to April 9th 2017 (see appendix E). The human subject research was completed on June 30th 2016. My HSRP approval required informed consent for the elementary students and their parents in the form of a permission slip (see appendix E). WWU students who were part of the FIG (and thus became CAC Coaches) were informed verbally on the first day of class that their coursework would be used to inform my study.

Ten students self-selected to become CAC Coaches by signing up for the FIG. Of the students, there were seven freshmen, two transfer students who were sophomores and one student who was a junior.

The two elementary schools were chosen based on four criteria:

1. Having 50% or more students enrolled in the National School Lunch Program.
2. An existing partnership for intervention with Compass 2 Campus which means that they are already facilitating the classrooms and would infuse the CAC curriculum.
3. The dates that the classes attend NCI-MS fall between April 18th and May 27th 2016.
4. The Principal and teachers were willing to participate in the new CAC program.

The two schools which met all criteria were Blaine Elementary (Blaine) in Blaine,

WA who had seven 5th grade classes with a total of 169 students that had the potential to participate in this study and Centennial Elementary (Centennial) in Mt Vernon, WA who had four 5th grade classes with a total of 88 students who could potentially participate for a total of 257 students selected to be treated as part of this study. All 257 students received as many of the fifteen hours of intervention as possible (some were absent, changed schools or did not attend MS).

I was able to include data in this study from students who met the following six criteria:

1. They were a 5th grader in a participating school.
2. They returned a permission slip signed by their parents allowing them to participate in the study.
3. They completed the Pre-Program Survey (Pre-PS).
4. They attended Mountain School (MS).
5. They received 15 hours of College Access Corps (CAC) curriculum.
6. They completed the Post-Program Survey (Post-PS), Retrospective Questionnaire (RQ) and Open-ended Question (OQ).

Students for whom these criteria were not met remained with their classmates and received the treatments with the rest of their class; they were just not administered the Post-PS, RQ and OQ.

The demographics of the two schools were quite different. Blaine had just over half of its students qualifying for the National School Lunch Program (NSLP) (55%) while Centennial had 82% of students qualifying. They also varied in their ethnic makeup. At the time of this study, the majority of students at Blaine were White (77.6%) with only 22.4% of their students identifying as belonging to an ethnic minority group. Meanwhile at Centennial, the majority of their students were Hispanic (75%) with a large amount of students coming from homes where one or more parents were migrant workers. Only 21.8% of students were

White with 78.2% of students belonging to an ethnic minority group.

Table 1

Demographics of Blaine and Centennial Elementary Schools

School	% NSLP	White	African American	Asian	Hispanic	Native American	Pacific Islander	2+ Race	Total
Blaine	55%	330 (77.6%)	13 (3.1%)	11 (2.6%)	46 (10.8%)	5 (1.2%)	4 (0.9%)	16 (3.8%)	425
Centennial	82%	143 (21.8%)	3 (0.5 %)	5 (0.8%)	491 (75.0%)	3 (0.5%)	2 (0.3%)	8 (1.2%)	655

Program Specifics

As part of the CAC grant requirements, the elementary students each needed to complete fifteen hours of CAC intervention to have their data included and analyzed for the effect rate. The intervention components that CAC members needed to cover in their curricula were designed by CAC Program Director Patrick McGinty (2015) and listed in Table 2 below. CAC members were not privy to the rationale or research used to develop the components, the components were introduced in their entirety as part of our initial training.

While the components were mandated, the “possible activities” were just suggestions of ways to address the required components. If an activity was not relevant to the population we were serving or did not fit into our program structure, we had the ability to design other methods for addressing the components.

Table 2

College Access Corps Required Components and Suggested Activities by Grade (McGinty, 2015)

Component	Grades 4-5
1. Academic Support: College academic expectations, General academic skills development	Purpose: • Help students develop a college-going identity • Help students strengthen literacy and math skills • Help students achieve and/or maintain good grades Possible Activities: • Provide academic support with homework • Provide academic skills workshops (relevant to your population):
2. College Awareness: General college information, Post-secondary options, Campus visits	Purpose: • Provide introductory information about what college is, why it is important, and basic types of colleges Possible Activities: • Classroom or individual discussion • Flat Stanley visits • Visits from college students • Campus visits
3. College Admissions: College admissions process, College application support	Not required for 4th & 5th graders
4. Financial Aid: General financial awareness, Financial aid process, FAFSA support	Not required for 4th & 5th graders
5. Education & Career Plan: Education plan, Career exploration	Purpose: • Guide students in basic career exploration • Get students excited about their future options, and show the connection to college • Help students develop a college-going identity Possible Activities: • Age-appropriate career exploration • Games • Career panel
6. Support System: Develop college support system - people they can talk to about college	Purpose: • Assist in creating a support system of teachers, counselors, mentors, parents, other adults to help support student's college going identity Possible activities: • Discussions and bonding activities with Coaches • Communication with school staff and family as needed, and as program permits

In her report, “The Effect of Poverty on Student Achievement” Christie Blazer asserts that socioeconomic status can have many effects on student achievement. She names multiple factors that affect low-income students at a higher rate including: “a higher incidence of prenatal adversity, illness and injury, exposure to pollutants, nutritional problems, lack of adult attention, residential mobility and a lack of educational activities and materials in the home” (Blazer, 2009). Additionally, these students are often the first in their families to be considering attending college and lack the family resources and role models that students from wealthy families have. While half of all people from high-income families have a bachelor's degree, just 1 in 10 people from low-income families do. (Duncan & Murnane, 2011). It was impossible to address all of the factors with my CAC curriculum. The three factors that I felt would be best addressed through my program were:

- Lack of adult attention - Parent availability as a role model or participant in their children’s education is often limited in low income households. Parents may work two jobs, forcing children into parental roles with younger siblings (Rothstein, 2008; Pellino, 2007; Nelson, 2006). Even though our coaches are young-adults ranging in age from 18-22, they can become role models as they participate in the students’ education by administering the 15 hours of CAC curriculum. Coaches also become another advocate for the value of doing well in school during the time they spend working with the students one-on-one providing academic support.
- Lack of educational materials - Low income children experience substantially less cognitive stimulation and enrichment in comparison to more affluent children. Many disadvantaged homes do not have the resources (such as books and educational toys) and or offer the experiences (including educational interactions with parents) that provide a foundation for learning (Bruce, 2008; Rothstein, 2008; Pellino, 2007; Hampden-Thompson & Johnston, 2006; Evans, 2004). CAC coaches and MS instructors provide additional cognitive stimulation and enrichment during the CAC program because they introduce new curriculum and new ways of learning such as each-one-teach-one and new educational experiences such as microscope lab. The MS program is also important because low-income students have less access to out of school experiences such as visits to museums and zoos, hobbies like dance and music and organized sports “which have been found to promote the development of cultural awareness, ambition, and self-confidence” (Rothstein, 2008; Pellino, 2007).

- Lack of college role models – Since all of the coaches are attending WWU, they are role models.

I developed the curriculum based on the required components, Pre-PS/Post-PS questions and factors. Handouts and resources for the treatment are in Appendix C. The interventions are detailed for each section of the fifteen hours of required curriculum below. I divided the fifteen hours of curriculum into seven sections of treatments because of the coaches' FIG class schedule WWU's spring quarter had ten weeks of instruction and one week of finals. Coaches did not start their time in the elementary schools until week three. That left seven weeks to provide one of the seven sections each week. There was no other rational for dividing the curriculum into sections, I just needed to fit the required components into the weeks that the CAC coaches were in the classrooms.

I attempted to provide training for CAC coaches in a uniform manner. However, due to a large number of coach absences, not all CAC coaches received the same amount of training and did not seek to make up much of the missed training during my office hours. Also, I did not sit in on elementary school classes to observe how CAC coaches delivered the curriculum so there could have been inconsistencies in the delivery of the treatment below. The seven basic curricular sections are described in the following.

CAC curriculum section 1.

Section 1 was an introductory week where coaches administered the Pre-PS, introduce themselves and get to know the students they were serving. I created a sheet in Appendix C for coaches to use to track their student's interests and potential jobs. Coaches had ten minutes to administer the Pre-PS and five minutes to introduce themselves and their background in front of the class. The remaining time would be spent with individual class

members talking about their interests as they mentored them as part of their C2C class. The components addressed were College Awareness and Support System because students may be developing a relationship with a college student and discussing their interests and aspirations with an adult for the first time in their lives. For the same reason, the factors Lack of adult attention and Lack of college role models were addressed.

Table 3

Section 1: Pre-PS and CAC Coach Introductions

CAC Curriculum Section 1 (1.25 hrs. total)	Components, Survey Questions & Factors Addressed
At Elementary School - Pre–MS >> Initial Survey: (10 min) Coaches administer Pre-PSs to students. >> Coach introductions: (5 min) • Who am I? • What are my educational interests? • What did it take for me to get into Western Washington University? Coaching Focus: (1 hr.) What are student's individual interests? (Infused in mentoring for remaining time) Coaches student's interests and jobs sheet: • Who are you? • What are your interests? • What do you want to be when you grow up?	College Awareness: • Learn real life story about a college student. • People have interests that they can develop further after High School. Support System: • They have a coach to talk to about college. Survey questions: Q3, Q5, Q6, Q7, Q8. Factors: • Lack of adult attention – coaches may be the first adult to ask them about their interests and career aspirations. • Lack of college role models – possibly able to speak or listen to a college student for the first time.

CAC curriculum section 2.

Section 2 was taught the week that each class spent 2.5 days at MS. This section was taught on different weeks depending on the schedule (see Program Implementation: Schedule for more details). The curriculum created by MS was taught by MS Instructors who are part of a joint NCI/Huxley resident Masters of Environmental Education (M.Ed.) program and Park Rangers employed by the Washington State Parks Department. The MS Instructors live

onsite at the NCI for one year while taking courses leading to a M.Ed., and Certificates in Nonprofit Leadership Administration or Northwest Natural History. (North Cascades Institute, n.d.).

The MS Ecosystems Exploration program was designed to have connections to Next Generation Science Standards (NGSS). NGSS is a science program designed "For States, By States" which was adopted as the approved curriculum for Washington State in 2013. (Next Generation Science Standards, 2016). There were no changes to the MS curriculum or daily schedule. The only changes were that MS Instructors would talk about their interests, college education and careers during meal times. CAC coaches attended to act as facilitators and instructor aids. If an opportunity presented itself, CAC coaches would make connections to ways that students could use lessons learned through the Ecosystems Exploration curriculum to get better grades at school: i.e. Time management, observation, study or writing skills. I developed a support sheet for the coaches to use, "4 ways to get better grades" which is in Appendix C. CAC coaches were also supposed to use this time to get to know their students and I created a support sheet, "Getting to know you" located in Appendix C.

Although the MS components outlined below appear to be consistent, the teaching of components could vary a lot because MS has over 12 different instructors. Elementary school classes are divided up into groups of 10-12 students and assigned to different MS Instructors who become their group leaders. Each elementary student would receive the same amount of time on each component. However, each MS Instructor is given a lot of autonomy in delivering the material. Therefore, I did not have control over the quality and completeness of any MS lessons mentioned below. Additionally, since I did not attend MS with the

coaches, I was not able to provide any quality control over how CAC coaches facilitated the MS lessons.

The components addressed were Academic Support through learning activities such as Web of Life, Forest Food Chains and Each One Teach One; Education & Career Plan were addressed through Microscope Lab, What Scientists do and MS Instructor discussions during meals. Support System was addressed by meeting more college graduates while having time to ask questions during meals. For many students, this may be their first time using a microscope or discussing college careers with multiple people so all three factors were addressed: Lack of educational materials, Lack of adult attention and Lack of college role models.

Table 4

Section 2: MS Ecosystem Exploration Environment & STEM-focused Curriculum and CAC Coach Support

CAC Curriculum Section 2 (7 hrs. total)	Components, Survey Questions & Factors Addressed
At MS by MS instructors >> Day 1 ~ 1:00 – 4:30 Activities on the trail (coaches facilitate) • Sensory Awareness • Water & Glaciers • Geology • Climate • Team Building and Community >> Day 2 ~ 9am-5pm: A full day on the trails! (coaches facilitate) • Teambuilding • Web of Life • Forest Food Chains (producers, consumers, decomposers) • Each One Teach One • Lunch on the trail • Wildlife Investigation • Microscope Lab • What scientists do & nature science investigating >> 7:00 – 7:45: Ranger Program (North Cascades Institute, n.d.) >> Presentation by MS Instructors: (40 min) - At MS – During meals (coaches facilitate) 1. What do they do? 2. Why they chose the field they currently are in? 3. What in their education background led them to investigate this field? 4. How long they had to go to school and any special training they had? 5. How they make a difference in the community? 6. What they want students to know about their field? Coaching Focus: What did you learn about the environment or STEM college and careers? (Infused in mentoring) • Coaches use "4 ways to get better grades" support sheet. • Coaches refer to "Getting to know you" support sheet.	Academic Support: • Time management • Observation skills • Study skills • Writing skills • Counting and reporting skills • Studying as a group • Team building • Note taking and analysis Education & Career Plan: • Find out what scientists do. • Investigate careers in nature and science. • Each One Teach One – learn what is is like to be a teacher. • Find out what forest rangers do. • Learn about many different fields of study from real graduate students' experiences. • Learn what it took to get their graduate degrees (majors, types of colleges and amount of years). • Find out about the many different things people can learn in college. Support System: • Have a chance to ask questions Survey questions: Q1, Q3, Q5, Q6, Q7, Q8. Factors: • Lack of educational materials – students may have access to microscopes, nature & science investigations and an environmental curriculum for the first time in their lives. • Lack of role models – graduate students and park rangers could be new role models that attended college. • Lack of adult attention – many more chances to talk to adults and ask questions about what they are experiencing and learning.

CAC curriculum section 3.

The purpose of Section 3 was to focus on techniques students could use to get better grades in school. I realized that since Centennial has a large majority of ethnic minority Hispanic students, they may have additional factors to overcome while pursuing a college education. That prompted me to read a book written by youth in that community. In "DreamFields: A Peek into the World of Migrant Youth" (Youth & Blackmore, 2012) I read many accounts of barriers to completing homework. Some barriers were after school responsibilities of making meals and caring for other family members, no quiet place to study and other types of after-school jobs to help their families make ends meet. Therefore, I designed my "4 ways to get better grades" support sheet and Cornell note taking methods exercise to capitalize on things that students could do during their school day to better their grades. I actually did not mention homework as a key to success. I felt the students might feel dis-empowered if there was no way for them to complete one key to success, so I focused on obtainable goals.

Since the FIG has a SJ focus, I decided that integrating newly released "Since Time Immemorial: Tribal Sovereignty in Washington State" curriculum would be a great way to introduce concepts of SJ to the students (Since Time Immemorial: Tribal Sovereignty in Washington State, n.d). Once introduced, it would facilitate topical conversations with CAC coaches. I chose to use Time Immemorial Tribal Sovereignty in WA State section 3.1.1 as the basis for my Cornell note-taking curriculum since it deals with immigration and resulting laws see Appendix C (Since Time Immemorial: Tribal Sovereignty in Washington State, n.d).

The Cornell Note-taking System (CNS) was developed by Dr. Walter Pauk of Cornell

University (Utah State University: Academic Resource Center, n.d.). The CNS contains five steps. First, a student prepares their paper by drawing a vertical line about 2.5 inches from the left edge of their paper. They take class notes in the remaining area to the right of that column during class. As soon after class as possible, students use the left-hand column to write down questions that they have about their notes and key words to summarize the main points of the class. They can also formulate potential exam questions. Next they "recite" their notes by covering the note taking column while reading the left-hand column out loud. They then "reflect" on how the material relates to and expands their current knowledge. Finally, they review their notes several times a week to develop a deeper understanding of the material (Cornell University, n.d.; Utah State University: Academic Resource Center, n.d.).

I chose to use the CNS for three reasons. First, because some students would continue on with it as part of their 6th grade college preparedness through Advancement Via Individual Determination (AVID). Currently, the AVID program begins in 6th grade and only supports students who meet one of the criteria of being the "First generation in their family to attend college; Historically "least served" in 4-year colleges/universities or Low-income." (Mount Vernon School District 320, n.d.) I felt that all students would benefit from learning the method since it is known for helping students make the most of the class time. (Bright Hub Inc, 2008). Second, as reported by Jenni Donohoo in, "Learning How to Learn: Cornell Notes as an Example," the Cornell note taking system has been shown to increase test scores in science classes: "the class average for the courses in which Cornell notes were implemented was 10–12% higher than it had been the previous semester" (2010). Additionally, all students who used the Cornell notes method passed the mid-term compared to only 70% passing in classes who did not use Cornell notes (Donohoo, 2010). Third, I

learned the Cornell note taking method while attending Cornell University summer session as a junior in High School and it improved my grades senior year and in college where I continued using that note taking method.

The components addressed in this section were Academic Support and College Awareness because students would learn note taking methods and study skills that would help them do better in pre-college and college studies. The factors addressed were Lack of education materials and Lack of college role models since the student's parents may not have learned the Cornell notes method and could not pass on that knowledge.

Table 5

Section 3: College Study Skills

CAC Curriculum Section 3 (1 hr.)	Components, Survey Questions & Factors Addressed
At Elementary School Pre or Post–MS Coaching Focus: (1 hr.) College Study Skills (Infused in mentoring during available class time) • Coaches use "4 ways to get better grades" support sheet. • Coaches pass out Cornell note taking method using Time Immemorial Tribal Sovereignty in WA State section 3.1.1 sheets and complete exercise.	Academic Support: • Learn note taking skills. • Learn new study skills. • Practice writing skills (creating the summary). College Awareness: • What academic skills they need. • How they can start preparing now. Survey questions: Q1, Q4 Factors: • Lack of education materials – students may have never heard of the Cornell note taking method. • Lack of college role models – student's parents may have never learned some of the study skills that we are presenting. Extras: • Including some curriculum from http://www.indian-ed.org/ • Understanding local tribal history to make connections and form relationships to indigenous history.

CAC curriculum section 4.

Section 4 was designed to introduce students to people in STEM careers. I had planned to develop a "Who Am I" bingo sheet for each school based on the people I recruited for the Opportunity Fair. Due to issues detailed in the Discussion section under Unforeseen Issues, I was not able to schedule the event so I did not develop this lesson further. It was supposed to address the Education & Career Plan component and all three factors by

allowing students time to discuss STEM careers with people who actually did those types of jobs.

Table 6

Section 4: Opportunity Fair

CAC Curriculum Section 4 (2 hrs. total)	Components, Survey Questions & Factors Addressed
Opportunity Fair: (1 hr.) – At Elementary School –Post-MS (during lunch and recess for all 5th graders) >> Stations with local community members who are involved in environmental and STEM careers >> Activity: "Who Am I" Bingo with prize for each completed Bingo. Coaching Focus: (1 hr.) Discussion of student's reactions to Opportunity Fair (Infused in mentoring during available class time) – Talk about student interests and answer further questions. Coaches check Bingo sheets and pass out prizes.	Education & Career Plan: • Meeting real people with jobs in STEM and environmental careers. • Learning why each job is important. • Learn what it took for these people to get their jobs. • I can do it too! (since members of my community have) Survey questions: Q3, Q5, Q8. Factors: • Lack of educational materials – students may have never spoken to people with environmental and STEM careers. • Lack of adult attention – some of the attendees could become role models for the students. • Lack of college role models – more opportunity to talk with college graduates.

CAC curriculum section 5.

Section 5 was designed to build on an existing event at both schools: Transitions Middle School Tour. All 5th graders were brought to the middle school to meet the 6th grade teachers, tour the school and eat lunch in the cafeteria. I planned to add a time to introductions to those they could ask if they needed help: guidance counselor, AVID Rep, C2C Rep, contacts for homework help, college questions and tutoring resources. Coaches would not be able to attend the middle school tours due to class conflicts but would talk about each student's experience during their mentoring time. Unfortunately, I was also not

able to schedule this event, so the students received whatever the regular treatment was for the Transitions Middle School Tour without any added CAC support.

This section was supposed to address the Support System component and Lack of adult attention factor since many of these students may not have been previously introduced to all of the support professionals available at middle school.

Table 7

Section 5: Transitions Middle School Tour

CAC Curriculum Section 5 (2 hrs. total)	Components, Survey Questions & Factors Addressed
Transitions Middle School Tour – At Middle School – Post MS (1 hr.) >> Introductions to guidance counselor, AVID Rep, C2C Rep. Contacts for homework help, college questions and tutoring resources. Coaching Focus: (1 hr.) Discussion of student's reactions to Middle School Visit (Infused in mentoring during available class time) – Talk about student likes, dislikes/worries and answer further questions.	Support System: • Learn about multiple resources for answering their post-secondary school questions in the future. • Learn where to get help with their elementary school studies. Survey questions addressed: Q2, Q4, Q7. Factors: • Lack of adult attention – students may not have been introduced to all of the support professionals.

CAC curriculum section 6.

I designed Section 6 to tie in with the sustainability focus of the FIG and MS. After the coaches spoke to students about their interests and career inspirations I asked them to turn in their "Student Interest and Job Sheets," see Appendix C. I wrote down ideas for how each of the students' jobs could be done with an eye towards sustainability as an example. Then I introduced a "Sample Household Funds of Knowledge" for migrant communities table from, the paper by Gonzáles et al. (Gonzales et al., 2005) titled "Funds of knowledge: Theorizing practices in households, communities, and classrooms." The main

categories were Agriculture and Mining, Material and Scientific Knowledge, Economics, Medicine, Household Management and Religion. I chose to use traditional migrant cultural funds of knowledge so CAC coaches could discuss ideas for sustainability that could be applicable to their students' careers and home life. We divided up the categories and CAC coaches listed ideas for bringing sustainability practices to each category. CAC coaches took this information back to their classrooms as a basis for discussing sustainability with each of their students. I wanted to help students identify and value the knowledge that exists in their lives and communities and understand that college studies in environmental sustainability could build on that knowledge. After reading, "DreamFields: A Peek into the World of Migrant Youth" I realized that most represented funds of knowledge were agriculture and forestry which had strong links to the MS curriculum because they were in the forest learning about sustainable food systems for humans and animals (Youth & Blackmore, 2012).

Table 8

A Sample of Household Funds of Knowledge for Migrant Communities (Gonzáles, Moll, Amanti, Gonzalez, & Gonzalez, 2005, p.73)

TABLE 4.1
A Sample of Household Funds of Knowledge

Agriculture and Mining	*Material and Scientific Knowledge*
Ranching and farming	Construction
Horse riding skills	Carpentry
Animal management	Roofing
Soil and irrigation systems	Masonry
Crop planting	Painting
Hunting, tracking, dressing	Design and architecture
Mining	Repair
Timbering	Airplane
Minerals	Automobile
Blasting	Tractor
Equipment operation and maintenance	House maintenance
Economics	*Medicine*
Business	Contemporary medicine
Market values	Drugs
Appraising	First aid procedures
Renting and selling	Anatomy
Loans	Midwifery
Labor laws	Folk medicine
Building codes	Herbal knowledge
Consumer knowledge	Folk cures
Accounting	Folk veterinary cures
Sales	
Household Management	*Religion*
Budgets	Catechism
Childcare	Baptisms
Cooking	Bible studies
Appliance repairs	Moral knowledge and ethics

The component addressed was Education & Career Plan and the Factor was Lack of education materials because, other than at MS, nobody may have spoken to the students about ways they could bring sustainability practices to their home life and future careers.

Table 9

Section 6: Importance of Building Sustainability into Any Career

CAC Curriculum Section 6 (1 hr.)	Components, Survey Questions & Factors Addressed
Coaching Focus: (1 hr.) At Elementary School – Post–MS >>Importance of building sustainability into any career (Infused in mentoring during available class time) – Coaches discuss student interests and how students could "green" their careers.	Education & Career Plan: • Learn that what they study could impact the environment. • There are ways to build sustainability practices into any major/career. Survey questions: Q3, Q4, Q5, Q7, Q8. Factors: • Lack of education materials – students may not have discussed sustainability measures with friends or family.

CAC curriculum section 7.

Section 7 was meant to tie together all of the discussions and information students had received about types of colleges during the program. I created the Types of Higher Education PowerPoint presentation in Appendix C as a foundation for CAC coaches to customize as they saw appropriate for their students. CAC coaches would give the presentation and then discuss any remaining questions about college before administering the Post-PS, RQ & OQ.

The component addressed was College Awareness and the factors were Lack of education materials and Lack of college role models since nobody may have explained the

different types of colleges, lengths of programs, cost differences, housing options and benefits of each to the students.

Table 10

Section 7: Types of Higher Education and Post-PS, RQ, OQ

CAC Curriculum Section 7 (1.25 hrs. total)	Components, Survey Questions & Factors Addressed
Types of Higher Education at Elementary School – Post–MS >> PPT presentation about types of higher education (30 min.) What are some of the options available to students after graduation and how are they different? (Local examples of: technical schools, vocational schools, universities and community colleges) Coaching Focus: (30 min.) Discussion about college >> Administer Post-PS, RQ & OQ (15 min.) .	College Awareness: • Learn what school they could attend to fulfill their dreams. • Learn what it would take to attend the school they like. • Learn what it feels like to be a college student. Survey questions: Q3, Q5, Q6, Q8. Factors: • Lack of education materials – students may have never been told that there are many different types of colleges. • Lack of college role models – students may not have had the vocabulary to discuss 2-yr, 4-yr, public, private, technical and vocational school options.

C2C campus visit.

All classes at Blaine and Centennial received the additional treatment of attending WWU C2C day. Both schools came to WWU in October 2015 to tour the campus, residence halls, library and cafeteria. The elementary school students also attended a college fair in Red Square, individualized sessions in WWU Colleges that aligned with their interests and booths set up by the Women in Science Associated Student's Club and Huxley College on the Peninsulas. Since our program was new and we did not realize that we would be working with Blaine and Centennial until March 2016, we were not able to administer our Pre-PS before their October 2015 visit. This could have caused confusion for the elementary students

when answering the assessments. It is unclear whether the elementary school students were only thinking about the CAC program curriculum or if they also drew on their C2C experience when answering the questions.

Treatment Groups & Comparison Group

Since only ten coaches were recruited and there were eleven elementary classes to serve, one class was deemed a comparison group. Although no comparison group was planned, one teacher was absent at the orientation and so her students did not receive the same program. While not randomly assigned and small in terms of numbers, her class will be used to provide a non-controlled comparison in analyzing the results.

All groups were administered the Pre-Program Survey, Post-Program Survey, Retrospective Questionnaire and Open-ended Question. All treatment groups received the fifteen hours of CAC curriculum which consisted of Section 1: Pre-PS and CAC Coach Introductions (1 hr. CAC Curriculum, .25 hr. Assessment); Section 2: MS Ecosystem Exploration Curriculum and CAC Coach support (7 hrs.); Section 3: College Study Skills (1 hr.); Section 4: Opportunity Fair (2 hrs.); Section 5: Transitions Middle School Tour (2 hrs.); Section 6: Importance of building sustainability into any career (1 hr.); Section 7: Types of Higher Education and Post-PS, RQ, OQ (1 hr. CAC Curriculum, .25 hr. Assessment). The comparison group received Section 1: Pre-PS (25 hr. Assessment); Section 2: MS Ecosystem Exploration Curriculum without CAC Coach support (7 hrs.); Section 5: Transitions Middle School Tour (2 hrs.); Section 7: Post-PS, RQ, OQ (.25 hr. Assessment). The comparison group classroom also did not have a CAC Coach assigned to them. They were only educated by their regular classroom teacher and any substitute teachers as necessary during the

treatment period.

Table 11

Table of Treatments and Treatment Groups

Treatment Groups	*Pre-PS*	*Eight Hours of CAC Coaching at Elementary School*	*Seven Hours of MS Ecosystem Exploration Curriculum*	*CAC Coach Support at MS*	*Post-PS/RQ/OQ*
Centennial Treatment Group (4 classes)	X	X	X	X	X
Blaine Treatment Group (6 classes)	X	X	X	X	X
Blaine Comparison Group (1 class)	X		X		X

Schedule

Our coaches were assigned to individual classrooms as part of the C2C mentorship program. The days and times for administering the treatment (15 hours for CAC and the rest was general mentoring) were negotiated and set by administrators of the C2C program. Since our coaches were still part of the C2C mentorship program, they were signed up as part of the regular sign up process. Any student who was signed up for the FIG was supposed to be directed to sign up in one of the Monday/Wednesday 1-3pm at Centennial or Wednesday/Friday 1-3pm at Blaine. There was a miscommunication and all but two coaches were signed up to mentor at schools other than Centennial and Blaine.

The result was a very fragmented schedule at Blaine. I had designed my curriculum around Monday and Wednesday informational class sessions and Monday, Wednesday and Friday coaching sessions. It was difficult to remember who was going where and when and forced me to rewrite my curriculum the second week of classes. Also, due to the changes and

conflicts, I was not able to have all of the Blaine coaches administer their Pre-PS on April, 11th and Centennial administer theirs on April, 13th. Instead, the start dates were scattered over nine days.

There is only enough room at MS for a certain number of people. Therefore, schools and classes needed to visit MS on different days. MS staff managed the scheduling of the schools and classes. The table below details which classes attended MS on specific dates. Overall, there were four different MS sessions attended by the two elementary schools in this study: Centennial (CES) CES-03 Apr 18-20th; CES-01, CES-02 and CES-04 Apr 20-22nd; Blaine (BES) BES-01, BES-03 and BES-04 Apr 25-27th; BES-02, BES-05, BES-06 and BES-07 Apr 27-29th.

I had initially designed the curriculum around the two weeks of MS where the Centennial coaches would teach the Week 2 MS curriculum April 18-22nd and teach the Week 3 curriculum April 25th-29th. The Blaine coaches would simply reverse and do Week 2 MS curriculum April 25th-29th and Week 3 curriculum April 18-22nd. There were supposed to be only two weeks of possible confusion with the curriculum swap for MS. Instead, with most of the coaches not even being able to administer the Pre-PS until a week later, the whole lesson schedule had to be personalized per coach depending on what day they started. It took up a lot of our 50 minutes of valuable class time and caused endless confusion for everyone. See Table 12 for details.

Table 12

Actual CAC Coach Schedule for Coaching, MS and Pre-PS

Blaine Elementary

Teacher	# of Students	Assigned Coach	Coaching Time(s)	MS Dates	Pre-PS Date
BES-01	24	Comparison	N/A	Apr 25 & 27	4/18/2016
BES-02	24	BES-Coach-02	F 11-3	Apr 27-29	4/22/2016
BES-03	24	BES-Coach-03	W 1-3 F 9-1	Apr 25-27	4/22/2016
BES-04	25	BES-Coach-04	TH 8-10	Apr 25-27	4/19/2016
BES-05	24	BES-Coach-04	TH 8-10	Apr 27-29	4/19/2016
BES-06	24	BES-Coach-06	F 9-1	Apr 27-29	4/15/2016
BES-07	24	BES-Coach-07	F 9-1	Apr 27-29	4/22/2016
Total	145				

Centennial Elementary

Teacher	# of Students	Assigned Coach	Coaching Time(s)	MS Dates	Pre-PS Date
CES-01	23	CES-Coach-01	MW 1-3	Apr 20-22	4/18/2016
CES-02	23	CES-Coach-02	MW 1-3	Apr 20-22	4/18/2016
CES-03	21	CES-Coach-03	MW 1-3	Apr 18-20	4/13/2016
CES-04	21	CES-Coach-04	MW 1-3	Apr 20-22	4/18/2016
Total	88				
Grand Total	233				

Program Assessment

Test Design

Data were collected in an attempt to determine whether students who received the 15 hours of treatment showed greater interest in academic success and increased knowledge about post-secondary education. These results were reported to Washington Campus Compact (WACC) and Corporation for National and Community Service (CNCS) since they support and fund the CAC program. In order to be considered as achieving the program goals, the program should be designed so that, “at least 70% of participating economically

disadvantaged 4-12 grade youth report…improvement in academic engagement (and) preparedness for post-secondary education." (McGinty, n.d.). The grant is funded for three years at a time. During that time, significant progress towards the goals must be demonstrated or else the grant will not be renewed. We were in our second year of the three-year grant period.

CAC Program Director, Patrick McGinty designed four CAC evaluations used to measure elementary school students' feelings toward college preparedness: Pre-Program Survey (Pre-PS) (eight 4-point Likert scale questions), Post-Program Survey (Post-PS) (eight 4-point Likert scale questions), Retrospective Questionnaire (RQ) (six 4-point Likert scale before and after questions) and an Open-ended Question (OQ) (with no scale, just a space to write their freeform answer) (see Appendix B).

Before addressing when and how these measures were administered and analyzed so as to determine level of student improvement, an issue in response bias affecting these methods must be explained so that the way these data sources were used in combination can be understood. McGinty was familiar with the limitations of the testing methods and specifically the response-shift bias that is associated with Pre/Post Survey designs: "Response-shift bias occurs when the student's internal frame of reference of the construct being measured, for example research ability or critical thinking, changes between the pre-test and the post-test due to the influence of the educational programme" (Drennan & Hyde, 2008).

Additionally, there are inherent biases in any type of self-report test design. Choi & Pak (2004) highlighted 48 possible biases in their 2004 report on questionnaire biases. Some biases I expected after reading the surveys were: ambiguous questions, uncommon words,

vague questions, framing of questions and response fatigue. (Choi & Pak, 2004).

The specific concern for the CAC Pre-PS and Post-PS was that students didn't know what they didn't know about college at the beginning of the program and would report lower feelings of self-efficacy towards their studies and getting into college after they learned how much they did not know during the program. McGinty attempted to control for response-shift bias in three ways. First, the use of a RQ at the end of the program which collected pre-program and post-program opinions when students were using the same frame of reference. Second was the use of an open-ended question to collect self-report free-form thoughts at the end of the treatment period. Third was counting the shift towards a positive effect on any one question as a positive effect on all questions (see Appendix B). This means that if a student had a positive shift on one question (i.e. the response to question 2 was "Not at all" on the Pre-PS and the response on the Post-PS went up one Likert-scale point to "Not really"), even if the answers to the seven remaining questions showed no change or negative movement (i.e. going from "Yes" to "Not at all" their score on the whole set of questions was recorded as positive. We were asked to report the results from eight 4-point Likert scale questions as a single dichotomous answer: yes, there was at least one positive shift or no, there were no positive shifts (regardless of any other negative shifts).

Knowing that I needed to use evaluation methods that were inherently flawed and possibly self-confounding, I attempted to triangulate the data by also administering questionnaires and other forms of measurement to the elementary school teachers and CAC coaches. The elementary school teachers were asked to complete a Teacher Feedback Form which consisted of fifteen 4-point Likert scale questions and one open-ended question. The first eight questions were the same as the eight questions posed to the elementary students in

the Pre and Post-Surveys except they were reworded to apply to their students. I created the remaining eight questions to receive each teacher's assessment of their assigned coach's behavior and overall effectiveness of the program.

Participants who returned permission slips from all groups were given the Pre-PS before receiving any of the fifteen hours of treatment. All students in the treatment groups who completed the Pre-PS and fifteen hours of treatment were administered the Post-PS, RQ and OQ. All students in the comparison group who completed the Pre-PS were administered the Post-PS, RQ and OQ.

The CAC coaches were given multiple vehicles for providing feedback. The first essay assignment was due week six of an eleven-week quarter. The prompt was what is working well and what is not working well for teaching the CAC curriculum? The final essay assessment due the tenth week of the quarter was in response to the prompt: "What was most effective for increasing your elementary class's post-secondary school: knowledge, interest, and existence of post-secondary student identity? (be specific about things or lessons you did or wish you could have done)." Additionally, the students completed Western Washington University's Evaluation of Instructor form which has twenty 7-point Likert questions and three open-ended questions: 1. What aspects of the teaching or content of this course do you feel were especially good? 2. What changes could be made to improve the teaching or the content of this course? 3. Other comments (see Appendix A for text of student responses to these).

Figure 2: List of CAC Coach Measures

- First Essay - 1-2-page written initial assessment essay: What is working well and what is not working well for teaching the CAC curriculum?
- Final Essay - 2-3 page final essay assessment: What was most effective for increasing your elementary class's post-secondary school: knowledge, interest, and existence of post-secondary student identity?
- Western Washington University's Faculty Evaluation form
- Student Evaluation of Instructor Comments which requires a free-form answer to three questions: 1. What aspects of the teaching or content of this course do you feel were especially good? 2. What changes could be made to improve the teaching or the content of this course? 3. Other comments

Assessment Results

Elementary Student Results

The program began with a total of 257 students in 11 elementary school classes that could have been a part of this study. Some elementary students could not attend MS (MS is subsidized but it still cost $148 per student at Blaine and $121 per student at Centennial which could have been a contributing factor to attendance), were absent on treatment days, were absent on testing days or moved to a different school during the treatment period. See the table below for number of respondents included from each class. The final number of responses included in this research was 98 with a response rate of 38% out of the intended 257.

On the Pre-PS/Post-PS measure, Blaine's test group average positive effect was 70% with 39 of 56 students who completed the program having an increase positive response on one or more of the eight questions. There was a 40 percentage point difference between the four Blaine classes with BES-02 having 9 out of 10 students (90%) showing a positive net

effect. BES-03 had 10 of their 15 students (67%) with a positive net effect. BES-04 had 13 of 17 students (76%) showing a positive net effect and BES-06 had 7 of their 14 students (70%) showing a positive net effect.

Centennial's test group average on the Pre-PS/Post-PS measure was 62% with 26 of the 67 students who completed the program having an increase positive response. There was a 19 percentage point difference between the three Centennial classes with CES-01 having 12 out of 20 students (60%) showing a positive net effect. CES-02 had 11 of their 16 students (69%) with a positive net effect and CES-03 had 3 of their 6 students (50%) showing a positive net effect.

On the Pre-PS/Post-PS measure, the comparison group had a 13 percentage point lower positive effect rate with 8 of the 16 (57%) students showing a positive net effect while the Blaine test group average was 39 of 56 (70%). The comparison group had a five percent lower positive effect rate than the test groups average at Centennial (comparison = 57%, CES test = 62%).

On the RQ, Blaine's test group average positive effect was 46% with 26 of 56 students who completed the program having an increase positive response on one or more of the six questions. There was an 80 percentage point difference between the four Blaine classes with BES-02 having 0 out of 10 students (0%) showing a positive net effect. BES-03 had 12 of their 15 students (80%) with a positive net effect. BES-04 had 8 of 17 students (47%) showing a positive net effect and BES-06 had 6 of their 14 students (43%) showing a positive net effect.

Centennial's test group average on the RQ measure was 48% with 20 of the 67 students who completed the program having an increase positive response. There was a 38

percentage point difference between the three Centennial classes with CES-01 having 11 out of 20 students (55%) showing a positive net effect. CES-02 had 8 of their 16 students (50%) with a positive net effect and CES-03 had 1 of their 6 students (17%) showing a positive net effect.

On the RQ, the comparison group had a four percentage point higher positive effect rate with 7 of 15 (50%) than the Blaine test group average 26 of 56 (46%) of students. The comparison group had a two percent higher positive effect rate than the test groups average at Centennial (comparison = 50%, CES test = 48%).

Table 13

Pre-PS, Post-PS & RQ Test Group Results

Teacher	Assigned Coach	# of Students Started Program	# of Students Finished Program	Positive Effect on Post-PS	% of Positive Post-PS	Positive Effect on RQ	% of Positive RQ
BES-02	BES-Coach-02	24	10	9	0.90	0	0.00
BES-03	BES-Coach-03	24	15	10	0.67	12	0.80
BES-04	BES-Coach-04	25	17	13	0.76	8	0.47
BES-06	BES-Coach-06	24	14	7	0.50	6	0.43
BES Totals		97	56	39	0.70	26	0.46
CES-01	CES-Coach-01	23	20	12	0.60	11	0.55
CES-02	CES-Coach-02	23	16	11	0.69	8	0.50
CES-03	CES-Coach-03	21	6	3	0.50	1	0.17
CES Totals		42	67	26	0.62	20	0.48
Grand Totals		164	98	65	0.66	46	0.47

Table 14

Pre-PS, Post-PS & RQ Comparison Group Results

Teacher	Assigned Coach	# of Students Started Program	# of Students Finished Program	Positive Effect on Post-PS	% of Positive Post-PS	Positive Effect on RQ	% of Positive RQ
BES-01	none	24	14	8	0.57	7	0.50

The Open-ended Question (OQ) answers were first coded into twelve themes that occurred more than once. If an answer occurred only once and could not fit within any of the established categories, then it was listed under "other" and not reported as part of the results. Even though students were specifically asked to "List one thing that you learned about college from participation in this program," some students listed more than one thing. Since I could not tell which answer meant more in the student's mind, I recorded both.

There were 90 respondents and 111 responses by the test group. The comparison group had 13 respondents with 20 total responses. The most frequently occurring answers in the test group were concentrated around three answers of which only two were part of the required components: College is hard work - 24% (not a required component); There are many different types of colleges – 16% and College affects your job/career – 14%. The top three answers accounted for 55% of the answers. The comparison group's answers were slightly less clustered with six answers each receiving 10-15%. Four of the six top statements were addressed as part of the CAC Components. Those six statements accounted for 75% of all comparison group answers.

Table 15

Elementary Student OQ Answers

Answer	Code	# of Test Group Answers	% of Test Group Answers	# of Comparison Group Answers	% of Comparison Group Answers
College is hard work.	CWH	27	24%	1	5%
There are many different types of colleges.	MC	18	16%	3	15%
College affects your job/career.	CC	16	14%	2	10%
You can choose between many different classes	DC	6	5%	3	15%
You have to get good grades to go to college.	GG	6	5%	2	10%
College is fun.	CF	6	5%	0	0%
You can get scholarships to help pay for college.	SC	3	5%	1	5%
College is important.	CI	6	5%	1	5%
Didn't learn anything.	LN	5	5%	0	0%
Colleges are big.	B	3	3%	3	15%
You can live in dorms.	LD	2	2%	0	0%
You don't have to have class every day of the week.	NC	2	2%	2	10%

Compared to the individual member goals (recruiting at least 10 college student coaches serving 100 4-12th grade economically disadvantaged youth who show a 70% positive effect on assessments each program year and recruiting at least 75 volunteers for National Days of Service), the program was fairly successful. I recruited ten WWU student coaches (seven who completed the program requirements and three who failed to return the permission slips). We served 98 economically disadvantaged elementary school students, just 2 short of the goal. Blaine met the goal of 70% positive effect and Centennial fell just short at 62% giving our program a combined total of 66%.

Elementary Teacher Results

Teacher Feedback Results from three Teachers at Centennial Elementary. Responses from one additional teacher at Centennial and six Blaine teachers were solicited but not

received. Therefore, the results only partially represented one of the two schools served. The assessment consisted of 15 questions with a 4-point Likert scale for responses: 1 = Not at all, 2 = Not really, 3 = Sort of, 4 = Yes. The respondents scored the performance of the coaches higher than they scored the success of the CAC program and having the CAC coaches attend MS.

Table 16

Teacher Feedback Form Results

Question Number	Question	Average
1	I feel that the new College Access Curriculum (CAC) will help my students improve their grades.	2.00
2	I feel that the new CAC will help my students know where to go for homework assistance.	1.33
3	I feel that the new CAC helped my students understand how college is related to the job or career they want.	2.33
4	I feel that the new CAC informed my students about at least one adult, outside their family, they can talk to if they have a problem.	2.00
5	I feel that the new CAC helped my students realize that they can attend college if they wish.	3.67
6	I feel that the new CAC helped my students learn about many different types of colleges.	2.67
7	I feel that the new CAC helped my students realize there are people they can talk to if they have questions about college.	2.67
8	I feel that the new CAC helped my students talk to at least two adults outside their family about college.	2.33
9	The CAC coach arrived on time.	3.67
10	The CAC coach interacted with my students in a professional and appropriate manner.	4.00
11	The CAC coach was prepared for the weekly CAC lesson.	4.00
12	The CAC coach was dressed appropriately and wore their C2C t-shirt.	4.00
13	The CAC coach treated my students with respect and understanding.	4.00
14	I feel that having the CAC coach attend Mountain School was beneficial for my students.	3.33
15	Overall I feel that the new CAC program was beneficial for my students.	2.33

CAC Coach Results

Eight out of ten coaches completed the assignment asking that they respond to prompts. For the first essay prompt, "What is working well and what is not working well for teaching the CAC curriculum?", I read through each essay and noted each unique concept in the table below. Then I reread the essays to score how many different coaches mentioned the concept. Five respondents wrote that, "The CAC curriculum made coaches feel more like teachers than coaches." and "Handouts for elementary students were not working." Four respondents felt that, "College discussion may not be appropriate yet/5th graders were too young to discuss college." and "Coaching curriculum was not in line with subjects being taught in class."

Table 17

Compilation of CAC Coach First Essay Comments

Issues	# of reports*
The CAC curriculum made coaches feel more like teachers than coaches.	5
Handouts for elementary students were not working.	5
College discussion may not be appropriate yet/5th graders were too young to discuss college.	4
Coaching curriculum was not in line with subjects being taught in class.	4
Problems with Cornell notes.	3
What happened to teaching about sustainability?	3
Administering Pre-Program Surveys/collecting permission slips alienated elementary students.	3
Coaches were nervous about first day mentoring.	2
Coaches chose to prepare students for 6th grade instead of college.	2
Coaches preferred whiteboard Q & A lesson to the handouts.	2
The program has been uncharted & rough.	2
Mountain school was a good experience.	1

* out of 8 total submissions

For the second essay prompt, "What was most effective for increasing your elementary class's post-secondary school: knowledge, interest, and existence of post-

secondary student identity?" I again read through each essay and noted each unique concept in the table below. Then I again reread the essays to score how many different coaches mentioned the concept. The six out of ten coaches completed the assignment. Five out of six respondents wrote that the best strategies were: "Talking about different types of schools", "Focusing on specific careers" and "Talking about their own college experiences" Four coaches identified that "Focusing on student interests", "Talking about financial aid/scholarships" and "Talking about how college affects jobs/careers" worked best.

Table 18

Compilation of CAC Coach Final Essay Comments

Best strategies for College Prep	Total
Talking about different types of schools.	5
Focusing on specific careers.	5
Talking about their own college experiences.	5
Focusing on student interests.	4
Talking about financial aid/scholarships.	4
Talking about how college affects jobs/careers.	4
Focusing on study habits/skills.	3
Using connections made at mountain school.	2
Focusing on what students needed to do in 6th grade rather than college.	1
Connecting 6th grade performance to higher education.	1
Focusing on homework help.	1
Having separate class time for CAC.	1
Focusing on celebrities who attended college.	1
Focusing on types of classes are offered.	1

Seven out of ten coaches completed the WWU Faculty Evaluation. The evaluation consisted of the questions below and a 7-point Likert scale with answer options 5 = Excellent, 4 = Very Good, 3 = Good, 2 = Fair, 1 = Poor, NS = No Selection.

Table 19

WWU Faculty Evaluation Results

Question Number	Question	Mean Score
1	Use of class time was:	2.29
2	Clarity of student responsibilities and requirements was:	1.71
3	Encouragement of student self-expression:	4.14
4	Conduciveness of class atmosphere to student learning was:	3
5	Challenge level of assigned work was:	2.29
6	Fairness of evaluation procedures was:	3.29
7	Intellectual challenge offered by the course was:	2.57
8	Relevancy of course content in terms of the field was:	2.43
9	Instructor's preparation for class was:	2.86
10	Instructor's guidance as a discussion leader was	2.71
11	Instructor's contribution to the discussion was:	3.29
12	Instructor's use of questions/problems was:	2.43
13	Instructor's openness to student views was:	4.29
14	Instructor's enthusiasm for the subject was:	4.29
15	Instructor's record for coming to class on time as:	4.57
16	Instructor's record for meeting with the class as scheduled	4.83
17	Instructor's support for student/teacher partnership in le	4
18	The course overall was:	2.14
19	Instructor's effectiveness in teaching the subject matter:	2.33
20	Instructor's contribution overall to the course was:	2.83

To analyze the comments, I read through each of the seven sheets and noted each unique concept in the table below. Then I reread the sheets to score how many different coaches mentioned the concept.

Table 20

WWU Student Evaluation of Instruction Comments

Issue	Totals*
Going to Mountain School was a great part of the course	5
There was a lack of clarity of what I was supposed to be doing.	4
The instructor was thoughtful about student's needs & working with students.	4
College Access Curriculum was not in line with what elementary students were doing in class.	4
The course has potential to be good.	3
This was a new course so all of the kinks were not worked out.	2
Did not connect C2C to Environmental Studies.	2
Instructor loves what she does and is passionate about the topic.	2
Don't feel like there was a large environmental aspect to this course.	1
Instructor treats students with a high level of respect.	1
Course should be offered again.	1
Coursework was not challenging enough for coaches.	1
I enjoyed working with the instructor.	1
Instructor needed to have more communication with Elementary School teachers.	1
Coaches need to have more time in the classrooms to talk about college.	1
Coaches should not lecture Elementary students about college - too authoritarian	1
Course should not be offered again	1

*Out of 7 total respondents

CAC End-of-year Training

I attended an end-of-year CAC training where I was able to collect additional ad-hoc data about CAC members' experiences of administering the program at schools across Washington State. We were divided into groups by which of the three possible evaluation method we used: 4-5th grade assessments, 6-10th grade assessments or 11-12th grade assessments. There were eight other CAC members who served 4-5th graders in my group from the schools listed in the table below. I was the leader of this informal discussion about what could use improvement. I was not able to record who offered which comment but I did

make note of the comments when multiple members raised their hands in agreement (see Table 22).

Table 21

CAC Member End of Year Training Responders

College	Location
Seattle University	Seattle, WA
Tacoma Community College	Tacoma, WA
Pierce College	Puyallup, WA
Big Bend Community College	Moses Lake, WA
Washington State University Spokane	Spokane, WA
Spokane Falls Community College	Spokane, WA
Eastern Washington University	Cheney, WA
Gonzaga University	Spokane, WA
Western Washington University	Bellingham, WA

Table 22

Comments by CAC Members at End-of-year Training

Subject	Comments
Pre-PS/Post-PS	• These surveys are terrible. • They do not capture what actually happened during the program. • We (coaches) could see the impact but it did not show in the results. • Too much repetition in the questions. • Coaches are not seen as adults and do not want to be seen as adults. • The questionnaire was better at recording how the student felt that day than how successful the program went. Ie. feeling happy = higher scores, feeling overwhelmed by current class work = low scores. • Kids feel that they know more about college in Pre-PS than Post-PS because they didn't know what they didn't know.
RQ	• Should only use a retrospective questionnaire.
Curriculum	• 5th graders prefer to talk about 6th grade and do not want to talk about college. • We need more training to help develop our curriculum. • We need more in-person training – not just online examples of curriculum. • We need more speakers about curriculum development. • Official lesson plans seem to be required but (we) are not supported in developing them. • Instead of spending a long time on the 7 folders, should talk about curriculum development. • It would be great to have more online templates. • During orientation, we should break into groups by ages served and work on lesson plans. • Should organize the website with lesson plans to address each survey question or component.
Working in Schools	• Schools did not place much emphasis on CAC curriculum, often got pushed to the side. • CAC was talked down by teachers because they didn't feel that their students needed it. • Often only 10-15 minutes of the hour in class was dedicated to CAC. • Partners should have to sign a contract ahead of time promising that they will make time for the 15 hours. • 15 hours is just too much for 5th graders – need to shorten program to 8 hours to match the 8 questions on the survey.
General	• Need more collaboration between members during the year. • Need more training along the way. • Create a workshop similar to this at the beginning of next year. • Need to check in more with members during the year, not just listen to supervisors about how things are going. • Need more accountability from the supervisors and their help making partnerships. • Need to set up partnerships before members start.

Discussion

The CAC program was very large and had many moving parts to establish and then coordinate. Since this was the first year of the Huxley program, curriculum needed to be designed to work with our specific program, partnerships had to be forged, and we needed to have at least 10 CAC coaches and 100 underserved youth complete the program – all within 10.5 months of me starting this new job. I am happy with the progress I made, but there were definitely issues that I did not foresee and changes I would make to the program going forward.

Unforeseen Issues

I was not able to administer the program as designed due to a multitude of unforeseen issues. I mentioned the scheduling mistakes above, there was also a miscommunication with MS. I thought I had communicated that the Huxley graduate students would be the ones talking about their post-secondary school and career experiences during meals at MS. My contact at MS thought that the coach would be doing the presentation. The presentations were never done. Additionally, each elementary school was broken up into two groups and the coach could only follow one group and only had time to do the “4 Ways to Get Better Grades” and “Getting to Know You” exercises with half the class at most. Although the elementary students did not receive the 40 minutes of presentations about MS Instructor educational backgrounds, they did still receive seven hours of academic support and green STEM based curriculum through the regular MS program curriculum.

The next group of unforeseen issues involved spring testing. There were weeks that coaches could not go into their classrooms because it would disturb the standardized testing.

Each coach's schedule had to be further customized. I had to cut the Week 4 "Opportunity Fair" because many coaches were just beginning their Week 3 curriculum.

The final unforeseen issue was that I was not allowed to communicate directly with the elementary school teachers. As part of the C2C program, there is a Lead Mentor for each school whom I needed to communicate through. Unfortunately, since the Lead Mentors are students too, they were not always able to get back to me in a timely manner. I tried but was unable to coordinate for the Week 5 Transitions to Middle School so I could make introductions to those they could ask if they needed help: guidance counselor, AVID Rep, C2C Rep, contacts for homework help, college questions and tutoring resources.

The result of these issues is that the elementary school students did not receive nine hours of CAC intervention the way it was designed to be implemented. Instead, the students received more general Academic Support through one-on-one mentoring during those nine hours. I was not at all surprised by the Teacher Feedback Results that they did not really find the CAC program very beneficial. So many of the features I designed to make the CAC program more interactive with opportunities to speak with many different people about college, careers and resources for additional help went unimplemented that it ended up not being that much different than the C2C mentoring program.

I was also not surprised by the CAC Coach's WWU Evaluation Results and WWU Student Evaluation of Instruction Comments. Due to the unforeseen issues, the program became very disjointed and confusing from having to custom design the curriculum for each coach. Communicating anything about scheduling in class without confusing everyone was very difficult. It was difficult to make each student's responsibilities and requirements clear. The class time ended up being very poorly used because I needed to spend so much time

responding to individual questions that did not pertain to the group. I appeared unprepared for class because the syllabus I had so carefully created had to be rewritten many times to allow for all of the scheduling conflicts. I had so much less time to communicate subject matter because so much time was spent on logistics. I tried communicating outside of class via email, but that did not help the situation. I remained respectful and was able to maintain an atmosphere that was conducive to learning, open to student views and self-expression while using fair evaluation methods. I definitely needed to communicate more directly with the elementary school teachers.

Difficulties with Reliability of Testing Methods

When the results of the three elementary test methods were compared per classroom, some of the results seemed to completely contradict each other. One of the best examples was BES-02 where the students had the highest intervention effect according to the Pre-PS/Post-PS (90% positive effect), lowest intervention effect on the RQ answers (0% positive effect) and almost half of responses (45%) for one thing they learned about college were, “nothing.” Also, even though they had the highest Pre-PS/Post-PS positive effect, they were the only class that reported learning nothing about college during the program. Similar discrepancies existed to a lesser extent for BES-04 with a 29-point difference between Pre-PS/Post-PS (76% positive effect) and the RQ answers (47% positive effect) and BES-03 with a 13-point difference between Pre-PS/Post-PS (67% positive effect) and the RQ answers (80% positive effect). BES-03 was the only class that had a higher positive effect on the RQ than the Pre-PS/Post-PS. The remaining classes had less than 10 points between the two tests: Comparison had a 7-point difference Pre-PS/Post-PS (57% positive effect) and the RQ answers (50% positive effect); BES-06 had a 7-point difference Pre-PS/Post-PS (50%

positive effect) and the RQ answers (43% positive effect); CES-01 had a 5-point difference Pre-PS/Post-PS (60% positive effect) and the RQ answers (55% positive effect); CES-02 had a 9-point difference Pre-PS/Post-PS (57% positive effect) and the RQ answers (50% positive effect) and CES-03 had the smallest discrepancy at 4-points Pre-PS/Post-PS (50% positive effect) and the RQ answers (46% positive effect)

Conclusions and Recommendations

Although the testing methods provided by CAC yielded little reliable or conclusive data, I was able to learn a lot from the triangulation methods I used, especially through coach essays/open-ended questions and teacher open-ended questions. Also, the end-of-year CAC training provided insight into problems that existed across the programs. Those data points combined with my own experiences administering the program were most influential in arriving at my conclusions and recommendations for program changes going forward.

When I began this project, I thought that my largest challenge would be developing the new curriculum. I realized that there were issues with the curriculum I developed. However, most of the implementation issues I experienced came from my lack of understanding about the existing programs with which I was integrating. I believe that certain bigger-picture steps needed to be taken before designing any multi-program curriculum.

Recommendations for integrating new curriculum into a multi-program project:

1. Meet with key people from each program at the beginning of the project to understand their program, responsibilities of the people involved and who influences each program.

2. Obtain as much information about each program as possible by asking for schedules, syllabi, rules & regulations and any other available program documents.
3. Attend at least one day observing critical integration points of each program.
4. Understand the demographics of the people being serving by each program because they may have unique needs based on the cultures of their communities.
5. Develop a rough draft of key curricular components and then meet with each program again to make sure that everyone understands their involvement and insure buy-in for the time and space needed for integration.
6. Confirm expectations for each program by circulating a document that contains the final curriculum and responsibilities to be signed and returned.

Specific to my project, I found: teachers feel they already teach college access; required CAC components did not align with subjects taught in class; there is little time for instruction not related to standardized testing and students do not need more structured lessons, instead they need fun activities during testing breaks. I recommended redesigning the CAC curriculum to include a 15-20-minute fun activity reinforcing students' existing knowledge and new experiences at MS with the remaining time used for academic support through individual coaching related to student classwork. Below are specific recommendations for each portion of the program and CAC curriculum.

C2C Integration Issues and Recommendations

This was one of the weakest points of integration for my program and caused most of the program failures (coaches not being assigned to the correct schools and times and not being able to implement the Opportunity Fair and Middle School Transitions panel). Unfortunately, since CAC was a new program, I did not know enough about the C2C program and C2C Lead Mentor roles to set up the necessary division of labor before the program began spring quarter. Ideally, I would have met with the Blaine and Centennial Lead Mentors during winter quarter to establish roles. Unfortunately, I did not know which schools we would be working with until winter quarter ended.

Lead Mentors are students who get paid to run the C2C program at their assigned school. They also receive a lot of autonomy about how to assign coaches in their schools. They are used to running everything to do with the C2C program while taking classes themselves. The Lead Mentors had little time to answer my emails or work to make additions to their programs for CAC once the quarter started. So, anything that was not set up before the quarter started, was not implemented because I did not receive support from the Lead Mentors and was not allowed to contact the teachers in my program directly. I recommend meeting with the teachers and Lead Mentors the quarter before administering the program to create a division of labor that makes sense for each school and establishing dates for any panels or special programs at that point.

Also, I need to list specific lab times as part of my course catalog listing, i.e. “Compass to Campus-Huxley FIG, Must register for 23594 and 23595 additionally must be available to attend off-site lab MW 1-3pm, Please allow 30 minutes to/from site. Students responsible for own transportation. Classes meet all 10 weeks Lab meets weeks 3-10.” Then I

need to attend the C2C sign up session to make sure that students in my FIG are being signed up for the correct time slot at the correct school.

Another confusing issue was that we were not able to administer the Pre-PS before the students came to C2C day at WWU so it was unclear which program students were providing answers about in the Post-PS. I recommend that the CAC member establish an initial meeting as close to the beginning of the elementary school's academic year as possible to review the new program with any changes and set up a time to administer the Pre-PS before the students attend C2C day at WWU in October.

FIG Course Issues and Recommendations

Another difficulty was lack of attendance in my seminar class that met twice a week for 50 minutes. As I mentioned previously, the class was disjointed because of the scheduling mix up. I was unable to deliver as much content connecting the seminar to the social justice and sustainability courses. Since my class is only two credits and is competing against two GUR courses with a lot of requirements for the 5 and 3 credit courses, I feel that some CAC Coaches placed a lesser value on my class. Finally, I did have three CAC Coaches who signed up for the FIG because they thought that it was the only way to take Cyndie's SJ course without needing to complete lab time. Those coaches may have budgeted less time for the lab and my class which was evident in their attendance for both. One of those coaches only attended three of my 18 classes. Due to the lack of attendance, I also recommend that the CAC member administer the Pre-PS, Post-PS, RQ and OQ assessments since three CAC Coaches failed to return important documents even after multiple reminders through Canvas, email and in class.

I had the choice of having two 50-minute classes or one 100-minute class a week and initially chose the two 50-minute classes. I did not realize that even though on-time attendance accounted for 10% of their grade, many students regularly showed up to class 15-20 minutes late. When they showed up late, they didn't understand my lesson since they missed the introduction and kept raising their hands with questions that had already been addressed. I told them that they needed to either come to office hours to find out what they missed or ask their classmates. When I asked those students to tell me how they taught the required intervention next class; I found that those students never sought the information they were supposed to teach their 5th graders. I recommend having one 100-minute class so that students who tend to be tardy only miss 15-20 minutes a week instead of 30-40 minutes.

CAC Coaches felt that they could not talk to their students about college because 5th graders were too young and were interested in careers that coaches didn't feel required a college education such as singers, Olympians, ball players and YouTubers. They were mistaken because many celebrities attended college, many YouTubers got their start during college and most ball players are recruited to the big leagues while attending college. Therefore, I designed the College Scavenger Hunt with nine questions that can be answered by looking at fifteen posters of public figures who attended college that the students may know. I also made sure to include people from various ethnic communities including African American, Hispanic, Asian, Native American and women in fields where they are currently underrepresented. A table of the public figures, their jobs and ethnicities as well as the posters are located in Appendix D.

Also, since students did not seem to understand all of the FIG requirements when they signed up and the fact that participation in this FIG is rigorous. I recommend having sign up

be with instructor approval and requiring a B GPA. Then I could meet with each student to discuss the program and make sure they have the time and interest.

MS Issues and Recommendations

As I mentioned above, there was a miscommunication about who was supposed to administer the educational background curriculum at MS. There was a housing shortage at MS during spring quarter so I was not able to attend to see the full program for myself. However, I should have just gone up for the second day which was a full day and the best day for integrating the CAC curriculum. This fall, I was able to attend a full 2.5 day MS session and learned exactly what I needed to do to integrate the two programs. In general, I definitely recommend that the CAC member attend at least a portion of any program to observe the general dynamics to obtain a better feeling for issues and barriers to integration. Initially, looking at the schedule on paper, I felt that mealtimes were the best opportunity for integration. I just needed to attend one mealtime to realize how loud and chaotic it is trying to feed 50-60 5th graders in an hour. MS Instructors need to eat quickly in the break room so that they can run the meal program and prepare for the sessions that directly follow mealtimes.

I recognized that day 2 during microscope lab was the best venue for integration. All MS Instructors bring their students to microscope lab for one-hour time blocks between 9am and 4pm. MS Instructors teach a lesson named “Take a closer look” in the students’ Mountain School Journals (n.d). Students choose an item from a drawer of organic matter (bugs, skins, tree parts, fungus, etc.) and then draw what the matter looks like under the microscope. Next, they answer questions or complete sentence stems including: “About my object…I notice, I wonder, It reminds me of…” and “What did you learn about your object

after taking a closer look?" (North Cascades Institute, n.d.). Since there are six microscopes and usually 10-12 students all very excited and trying to figure out how to use a microscope at the same time, it is a good time for MS Instructors to have extra help.

After twenty to thirty minutes, many students lost interest in the microscopes. Some MS Instructors use the rest of the time showing students frozen dead animals from the freezer which most of the students enjoy. But even after that, there seems to be a bit of down time. I requested fifteen to twenty minutes to do my lesson which was showing the students pictures that represented thirteen main arms of science. Students would guess the type of science being represented in the photo. After students either guessed the science correctly or ran out of guesses, I turned over the card to reveal a word cloud (see appendix C) with words related to the type of science. Students get very excited because by day 2, they recognize many of the new terms because they are used in other MS lessons and activities. Students also enjoy finding the words that they used while trying to figure out the science. Another fun task is asking the students to find words that they don't know or don't think pertain to the type of science. I told the students how each word pertained to the type of science. I went on to ask them what words and concepts they had heard or learned at MS. Then I made connections to what they were learning about the environment, STEM and associated education and career choices. Students began making their own reflections about how everything is connected.

I also tied the lesson in to a new activity that I integrated into the MS pre-trip visit. A representative from MS goes to each classroom for an hour-long presentation about the MS program a few days before their visit. The representative talks about the North Cascades National Park, what students need to bring, where they will be living, what they will be eating and what they will be doing. I added a 15-20-minute activity where each elementary

student (whether attending MS or not) would pretend to adopt an animal that lives in the wilderness near MS. Students were able to choose from sixteen different animals. Once they chose an animal, they write their name on the card beneath the animal's photo and then gave their animal a name. I told them how researchers often name specific animals in groups that they are studying. I showed them photos of Orca that researchers had named Polaris, Princess Angeline and Slick (Garrett, n.d.) as examples and let them know that they would not be seeing any Orca in the forest. I said that, during their visit, they should look for any signs of their animals and classmate animals. I chose animals that students would see in the pre-trip visit, microscope lab, frozen dead animal time, skull explorations and possibly while outside at MS. On the back of each card are facts about the animal's role in the forest food chain, habitat and actions that students can take to improve the health and well-being of their animal.

I end the 15-20-minute lesson with a list of sciences with zoology and then tell students to pretend to be zoologists studying their animal and to look around the microscope lab for signs of their animal. The lab has photos of the animals, plaster cast animal prints, taxidermied animals and dead animals in the freezer.

"Research shows that people who strongly identify with the natural environment as adults typically had special relationships with nature as children (Chawla, 2007; Degenhardt, 2002; Wells & Lekies 2006; Zavestoski, 2003). These relationships could encompass a special outdoors place, or a personal experience of environmental loss or degradation" (Clayton & Myers, 2015, p. 4). During MS and through CAC we can begin impacting and helping to form the student's ecological worldviews. By attending MS and living in the North Cascades for 2.5 days, students have a specific experience in nature. As I discuss the

types of science, I point out their complexity and interconnectedness. Students begin to understand how chemistry is connected to biology in that living things are made up of chemicals which is connected to environmental science because there are beneficial and harmful chemicals. This helps them begin to see a connection between how they live their lives. I reflected on their mealtime activity of measuring the level of food in the compost bin to acknowledge the amount of food being wasted at each meal. I reminded them that they could live more sustainably by buying food that is produced locally and only taking the amount of food they can actually eat. Students begin a life-long journey of seeing how they fit into the complex systems that support life on earth and what opportunities are available to receive further education in related areas.

Figure 3: Mealtime Lesson About Wasting Food is not a Sustainable Practice (Dunlap, 2016).

The CAC coaches could remain in the microscope lab from 9am-4pm to help show students how to focus their microscopes and then teach the lesson. After hearing about the types of science, the students were excited to find out what their MS Instructors field of study was and they continued that discussion on the way to their next activity.

The CAC components addressed in this section are Academic Support because they learn new study skills in their 35-page Mountain School Journal (North Cascades Institute, n.d.) which are listed in the table below; Education & Career Plan because of the microscope lab, types of science and scientists, etc.; Support System since students have a chance to ask questions about their instructor's job and education.

The factors addressed were: Lack of educational materials – students may have access to microscopes, nature & science investigations and an environmental curriculum for the first time in their lives; Lack of role models – graduate students and park rangers could be new role models that attended college; Lack of adult attention – many more chances to talk to adults and ask questions about what they are experiencing and learning.

Table 23

MS Ecosystem Exploration Environment & CAC STEM-focused Curriculum

MS Curriculum Section (7 hrs. total)	Components, Survey Questions & Factors Addressed
At MS by MS instructors >> Day 1 ~ 1:00 – 4:30 Activities on the trail (coaches facilitate) • Sensory Awareness • Water & Glaciers • Geology • Climate • Team Building and Community >> Day 2 ~ 9am-5pm: A full day on the trails! (coaches facilitate) • Teambuilding • Web of Life • Forest Food Chains (producers, consumers, decomposers) • Each One Teach One • Lunch on the trail • Wildlife Investigation • Microscope Lab & CAC Coach lead - Different types of science and pretending to be a zoologist finding out more information about their animal. >> 7:00 – 7:45: Ranger Program (North Cascades Institute, n.d.) >> Presentation by MS Instructors: 10-15-minute talk after Microscope lab. 1. What do they do? 2. Why they chose the field they currently are in? 3. What in their education background led them to investigate this field? 4. How long they had to go to school and any special training they had? 5. How they make a difference in the community? 6. What they want students to know about their field?	Academic Support: • Time management • Observation skills • Study skills • Writing skills • Counting and reporting skills • Studying as a group • Team building • Note taking and analysis Education & Career Plan: • Students find out what scientists do. • Students investigate careers in nature and science. • Each One Teach One is a chance for students to learn what is like to be a teacher. • Students learn more about the forest ranger's job. • Students learn about many different fields of study from real graduate students' experiences. • Students learn what it took for their instructors to obtain their graduate degrees (majors, types of colleges and amount of years). • Students find out about the many different scientific areas that people can study in college. Support System: • Students have a chance to ask questions about their instructor's job and education. Survey questions: Q1, Q3, Q5, Q6, Q7, Q8. Factors: • Lack of educational materials – students may have access to microscopes, nature & science investigations and an environmental curriculum for the first time in their lives. • Lack of role models – graduate students and park rangers could be new role models that attended college. • Lack of adult attention – many more chances to talk to adults and ask questions about what they are experiencing and learning.

Elementary School Issues and Recommendations

There were many issues with the curriculum I designed. The issues I felt were most important to address were raised by CAC Coaches and teachers.

Some of those issues were: (see Table 24 for additional comments)

- Teachers feel that they already teach their students about college.
- CAC curriculum is not consistent with subjects being taught in the elementary schools
- There is little time for curriculum that does not teach toward standardized testing.
- Spring standardized testing times a big unknown and vary depending on when every student has completed the test.

In response to these data, I redesigned the CAC Curriculum to be interactive activity based and reinforce knowledge about college that students already possess. The activities have been designed to take 15-20 minutes and could be used as a fun break from standardized testing. Ideally, the activities would be done adjacent to STEM activities since I have greatly increased the environmental/STEM focus of many of the activities. That way the activities could be more in line with the subject matter being taught in class. The CAC member would meet with all of the teachers at the beginning of the year to get buy-in on having 15-20 minutes of dedicated class time once a week for seven weeks to do the activities.

Table 24

Teacher Open-ended Question Answers

Additional comments, insights or suggestions that you feel would improve our new program:
It would have been nice to know ahead of time where the mentors were staying when we were at Mountain School. Because of having to get permission for the survey, the students seemed somewhat worried about it. Like they were nervous about taking it because we made such a big deal about it with getting parent permission, etc., and the parent permission slip form was too detailed. [My coach] sometimes stayed in during recess, even though I had told [the coach] in the beginning to feel free to go out and spend time with the students. [My coach] also had to leave early a few times because of carpooling, and it was confusing when [my coach's] last day was actually going to take place. The slideshow [my coach] gave about college options was excellent! [My coach] was very respectful towards the students.
The Compass 2 Campus program does an excellent job of having the college students as mentors for the fifth graders. The lessons the college students were to teach to my students did not align with any of my curriculum and put the mentors in a different position than they should be. They should be there as a mentor and helper, not presenting lessons.
I did not answer number 11 because [my coach] did not have a weekly lesson. When [my coach] did present [the] slide show, it was well done.

Redesigned section 1.

The redesigned curriculum begins with the elementary student's three-hour visit to WWU through C2C in October. The Pre-PS surveys are to be completed before the C2C event. The components addressed are College Awareness and Education & Career Plan. During the visit, students receive a campus tour of residence halls, library, academic buildings and a cafeteria. They attend a college fair in Red Square with WWU, Bellingham Technical School and Whatcom Community College. Then they go to individualized sessions in WWU Colleges that aligned with their interests. There are also booths set up by the Women in Science Associated Student's Club and Huxley College on the Peninsulas to teach students about more college offerings. The factors addressed are: Lack of education materials because students may never have been on a college campus before and Lack of college role models since students are possibly able to speak or listen to a college student for the first time.

Table 25

Redesigned Section 1: Pre-PS and C2C Visit to WWU

CAC Curriculum Section 1 (3.25 hrs. total)	Components, Survey Questions & Factors Addressed
>> Initial Survey: (15 min) CAC members administer Pre-PSs to students. >> Visit to WWU: • A campus tour of the residence halls, library, academic buildings and a cafeteria. • A college fair in Red Square with WWU, Bellingham Technical School and Whatcom Community College. • Individualized sessions in WWU Colleges that aligned with student interests. • Booths set up by the Women in Science Associated Student's Club and Huxley College on the Peninsulas to teach students about more college offerings.	College Awareness: • Visit a college. • Learn about residence halls. • Learn about student life. Education & Career Plan: • Visit academic buildings. • Attend an academic session based on interests. Support System: • Talk to college recruiters at the college fair. Survey questions: Q3, Q5, Q6, Q7 Factors: • Lack of education materials – Students may never have been on a college campus before. • Lack of college role models – Students are possibly able to speak or listen to a college student for the first time.

Redesigned section 2.

The lesson plan for this section begins with CAC coaches introducing themselves to their class and answering three questions. Who am I? What are my educational interests? What did it take for me to get into Western Washington University? College Awareness is addressed because students learn the real story about one college student and that people have interests they can develop further after High School. Students also learn about a Support System because they now have a coach to talk to about college.

For the next part, I redesigned the way that CAC coaches found out what their student interests were. CAC coaches said that it was difficult to talk to students about their interests

in class and at MS because it did not fit with the tasks the students were doing. So, as part of creating a curriculum based on fun, interactive activities, I designed a sheet with three circles on it for interests, abilities and values. CAC coaches would ask their students fill in the circles as mentioned in Table 26 and finish with drawing a picture or writing a sentence about jobs they could do pertaining to the three circles. The activity helps students begin thinking about the Education and Career Plan component and allows the CAC coaches to know more about each student's possible career interests.

The remaining class time after the activity for each section is used to address the Academic Support component since the coaches would help individual students with their classwork and study skills. The factors addressed are Lack of adult attention because coaches may be the first adult to ask them about their interests and career aspirations and Lack of college role models since students are possibly able to speak or listen to a college student for the first time.

Table 26

Redesigned Section 2: About Me

CAC Curriculum Section 2 (1 hr. total)	Components, Survey Questions & Factors Addressed
>> Coach introductions: (5 min.) • Who am I? • What are my educational interests? • What did it take for me to get into Western Washington University? >>Activity: About Me (15 min.) 1. Write your name at the top of the paper. 2. Interests. Write down your favorite activities in that circle. Examples are reading books, playing sports, or cooking. 3. Abilities. Write down things that you are good at doing. Examples are from math, writing, singing, running, playing guitar. 4. Values. Write down what things you find important. Examples are family, helping animals, protecting the environment, helping others. 5. Turn the sheet over and draw a picture and label it or write sentences about what jobs you could do that have your Interests, Abilities and/or Values. Coaching Focus: Academic Support (40 min.) Helping students with their class work and offering ideas about how to get better grades - refer to "4 ways to get better grades in school" cheat sheet. As coaches get to know students better, they can talk about how specific academic subjects and activities will help their student go to school and get their dream job.	Academic Support: • Receiving help to learn ways to do better in class. College Awareness: • Learn real story about one college student. • Learn that people have interests that they can develop further after High School. Education & Career Plan: • Students begin thinking about how their interests, abilities and values can lead to a rewarding career after they graduate High School. Support System: • They have a coach to talk to about college. Survey questions: Q1, Q2, Q3, Q4, Q5. Factors: • Lack of adult attention – Coaches may be the first adult to ask them about their interests and career aspirations. • Lack of college role models – Students are possibly able to speak or listen to a college student for the first time.

Redesigned section 3.

I used the results from the About Me exercise to inform the design of the College Scavenger Hunt. Last year the CAC coaches found out that a majority of their students wanted to be ball players, Olympians, singers, actors and YouTubers. The coaches felt that they could not talk to their students about college since they didn't think it was necessary for

those fields. I chose a representation of well-known people in those fields who also attended college. I also made sure that multiple ethnicities were represented (see Appendix D for a table of the people represented and the posters). One component addressed was College Awareness because students learn about public figures who have attended college and learn that college is important even for singers and ball players. The other was Education & Career Plan since students begin learning how attending school after they graduate from High School can lead to a better career.

The factors engaged were Lack of education materials since students may have never heard about Bachelors, Masters or Doctoral degrees before; Lack of adult attention because coaches may be the first adult to discuss other people's college careers with the students; Lack of college role models as students may look up to one of the public figures on the posters as role models.

Table 27

Redesigned Section 3: College Scavenger Hunt

CAC Curriculum Section 3 (1 hr. total)	Components, Survey Questions & Factors Addressed
>> College Scavenger Hunt (20 min.) 1. Write your name at the top of the paper. 2. This is not a test; it is just an activity for fun. 3. Look at the posters to find the answers to the scavenger hunt questions. 4. Since there are 15 posters and only 9 questions, not every poster answers a question. 5. When you are done, sit down at your table. You can draw on the back if you wish. 6. When everyone is finished, as students to swap papers with their neighbor. 7. Coach reads each Scavenger Hunt Item and asks students for answers. 8. Coach asks students with all correct answers to raise their hands and has the class clap for them. 5. Coach goes through the rest of the lesson plan with facts about some job's requirements for college. Coaching Focus: Academic Support (40 min.) Helping students with their class work and offering ideas about how to get better grades - refer to "4 ways to get better grades in school" cheat sheet. As coaches get to know students better, they can talk about how specific academic subjects and activities will help their student go to school and get their dream job.	Academic Support: • Receiving help to learn ways to do better in class. College Awareness: • Learn about public figures who have attended college. • Learn that college is even important for singers and ball players. Education & Career Plan: • Students begin learning how attending school after they graduate from High School can lead to a better career. Support System: • They have a coach to talk to about college. Survey questions: Q1, Q2, Q3, Q4, Q5. Factors: • Lack of education materials – Students may have never heard about Bachelors, Masters or Doctoral degrees before. • Lack of adult attention – Coaches may be the first adult to discuss other people's college careers with the students. • Lack of college role models – They may look up to one of the public figures on the posters as role models.

Redesigned section 4.

I did not redesign the "Types of Local Colleges" PowerPoint presentation because it was noted by CAC coaches and teachers as one of the successful portions of last year's curriculum. I did add a section on Financial Aid because last year's CAC coaches felt it was important information for students even though it was not a required component for 4th and

5th graders. I also created a hand out about types of financial aid and scholarships so students could have a reference to explore more if they were interested (see Appendix D for the additional presentation slides and handout). The section above “CAC curriculum section 7.” has the information about components and factors addressed. The “Types of local colleges” PowerPoint presentation is in appendix C)

Table 28

Redesigned Section 4: Types of Local Colleges & Financial Aid PPT Presentation

CAC Curriculum Section 4 (1 hr. total)	Components, Survey Questions & Factors Addressed
>> Types of local colleges & Financial Aid PPT presentation (20 min.) Coaching Focus: Academic Support (40 min.) Helping students with their class work and offering ideas about how to get better grades - refer to "4 ways to get better grades in school" cheat sheet. As coaches get to know students better, they can talk about how specific academic subjects and activities will help their student go to school and get their dream job.	Academic Support: • Receiving help to learn ways to do better in class. College Awareness: • Learn about different Education & Career Plan: • Students begin learning about specific types of local colleges and how they are different. Support System: • They have a coach to talk to about college. Survey questions: Q1, Q2, Q3, Q4, Q5. Factors: • Lack of education materials – Students may have never heard about 2 year, 4 year and Technical or Vocational college options before.

Redesigned section 5.

I created the “Middle School & College Fortune Teller” based on the “Ready, Set, Grad” website’s page “6th Grade Ready: Preparing for My Education” created by the Washington Student Achievement Council (n.d.). I integrated eight of their recommendations

into my fortune teller: “Take the most challenging language arts, math, social studies, and science classes you can handle; Add classes in art, computers, robotics, or world languages if you can; Do extra credit when offered; Focus on learning as much as you can; Ask questions and participate in class; Learn to take good notes in class; Practice good study habits and ask others for their study tips and Get involved in school and community activities, like spelling bees, science fairs, and clubs” (Washington Student Achievement Council, n.d.). My idea is that students would build this fun toy and then play with each other using the fortune teller while reinforcing strategies to succeed at school. I taught this lesson to approximately eighty students this fall. They enjoyed the activity and some even took the fortune teller out to recess to play more. This activity was a positive reinforce for the Academic Support component and Lack of education materials factor since students may have never heard about these ways to prepare for college applications.

Table 29

Redesigned Section 5: Middle School & College Fortune Teller

CAC Curriculum Section 5 (1 hr. total)	Components, Survey Questions & Factors Addressed
>> Middle School & College Fortune Teller (20 min.) 1. Pass out enough "4 Ways to Get Better Grades" sheets so students can share them to read aloud. 2. Ask for volunteers to read each section aloud to the class. 3. Tell personal stories about using the ways to get better grades and what happened when you didn't. 4. Ask students to raise their hands if they had the same issues or successes. 5. Pass out the fortune teller sheets. 6. Ask for volunteers to read aloud each of the 8 sections and answers. 7. Talk about the 8 answers and how they can use middle school to prepare for college. 8. Give step-by-step directions for assembling the fortune teller and help students as necessary. 9. Let students try fortune teller with a partner. Coaching Focus: Academic Support (40 min.) Helping students with their class work and offering ideas about how to get better grades - refer to "4 ways to get better grades in school" cheat sheet. As coaches get to know students better, they can talk about how specific academic subjects and activities will help their student go to school and get their dream job.	Academic Support: • Receiving help to learn ways to do better in class. Support System: • They have a coach to talk to about college. Survey questions: Q1. Factors: • Lack of education materials – Students may have never heard about these ways to prepare for college applications.

Redesigned section 6.

Since I was unable to coordinate with the elementary and middle school to have a panel during their Transitions to Middle School event, I decided to create an in class activity to address Pre-PS and Post-PS questions: 2. I have a place to go if I need help with homework and 4. There is at least one grown-up outside my family, who I can talk to if I have a problem. I designed a crossword puzzle with questions and answers to twelve ways

that students may need help and can get support in 5th grade and going forward with their education (see Figure 4).

Figure 4: Who Can Help Crossword Puzzle Activity (A to Z Teacher Stuff Tools, 2016).

CAC coaches work with students as outlined in Table 30 to complete the crossword puzzle. The components satisfied are Academic Support because students learn about resources to help them with their classwork; and Support System where students learn that there are people in schools that can help them with multiple problems and students are told that they have resources they can contact if they feel sick or bullied. The factor addressed is:

Lack of adult attention since students may not realize that there are so many adults whose job it is to help them feel comfortable and succeed at school.

The second part of the lesson pertains to environmental consciousness and sustainability and links back to their MS experience. After discussing that there are people to help and support the students, they are re-introduced to their adopted animals as care-takers. They each receive an updated card about their animal that lists the animal's place in nature within the context defined at MS as "Producer, Consumer or Decomposer" (North Cascades Institute, n.d.). There are also facts about what habitat and resources the animal needs to survive and what actions the student can take to help the animal survive.

Table 30

Redesigned Section 6: Who Can Help? Crossword Puzzle & How Can We Help Our Animals? Cards

CAC Curriculum Section 6 (1 hr. total)	Components, Survey Questions & Factors Addressed
>> Who can help? Crossword Puzzle (10 min.) About where to get help (homework help, help with problems like discrimination or bullying, answer questions about college) 1. Coaches pass out the crossword puzzles. 2. Coaches ask students to read the questions and raise their hands if they think they have the correct answer. 3. Coaches will use an overhead projector to fill in correct answers on a printed copy of the crossword puzzle. 4. Students and coaches will work together to complete the puzzle with coaches offering additional hints when the students appear to be stuck. 5. Coaches will note that although one answer fits in the spaces, that there are multiple correct answers for some questions. 6. In the end, each student should have correctly filled in all of the answers based on the sheet coaches complete on the overhead projector. >> How can we help our animals? cards (10 min.) Coaching Focus: Academic Support (40 min.) Helping students with their class work and offering ideas about how to get better grades - refer to "4 ways to get better grades in school" cheat sheet. As coaches get to know students better, they can talk about how specific academic subjects and activities will help their student go to school and get their dream job.	Academic Support: • Students learn about resources to help them with their classwork. Support System: • Students learn that there are people in schools that can help them with multiple problems. • Students are told that they have resources they can contact if they feel sick or bullied. Survey questions: Q2, Q4. Factors: • Lack of adult attention – Students may not realize that there are so many adults whose job it is to help them feel comfortable and succeed at school.

Redesigned section 7.

The final section contains a College Bingo Review. In the initial curriculum, I did not have a review session that tied all of the CAC components together. Due to the length of the program which spans many months (from October until June for schools who receive the treatment spring quarter), I feel that a final reminder of all of the components required for

achieving college access in necessary. I designed the Bingo sheet based on the Post-Program Survey questions and main points that I covered at MS.

This activity covers all five required components: Academic Support, College Awareness, Education & Career Plan, Support System and one component not required for 5th graders, Financial Aid. The factor addressed was Lack of education materials because students may not have had a comprehensive review of previous college access education before this program. To officially complete the program, all students receive a paper graduation cap that they can write their name and major on – even if their data was not counted towards the final program results.

Table 31

Redesigned Section 7: College Bingo Review & Graduation Cap

CAC Curriculum Section 7 (1 hr. total)	Components, Survey Questions & Factors Addressed
>> College Bingo Review (20 min.) Coach instructions: 1. Cut out each answer so that each answer is on a separate sheet of paper. 2. Give every student a Bingo Board. 3. Pass out answer sheets to each student (if there are less than 25 students, read the sheets that are not passed out so everyone gets that space for free, if there are more than 25 students, give two students the same answer as needed) 4. Make sure they do not show their answer sheet to other students before the game starts. 5. On "go" students need to ask other students what answer sheet(s) they have. 6. To get an X for that Bingo space, they must write the student's name in the square. 7. The first person who gets five in a row vertically, horizontally or diagonally wins. 8. After the 1st BINGO, each student takes a turn reading their answer sheet(s) out loud to the class. >> Pass out paper "graduation caps" for students to customize. Coaching Focus: Academic Support (40 min.) Helping students with their class work and offering ideas about how to get better grades - refer to "4 ways to get better grades in school" cheat sheet. As coaches get to know students better, they can talk about how specific academic subjects and activities will help their student go to school and get their dream job.	Academic Support: • Reviewed ways to do better in class. College Awareness: • Reviewed types of colleges. Education & Career Plan • Reviewed types of Environmental and STEM career plans and why college is important. Support System: • Reviewed people that they could talk to for homework help and if they had a problem. Financial Aid: • Reviewed that there are loans and scholarships available to help them pay for college. Survey questions: Q1, Q2, Q3, Q4, Q5, Q6, Q7 Factors: • Lack of education materials – Students may not have had a comprehensive review of previous college access education before this program.

CAC Assessment Issues and Recommendations

After speaking with all of the other CAC members at other campuses in Washington State who used the CAC assessments we agreed that the Pre-PS/Post-PS design carried too much inherent bias (response-shift bias and self-report bias that was explained earlier in this

document) to be a useful tool. Also, McGinty's work-around to control response-shift bias by counting the shift towards a positive effect on any one question as a positive net effect on all questions collapses the ability to detect different types of gains; whether individual students showed a gain on single or multiple questions was not reported. Furthermore, I felt that there may have been some confusion as to whether students were reflecting on the C2C campus visit or CAC coaching program. However, even without that possible confusion, all of the other CAC members shared similar complaints about the assessments (see Appendix B). Some specific complaints that we agreed upon were:

- Pre/Post Questionnaires were terrible; they were not appropriate for assessing the actual affect because we saw the impact of our work but it was not reflected in the results.
- Elementary school students felt that they knew more before the CAC intervention than after because they don't know how much they don't know about college.
- There was too much repetition in the questions which frustrated the students; they felt like the same question was asked three different ways on two different occasions.
- The coaches were not seen as adults so didn't count as one of the "two adults outside my family that I have talked to about college" in the last question.
- The Pre/Post PS were better at recording how the student felt that day than how successful the program went. I.e. feeling happy = higher scores, feeling overwhelmed by current class work = low scores.
- Should just use the retrospective questionnaire.

I recommended to Patrick McGinty that the Pre/Post PS not be used, but he said that was not possible because they are part of the grant requirements. I also sent him the following recommendations:

- I do not see what question 4 has to do with college access: There is at least one grown-up outside my family that I can talk to if I have a problem. – the problem in the question does not have context. Is the question asking about college-related problems or breaking up with a significant other?
- In one of the schools, they don't have a guidance counselor for 5th grade, they only have a part-time school nurse and no school psychologist. In the other school, there is a part time guidance counselor, part-time school nurse and no psychologist. Other than their teacher, who they may feel intimidated or afraid to talk to because of the innate power over their grades, I don't know any adults that students can talk to if they have a problem. The students view their coaches as a positive role models but not necessarily adults. CAC Coaches reported that it is very important not be seen as not just another adult telling the students what to do.
- Questions 7 and 8 are quite similar to question 4 since they all refer to asking people for assistance. If they don't have the support services that I listed above in their schools, they need to answer negatively to three questions which unfairly weights the student's support network (which CAC and the student has no control over) versus what they learned in the program. I do not see any way to have my students indicate an increase for that question, so it is a bit of a throw away question – which could falsely lower our effect. Plus, students seemed to get fatigued by being asked a similar question 6 times between the Pre-PS and Post-PS.

- I believe that there are much more appropriate questions based on the components for our program to replace those questions:

    4. I understand 3 things that I need to do to get into college.

    7. I know why college is important.

    8. There are at least two people outside my family that I have talked to about college.

McGinty revised the questionnaire by replacing the word “adult” with “grown-up” in question 4 which now reads: “There is at least one grown-up, outside my family, who I can talk to if I have a problem.” He combined question 7 and 8 into a new question 7: “I know people I can talk to if I have questions about college.”

The CAC Pre/Post-PS scripts were not discussed at our end of year training but I also had issues with the language being too off-putting for elementary age students since it is not a test. My CAC Coaches reported that it felt like a test. I also made that recommendation to McGinty but his fix appears to be an even more complicated script. I recommend moving away from a script-reading format instead using a simple, casual question and answer format.

i.e.

- Does anyone know what a survey is? (Call on students until you hear an answer that refers to collecting people’s thoughts.)
- Repeat the correct answer so everyone can hear it: “That is right, it is used to collect people’s thoughts.”
- Are there any right or wrong answers on surveys? (students usually start shaking their heads no)

- Repeat the correct answer so everyone can hear it: That's right, there are no right or wrong answers.
- Whose thoughts should you write down on your paper? (Call on students until you hear an answer that refers to collecting each person's individual thoughts.)
- Repeat the correct answer so everyone can hear it: Right again, I want your thoughts and what your neighbor thinks doesn't matter so just check the boxes that feel like the right answers for you.
- Any questions?
- (Pass out surveys)
- Raise your hands if you have questions along the way and I will come collect them when you are finished (collect them however works best for you).

I feel that this format creates a greater sense of a community working together to gather information rather than a survey administrator and those being studied.

Final Thoughts

Throughout this report I referred to various ways youth in Title I schools lack advantages that their peers in wealthier schools have. Make no mistake, the students in the classes we worked with were phenomenal. I believe that, due to flawed instruments and implementation issues the test results did not portray the true impact of the CAC program. I saw that, despite my mistakes the CAC program had successes. While administering the end of program evaluations, I was in the classrooms on many of the coaches' last day. I saw the excitement the students had for having the coaches in their classrooms, I saw the tinge of sadness students had about their coaches leaving and I saw the amazing thank you cards the

students made. The CAC coaches did provide extra attention to their students, they brought new educational materials and experiences and they did become college-going role models.

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Appendices

Appendix A: Program Development Resources

College Access Corps Framework (McGinty, 2015d)

College Access Corps Framework

Framework	Examples	Example of Goals
1. Maintain Partnership(s) with schools **(NOTE: Supervisor develops the partnerships)**	• Schools, non-profits, or student groups served must be serving a K-12 youth population that is at least 50% eligible for free/reduced lunch program	• Serve at least one school, non-profit, or student group • Start small and grow
2. Determine which classroom and/or student groups your program will serve	• Classrooms are easier to serve and easier to administer the pre/post CAC program survey • Have an assessment plan	
3. Recruit/Train Coaches	• Recruit using flyers, classroom presentation, faculty references • Use staff from various offices to train the college access coaches	• Recruit 9 – 10 highly motivated coaches in which to build the program • Be selective, not everyone can be a coach
4. Plan college access interventions in schools served (at least 15 hours)	Grades 11-12 A) Review College academic expectations/ academic skills development B) Review different college options/ campus visits/ college fairs or college rep presentations C) Review college education needed to pursue various careers D) Review Admissions Process/Application support E) Review Financial Aid Process/ FAFSA support Grades 6-10 A) Review college academic expectations/ academic skills development B) Review different college options /college search/Campus visits/college rep talks C) Develop an educational plan to meet academic expectations D) Review college admissions requirements E) Review college education needed to pursue various careers	• 2 hours per week training to an AVID class for one quarter • Keep track of attendance and hours of college access intervention activities provided on your CAC Intervention Spreadsheet
	F) Review the cost of college and how to fund Grades 4-5 A) Review college academic expectations/academic skills development B) Review college education needed to pursue various careers C) Review kinds of colleges /college searches/campus visit/college rep talks D) Develop an education plan with career search E) Develop college support system – people they can talk to about college	
5. Assessment	• Administer the CAC pre-program survey during the first day of the program • Administer the CAC post-program survey after 15 hours of college access interventions • Administer the CAC end-of-the-program survey at the end of the program	• Receive surveys from 100% of participants in order to truly assess the impact of the program
6. Promote Program to Stakeholders	• Post on Program Facebook, CAC Facebook • Write a publicity release to local newspapers and campus paper about our National Days of Service efforts • Create a newsletter to stakeholder about the program's impact • Send letter to president about program's impacts	• Timely delivery of publicity releases in order to get the most publicity for the program • Get testimonials from teachers and youth served about the impact on them from being a part of the program
7. Build Sustainability	• Create a Sustainability binder for the next AmeriCorps member • Include timeline, flyers, training manual, important phone numbers, etc.	• Completed by the end of the academic year
8. Recruit Volunteers for National Days of Service	• Make a Difference Day with Habitat for Humanity • Paint a School room for MLK Day • AmeriCorps presentation on campus for AmeriCorps Week	• Recruit at least 40 volunteers for planned National Days of Service events

CAC Required Components and Suggested Activities by Grade (McGinty, 2015d)

College Access Corps Required Components and Suggested Activities by Grade*

Component	Grades 4-5	Grades 6-10	Grades 11-12
1. Academic Support: College academic expectations General academic skills development	Purpose: • Help students develop a college-going identity • Help students strengthen literacy and math skills • Help students achieve and/or maintain good grades Possible Activities: • Provide academic support with homework • Provide academic skills workshops (relevant to your population): ○ Classroom skills ○ Study skills ○ Writing skills	Purpose: • Discuss why academic skills are important (especially within the framework of a college-going identity) • Introduce topic of college entrance requirements, and the need to do well in school (8th grade and up) • Help students strengthen academic skills, and achieve and/or maintain good grades Possible Activities: • Provide academic support with homework • Provide academic skills workshops (relevant to your population): ○ Time management ○ Test taking & test anxiety ○ Study skills ○ Writing skills	Purpose: • Reinforce why academic skills are important (especially within the framework of a college-going identity) • Discuss college entrance requirements, and the need to do well in school • Discuss "college level" work and college academic expectations • Help students strengthen academic skills, and achieve and/or maintain good grades Possible Activities: • Provide academic support with homework • Provide academic skills workshops (relevant to your population): ○ Time management ○ Test taking & test anxiety ○ Study skills ○ Writing skills
2. College Awareness General college information Postsecondary options Campus visits	Purpose: • Provide introductory information about what college is, why it is important, and basic types of colleges Possible Activities: • Classroom or individual discussion • Flat Stanley visits • Visits from college students • Campus visits	Purpose: • Provide information about different postsecondary options, why college is important, and what college life is like Possible Activities: • Classroom or individual discussion • Visits from college students • Campus visits • Online searches or games	Purpose: • Provide detailed information about different postsecondary options, why college is important, and what college life is like Possible Activities: • Classroom or individual discussion • Visits from college students & college representatives • Campus visits • College fair attendance
3. College Admissions College admissions process College application support	N/A	Purpose: • Provide basic information about the college admissions process Possible Activities: • Discuss high school courses required for college admission • Discuss the kinds of extracurricular activities that will be helpful for college	Purpose: • Provide detailed information about the college admissions process Possible Activities: • Discuss what college applications look like • Discuss the kinds of extracurricular activities that will be helpful for college • Coaches assist seniors with college applications

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Component	Grades 4-5	Grades 6-10	Grades 11-12
4. Financial Aid General financial awareness Financial aid process FAFSA support	N/A	Purpose: • Educate students about basic financial awareness Possible Activities: • Workshops on money management • Basic exploration of financial aid options • Dispel myths about college costs • Sign up middle school students for state financial aid program	Purpose: • Educate students about the costs of college, financial aid options, and the financial aid process Possible Activities: • Discuss scholarships, loans, grants, work-study, etc. • Workshops on money management • Coaches assist seniors with the FAFSA
5. Education & Career Plan Education plan Career exploration	Purpose: • Guide students in basic career exploration • Get students excited about their future options, and show the connection to college • Help students develop a college-going identity Possible Activities: • Age-appropriate career exploration games • Career panel	Purpose: • Guide students in basic career exploration • Explore connection between college and career goals Possible Activities: • Help students choose high school courses that will lead to college eligibility • Discuss what careers students are interested in, and what kind of education is needed for these careers • Career panel • Discuss classes needed to prepare to pursue education for career of choice • Age-appropriate career exploration games	Purpose: • Guide students in more in-depth career exploration • Emphasize connection between college and career goals Possible Activities: • Discuss what careers students are interested in, and what kind of education is needed for these careers • Career panel • Job shadow or site visit • Exploration of possible college majors • Age-appropriate career exploration games
6. Support System Develop college support system – people they can talk to about college	Purpose: • Assist in creating a support system of teachers, counselors, mentors, parents, other adults to help support student's college going identity Possible activities: • Discussions and bonding activities with coaches • Communication with school staff and family as needed, and as program permits	Purpose: • Assist in creating a support system of teachers, counselors, mentors, parents, other adults to help support student's college going identity. Possible activities: • Discussions and bonding activities with coaches • Communication with school staff and family as needed, and as program permits	Purpose: • Assist in creating a support system of teachers, counselors, mentors, parents, other adults to help support student's college going identity Possible activities: • Discussions and bonding activities with coaches • Communication with school staff and family as needed, and as program permits

Please note that the activities listed are just suggestions for implementing the components. They are not required by CAC. If these activities are not relevant to your target population or do not fit with your program structure, please be creative and design other ways to cover these components. Interactive workshops and activities are highly encouraged. See the CAC website for ideas from previous CAC members.

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Appendix B: Evaluation Materials

Initial evaluation materials.

CAC Pre-Survey Administration Wording (McGinty, 2015d)

CAC Pre-Survey Administration Wording

Grades 4-5

In a minute, I will be handing out a paper that has a few questions about what you think about school. This is not a test, and there are no right or wrong answers.

When you get the survey, you will see that each question is written as a sentence. Please take a minute to read each sentence carefully, and then put an X in the box that matches your answer. Remember, there are no right or wrong answers – they just want to know what people think. No one will see what you write because your name is not attached to the survey. So be sure to answer how you really think.

(HAND OUT SURVEY)

Take a quick look at the survey. Are there any questions? (ANSWER QUESTIONS AND LET THEM BEGIN FILLING IT OUT).

When you are done, you can turn your survey in here (EITHER HAND TO YOU, OR PUT IN BOX, OR WHATEVER YOU DECIDE).

CAC Pre-Program Survey (McGinty, 2015d)

Participant Number: BES-07-_____

College Access Corps

A Washington/Oregon Campus Compact AmeriCorps Program

Pre-Program Survey (for grades 4 - 5)

Please answer each question by checking the box above your answer choice. Your responses will help us better understand your needs as a student, in order to create an environment that is engaging, challenging, and productive for you. Please answer the questions thoughtfully and honestly – there are no right or wrong answers. Thank you for participating!

1. **I can think of at least 4 things that I can do to get better grades in school.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

2. **I have a place to go if I need help with my homework.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

3. **I understand how college is related to the job or career that I want in the future.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

4. **There is at least one adult, outside my family, who I can talk to if I have a problem.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

5. **I see myself going to college someday.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

6. **I have learned about many different types of colleges that I could go to.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

7. **I know people I can talk to if I have questions about college.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

8. **There are at least two adults outside of my family that I have talked to about college.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

CAC Pre-Survey Administration Wording (McGinty, 2015d)

Post-Survey

Grades 4-5

(DO NOT HAND OUT THE SURVEY UNTIL YOU HAVE READ THESE INSTRUCTIONS)

In a minute, I will be handing out a paper that has a few questions about what you think about school. The first page looks a lot like the surveys that you have already taken. Remember - this is not a test, and there are no right or wrong answers. **We want to thank you for filling out this survey – your opinions will help us to make the program better for next year.**

This survey is a little longer than the other ones. When you get the packet, you will see that each question is written as a sentence – just like the ones you took before. Please take a minute to read each sentence carefully, and then put an X in the box that matches your answer. **Just fill out the first page for now, and then stop. Once everyone is ready, we will move on to the next page.**

HAVE THEM STOP AFTER THEY FINISH THE FIRST PAGE. ONCE EVERYONE IS DONE, READ THE FOLLOWING PARAGRAPH.)

On the second page, you will see some questions that ask you to think about yourself **BEFORE** you started this program, and then **AFTER** you finished this program. Please take a minute to read each sentence carefully, and then put an X in the box that matches your answer.

At the bottom you will see a question without any answer. You can answer that question in your own words, just do not write down your name or anyone else's because we do not want to know who's paper it is.

If any question doesn't make sense, just ask me for help.

When you are done, bring your paper to me.

CAC Post-Program Survey (McGinty, 2015d)

Participant Number: BES -____-____

College Access Corps
A Washington/Oregon Campus Compact AmeriCorps Program

Post-Program Survey (for grades 4 - 5)

Please answer each question by checking the box above your answer choice. Your responses will help us better understand your needs as a student, in order to create an environment that is engaging, challenging, and productive for you. Please answer the questions thoughtfully and honestly – there are no right or wrong answers. Thank you for participating!

1. **I can think of at least 4 things that I can do to get better grades in school.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

2. **I have a place to go if I need help with my homework.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

3. **I understand how college is related to the job or career that I want in the future.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

4. **There is at least one adult, outside my family, who I can talk to if I have a problem.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

5. **I see myself going to college someday.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

6. **I have learned about many different types of colleges that I could go to.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

7. **I know people I can talk to if I have questions about college.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

8. **There are at least two adults outside of my family that I have talked to about college.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

CAC Retrospective Questions and Open-ended Question (McGinty, 2015d)

Retrospective Questions: How did you feel before and after the program?

9a. Before being in this program, was school important to you?

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

9b. After being in this program, is school important to you?

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

10a. Before being in this program did you understand what it takes to go to college?

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

10b. After being in this program did you understand what it takes to go to college?

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

11a. Before being in this program, were you excited about going to college?

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

11b. After being in this program, were you excited about going to college?

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

Open-ended Question: Please do not use your name or anyone else's

12. Describe one thing you learned about college through your participation in this program.

CAC Teacher Feedback Form Adapted from *CAC Pre-Program Survey* (McGinty, 2015d)

School: _____

Teacher Name:_____

College Access Corps

A Washington/Oregon Campus Compact AmeriCorps Program

Teacher Feedback Form

Please answer each question by checking the box above your answer choice. Your responses will help me in determining class participation portion of the College Access Coach's grade. Please answer the questions thoughtfully and honestly – there are no right or wrong answers. Thank you for participating!

1. **I feel that the new College Access Curriculum (CAC) will help my students improve their grades.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

2. **I feel that the new CAC will help my students know where to go for homework assistance.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

3. **I feel that the new CAC helped my students understand how college is related to the job or career they want.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

4. **I feel that the new CAC informed my students about at least one adult, outside their family, they can talk to if they have a problem.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

5. **I feel that the new CAC helped my students realize that they can attend college if they wish.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

6. **I feel that the new CAC helped my students learn about many different types of colleges.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

7. **I feel that the new CAC helped my students realize there are people they can talk to if they have questions about college.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

8. **I feel that the new CAC helped my students talk to at least two adults outside their family about college.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

9. The CAC coach arrived on time.

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

10. The CAC coach interacted with my students in a professional and appropriate manner.

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

11. The CAC coach was prepared for the weekly CAC lesson.

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

12. The CAC coach was dressed appropriately and wore their C2C t-shirt.

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

13. The CAC coach treated my students with respect and understanding.

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

14. I feel that having the CAC coach attend Mountain School was beneficial for my students.

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

15. Overall I feel that the new CAC program was beneficial for my students.

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

16. Additional comments, insights or suggestions that you feel would improve our new program:

_____

_____

_____

_____

_____

_____

_____

_____

Revised evaluation methods.

CAC Pre-Program Survey Administration Wording (McGinty, 2016)

Pre-Survey Administration Wording

Instructions for students in grades 6-10 and 11-12

(DO NOT HAND OUT THE SURVEY UNTIL YOU HAVE READ THESE INSTRUCTIONS)

"In a minute, I will be handing out a short survey about school and college information. This is not a test, and there are no right or wrong answers."

"When you get the survey, you will see that each question is written as a sentence. Please take a minute to read each sentence carefully, and decide how much you agree or disagree with that sentence. Then circle the matching answer. Remember, this is not a test, and there are no right or wrong answers – we just want to know what information you already have about college. No one will see what you write because your name is not attached to the survey. So please be honest with your answers."

(HAND OUT SURVEY)

"Take a quick look at the survey. There may be some questions where part of it is true for you, but part of it isn't. For example, you might have learned about some things in a particular question, but not all of the things listed (for example, question 3). In those cases, you can just say that you disagree with that statement, because not all of it is true." (ASK THEM IF THIS MAKES SENSE, AND CLARIFY IF NEEDED).

"Take another look at the survey items. Does anyone have any other questions about any of the items?" (PAUSE FOR A MINUTE AND GIVE THEM TIME TO THINK ABOUT IT).

(ANSWER ANY QUESTIONS THAT THEY HAVE, AND LET THEM BEGIN FILLING IT OUT. WALK AROUND DURING THE SURVEY AND BE SURE TO ANSWER INDIVIDUAL QUESTIONS. IT IS IMPORTANT THAT THEY UNDERSTAND THE SURVEY ITEMS AND ANSWER ACCORDINGLY.)

"When you are done, you can turn your survey in to me."
(COLLECT SURVEYS)

Instructions for students in grades 4-5

(DO NOT HAND OUT THE SURVEY UNTIL YOU HAVE READ THESE INSTRUCTIONS)

"In a minute, I will be handing out a paper that has a few questions about what you think about school. This is not a test, and there are no right or wrong answers."

"When you get the survey, you will see that each question is written as a sentence. Please take a minute to read each sentence carefully, and then put an X in the box that matches your answer. Remember, there are no right or wrong answers, and no one will see what you write because your name is not attached to the survey. So make sure you answer honestly."

Pre-Survey Administration Wording

Instructions for students in grades 6-10 and 11-12

(DO NOT HAND OUT THE SURVEY UNTIL YOU HAVE READ THESE INSTRUCTIONS)

"In a minute, I will be handing out a short survey about school and college information. This is not a test, and there are no right or wrong answers."

"When you get the survey, you will see that each question is written as a sentence. Please take a minute to read each sentence carefully, and decide how much you agree or disagree with that sentence. Then circle the matching answer. Remember, this is not a test, and there are no right or wrong answers – we just want to know what information you already have about college. No one will see what you write because your name is not attached to the survey. So please be honest with your answers."

(HAND OUT SURVEY)

"Take a quick look at the survey. There may be some questions where part of it is true for you, but part of it isn't. For example, you might have learned about some things in a particular question, but not all of the things listed (for example, question 3). In those cases, you can just say that you disagree with that statement, because not all of it is true." (ASK THEM IF THIS MAKES SENSE, AND CLARIFY IF NEEDED).

"Take another look at the survey items. Does anyone have any other questions about any of the items?" (PAUSE FOR A MINUTE AND GIVE THEM TIME TO THINK ABOUT IT).

(ANSWER ANY QUESTIONS THAT THEY HAVE, AND LET THEM BEGIN FILLING IT OUT. WALK AROUND DURING THE SURVEY AND BE SURE TO ANSWER INDIVIDUAL QUESTIONS. IT IS IMPORTANT THAT THEY UNDERSTAND THE SURVEY ITEMS AND ANSWER ACCORDINGLY.)

"When you are done, you can turn your survey in to me."
(COLLECT SURVEYS)

Instructions for students in grades 4-5

(DO NOT HAND OUT THE SURVEY UNTIL YOU HAVE READ THESE INSTRUCTIONS)

"In a minute, I will be handing out a paper that has a few questions about what you think about school. This is not a test, and there are no right or wrong answers."

"When you get the survey, you will see that each question is written as a sentence. Please take a minute to read each sentence carefully, and then put an X in the box that matches your answer. Remember, there are no right or wrong answers, and no one will see what you write because your name is not attached to the survey. So make sure you answer honestly."

(HAND OUT SURVEY)

"Take a quick look at the survey. Does anyone have any other questions about anything on the survey?" (PAUSE FOR A MINUTE AND GIVE THEM TIME TO THINK ABOUT IT).

(ANSWER ANY QUESTIONS THAT THEY HAVE, AND LET THEM BEGIN FILLING IT OUT. WALK AROUND DURING THE SURVEY AND BE SURE TO ANSWER INDIVIDUAL QUESTIONS. IT IS IMPORTANT THAT THEY UNDERSTAND THE SURVEY ITEMS AND ANSWER ACCORDINGLY.)

"When you are done, you can turn your surveys in to me."
(COLLECT SURVEYS)

CAC Pre-Program Survey (McGinty, 2016)

Survey Number: _____

College Access Corps

A Washington/Oregon Campus Compact AmeriCorps Program

Pre-Program Survey (for grades 4 - 5)

Please answer each question by checking the box above your answer choice. Your responses will help us better understand your needs as a student. Please answer the questions thoughtfully and honestly – there are no right or wrong answers. Thank you for participating!

1. **I can think of at least 4 things that I can do to get better grades in school.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

2. **I have a place to go if I need help with my homework.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

3. **I understand how college is related to the job or career that I want in the future.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

4. **There is at least one grown-up, outside my family, who I can talk to if I have a problem.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

5. **I see myself going to college someday.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

6. **I have learned about many different types of colleges that I could go to.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

7. **I know people I can talk to if I have questions about college.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

CAC Post-Program Survey Administration Wording (McGinty, 2016)

CAC Post-Survey Administration

NOTE: the post-test instructions are different from the pre-test instructions, so be sure to use the correct form.

Instructions:
Similar to the pre-test document, pages 2-3 of this document provide instructions and wording for you to use while you administer the actual survey to students. Your wording is provided in quotes ("") and instructions are provided in red text. Please review these pages before you begin the survey administration process, to familiarize yourself with the process.

Survey Background Information:

This set of surveys has been created for the College Access Corps Program, based upon the guidelines set by the Corporation for National and Community Service (CNCS). *CNCS currently requires that programs use pre-post assessments for their evaluation.* They will not accept any other form of evaluation response (eg: open-ended or narrative questions, retrospective questions).

College Access Corps staff recognize that other forms of evaluation may be better suited to your programs, and to young students in general. They are also aware that students often overestimate their knowledge at the beginning of a program, and therefore underreport what they have learned at the end of a program. This phenomenon is called "response shift bias." In order to account for possible response shift bias, a set of retrospective and open-ended questions are included *at the end of the post-test survey*. CNCS will not use the data from these questions, but Americorps members and site supervisors can use this information for program improvement purposes, and to compare their results with the pre-post responses.

In addition, while it would be easier to administer this survey online, many CAC programs do not have access to the technology needed for students to complete an electronic survey. Thus, the paper version is the only accessible option for all programs at this time.

Tips for administering survey:

The language on the next page is provided for people to use as they administer the survey. Please try to stay as close to the wording as possible, but also take your student population into consideration. If you need to adjust the wording for your audience, feel free to do so – just stay true to the intent of the instructions.

Also – be sure to explain things in the survey that students may not understand. For example, if students don't realize that you are "adults" or "grown-ups" (as described in the survey language), please tell them before you hand out the survey. If there are any other questions or points of confusion, you are welcome to clarify them as students take the survey. This is not an SAT or other standardized test, so it is fine for you to explain things or clarify terminology, if they don't understand a question.

Instructions for students in grades 4-5

(DO NOT HAND OUT THE SURVEY UNTIL YOU HAVE READ THESE INSTRUCTIONS)

"In a minute, I will be handing out a paper that has a few questions about what you think about school. The first page looks a lot like a survey that you took earlier this year. Remember - this is not a test, and there are no right or wrong answers. **We want to thank you for filling out this survey – your opinions will help us to make the program better for next year."**

"When you get the survey, you will see that each question is written as a sentence – just like the one you took before. Please take a minute to read each sentence carefully, and then put an X in the box that matches your answer. **Just fill out the first page for now, and then stop. Once everyone is ready, we will move on to the next page."**

(HAND OUT SURVEY. WALK AROUND AS THEY ARE FILLING IT OUT AND BE SURE TO ANSWER INDIVIDUAL QUESTIONS. IT IS IMPORTANT THAT THEY UNDERSTAND THE SURVEY ITEMS AND ANSWER ACCORDINGLY.)

(HAVE THEM STOP AFTER THEY FINISH THE FIRST PAGE.
ONCE EVERYONE IS DONE, READ THE FOLLOWING PARAGRAPH.)

"On the second page, you will see some questions that ask you to think about yourself **BEFORE** you started this program, and then **AFTER** you finished this program. If any question doesn't make sense, just ask me for help."

"You can go ahead and start the rest of the survey – **but if you have any questions as you are filling out the survey, please be sure to ask me!"**
(WALK AROUND AGAIN AND MAKE SURE STUDENTS UNDERSTAND THE QUESTIONS).

"When you are done, you can turn your surveys in to me."
(COLLECT SURVEYS)

CAC Post-Program Survey (McGinty, 2016)

Survey Number: _____

College Access Corps

A Washington/Oregon Campus Compact AmeriCorps Program

Post-Program Survey (for grades 4 - 5)

Please answer each question by checking the box above your answer choice. Your responses will help us better understand your needs as a student. Please answer the questions thoughtfully and honestly – there are no right or wrong answers. Thank you for participating!

1. **I can think of at least 4 things that I can do to get better grades in school.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

2. **I have a place to go if I need help with my homework.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

3. **I understand how college is related to the job or career that I want in the future.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

4. **There is at least one grown-up, outside my family, who I can talk to if I have a problem.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

5. **I see myself going to college someday.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

6. **I have learned about many different types of colleges that I could go to.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

7. **I know people I can talk to if I have questions about college.**

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

CAC Retrospective Questions (McGinty, 2016)

Survey Number: _____

Retrospective Questions:

1. *Before being in this program*, did you understand how college is related to the job you want in the future?

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

After being in this program, do you understand how college is related to the job you want in the future?

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

2. *Before being in this program*, did you know people that could answer your questions about college?

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

After being in this program, do you know people that can answer your questions about college?

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

3. *Before being in this program*, were you excited about going to college?

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

After being in this program, are you excited about going to college?

☐ Not at all ☐ Not really ☐ Sort of ☐ Yes

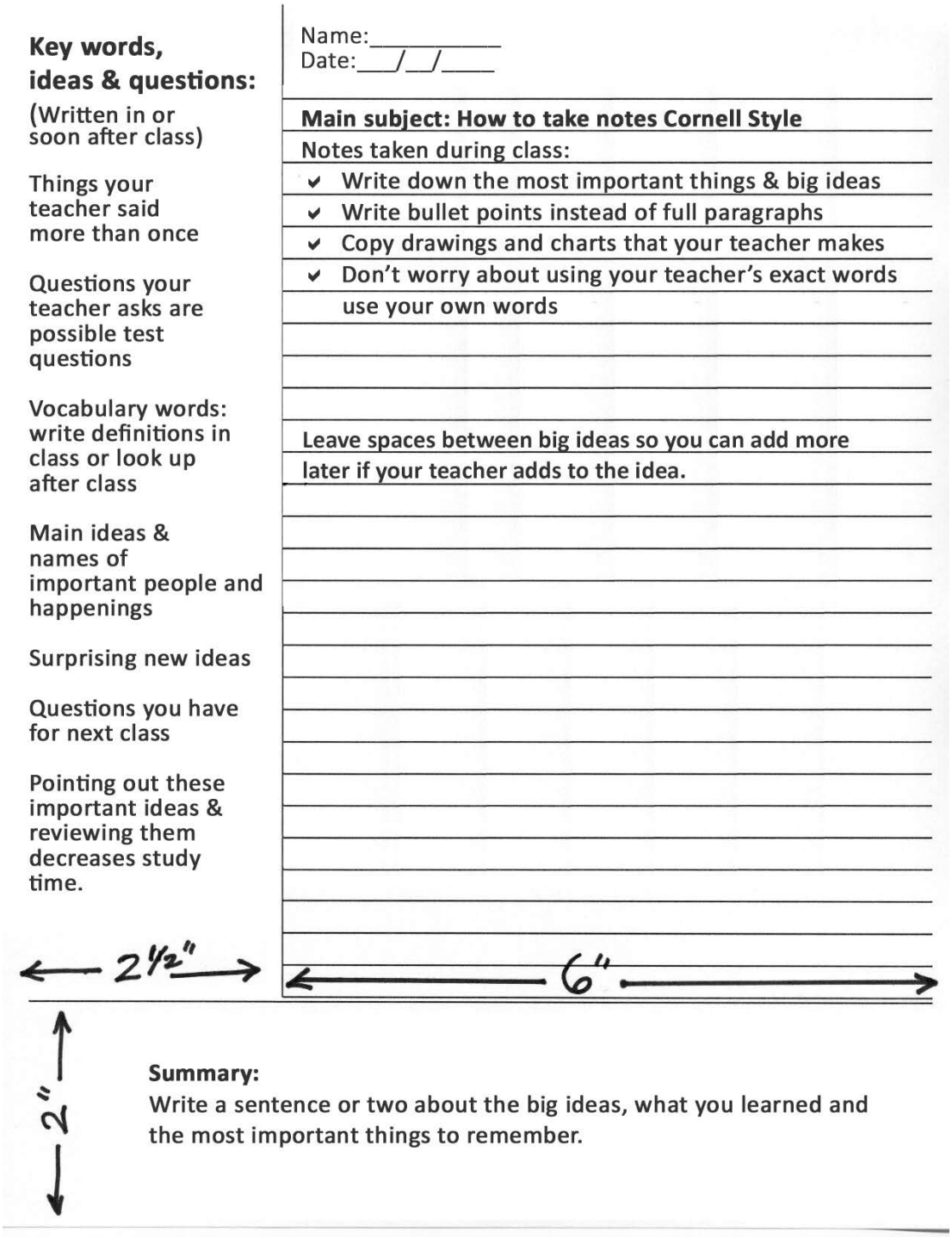
Appendix C: Initial College Access Curriculum

Student Interest and Job Sheet

Coach Name:________________________________

First Name	Interests	Jobs

Cornell Notes Instructions Sheet



Since Time Immemorial Cornell Notes Exercise

SINCE TIME IMMEMORIAL: TRIBAL SOVEREIGNTY IN WASHINGTON STATE

Essential Question: What does tribal sovereignty in Washington State mean?

Use this column to highlight important ideas & vocabulary words.

homeland –

treaties –

reservations –

If you were born and raised in one town or city, then you would know it as your '**homeland**'. You would consider this your 'homeland' because this is where your school is, where your friends are, and where family works and plays.

But your homeland is much different than tribal people's homeland, and that is what you will be learning. The difference and what makes it different.

Long time ago, probably when your great, great, great, great grandparents were alive, people traveled to this country and knew there were other people already living here. The newcomers did not realize at first that the native tribes had societies just as organized as their own. There were more than 34 different nations. Each tribe had its own homeland and borders, so each also had its own government, laws, religion, economy, and traditions. Though tribes did not have passports when they wanted to travel to another tribal nation, like we have today when we want to visit other countries, there were rules that everyone was expected to follow and respect.

When non-Indian people got to this part of the land, they wanted to be able to live among the different tribes so they made promises and agreements with many of the tribes. The written agreements, known as a **treaties**, had everyone's signature on it to prove that they agreed to it. The tribal people in the agreement saved a part of their original homelands for themselves. These lands, much smaller than their original homelands, and in some cases, far away from their original homelands, are known as **reservations**.

When the United States signs a treaty with another nation, like England, France, or Canada, the treaty becomes the most important law of the land. In the US Constitution, it calls treaties "the supreme law of the land." Both the U.S. and the tribes know they are nations. And neither nation should ever break its treaty.

Summary in your own words:

1. What makes tribal homelands different from your own community, town, or city?

2. Treaties are the most important, or the "_____ law of the land," according to the U.S. Constitution.

3. Tribes gave up a lot of their homelands so that non-Indians could live here, too. Now, most tribal homelands are on _____.

Source: Newsletter - *On Sovereignty*, 1.1: Tribal Homelands/The First Nations of North America by Carol Craig, Yakama and Shana Brown, Yakama descendant

Types of Colleges PowerPoint Presentation


Universities
Big Schools
Many Different Classes
4-yr = Bachelor's Degree
+ 2 more years = Master's Degree
+ 4-5 more years = Doctorate Degree (Ph.D)
Many Social Events (sports, clubs, etc.)
on-campus housing (dorms)


Have You Heard of these Schools?
CASCADIA COMMUNITY COLLEGE
EDMONDS COMMUNITY COLLEGE
Every Step of the Way...
EVERETT COMMUNITY COLLEGE
Stay Close... Go Far
Green River COMMUNITY COLLEGE
Highline COMMUNITY COLLEGE
NORTHWEST INDIAN COLLEGE
Shoreline COMMUNITY COLLEGE
Skagit Valley College
Where Learning Comes to Life
Whatcom COMMUNITY COLLEGE


Community Colleges
Small Schools
Smaller Class Sizes
2-yr = Associate's Degree or Certificate
Easier to get in
Can turn Associate's Degree into Bachelor's Degree
Costs Less
Students often commute from home


Have You Heard of these Schools?
Bates
TECHNICAL COLLEGE
Bellingham
TECHNICAL
COLLEGE
CLOVER PARK
TECHNICAL COLLEGE
LAKE WASHINGTON
INSTITUTE OF TECHNOLOGY
RTC
RENTON
TECHNICAL
COLLEGE
SEATTLE VOCATIONAL
INSTITUTE


Technical College/Trade School
Small Schools
Smaller Class Sizes
Prepares you for a specific career
2-yr or less = Diploma, Certificate, License
Some have Associate's Degree & Bachelor's Degree
Costs Less
Students often commute from home


Why go to College?
Better Paying Jobs
More Likely to Get a Job
Brighter Future:
2028 19,000,000 more jobs than educated workers
More Jobs to Choose From
More Enjoyable Career
Meet new people, learn new things &
make a difference!

Coach resources.

Getting to know you questions:

1. What do you wonder about?
2. What language(s) do you dream in?
3. What adult jobs are you familiar with? Do any of those jobs sound interesting to you?
4. Do you want to do a job or activity that nobody you know does?
5. What do you want to be when you grow up?
6. If you could go anywhere, where would you go and for how long? Why?
7. What is your favorite food?
8. What is your favorite place (can be real or imaginary).
9. Who is your hero? (family member, celebrity, teacher, helper)
10. If you had to describe your favorite person in 3 words what would they be?
11. If you had to describe yourself in 3 words what would they be?
12. What is your favorite movie or TV show?
13. What is your favorite sport or activity?
14. If you could change one thing in your home, school or community, what would it be?
15. What are you good at?
16. If you could be known for one thing, what would it be?
17. If you got a medal, what would it be?
18. What is your favorite subject in school?
19. What is your favorite thing to talk about?
20. If you could buy as many books as you want, what subjects would they be?

4 Ways to Get Better Grades in School

1. **Pay attention in class**
   a. Turn off your cellphone.
   b. Listen to what the teacher is saying.
   c. Don't talk to your friends.

2. **Do all of your classwork**
   a. Double check your classwork before turning it in.
   b. If you get something wrong in class, ask why.
   c. Double check to make sure that you have completed all group and individual work.
   d. If anything seems too difficult, tell your teachers or ask for help.

3. **Make the most of your time at school**
   a. Ask about the next quiz or test.
   b. Look over the homework before you leave school and ask questions.
   c. Use free time during the day to study for quizzes/tests and begin homework.

4. **Use test/quiz taking strategies**
   a. Read any instructions and questions twice before answering.
   b. Always turn your paper over to check for extra questions.
   c. Pace yourself – peek at the clock so you do not run out of time.
   d. Answer the easiest questions first - skip difficult ones for later.
   e. For difficult multiple choice questions, lightly cross out the answers you know are wrong. Then re-read the question and remaining answers.
   f. Don't go too fast.
   g. Always double check your answers if you have time.

(Classroom Clipart, 2016)

2-yr Community College Fact Sheet

The traditional four-year college experience isn't for everyone. Some students aren't sure what they want to study, while others are looking for a more affordable education. Community colleges can be good options for students in these situations.

If you're considering community college, or are just curious about the benefits, check out the following reasons why attending one might be a good decision.

1. Less expensive: Paying for college is a big consideration, and annual tuition and fees at four-year institutions can soar to tens of thousands of dollars. This can also lead to mounds of student loan borrowing and debt. In contrast, many community colleges charge around $1,000 for in-state tuition.

2. Academic Flexibility: Attending a community college can be a good way for students to ease into the world of higher education and learn at their own pace. This is especially true for students who struggled in high school or anyone who's unsure if they want to make the significant time and money investment in college, experts say.

3. Financial Aid: Financial aid isn't only for four-year college students – community college students are eligible as well. Federal student loans require students to be enrolled half time – about six credit hours, or two courses. Students just need to make sure they don't drop out of classes or they'll risk losing their aid award.

4. School-life Balance: About 60 percent of community college students attend school part time, so anyone interested in taking one or two classes at a time will not feel out of place. This makes community college a good option for nontraditional students like parents and older students who wish to balance school with family or career obligations.

5. STEM Education Opportunities: Community colleges have associate degree programs in science, technology, engineering and mathematics. These so-called STEM subjects are in demand by employers, and some community colleges are supporting these students as they work their way up to a career, experts say.

6. Transfer Agreements: Enrolling in a community college doesn't have to be a student's final destination. Many two-year schools offer admissions agreements with public colleges that allow qualified students to transfer their credits toward earning a bachelor's degree.

7. Elements of Traditional Colleges: Two-year colleges haven't always provided the same student experience as four-year schools, but that is changing. Nearly one-quarter of community colleges now offer dorms, according to the American Association of Community Colleges. And it's possible to find extracurricular activities, scholarships and networking activities on two-year campuses.

8. Personalized Attention: Many community colleges offer smaller class sizes than larger schools, meaning students can find more personal attention and one-on-one time with instructors. This can be a plus for students who like to learn at their own pace and ask plenty of questions as they go.

9. Professional Certificates: Career progress is often tied to advanced degrees and skill development, usually through costly graduate school programs. But community colleges provide professional and short-term certificates in many fields, including information technology and electronics.

10. Online Class Options: As is the case with four-year universities, certain community colleges have expanded online offerings to entice more students. This includes training professors to be available at odd hours, and tailoring programs to fit regional industry needs. These credits can potentially be used toward a four-year degree

Source: http://www.usnews.com/education/community-colleges/slideshows/10-reasons-to-attend-a-community-college

4-yr Private University Fact Sheet

Throughout the stressful process of narrowing down which college to attend it is important to distinguish between public and private universities. After weeks of soul searching and internet researching, it became clear that I would be able to thrive more effectively in the academic environment of a private school. Here are the 10 reasons that I chose to attend a private university.

1. The Small Class Sizes: While studying at a private university the class sizes are commonly less than thirty students and they typically downsize once the classes become more major specific. This trend is also apparent in public schools, but instead of starting introductory courses at thirty students, they can range from forty to one-hundred.

2. Closer Student Community: Private universities are much smaller than public colleges and contain a much smaller student body population. This results in a very close-knit community of familiar faces and an overall friendly atmosphere.

3. Involved Professors: The professors at private schools are more inclined to offer students help in their academic disciplines. They also are known to offer their students more opportunities in gaining experience through research labs and through obtaining internships. This is largely a result of the small class sizes and smaller student populations of private schools.

4. Less Competition Associated with Opportunities: Whether it be attaining an internship or research lab spot, it is much less competitive to engage in these opportunities. Instead of competing with your classmates for access to a limited roster, the private university will provide you with various opportunities to partake in. Incredibly, there are often more opportunities than students.

5. Merit Aid: Although many believe that attending a private school is unaffordable and only for "rich suburban kids," in recent years the price to attend a private school has become competitive with those of public schools through merit aid scholarships. These can range from full-rides to a few hundred dollars a quarter depending on your academic excellence in high school.

6. Approachable Alumni Network: Since private universities are both small and intimate, the alumni networks are much more approachable and involved with on-campus activities. Many entrepreneurs and successful businessmen will scout potential employees from their alma maters and provide them with jobs out of college. This is an important asset of private universities because the after college job market is becoming increasingly competitive.

7. Access to a Large Variety of Resources: Private universities are known for the many of resources they provide for their students. These resources usually include approachable counselors or mentors, large databases of information and academic advisers, among others.

8. Networking: Since the private school communities are small and intimate, you will build many close relationships with other students. These close relationships can potentially present opportunities for your future career and personal endeavors.

9. Focus on Academics: Private schools are stereotypically more academically rigorous than state schools. This allows the students to both mature academically and develop an effective work ethic. Although a substantial workload is not very appealing, the skills acquired from it are essential to one's eventual success.

10. It Felt Right: While visiting a variety of private and public universities, I felt more comfortable and "homie" at the private schools. Although both types of universities provide exceptional educations and opportunities for their students, I knew that the private university life would be the best fit for me.

Source: http://www.universityprimetime.com/10-reasons-i-chose-to-attend-a-private-university-5

4-yr Public University Fact Sheet

1. Less expensive: Attending a public institution may be less expensive than attending a private institution. Public colleges and universities typically offer low tuition rates for in-state residents. Even out-of-state students might qualify for lower tuition rates if they apply through an academic common market such as WICHE.

2. Large student populations: While some public universities are on the small size, a large percentage of the public universities are considered large. Large populations can be great for *both* outgoing and shy students. For the outgoing students, there are many ways to get involved with the many opportunities and personalities available on campus. For the shy student, they can sit back and wait until they are comfortable to connect with others on campus.

3. Diverse student populations: Diversity is good for students because it expands worldliness, enhances social development, and prepares students for future career success. Many of the public institutions offer diverse student populations in regards to race, gender, religion, and socioeconomic status. This allows students to learn from the different perspectives their fellow classmates and professors bring to the table.

4. Large list of academic programs: Large public universities generally offer a wide variety of academic programs. This is great for students who are not sure what they want to study. It is also an advantage for all of the students who will change their mind about their major while in school. At a college with so many academic programs, students are bound to find an area of study they are interested in and enjoy.

5. Reputation: Sometimes state schools get pegged as just being "safety" schools or not as rigorous as other institutions. However, some of the highest-regarded colleges in the country are public institutions, such as UC Berkeley, UCLA, and University of Virginia. Many of the public colleges also have highly regarded programs within the universities, such as University of Michigan at Ann Arbor's Business programs and University of Texas at Austin's engineering programs.

6. Student activities: With a large student population comes a large student activities list. Smaller colleges usually offer less than 50 student organizations. However, large public universities can easily have hundreds of established student organizations, ranging from general interests to very specific focuses. Most students at public institutions will not need to spend the time starting their own organizations because they will be able to find anything they are looking for at a public university.

7. Active athletic programs: If you enjoy sports, many of the public universities have very active athletic programs. Spectators will have the opportunity to attend sporting events on campus and be part of fun college rivalries.

8. Student resources: Smaller colleges sometimes cannot offer the wide array of resources public institutions offer. Large public institutions have great resources such as tutoring service for every subject imaginable, huge fitness centers, and counseling service. All of these resources are usually included in the student fees student already pay or are offered at a minimal fee.

9. Amazing networking opportunities: Large student populations allow students to meet many other students. Student organizations bring industry leaders to campus to speak to the community. Professors invite colleagues to campus to speak to classes. If students put themselves out there, they will have the opportunity to meet and network with many individuals during their time on campus.

10. Job opportunities: Many of the public institutions have name recognition in their area, and many are known nationally. Numerous companies come to campus seeking future interns and employees for their companies or organizations. Students can meet these employers on campus at career fairs, in career centers, or even through introductions from their professors.

Of course, none of these characteristics are exclusive to public colleges and universities, necessarily. Nor are they descriptive of every single public college in the country. But, in general, you can expect to find most or all of these to be true if you choose to attend a public institution.

Source: https://www.collegeraptor.com/college-guide/college-search/10-reasons-to-attend-a-public-college-or-university

Technical College or Vocational School

Ten Great Reasons to Attend a Technical College or Vocational School (TC/VS)

1. You Already Have a Career in Mind: You know what you want to do. You just need to get the training for it. With most TC/VSs offering a wide spectrum of programs, chances are good that one near you provides the opportunity to earn a degree or diploma that can get you started in the career you've been dreaming of without the extra admissions headaches of traditional colleges or universities.

2. Specialized Programs for Careers in High Demand: This means that the programs they offer, and the curriculum for those programs, are fine-tuned to make sure that they meet the needs of the current marketplace. Many TC/VSs provide training for in-demand careers within fields like healthcare, technology, business, education, entertainment and for specific trades like carpentry, automotive mechanics and HVAC.

3. Flexibility in Class Scheduling: Class scheduling is very adaptable for students who have busy work schedules or family responsibilities. Many weekend, evening, and Internet courses are available. With multiple campuses and program start times, many TC/VSs give you the option of beginning your education when you want, where you want. They often allow you to attend part-time or in the evenings. Some vocational schools even have online training programs so that you can keep your current lifestyle and commitments while getting the training you need from the comfort of your home.

4. Hands-On Training: Many TC/VSs mix classroom learning with real-world experience through supervised practicums or externships at off-campus facilities or with employers. This lets you apply what you learn in class to actual situations you might encounter once you begin your career. And TC/VSs typically utilize instructors with a depth of experience in the fields they teach. So you learn by doing, from people who know what they're talking about.

5. Speed: TC/VS education is designed to prepare you for entry-level employment in the career of your choice as quickly as possible. Most TC/VS programs take less time to complete than those from ordinary colleges or universities. In fact, some programs can take as little as six months, with many others taking only one to two years for an associate degree.

6. Earning Potential: Great-paying careers in two years or less Median salaries of new associate degree graduates are over $32,000. And, two-thirds of the fastest growing occupations require technical education.

7. Strong Job Placement: Most TC/VSs have established strong relationships with top professionals and employers in many different fields. One example: only six months after graduation, 92% of Wisconsin Technical College graduates are employed; 76% in their field of study.

8. Affordable Tuition: Means less debt. TC/VSs have the lowest tuition among public post-secondary institutions. Convenient locations often eliminate the need for room and board, saving you thousands of dollars. The ability to receive your degree in less time also results in major cost savings.

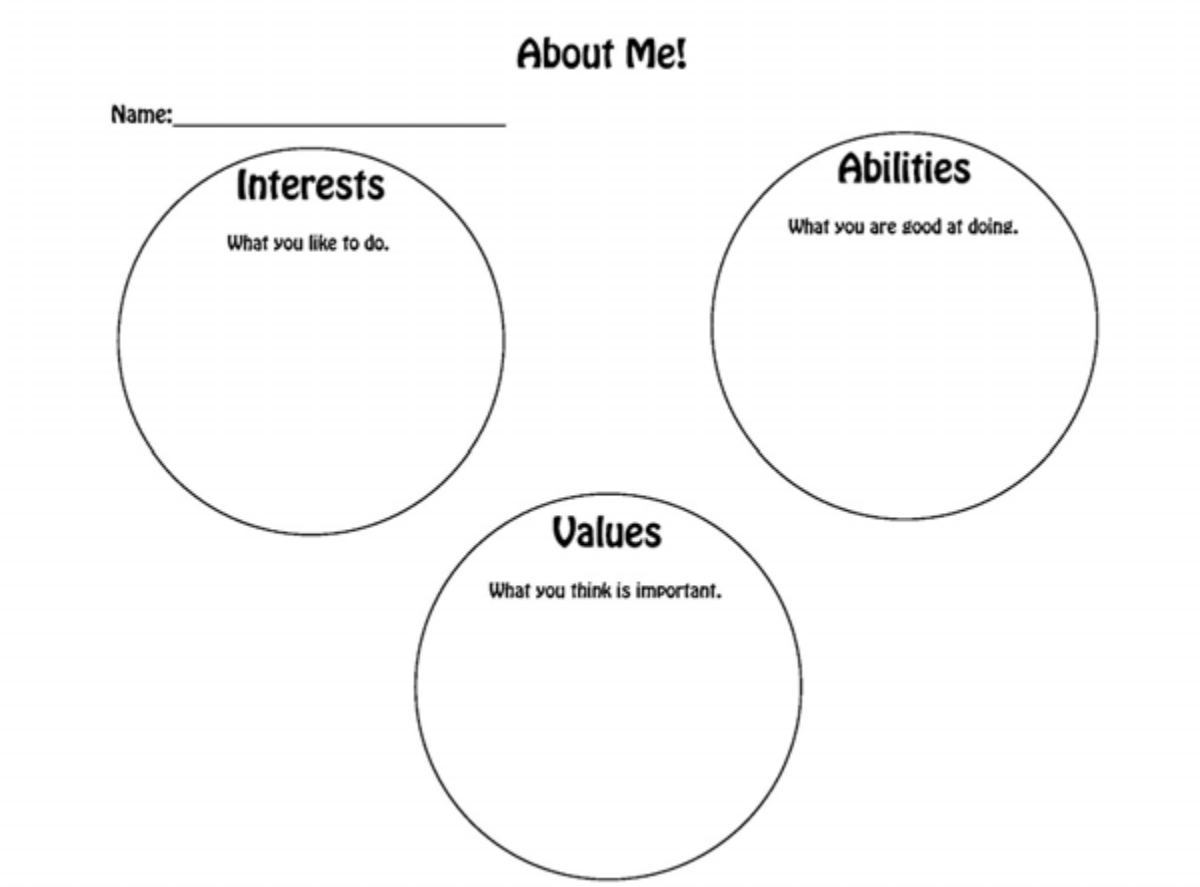
9. Smaller Class Size: TC/VSs tend to have smaller class sizes that allow for more one-on-one interaction with instructors and more personal attention for students.

10. Transfer Agreements: Enrolling in a TC/VS doesn't have to be a student's final destination. Many TC/VSs offer admissions agreements with public colleges that allow qualified students to transfer their credits toward earning a bachelor's degree.

Sources: http://www.educationcompass.com/advice-central/top-5-reasons-to-choose-a-vocational-education
http://www.blackhawk.edu/highschool/pdfs/Ten%20Great%20Reasons%20to%20Attend%20a%20Technical%20College.pdf

Appendix D: Redesigned College Access Curriculum

About Me Activity



Scavenger Hunt Lesson Plan

Name	Profession	College(s)	Ethnicity	Gender
Carrie Underwood	Singer-songwriter	Northeastern State University Degree: Bachelors of Mass Communication with a focus in journalism	White	F
Yo-Yo Ma	Cellist & Songwriter	Harvard University Degree: Bachelors of Liberal Arts	Asian	M
Roxanne Murphy	Bellingham City Council Member	Central Washington University Degree: BA in Communications The Evergreen State College Degree: Masters of Public Administration	Native American	F
Hilda Solis	US Secretary of Labor	California State Polytechnic University Degree: BA in Political Science University of Southern California Degree: Masters of Public Administration	White Hispanic	F
Michael Kors	Fashion Designer	Fashion Institute of Technology Degree: Fashion Design	White	M
Simone Manuel	Olympic Swimmer	Stanford University Degree: In progress	African American	F
Katie Brown	Teacher & ELL Specialist	Walden University Currently enrolled in Ed.D. program Seattle Pacific University Degree: Masters in Curriculum and Instruction Western Washington University Degree: BA in Cultural Anthropology & History	White	F
Bill Nye	Actor, Science Educator, Mechanical Engineer	Cornell University Degree: Bachelor of Science in Mechanical Engineering	White	M
Macklemore	Rap Singer	The Evergreen State College Degree: Bachelor of Music	White	M
Shaquille O'Neal	NBA Player	Louisiana State University Degree: BA General Studies/Poli- Sci University of Phoenix Degree: MBA Barry University Degree: Doctorate of Education	African American	M
Michelle Phan	YouTube Video Blogger	Ringling College of Art and Design Degree: Honorary Doctorate of Arts	Asian	F

Scavenger Hunt Lesson Plan

Ellen Ochoa	Astronaut & Engineer	San Diego State University Degree: Bachelor of Science in Physics Stanford University Degrees: MS in Electrical Engineering Doctorate in Electrical Engineering	White Hispanic	F
Emma Watson	Actress, Model, Activist	Worcester College - 1yr then transferred Brown University Degree: BA in English Literature	White	F
Raúl Ibañez	MLB Player	Miami-Dade Community College	White Hispanic	M
Barack Hussein Obama II	44th President of USA	Occidental College – 2 yrs. then transferred Columbia University Degree: BA in Political Science Harvard Law School Degree: Doctor of Law	African American	M

There have been 3,071 National Basketball Association players over the past 50 years. In that 50 years only 41 have been drafted out of High School without attending college. The rest of the 3,030 attended college.

The National Football League drafts out of college and only 5 well known players did not go to college: Ray Seals, Eric Swann, Sav Rocca, Michael Lewis, Lawrence Okoye.

Nearly 80 Percent of The 2016 U.S. Olympic Team Has Competed in College Sports – meaning they went to college.

Many rappers went to college 22 well known:

6. Flavor Flav, Adelphi University
8. Kanye West, Chicago State University
9. Lil Romeo, University of Southern California
10. Lil Wayne, University of Houston
11. Ludacris, Georgia State University
13. M.I.A, Central Saint Martin's College of Art + Design
14. P. Diddy, Howard University

Sample Scavenger Hunt Poster

Yo-Yo Ma

Photo of Yo-Yo Ma

Job: World-famous Cellist & Classical Songwriter
Birth: October 7, 1955 - Paris, France

High School: Juilliard School - New York City, NY

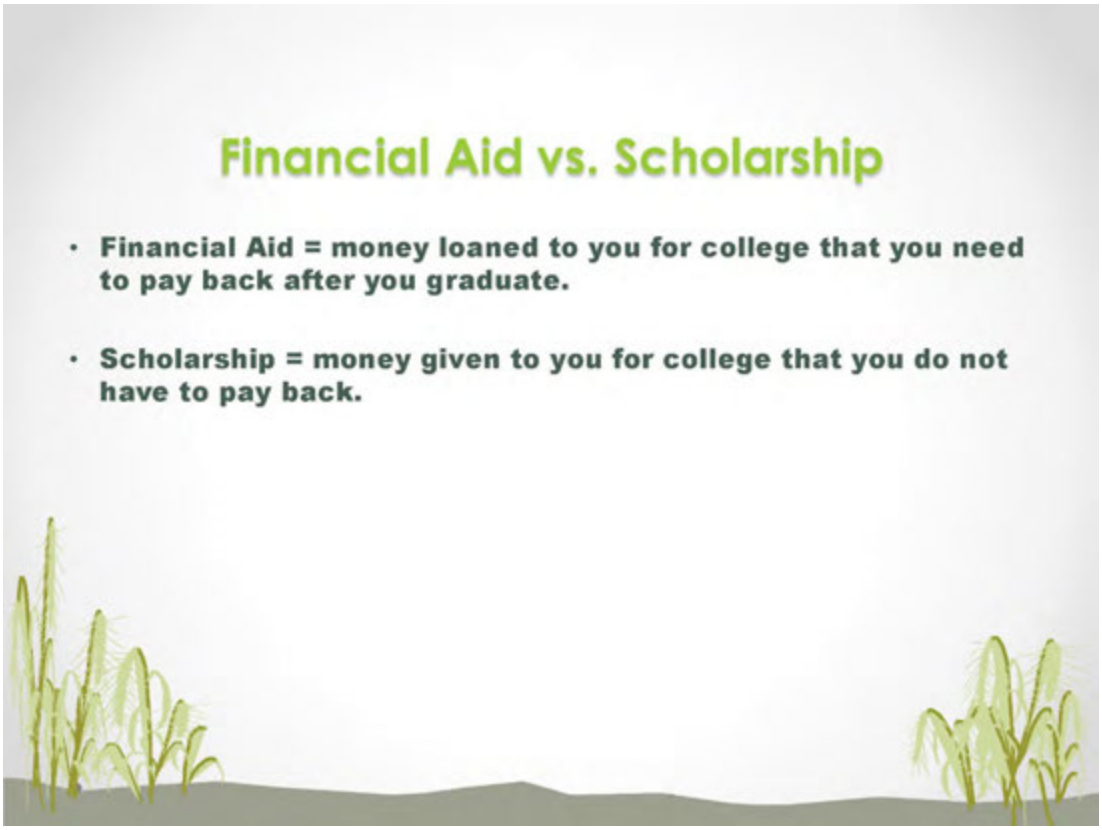
College: **Harvard University, Cambridge, MA**
Degree: Bachelors of Liberal Arts

Interesting Facts: He is a Chinese-American cellist who had his first concert at Carnegie Hall in New York City when he was only 9 years old.

Achievements: He has recorded 50 albums and collected more than a dozen Grammy Awards. He is also dedicated to bringing music into the lives of young people through education programs and family concerts.

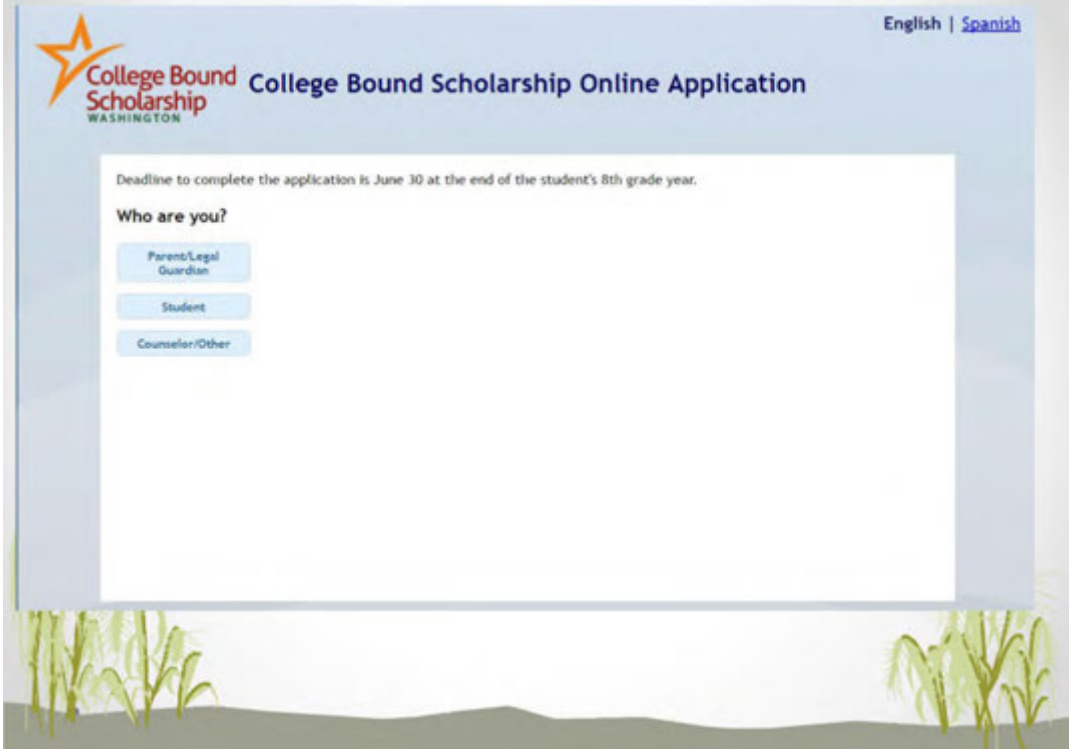
* Photo removed for copyright purposes

Paying for College PowerPoint



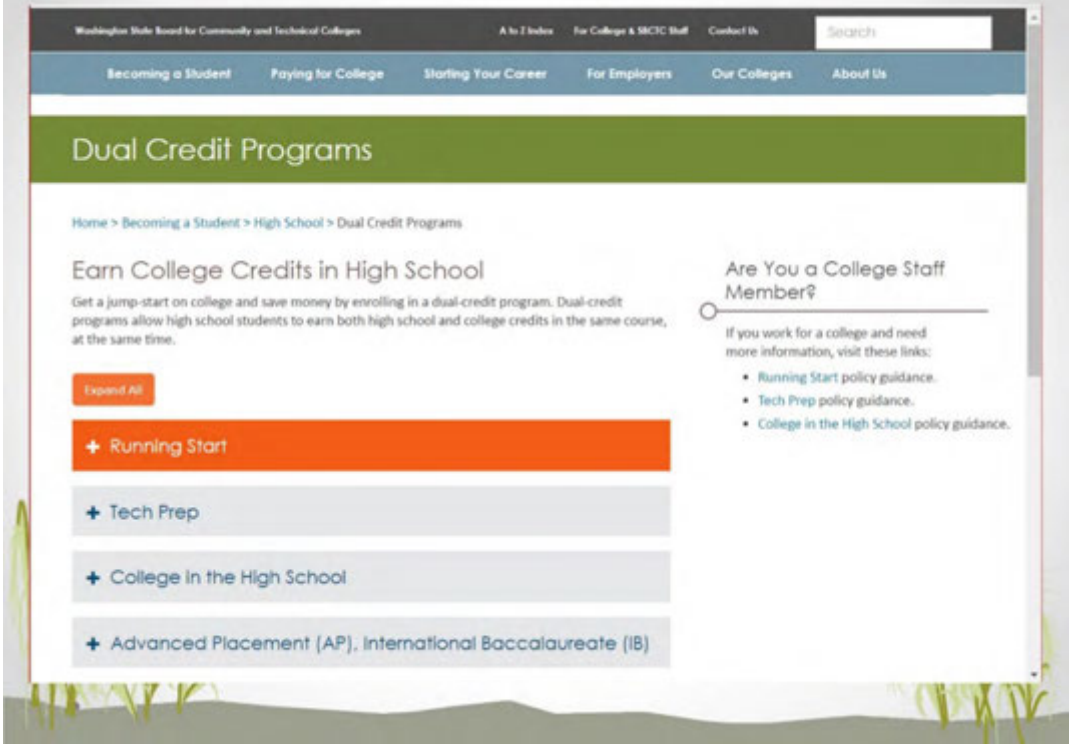
College Bound Scholarship – Washington

- **The College Bound Scholarship program is an early commitment of state financial aid to eligible students who sign up in middle school (7th or 8th grade) and fulfill the scholarship pledge.**



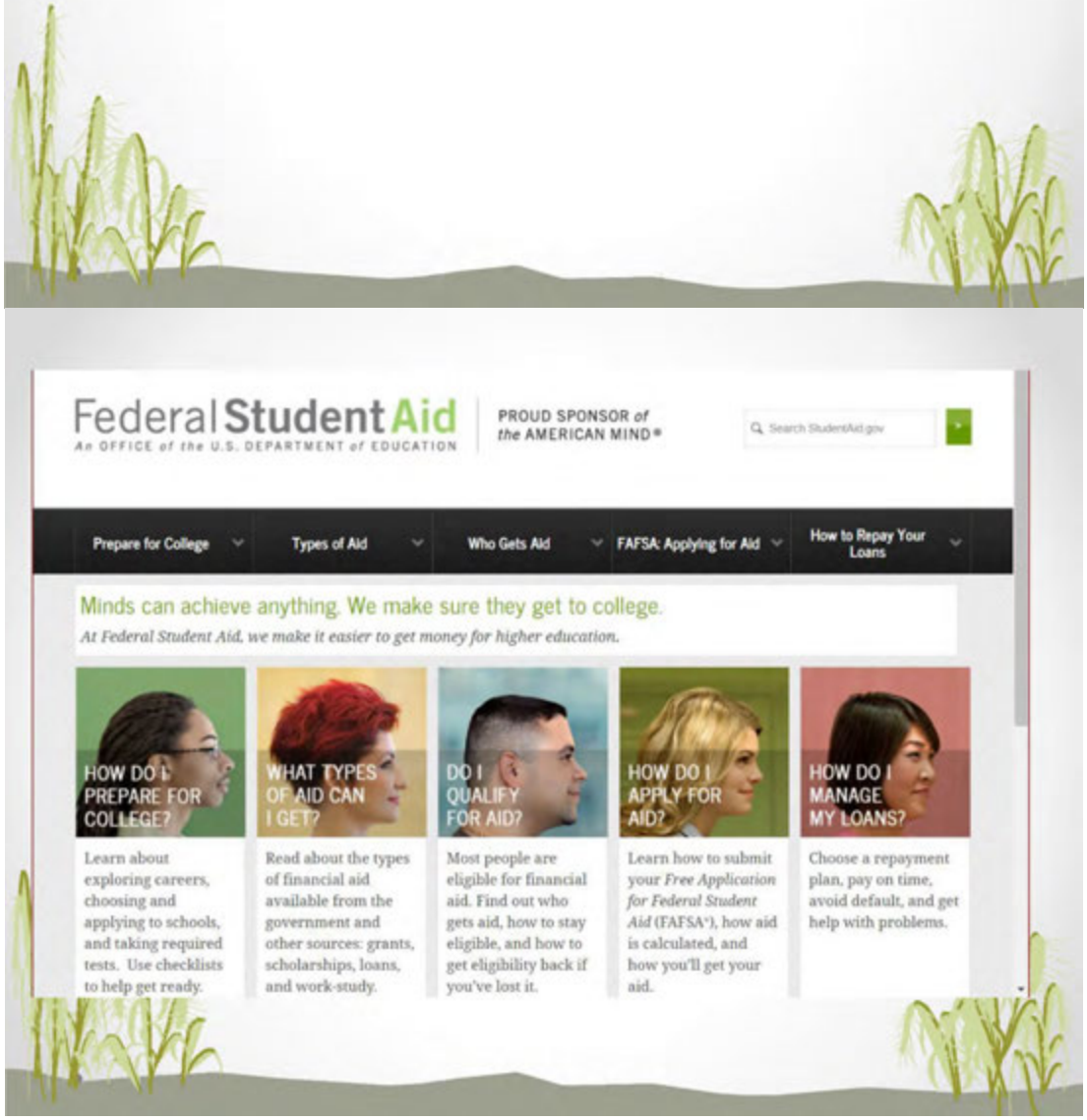
Running Start Program

- **Allows 11th and 12th grade students to take college courses at Washington's 34 community and technical colleges. Students earn both high school and college credits for these courses.**
- **Running Start students and their families do not pay tuition.**
- **They are responsible for mandatory fees, books and transportation.**



Federal Student Aid (FAFSA)

- **Free Application for Federal Student Aid**
- **Students who are USA residents and have a social security number.**
- **This application will automatically make you eligible for grants and loans through the federal government**

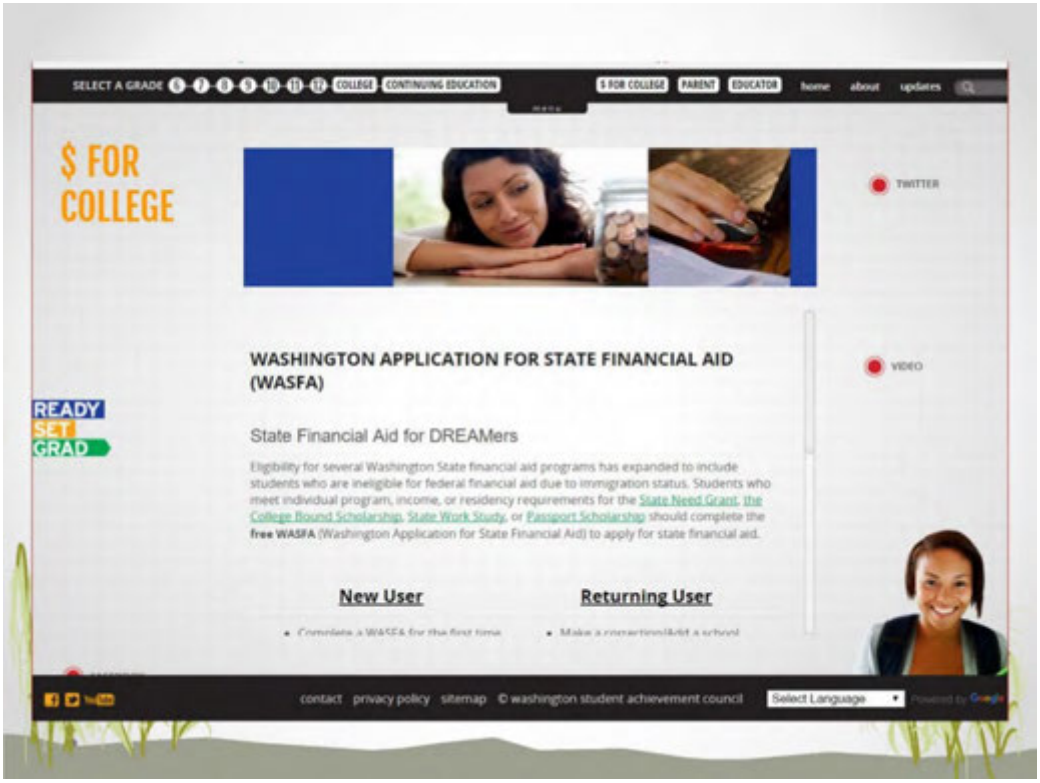


Work Study

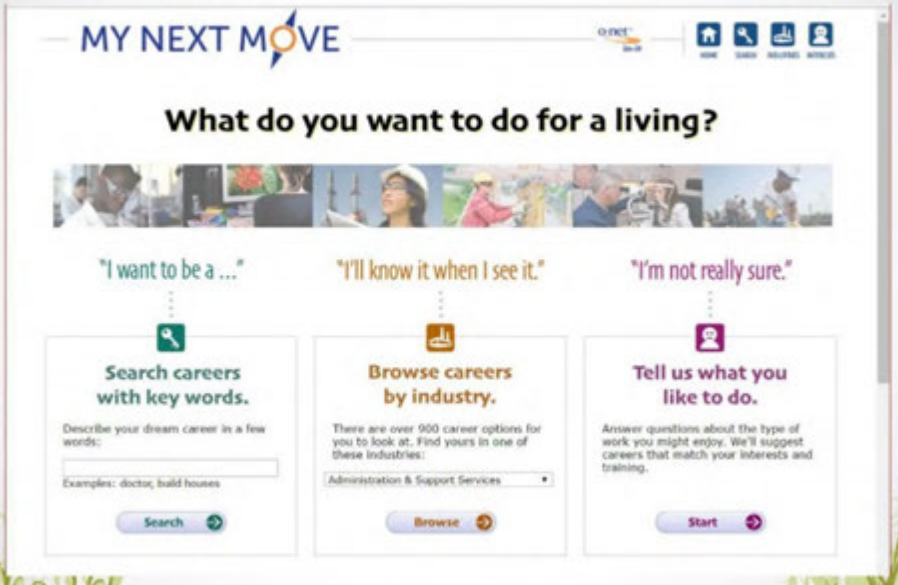
- Can sign up for Work Study as part of FAFSA application.
- Need to follow up with the Financial Aid dept at the college because you do not automatically get Work Study, have to apply again with the college you choose.

Washington Application for State Financial Aid (WASFA)

- State Financial Aid for DREAMers
- Eligibility for several Washington State financial aid programs has expanded to include students who are ineligible for federal financial aid due to immigration status.

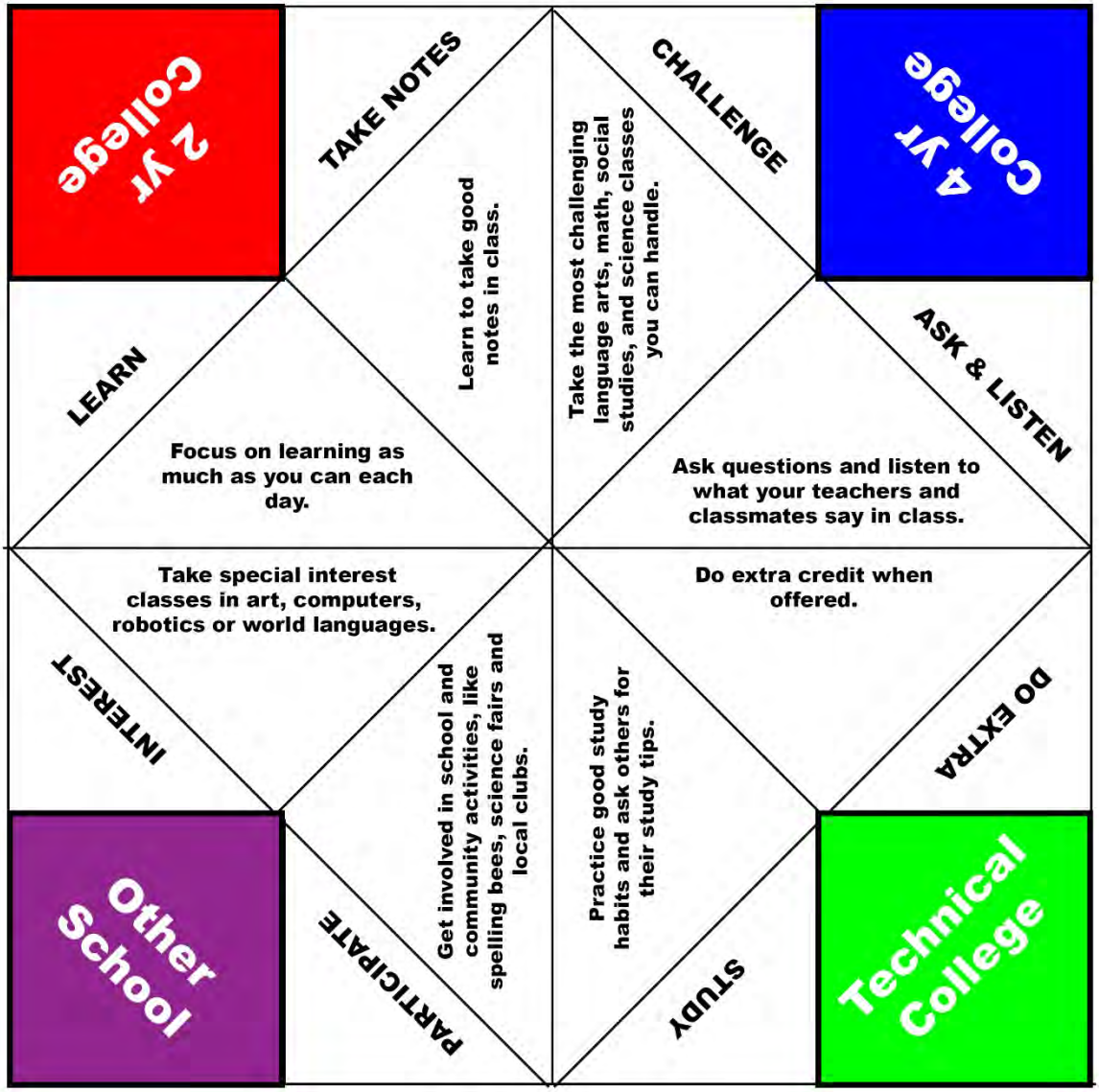

SELECT A GRADE
COLLEGE
CONTINUING EDUCATION
$ FOR COLLEGE
PARENT
EDUCATOR
home
about
updates
$ FOR COLLEGE
TWITTER
VIDEO
READY SET GRAD
WASHINGTON APPLICATION FOR STATE FINANCIAL AID (WASFA)
State Financial Aid for DREAMers
Eligibility for several Washington State financial aid programs has expanded to include students who are ineligible for federal financial aid due to immigration status. Students who meet individual program, income, or residency requirements for the State Need Grant, the College Bound Scholarship, State Work Study, or Passport Scholarship should complete the free WASFA (Washington Application for State Financial Aid) to apply for state financial aid.
New User
Returning User
contact
privacy policy
sitemap
© washington student achievement council
Select Language

Support Websites:



Support Websites:

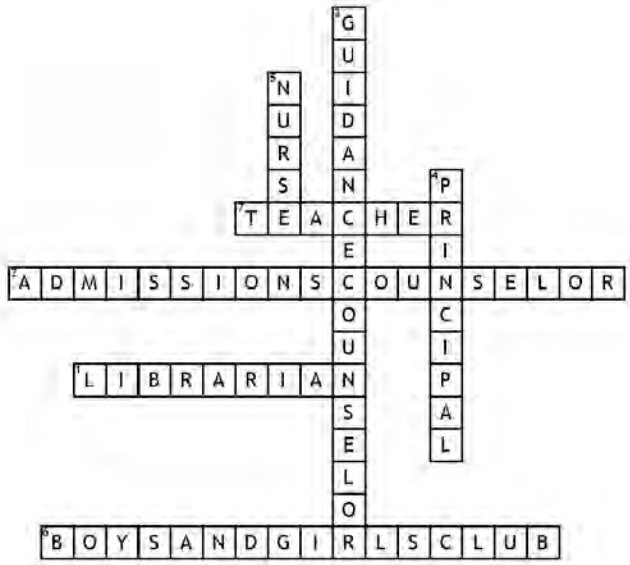
Middle School & College Fortune Teller Activity



Who Can Help Crossword Puzzle Activity (A to Z Teacher Stuff Tools, 2016).

Name: _____ Date: _____

Who can help?



Across

1. If you have to do a book report and can't find enough information.
2. If you are not sure which classes to take for the college you want to attend.
6. If you need help with homework.
7. If you do not understand what is going on in class.

Down

3. If you are not sure which classes to take next year.
4. If somebody is bullying you.
5. If you feel sick to your stomach.

Animals of the North Cascades Lesson Outline

For this lesson, there are 16 cards each with a different animal that lives in the North Cascades.

Animals from five of the basic groups live in there and we have made cards for some (quick facts to help answer simple questions)

Animal Group	Description	Card Border Color	Animals
Reptile	Cold-blooded, have scales on their dry skin and sometimes lay eggs.	Red	• Garter Snake – consumer. They eat to grow and don't create their own food.
Invertebrate	Cold-blooded, breath through their skin and lay eggs. They do not have backbones.	Orange	• Banana Slug - decomposers. They process leaves, animal droppings, moss, and dead plant material, and then recycle them into soil humus.
Mammal	Warm-blooded, have hair or fur and give birth to live young.	Green	All are consumers - They eat to grow and don't create their own food. • Black Bear • Black-tailed Deer • Bobcat • Douglas Squirrel • Gray Wolf • Wolverine • Townsend's Chipmunk • Coyote • Cougar
Amphibian	Cold-blooded, have moist skin, webbed feet and lay eggs. Live on land and in water.	Purple	• Pacific Giant Salamander – consumer. They eat to grow and don't create their own food.
Bird	Warm-blooded, covered in feathers, have wings and lay eggs.	Black	All are consumers - They eat to grow and don't create their own food. • Bald Eagle • Barred Owl • Rufous Hummingbird • Raven

Animals of the North Cascades Lesson Outline

After the NCI-MS presentation (start laying out the cards on a table as you give the instructions):

1. While you are up at MS you will be able to pretend to adopt an animal. I will put out cards for each animal type. There are 16 types of animals and two cards for each animal. Make sure you only chose one card each. When you get back to your seat with your animal card, write your name in the white box and then you get to name your animal like scientists do when they are observing Orca whales when they are observing them.
2. The row/table/small group that is the quietest and sitting up the straightest goes first.
3. Go through the remaining students the same way.
4. You don't need to bring the card up to MS. But between now and when you get up to MS, count how many times you see this animal. It doesn't have to be the real live animal; it could be a picture in a book or on the computer or TV.
5. Don't worry if you don't find the animal before you get up to MS. We will make a list of animals we saw during our stay.
6. See if you can remember the animals your classmates chose so you can tell them if you see their animal.
7. When you get back from MS you will get another card for your animal with more cool facts about them.

Animals of the North Cascades Cards

Gray Wolf	Townsend's Chipmunk	Wolverine	Black Bear
Picture of a Gray Wolf	Picture of a Townsend's Chipmunk	Picture of a Wolverine	Picture of a Black Bear

Bobcat	Common Raven	Douglas Squirrel	Black-tailed Deer
Picture of a Bobcat	Picture of a Common Raven	Picture of a Douglas Squirrel	Picture of a Black-tailed Deer

* Photos removed for copyright purposes

Animals of the North Cascades Cards

* Photo removed for copyright purposes

Types of Scientists and Science Jobs Lesson Plan

For this lesson, there are 13 double sided laminated cards with a picture related to the type of science on the front and a word cloud with words associated to the science and the scientist connected with the occupation.

Name of Science	Name of Scientist	Main Focus of Type of Science
Astronomy	Astronomer	Outer space, galaxy, universe, space travel. Related to MS because we can see the stars better here without the light pollution on clear nights.
Biology	Biologist	Study of living organisms and how/what they need to live. Related to MS because they are learning about different animals and their habitats – even sharing some of the animal's environments in the North Cascades. Also learning about web of life/forest community Producers, Consumers and Decomposers. Probably viewed some animal parts under the microscopes.
Botany	Botanist	Study of plants and nature. Related to MS because studying about types of trees, plants and biodiversity. Probably have viewed plant parts under the microscope.
Chemistry	Chemist	Understanding chemicals through research, analysis, evidence and experiments. Related to MS because there are chemicals that can harm nature. Learned about what makes a healthy habitat.
Computer Science	Computer Scientist	Using a computer to create the apps, programs and games we use for social media, work and play.
Environmental Science	Environmental Scientist	Study of nature and human impact on all natural systems. Topics include sustainability, recycling and composting. Relates to MS by measuring the wasted food each meal.
Geology	Geologist	Study of earth and the rocks that compose it. Related to MS because they are learning about different types of rocks: sedimentary, metamorphic and igneous.
Medicine	Doctor or Nurse, Pediatrician & Veterinarian	A person who helps in identifying or preventing or treating illness. Related to MS because they see pediatricians as their doctors and veterinarians treat animals.
Meteorology	Meteorologist (Weather person)	Study of weather and climate. Related to MS because they are out in the weather more than usual while attending MS and climate change affects everything at MS.

Types of Scientists and Science Jobs Lesson Plan

Oceanography/ Marine Biology	Oceanographer/ Marine Biologist	Study of oceans and the plants and animals that live there. Related to MS because they are studying about watersheds and how water that exists at MS is tied to the Pacific Ocean. Need to be careful about what goes into the water wherever you are because it is all connected.
Paleontology	Paleontologist	Study of dinosaurs and fossils. Related to MS because they have seen fossils in some rocks and could have viewed them under the microscope.
Physics	Physicist	Study of matter, energy, motion and force. Related to MS because they are studying the movement of glaciers, rivers and streams.
Zoology	Zoologist	Studies everything about animals, from their cells to the history of their evolution and habitat. Related to MS because they pretended to adopt an animal.

Steps:

1. Arrive to the microscope lab early to set up by making sure the materials that pertain to the MS Animals are on display – except for the bobcat and garter snake skin because they will probably all run over to it and might not handle it with the care needed.
2. After the MS Instructor tells students to sit down at a microscope and has provided directions about using the microscopes, the coach should go around and check that students have focused it correctly. When asked if the microscope is focused correctly, most students will say yes even though it is not – most have never used a microscope. Idea: Ask to see their cool specimen and then correct the focus and tell them that you found a different cool part to look at. There are 6 microscopes and typically 12 students so MS Instructors tend to appreciate the help because the students are all very excited at once.
3. Once the students are focused on the "Microscope Close up" assignment, remind the MS Instructor that you need 20 min at the end for your "Types of Sciences and Scientists" lesson.
4. Some MS Instructors will only introduce the microscopes; others will also show students frozen dead animals from the freezer.
5. When the MS Instructor says it is time for your lesson, gather the students in a circle in the center space inside the ring of microscope tables. Make sure that none of the students are sitting too close or behind you because they will see the answers on the back of the cards.
6. Show the students the picture side of the card and ask them to guess the type of science the picture represents. Let 3-6 students make guesses and then start providing hints if they have not guessed the science. You only want to spend a total of 1 min per card so keep it moving.
7. Turn over the card once they have guessed the science or have taken over 30 seconds. Say the type of scientist and what the main aspects are (see table above for hints) and ask students to see if they can find the words they guessed as part of the word cloud. Tell them how the type of science is related to what they are learning at MS (see table above for hints). If you still have time, ask students which words they think do not go with the type of science and then tell them why they do.

Types of Scientists and Science Jobs Lesson Plan

8. When you get to the last card, which should be zoology if you go through them alphabetically. When you finish the zoology card, ask students to find examples of the animal they adopted in the room. Circulate and discuss findings with them. Take out the Bobcat skin and tell them to pet it as gently at a real live cat. If you have time, explain why they don't have to wash their hands afterwards (because it was taxidermied and made sterile by that process). If you have more time, take out the garter snake skin and do the same. Return those items to their respective drawers before the next class comes in.
9. Remind the MS Instructor to talk about their career(s) and education on the way to their next activity.

Sample Word Cloud: Environmental Science (WordClouds.com, n.d.)

College Bingo Review Activity

B	I	N	G	O
Why College?	Community College	Read Questions Twice	STEM	Professor
State College	Financial Aid	Major	Ask & Listen	Homework Help
Help With Problems	Living Sustainability	Talk About College	Job or Career	Private College
Food Chain	Technical College	Bachelor's Degree	Associate's Degree	Vocational College
Graduate High School	Take Notes	Special Interests	Double Check	Transfer Student

How to Play:

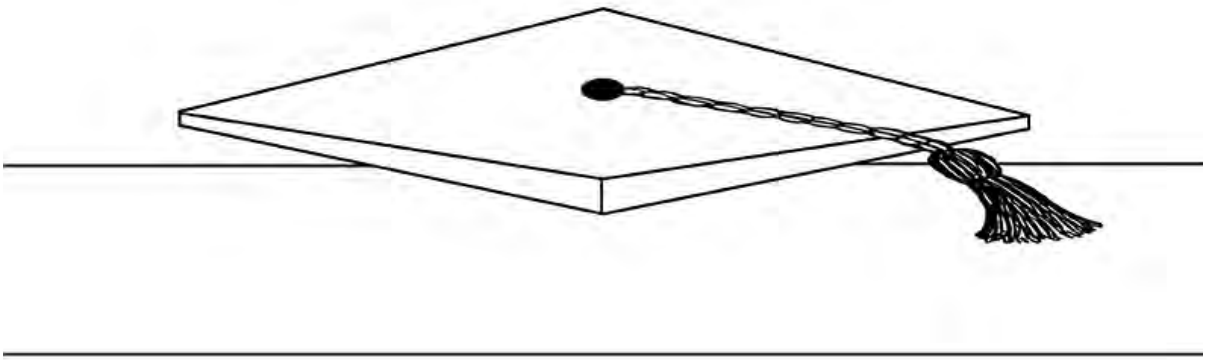
1. Cut out each answer so that each answer is on a separate sheet of paper.
2. Give every student a Bingo Board.
3. Pass out answer sheets to each student (if there are less than 25 students, read the sheets that are not passed out so everyone gets that space for free, if there are more than 25 students, give two students the same answer as needed)
4. Make sure they do not show their answer sheet to other students before the game starts.
5. On "go" students need to ask other students what answer sheet(s) they have.
6. To get an X for that Bingo space, they must write the student's name in the square.
7. The first person who gets five in a row vertically, horizontally or diagonally wins.
8. After the 1st BINGO, each student takes a turn reading their answer sheet(s) out loud to the class.

Answer Sheets
Why college? – College graduates tend to make more money, have more choices for jobs and tend to be happier doing their jobs.
Community College – A school that you go to after high school that offers classes leading to an associate's degree in 2 years. Some people go to community college for 2 years and then transfer to a 4-yr college to save money on earning a bachelor's degree.
Read Questions Twice – Read any instructions and questions twice before answering. For difficult multiple choice questions, lightly cross out the answers you know are wrong. Then re-read the question and remaining answers. Answer the easiest questions first - skip difficult ones for later.
STEM Careers – Science, Technology, Engineering and Math careers that include: Biology, Geology, Environmental Engineering, Computer Programmer and Math Teacher.
Professor – What teachers are called in college. You can meet with your professors if you have questions or difficulties with classes just like you can ask your teachers for help now.
State College – A college that is owned and run by one of the 50 states of the U.S. and costs less for students that live in that state. Washington examples are University of Washington, Western Washington University, Washington State University, Central Washington University, Eastern Washington University and The Evergreen State College.

Financial Aid – It is money to help a student pay for college. It could be a scholarship (which does not have to be paid back), a loan (which does have to be paid back), or a job through work study. In 7th grade students can sign up for a College Bound Scholarship which is the first type of financial aid you can get.
Major – The subject you study in college to get your degree. Most of the classes you take will be for your major.
Ask and Listen – To get better grades, ask questions and listen to what your teachers and classmates say in class.
Homework Help – If you have trouble doing your homework you can ask your teacher, family members and people at local clubs like YMCA or Boys & Girls Clubs for help. Some schools have other places that you can go for homework help.
Help with Problems – If you have any problems at school or at home, you can talk to your teacher, counselor, school nurse, Principal, friends, family members and people at local clubs like YMCA or Boys & Girls Clubs for help.
Living Sustainability – Means we need to look at the way we are living to make sure that all people in the world can have happy, healthy lives without threatening the future well-being of people and the planet.
Talk About College – It is good to talk about college with your friends, family, teachers and counselors so that you can take the right classes to get into the college you choose. You can also contact colleges directly for help knowing what you need to do to get in.
Job or Career – Is what you will do to make money. If you go to college, you will have more choices for jobs, tend to make more money and tend to be happier doing your job. Also, jobs that you need a college degree for tend to offer health care benefits for you and your family.
Private College - The term "private" means that the college's funding comes from tuition, investments and private donors, not from the state.
Food Chain – The relationship between plants and animals in an ecosystem. At Mountain School, we learned about the role of Producers, Consumers and Decomposers.

Technical College – Usually a 2-yr college program providing classes in hands-on subjects, such as information technology, applied sciences, engineering, agriculture and secretarial skills.
Bachelor's Degree – The college degree you earn after 4 years of attending college.
Associate's Degree – The college degree you earn after 2 years of attending college.
Vocational College - A vocational college that is sometimes called a trade school or vocational school, is where they teach classes about jobs such as car repair, carpentry, plumbing, and construction or other skills needed to do a specific job.
Graduate High School – What you need to do to go to any college.
Take Notes – Learning to take good notes in class is one of four things on this Bingo board you can do to get better grades. Can you find the other three?
Special Interests - Take special interest classes in art, computers, robotics or world languages. Get involved in school and community activities, like spelling bees, science fairs and local clubs.
Double Check - Always double check your answers if you have time. Always turn your paper over to check for extra questions.
Transfer Student – A student who starts their degree at one college (usually a 2-yr community college) and finishes their degree at a different school (usually a 4-yr college) to save money.

Graduation Cap



Appendix E: Human Subject Approval Documents

WESTERN WASHINGTON UNIVERSITY

INSTITUTIONAL REVIEW BOARD

APPROVAL FOR USE OF HUMAN SUBJECTS

TYPE OF REQUEST: ☒ new ☐ continuation ☐ modification

PROTOCOL NUMBER: 16-022

INVESTIGATOR(S): Wendelin Dunlap

DEPARTMENT: Huxley

PROJECT TITLE:

Will using funds of knowledge and growth mindset frameworks in teaching environmental science

APPROVAL PERIOD: 4/10/2016 – 4/9/2017

NUMBER OF SUBJECTS: unknown

APPROVED INFORMED CONSENT FORM ATTACHED: ☒ Yes ☐ No

Approved by Janai Symons Date April 10, 2016

Janai Symons
Institutional Review Board

Comments:

Note: Approval is for the period specified above. A protocol renewal form will be sent to you prior to the expiration of this approval period. If there are any adverse events or changes in the research procedures affecting the use of human subjects in this project during the current period, the HSRC must be notified immediately.

WESTERN
WASHINGTON UNIVERSITY

Permission Slip

Hello, my name is Wendelin Dunlap and I am a graduate student at Western Washington University studying Environmental Education. I am also the coordinator of an exciting new program from Western that tells 5th graders about educational and career opportunities after they graduate from High School. Studies show that students who hear about options that require a High School diploma in elementary school tend to become more interested in their grades and accomplishments.

As part of this program, we ask students to complete a short 8 question initial survey (8-10 minutes expected) and short 12 question survey (10-15 minutes expected) at the end. Student are assigned a number by their teacher as part of this program. Their real name is never linked to the answers they provide on either survey or on this permission slip. The anonymous survey data that is collected will be used to analyze and improve the quality of our program. It will also be used in a study to recognize the best way to present post-High School information for elementary students so they are encouraged and engaged. This signed permission slip will be seen only by the student's teacher and me. I will keep it in my locked filing cabinet and never shown to anyone.

Since students will remain in their regular classrooms and only need to fill out 2 paper surveys as part of this study. One possible benefit is that your child may have a better understanding educational and career opportunities after they graduate from High School.

Your child does not have to fill out either survey as part of their school work and may stop either survey at any time or choose not to answer any questions. If you sign this permission slip, you are not giving up the right to protect your child. If you have any questions about your child being a part of my research or their right to be protected, you can contact the WWU Human Protections Administrator Janai Symons (HPA), (360) 650-3220. If during or after being in this study your child suffers from any difficulties as a result of being in my study, please notify me (Wendelin: 360-920-2008, Wendelin.Dunlap@wwu.edu) or the WWU Human Protections Administrator.

****

Yes, my child _____ (name) can be a part of this study.

_____

Parent's Signature

APPROVED
BY HSRC

DATE 4/10/16