2012 WV eMentoring Formative Evaluation Report

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Report generated by

Program Evaluation and Research Center (PERC) of the

College of Human Resources and Education at West Virginia University

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Executive Summary

PERC brings together expertise in program evaluation, research design, data analysis, and dissemination of findings to support the implementation and evaluation of education-related endeavors throughout West Virginia (http://perc.hre.wvu.edu/). We conduct research and evaluation to inform the work of practitioners and policymakers concerning the efficacy of existing programs and the needs of specific populations for improvement of educational and social outcomes. As one component of this mission, PERC has been working closely with Education Alliance to provide educational research and evaluation in support of their vision that "Every West Virginia public school student will graduate from high school college or career ready."

This report provides analysis of two broad categories of data aimed at informing continuous quality improvement efforts for the WV eMentoring project. The first source is primarily quantitative, consisting of website and curricular materials usage statistics and related surveys. The second source is primarily qualitative, consisting of expert curricular reviews from a panel PERC assembled, as well as reviews from a grant proposal to the National Institutes of Health that featured the WV eMentoring curricular materials.

The first of these data sources is data collected through the online WV eMentoring portal hosted by SmartFutures (www.smartfutures.org). PERC worked with David Mosey at SmartFutures, initially requesting November 7, 2011 all West Virginia student and mentor online materials and survey completion related data points from the previous year. We continued to request clarifications regarding the coding and specifications of variables and values in the datafile, including identification of career clusters / pathways and the directionality of Rosenberg Self-Esteem and other Likert-type scale items through April 2012 and received only partial specification. The analysis of this data indicates areas where we remain uncertain regarding such specification. The online portal data revealed that students who participated in this project overall had high aspirations to pursue postsecondary education prior to beginning the program. Participants' responses regarding their plans after high school graduation showed slight increases upon completing the program. Student perceptions related to self-esteem did not increase significantly. Similarly, attitudes toward specific areas of eMentoring impact were negative, but overall scores for program effectiveness were positive casting some doubt on the coding of specific area responses. Open ended responses clarified that participant found building personal connections with their mentors, exploring career plans, and preparing for college to be the most valuable aspects of the program. Participants shared some concerns related to program structure. The accessibility of the online platform was an issue at times and some participants described the activities as not appealing and irrelevant. They offered suggestions for improvement that included expansion of the number of career fields represented and available mentors.

The second data source included in this report is reviews of eMentoring curricular materials by experts in the fields of traditional and online mentoring, as well as reviews of a National Institutes of Health grant proposal. PERC identified experts through literature review, ensuring equal numbers of experts from traditional and online mentoring fields, and provided 8 experts with a $200 honorarium for detailed reviews of at least 3 of the 10 eMentoring activity files. Activity files were assigned to ensure that at least two experts reviewed each activity. Reviewers had many positive comments about the strength of the eMentoring program and its components. The overall theme from reviewers' comments on the program's strength was its ability to encourage participants to contemplate their future options and open them up to opportunities

with which they were not previously aware. Recommendations from reviewers included three common themes: more structure for mentor/mentee interaction, more resources for mentees, and upgrades to the overall presentation of the program. NIH grant proposal mentors also praised the utilization of online social media, but suggested that the online program should capitalize better on the potential of social media to interactively engage mentors and mentees in real time.

Across all information sources described in this report, the picture that emerges is that of an innovative WV eMentoring program rolling out with many areas of strength, but also several areas of opportunity for continuous quality improvement. The quantitative measures did not reveal strong impact of the program, but there are several complicating factors that argue for more reliance on qualitative data at this point. These include incomplete specification of quantitative coding in the online data collection system and a ceiling effect with youth starting the program with relatively high aspirations. That ceiling effect may suggest that the most "at risk" youth have not yet been engaged in the program. Qualitative data in the form of both open ended survey responses from youth and expert reviewer feedback on curricular materials was more positive. The basic model of utilizing online social media to connect high school students with adults working in industries those youth might pursue so that youth better understand the realities and requirements of those jobs/professions has tremendous potential. The curricular materials as currently configured are strong, but should capitalize even more on the potential of emerging social media capacities to engage youth and connect them with mentors. Social support before, during, and after the program has not been revealed by the data sources described here, but is likely critical to translating the great potential of this program into clear and demonstrably impact on those high school students who need it most.

WV eMentoring Online Portal Data

This section provides an analysis of data collected through the WV eMentoring online portal. Participant demographics and analyses of information provided by program mentees are included. The analytical portion of the report includes three sections. The first focuses on participants' expectations and plans in regards to their academic and career futures after high school completion. Statistical analyses are implemented to examine change in mentee's responses across time. This area is assessed at the beginning of the program and at its conclusion. The second area refers to the participants' perceptions of self. Ten items based on the Rosenberg Self-Esteem Scale were included in the "My Feelings about Myself" section. This element of the evaluation instrument was assessed at two points of time during the program to study any changes in the mentee's self-esteem. The final section was administered at the end of the mentoring relationship only and included evaluation directly related to the effectiveness of the program as perceived by participants. This section includes multiple choice and open ended questions regarding participants' experiences.

The WV eMentoring initiative engaged 98 mentees who initiated online accounts between January 24, 2011 and February 8, 2012, of whom 54% were female and 46% were male. The student class standing was spread predominately over two years. According to expected graduation year participants provided in their online profiles, there were 52 rising juniors (53.1%) expecting to graduate in 2014, 45 rising seniors (45.9%) with expected graduation in 2013, and one current senior (1%) graduating in 2012.

Plans and Expectations after High School

The first large section of the evaluation instrument consisted of questions related to the mentees' personal plans after completing high school as well as expectations in terms of the highest degree to be completed and their financial position in ten years. The questions in this area were scored before and after the eMentoring relationship to assess any attitudinal change. All of the questions listed in this section were multiple choice questions.

Table 1: Participants' plans following high school.

	Pretest		Posttest	
	Frequency	Percent	Frequency	Percent
No Plans	3	3.1	0	0.0
Enroll in 4 year college	85	86.7	83	84.7
Enroll in 2 year community college	5	5.1	6	6.1
Job training program or apprenticeship	2	2.0	3	3.1
Go directly to work	2	2.0	4	4.1
Start a family	0	0.0	1	1.0
Take time off	1	1.0	1	1.0
Total	98	100.0	98	100.0

The first question in the survey was related to the mentees' immediate plans after graduating from high school (see Table 1). It is interesting to note that even before the start of the program, the vast majority of the mentees (86.7%) answered that they plan to enroll in a 4 year institution. These high initial aspirations suggest that the most "at risk" youth have not yet been engaged in the program. While the number of mentees who expressed readiness to enroll in a 4-year college went down slightly (84.7%) at posttest, it is important to note that mentees who expressed no specific plans in the pretest shifted to one of the more concrete options.

The following ranking system was utilized:

> 1-- enroll in 4-year college
>
> 2 -- enroll in 2-year or community college
>
> 3 -- job training program or apprenticeship
>
> 4 -- go directly to work
>
> 5 -- start a family
>
> 6 -- take time off
>
> 7 -- no plans

A closer examination of the ranking for each student who switched their response shows the following eleven changes:

1. From "no plans" to "enroll in 2-year or community college"
2. From "enroll in 2-year or community college" to "job training program or apprenticeship"
3. From "enroll in 4-year college" to "job training program or apprenticeship"
4. From "enroll in 4-year college" to "2-year or community college"
5. From "no plans" to "take time off"
6. From "no plans" to "start a family"
7. From "take time off" to "go directly to work"
8. From "go directly to work" to "enroll in 4-year college"
9. From "enroll in 2-year or community college" to "go directly to work"
10. From "enroll in 4-year college" to "enroll in 2-year or community college"
11. From "job training program or apprenticeship" to "go directly to work"

While 5 participants switched to a higher rank and 6 participants shifted to a lower rank, 87 participants did not change their response from the pretest to the posttest. A Wilcoxon signed-rank test revealed no significant change from pretest to posttest across participants in their plans after high school (Z= -.542, p>.05).

Participants were also asked the highest level of education they hoped to complete using the following options with corresponding ranks.

    1 -- Doctorate

    2 -- Master's Degree

    3 -- 4 year degree

    4 -- 2 year degree

    5 -- Some training

    6 -- No additional education

The majority of mentees answered that they would like to achieve a "4 year degree", "Master's degree", or "Doctorate" with relatively little change across time (see Table 2). There was some upward movement consisting of a small decrease in the number of participants who sought a 4 year degree and an increase in the number of answers corresponding to "Master's degree" and "Doctorate degree." In addition, the one participant who answered "No additional education" in the pretest planned to pursue additional training or a degree after participating in the program.

Table 2: Participants' expected educational attainment.

	Pretest		Posttest	
	Frequency	Percent	Frequency	Percent
Doctorate	22	22.4	28	28.6
Master's degree	35	35.7	36	36.7
4 year degree	34	34.7	28	28.6
2 year degree	2	2.0	2	2.0
Some training	4	4.1	4	4.1
No additional education	1	1.0	0	0.0
Total	98	100.0	98	100.0

Table 3 lists the number of changes in the participants' answers from pretest to posttest. There were 21 mentees who indicated higher educational attainment at posttest in comparison to their answers in the pretest. There were 10 participants who selected lower attainment in their posttest. A total of 67 mentees did not change their selections. The Wilcoxon signed-ranks test revealed a small effect such that significantly more mentees increased their educational attainment goals ($Z=-2.16$, $p<.05$, $r=.22$).

For the purpose of matching a participant with a mentor in their field of interest, the program recorded the career cluster that participants were interested in. The frequencies of the career cluster distribution are listed in Table 4. The top three areas that mentees chose included 1) Health Science, 2) Science, Technology, Engineering & Mathematics, and 3) Don't Know.

Table 3: Pretest to posttest change in highest degree obtained expectations.

	N	Mean Rank	Sum of Ranks
Negative Ranks (Posttest<Pretestt)	21	16.71	351.00
Positive Ranks (Posttest>Pretestt)	10	16.50	145.00
Ties (Posttest=Pretestt)	67		
Total	98		

Table 4: Participant career cluster areas.

	Frequency	Percent
Health Science	26*	26.5
Science, Technology, Engineering & Mathematics	16*	16.3
Don't Know	11*	11.2
Business, Management & Administration	9	9.2
Education & Training	9	9.2
Human Services	6	6.1
Arts, Audio/Video Technology & Communications	5	5.1
Law, Public Safety, Corrections and Security	5	5.1
Agriculture, Food & Natural Resources	4	4.1
Architecture & Construction	3	3.1
Hospitality and Tourism	2	2
Transportation, Distribution & Logistics	2	2
Total	98	100.0

*Top three most selected career clusters.

The participants ranked their confidence in having a well-paying job in 10 years. The following options and ranks were included as answers to this question:

> 1 – not confident
>
> 2 – slightly confident
>
> 3 – somewhat confident
>
> 4 – mostly confident
>
> 5 – very confident

Initially high pretest scores (M=4.15, SD=.88) increased slightly at posttest (M=4.26, SD=.78), but the Wilcoxon signed-ranks test revealed that this change was not significant (Z=-1.33, p>.05; Table 5).

Participants also indicated at pretest and posttest their expected salary in 10 years (see Table 5). While most participants changed their responses from pretest to posttest, 24 had lower ranked responses in the posttest compared to their pretest, and 35 participants switched from lower ranked responses in the pretest to higher ranked option in the posttest. The Wilcoxon signed-ranks test confirmed that average change was not significant (Z=-1.65, p>.05; see Table 6).

Table 5: Expected salary in 10 years.

	Pretest		Posttest	
	Frequency	Percent	Frequency	Percent
$0-$20,000	3	3.1	1	1.0
$20,000-$40,000	11	11.2	5	5.1
$40,000-$60,000	19	19.4	29	29.6
$60,000-$80,000	25	25.5	18	18.4
$80,000-$100,000	21	21.4	19	19.4
$100,000-$150,000	11	11.2	17	17.3
over $150,000	8	8.2	9	9.2
Total	98	100.0	98	100.0

Table 6: Pretest to posttest salary expectation change.

	N	Mean Rank	Sum of Ranks
Negative Ranks (Posttest<Pretestt)	24	28.10	674.50
Positive Ranks (Posttest>Pretestt)	35	31.30	1095.50
Ties (Posttest=Pretestt)	39		
Total	98		

Rosenberg Self-Esteem Scale

The second major area that was assessed was the "My feelings about myself" section. It included ten items from the Rosenberg Self-Esteem Scale (Rosenberg, 1965). This measure used the following response coding : 4 – Strongly Disagree, 3 – Disagree, 2 – Agree, 1 – Strongly Agree. Some of the items given below were reverse coded so that lower scores indicated less difficulty with self-esteem (i.e., higher self-esteem).

1. On the whole, I am satisfied with myself.

2.* At times, I think I am no good at all.

3. I feel that I have a number of good qualities.

4. I am able to do things as well as most other people.

5.* I feel I do not have much to be proud of.

6.* I certainly feel useless at times.

7. I feel that I'm a person of worth, at least on an equal plane with others.

8. * I wish I could have more respect for myself.

9. * All in all, I am inclined to feel that I am a failure.

10. I take a positive attitude toward myself.

*Item was reverse coded.

Both pretest and the posttest scores demonstrated adequate internal consistency (Cronbach's α=.86 and .85, respectively). Aggregate variables that measured average self-esteem across all items were created. These variables utilized reverse coding for appropriate items. Average self-esteem at pretest was 1.70 (SD=.44) with only a slight improvement at posttest (M=1.67, SD=.45). A paired samples t-test indicated that the change from pretest to posttest was not significant, t(98)=.763, p>.05. We also examined all individual item means for change across time and found no significant differences. Participants' relatively high self-esteem at pretest may partially explain the lack of significant improvement.

Mentee Perceptions and Feedback

The third area addressed mentees' perceptions and feedback about their experience as a participant. These questions were assessed at the end of the WV eMentoring relationship and include both multiple choice and open-ended questions addressing different aspects of the program following the prompt, "Participating in eMentoring has helped me". The section consists of ten questions using a scale ranging from 1 (Strongly agree) to 4 (Strongly disagree) with 5 (Did not use program for this purpose). Responses of 5 were coded as missing data so that they did not impact average scores. Table 7 displays the average and standard deviation for each individual item. Only 69 mentees completed all ten items (excluding "did not use the program for this purpose"), and the number of the valid answers varied from 81 to 98 across individual items.

Lower scores indicate stronger agreement with these statements and a 2.5 should be considered neutral. Four items had averages between strongly agree and agree. These were items with content most central to the program goals: "Understand the future career options available to me.", "Identify careers that interest me.", "Understand what future training or education is needed for different careers.", and "Have a more positive attitude about my future". Only improvement in writing skills was disagreed with on average.

Table 7: "My Thoughts about eMentoring" item ratings

Participating in eMentoring has helped me:	N	Mean	Std. Deviation
Identify careers that interest me.	93	1.89	.744
Better understand myself and my abilities.	93	2.11	.814
Have a more positive attitude about my future.	94	1.94	.759
Improve my writing skills.	81	2.62	.830
Understand the future career options available to me.	98	1.83	.689
Identify high school courses necessary to pursue potential careers.	90	2.14	.855
Understand what future training or education is needed for different careers.	98	1.91	.747
Have higher expectations for myself.	95	2.09	.888
Have a better attitude toward school.	91	2.16	.898
Feel that I have a better support system and more adults who care about me.	87	2.14	.824

Participants also were asked to rate the overall effectiveness of the eMentoring program and the overall effectiveness of their mentor using the following scale: 1-Excellent, 2-Good, 3-Satisfactory, 4-Poor. Lower scores reflect a more positive evaluation from participants. Based on 98 participants in this dataset, the program scored in the excellent to good range (see Table 8) with over 50% of participants rating the program as good and their mentor as excellent (see Table 9).

Table 8: Overall satisfaction with WV eMentoring program and mentor (n=98)

	Mean	Std. Deviation
Please rate the overall quality of the eMentoring program in terms of its value to you as a young adult.	1.99	.793
Please rate the overall quality of your eMentor in terms of his/her value to you in completing this program.	1.76	.953

Table 9: Overall quality of the eMentoring program and mentor.

	Program		Mentor	
	Frequency	Percent	Frequency	Percent
Excellent	26	26.5	50	51.0
Good	52	53.1	31	31.6
Satisfactory	15	15.3	8	8.2
Poor	5	5.1	9	9.2
Total	98	100.0	98	100.0

A set of four open ended questions were also included in the evaluation section. The participants were prompted to identify the most and least valuable aspects of the eMentoring program, as well as any recommendations regarding improvements. Also, participants had an opportunity to provide any additional comments. Responses to these items were examined with qualitative content analyses to cluster similar responses across participants. The clusters from those analyses and exemplary responses in each cluster are described below.

When asked about the most valuable aspects of the program, participants' answers fell into one of four categories: "learning about job/career opportunity", "interaction with the mentor", "learning/preparing for college", and "future/after school plans." About half of the participants described their interaction with their mentor as the most valuable experience for them. Sample responses in this category included:

> "I think that getting to actually talk to someone is nice, and hearing insight about the workplace from that person."

> "The most valuable thing about eMentoring was being able to work and communicate with a working professional. Talking and learning their advice on a more personal level added a unique learning experience."

> "I love the fact that you can talk to someone in your preferred career. It really helps to understand the day to day life of an engineer is."

Mentees emphasized that the connection with their mentor was extremely helpful in getting an insight about professional aspects of life. They also pointed out that first-hand experience their mentor provided was very important. Within this relationship they discovered not only more information about their career field but also received recommendations about the path to take to achieve their goals.

The second predominate emphasis in open-ended responses was on the exploration of career options. Almost a third of the participants mentioned learning about different careers as very valuable for them. They shared that these insights played a significant role in determining appropriate careers for them in the future. Some participants mentioned:

> "The most valuable thing about eMentoring is that you get to look at the different career choices and choose one that best fits you and what you are thinking about doing."

> "Opened my eyes to a wider variety of jobs out there."

> "I think that the most valuable thing about eMentoring is how it helps you further determine your career goal."

In addition, about a third of the mentees said their experience impacted their future school plans. They said that not only identifying a specific career but also evaluating the options available after high school graduation was important.

> "Choosing what we want to do after school and how to get there."

> "The most valuable thing about eMentoring to me is that it makes mentees take the time to think about their futures and where they want to be in 10 years."

> "The most valuable thing about eMentoring is it has helped me think more of my future and it has pushed me to work even harder then I already do."

Another important aspect that developed through the program was learning and preparing for college. Participants noted that as a result of their participation they had clear direction regarding what courses to take and what degree they needed if they were to follow a certain career path.

> "It informed me of the classes and colleges I need to achieve my career."

> "They can help you with college planning and other ideas for after high school activities."

> "This program has helped me explore my options for college and has really helped give me an idea about my future. It has provided me with information about college and classes, courses, and things to pursue."

The second open ended question explored the aspects mentees liked least about the program. The two major themes that emerged from participants' responses in relation to least valuable aspects of the program were the activities they had to complete and the presence of limited/irrelevant information. About a quarter of the participants pointed out that the activities were "boring", "repetitive", or "not appealing." Participants seemed to perceive activities as having limited relevance for their experience or chosen career cluster. In addition, some mentees mentioned that they were exposed to information that was irrelevant or too limited for their career focus. For example, one participant mentioned that there was information about military that was not applicable to his/her case. Another comment targeted the limited number of colleges described and expressed a desire to have more colleges represented. A few of the participants pointed out technical difficulties they experienced in terms accessibility from different computers and that they had to reload some of the material to be able to access it. Some participants described poor experiences with their mentors in terms of a match with a mentor they did not feel was competent to answer their questions or often would not respond to them.

> "The least valuable thing was emailing my mentor. She did not respond once."

> "The least valuable thing about eMentoring is that when you needed for your mentor to message back he never did so therefore he was no help to me at all."

> "My mentor did not reply to my messages."

Another issue that was mentioned by a few of the participants was the timing of the activities. One participant shared that he/she was done with the activity early but was not allowed to move further at his/her own pace. A different participant said not being able to communicate on a daily basis with their mentor was a drawback.

In the recommendations section, feedback was focused specifically on the mentors and the structure of the program. Many participants recommended an increase in the number of mentors and the variety of mentors they had access to. Some participants suggested having more than one mentor to build relationships with. In terms of the program structure, the focus was on diversifying the career choices and college options. In addition, participants would like to see different activities that are tailored to their specific career interest. A few suggestions were related to the interactive features of the program, as participants commented that the activities should "[have] more interesting slide shows", "[have] games and stories," and "[be] more exciting and relatable instead of statistics".

Under the additional comments section, some of the themes reappeared in terms of the mentors, appeal of activities, and accessibility of the platform. The overall feedback, however, was predominately positive.

> "I loved the program and am glad I got the opportunity to experience all it had to offer me."

> "I really enjoyed the program and it made me come to my final choice of my career."

> "Should be used by more mentees in West Virginia and other places."

> "Overall, I thought this was an excellent program. I really enjoyed hearing from my eMentor, and getting advice on college and hidden career fields."

In the area regarding mentors, there were many positive comments about the participants' experiences. The mentors were described as "helpful", "personal", "encouraging", and "caring". A few participants shared that there were issues with certain mentors not responding to mentees' messages. However, the overall tone of the comments was extremely favorable when referring to mentor interactions.

The participants were not very favorable when discussing other areas of the program including the appeal and accessibility. The nature of the activities was mentioned again as mentees categorized them as "boring" and needing "function and design" improvements. One participant shared that "sometimes the activities seem like a chore." The accessibility was another concern raised by a couple of participants who had difficulties as the program would not work at times or not allow them to access it.

Expert Panel Reviews of WV eMentoring Curricular Materials

Methodology

The second data source included in this report is reviews of eMentoring curricular materials by experts in the fields of traditional or online mentoring. These curricular materials consisted of screen shots from all online WV eMentoring activities; screen shots from each of the 10 activities were compiled into a separate activity file. PERC identified experts through literature review, ensuring equal numbers of experts from traditional and online mentoring fields, and provided each expert with a $200 honorarium for detailed reviews of at least 3 of the 10 eMentoring activity files. Activity files were assigned to ensure that at least two experts reviewed each activity. In addition, eMentoring curricular materials were included in a proposal to the National Institutes of Health for an impact study of the program. While the proposal was not funded, NIH reviewers provided feedback relative to the curricular materials.

The expert reviewers on the panel gathered by PERC were provided review instructions with specific questions to cultivate thorough feedback. Reviewers were asked about their experience and qualifications and which activities they reviewed. They were asked to describe three strengths and three possible improvements for each activity. Finally, the reviewers were asked to assess how well all of the activities coalesce into a mentoring program to improve high school graduation and post-secondary education participation rates.

The qualifications of expert reviewers are described in detail along with summaries of the strengths and areas for improvement they described for each activity. The complete text of each review is provided in the appendix with reviewer qualification content removed to protect confidentiality of individual reviewers' comments.

NIH Reviewer Feedback

NIH reviewers were provided with eMentoring curricular materials as background information and two reviewers focused some of their comments on those materials. Both reviewers praised the approach for capitalizing "on the popular appeal of online social media in this age group". Pointing out that it "removes structural or geographical barriers to mentoring, makes it available for youth who typically may not have access to an appropriate mentor; it minimizes status differences between mentor and student that might deter participation; it provides for anonymity in giving and receiving advice, and removes transportation barriers". However, one of the reviewers also suggested that "the program does not seem to fully capitalize on the most unique and engaging aspects of social media." Pointing out that the program is "mainly didactic and not really interactive in real time". This reviewer also critiqued the program as highly dependent on reading ability with "no provision for how students with difficulty reading might be assisted in participating."

Expert Panel Qualifications/Experience

Barb Ashcraft has worked for over two decades as a school counselor and is now the statewide school counselor coordinator for the West Virginia Department of Education. She has also developed an online student advising program for secondary students related to persona/social development and academic and career success.

Tim Cavell has been researching youth mentoring for over a decade and works at the University of Arkansas as a Professor and Director of Clinical Training in the Department of Psychology. He has been a co-investigator on an NIDA-funded R01 that examined two different mentoring

programs, and serves on the National Research Advisory Council for Big Brothers Big Sisters of America and serves as a consultant for the same agency in Canada.

Michael Garringer has over a decade of experience working as an advisor in the National Mentoring Center at Education Northwest. As an advisor he has provided training, technical assistance, and materials development for multiple government and national organizations. He has also presented research at the Summer Institute on Youth Mentoring on how eMentoring borrows from other mentoring models.

Keoki Hansen is the Director of Research and Evaluation for Big Brothers Big Sisters of America and has been with the organization for over a decade. His work focuses on bridging research and practice in the organization, particularly with high school youth.

Frances Kochan is a Distinguished Professor of Educational Leadership at Auburn University and has served in multiple roles from a K-6 teacher, administrator, and superintendent to dean of a college of education. Her research focuses on collaborative leadership, organizational change, and mentoring. She has published four books and multiple articles on mentoring.

Joseph Pascarelli has been involved in designing, researching, developing, implementing, and evaluating mentoring programs both nationally and internationally for over two decades. He is a past president of the International Mentoring Association and serves as co-editor of Global Perspectives on Mentoring. He has established multiple mentoring programs and studied many others at the international level.

Kevin O'Neill is a Professor of Educational Technology and Learning Design at Simon Frasier University and has worked developing and researching eMentoring programs since the mid-1990s. He also works in industry to develop online materials for eMentoring programs.

Andrea Taylor is the Director of Training at the Intergenerational Center at Temple University. She is also the director of the Across Ages Intergenerational Mentoring Program and has developed curricula and training materials for mentoring programs. She is a consultant for multiple regional and national mentoring programs. She also regularly contributes to the scholarly literature on mentoring and reviews curricula.

General Summarization of Overall Feedback

Strengths

Overall, reviewers had many positive comments about the strength of the eMentoring program and its components. The overall theme from reviewers' comments on the program's strengths is concerned with its ability to encourage participants to contemplate their future options and open them up to opportunities with which they were not previously aware. One reviewer said, it is likely that each respondent will make his/her own personal meaning through the activities so that he/she is wiser, more intentional, and deliberate in goal setting. Another reviewer thought the program did a good job at helping youth think through their post-secondary options and expanding their view of what post secondary education looked like. By explaining the options, it made "college" more accessible. Additionally, the process of having them think about what was important to them for their future and career put them in more control and made it more accessible.

Reviewers praised the straightforward and crisp tone of the information and exciting format, which should appeal to the target audience. The activities are not "preachy or pontificatory" in

nature; rather they are simply presented and communicate to today's youth the landscape of options available to them. Other comments applaud the program for its comprehensive material, which incorporates a range of important elements for a mentoring program.

Suggestions

Recommendations from reviewers were more varied than the strengths. However, there were three common themes among the reviewers: more structure for mentor/mentee interaction, more resources for mentees, and upgrades to the overall presentation of the program.

Many of the expert reviewers encouraged more interaction between the mentors and mentees in the program. Suggestions include more conversations after each section and creating more structure and guidance around the dialogue so that each participant has a better idea of what will be discussed. One reviewer suggests increasing the word minimums for some of the activities while another recommends increasing the overall interaction instances per week, opting for a weekly discussion series.

Other reviews referenced the lack of additional resources readily available to student mentees. Suggestions include providing resources for students who may be struggling, offering them with general academic advising information such as tutoring, filling out applications, financial aid, etc. One review goes even further suggesting realistic financial caution for mentees. Include some information about the average debt loads of current graduates, how long it generally takes people to pay off student loans, and the fact that under current legislation you cannot escape student loans, even by going bankrupt. Finally, it is suggested that www.cfvw.com be used to supplement the activities already in the program. This website has grade-level appropriate activities that could be chosen individually to complement eMentoring activities.

Some of the comments included recommendations based on the overall appearance and presentation of the program. Suggestions include adding color and graphics to the activities in addition to removing some text for a "less is more" approach. Overall, some reviewers believed that the layout and presentation of the pages might prevent students from answering questions or exploring resources that are not required beyond the stated minimum.

Summary of Activity Specific Feedback

Activity 1 Goal: To better understand the reality of the job market and the many paths to post-secondary success.

Strengths

The instructional modules are strong as they give the mentor an idea of what the mentee is looking at, and at the mentee's response to the materials. This provides ample information for the mentor to develop their advice around. Both reviewers praised the positive tone of the materials as a strength that may provide hope for students. Again, both reviewers praised the inclusion of a broad array of postsecondary options, as opposed to only 4-year college, as a strength.

Suggestions

The first module may ask students to confide too much personal information too quickly to someone they do not know. Both reviewers suggested that there might be too many open-ended questions at the end of the activity, that high school students may have a hard time answering in depth. It may be better to have a simple question and answer for the first unit and ask students to

open up more after they have interacted with the mentor. Additionally, there are some wording and consistency issues on some pages.

Activity 2 Goal: To understand the many education and training paths to careers and the key advantages of each.

Strengths

Both reviewers indicated that the information presented on postsecondary education opportunities, degree entry requirements, and potential salaries is a strength because of its breadth of scope and brevity in presentation.

Suggestions

Both reviewers discuss issues with the organization of the information such as using consistency in the presentation of jobs as arranged by salary or organizing the degrees by the results you can expect from each in ascending or descending order. Both reviewers also indicate that there is an overload of information in this unit that may not be meaningful to students. Suggestions to modify this include breaking the module into different units and including more detail about what can be realistically expected from degrees, salaries, and positions. Finally, both indicated that the unit should have more interaction or engagement to help improve retention considering the amount of information presented.

Activity 3 Goal: To determine how your abilities and aptitudes relate to your career choice.

Strengths

Both reviewers thought the introduction and explanation of aptitudes and abilities and their relationships to career choices was positive.

Suggestions

The suggestions focus on making the differences between aptitude and ability clearer and more explicitly defining how these function in relationship to careers. Explaining the relationships of how abilities and aptitudes are related to specific careers in greater depth would be helpful, as would identifying that both concepts are prevalent in school and everyday life. Finally, suggestions are made to employ free interest and aptitude tests such as the ASVAB for a more in depth look at aptitudes and interests and also to include more graphics and color in the unit.

Activity 4 Goal: To determine how your personal interests relate to your career choices.

Strengths

The overall positive tone of the activity is praised. Additionally, the personalization of the unit in helping students to find interests for themselves that can be channeled into enjoyable careers is cited by both reviewers as a high point. Both reviewers note that the presentation of the personality types in both form and clarity is appealing.

Suggestions

One reviewer questions the effectiveness of the survey because some questions are hyper-specific while others are very broad. The reviewer does discuss not being very familiar with Holland's work, and is therefore hesitant to critique the survey too much. In contrast, the other reviewer specifically stated that the unit was excellent in its use of Holland's concept and in the survey and that there were no suggestions for improvement.

Activity 5 Goal: To choose a career cluster and career pathway of interest to you.

Strengths

Multiple reviewers applaud the analogy between music and careers in exploring "interests and likes" as helpful because it initiates a relevant link for students. Reviewers indicate that the definition for career cluster is clear and understandable, that the personalization of the unit allowing students to learn more about careers of interest is appealing, and that the reflection and summary section at the end is an appropriate and effective tool to help youth focus on information from the unit. Reviewers also indicate that the format of the presentation should be appealing to students and again the reflection section is commended.

Suggestions

One reviewer is concerned that the careers presented may not match up with the options that students are presented in their local state context. Another concern is that students might miss information on careers they know little about but might find interesting because they do not have to read about all of the career clusters. Additionally, more information may need to be included about the types of education needed to pursue career clusters and paths and this may also help to make the link between careers paths more explicit. Finally, the placement of the activity may be better later in the mentoring process because it "funnels" students into a career pathway and then later units ask them to broaden their thinking about career paths.

Activity 6 Goal: To consider how changing gender roles affect your career choice.

Strengths

The language is easy to understand and the interactivity of the unit will help to keep students' attention throughout the activity. The section is open and honest about a topic that may not be discussed in other settings.

Suggestions

The reviewers agree that the concept of non-traditional roles is a difficult subject to broach because it includes many gender, cultural, and value biases. All reviewers discuss that the activity seems limited in scope in regards to gendered positions and should include more examples that students would be more likely to know about. The unit should more explicitly define the job duties that lead to gendering of said occupations. The unit has some potentially misleading statements like "non-traditional roles typically pay higher salaries" that are more focused on women working in men's fields rather than gendered positions in general. Rather than focusing on specifics like this the unit could focus on how a student's gender should not decide their career choice. Another suggestion is to include newer non-traditional careers (blogger, social media) rather than strictly gender specific careers. All reviewers suggest having students choose multiple non-traditional careers rather than limiting them to choosing only one option so they can further explore this concept.

Activity 7 Goal: To evaluate opportunities for career awareness and preparation that you can take advantage of while you are still in school.

Strengths

All reviewers applaud the matching card game as a way to gain the attention of the student and help them learn about different options that can contribute to workplace success. The worksheets

are also mentioned by all reviewers as an effective way for students to reflect on the experiences they have had and how these can help them in finding a career. Moreover, the broad range of examples listed for work related experiences is mentioned as important by multiple reviewers.

Suggestions

One reviewer suggests the content should be rearranged and the unit should be renamed to more accurately reflect the focus on experiences that give you job skills rather than "experiencing a career while in school". All reviewers commented that the scenario of an intern at a workplace meeting is valuable but that it should be expanded to make clear to students why it is there and why certain behaviors would be desirable and others unacceptable. Including more scenarios may be helpful to show students how certain activities will give them career readiness skills. All reviewers discuss the need for making the connection between informal and formal work experiences and the job skills learned in these activities more explicit. Multiple reviewers also suggest adding in links to information or websites about who would be helpful to turn to for job information and for job opportunities. Reviewers express conflicting thoughts on the example of McDonalds being a positive work experience for youth, but all reviewers mention the example type as something that should be included but expanded to be more relevant for students.

Activity 8 Goal: To identify a career goal and justify your selection.

Strengths

Both reviewers indicated that this is an "excellent" unit overall; the information seems appealing and should be helpful for students. Both reviewers agree that the "setting the stage" section is an effective guide in moving students towards selecting career interests and goals while leading them to consider career aspects a typical teen may not be thinking about.

Suggestions

The questions at the beginning lead students toward a job requiring a college degree rather than focusing on career goals broadly. The activity should include more information on statements that are mentioned as choices to questions but are not expanded on, e.g. statistics on how many college graduates actually work in their field of study and how much money is actually needed to support someone financially. Additionally, discussing consequences of not having a career goal may be helpful.

Activity 9 Goal: To choose specific post-secondary options that suit your career goal.

Strengths

All reviewers praised the inclusion of financial aid options to describe different avenues for funding postsecondary education. Reviewers also agreed that the process of identifying postsecondary options is an important step for high school students and the resources included here are helpful. Additionally, the activity of identifying assets and resources will be important for high school students in realistically considering postsecondary options.

Suggestions

One reviewer mentions that some of the vocabulary, such as ethnic composition and facility, may need to be more clearly defined for students. Multiple reviewers mentioned that there is an overload of information when looking at the postsecondary options that may be easier to comprehend if it is split up on multiple screens. Also, multiple reviewers note that the section on

financial aid should be broadened to include some of the other education opportunities mentioned rather than a dominant focus on college. Options other than student loans, such as grants and work-study jobs, should be included. Finally, a section on how student loan debt should be approached responsibly with the pitfalls of student loan debt clearly laid out would be helpful for a realistic picture of that option.

Activity 10 Goal: Wrapping Up

Strengths

Both reviewers agree that the activity seems appropriate and straightforward for ending the mentoring relationship.

Suggestions

Both reviewers indicate that because of the limited number of modules they reviewed that they were not fully aware of the depth of the mentoring relationship so they felt this limited how they could answer this question. Both reviewers also suggest that having a summary review of everything that was said through all of the units might be a nice take away for the student. The reviewers also suggest that both mentor and mentee could do a write up at the end, the student would create a review of how the mentor was and if they would recommend the experience to other peers and why or why not, while the mentor could make some positive comments about the students' strengths and how they can move forward from this experience.

Conclusion

Across all information sources described in this report, the picture that emerges is that of an innovative WV eMentoring program rolling out with many areas of strength, but also several areas for continuous quality improvement. The quantitative measures did not reveal any strong impact of the program, but there are several complicating factors that argue for more reliance on qualitative data at this point. These include incomplete specification of some quantitative coding in the online data collection system and a ceiling effect with youth starting the program with relatively high aspirations. Qualitative data in the form of both open ended survey responses from youth and expert reviewer feedback on curricular materials was more positive. The basic model of utilizing online social media to connect high school students with adults working in industries those youth might pursue so that youth better understand the realities and requirements of those jobs/professions has tremendous potential. The curricular materials as currently configured are strong, but should capitalize even more on the potential of emerging social media capacities to engage youth and connect them with mentors. Social support before, during, and after the program has not been revealed by the data sources described here, but is likely critical to translating the great potential of this program into clear and demonstrably impact on high school students.

Appendix: NIH Grant Proposal Feedback

DESCRIPTION (provided by applicant): Young adults who drop out prior to graduation report high and often clinically-significant levels of depressive symptoms and substance use (Ou, 2008), low levels of life satisfaction (Liem et al., 2010), and are more likely to experience externalizing problems (Sweeten et al., 2009) and early transitions to parenthood (Gest et al., 1999). Epidemiological studies have demonstrated the relationship between higher educational status and better health in general (Thrane, 2006; Woolf et al., 2007), shortened periods of morbidity (Crimmins & Saito, 2001), decreased mortality rates (Molla et al., 2004; Woolf et al., 2007), and fewer functional limitations in late life (Freedman & Martin, 1999). More than 6,900 West Virginia high school students dropped out of high school in 2009. This 4.4% dropout rate, compared to 4.1% nationally, equates to $1.8 billion lost lifetime earnings for that class of dropouts alone (Chapman et al., 2010). West Virginia youth exceed national averages for health risk behaviors including carrying weapons, attempting suicide, using tobacco and illicit drugs, and engaging in sexual intercourse (CDC, 2009). Thus, in rural states like West Virginia, there is a critical need for culturally-appropriate programs that will prevent school dropout and promote long-term health and wellbeing. The overall goal for the proposed study is to examine the impact of eMentoring on positive youth development and health outcomes related to successful high school completion and continued postsecondary education participation. Therefore, the proposed study will systematically examine the impact of WV eMentoring program participation on specific positive youth development and health related measures across time utilizing a pretest posttest waitlist control group design. Specific Aim 1: To examine the impacts of WV eMentoring program participation on high school dropout and crucial indicators of health that antecede or accompany dropout (i.e., externalizing problems, depression, identity distress, and sexual risk-taking). We hypothesize that compared to the control group, youth who participate in the program will report lower levels or reduced rates of all of these problems, controlling for these problems at baseline. Specific Aim 2: To examine the roles of potential mechanisms of WV eMentoring program impacts on dropout and the health indicators identified in Specific Aim 1. Potential mechanisms include positive youth development constructs of self-efficacy, self-regulation, and feelings of hope and purpose. We hypothesize that WV eMentoring will produce increases in such indicators of positive youth development, and that these improvements will translate into reductions in problem behaviors and dropout at the final assessment.

PUBLIC HEALTH RELEVANCE: West Virginia youth exceed national averages for health risk behaviors including carrying weapons, attempting suicide, using tobacco and illicit drugs, and engaging in sexual intercourse (CDC, 2009). Thus, in rural states like West Virginia, there is a critical need for culturally- appropriate programs that will prevent school dropout and promote long-term health and wellbeing. The advancement of WV eMentoring efforts through research will have long-term implications for positive youth development as well as the public health of West Virginia through the facilitation of educational achievement and associated healthy physical, psychological, and behavioral health outcomes.

CRITIQUE NOTE: The sections that follow are the essentially unedited, verbatim comments of the reviewers assigned to this application. They are provided to illustrate the range of opinions expressed.

CRITIQUE 1:

Overall Impact:

Overall this application is judged as good but having some moderate weaknesses. The proposed project addresses an important and costly problem, high rates of youth who drop out of high school, which has numerous negative consequences for youth in terms of employability, income level, health and well-being. The eMentoring project being evaluated has the potential to not only improve the lives of the participating students, but may help break an intergenerational cycle of school dropout and negative personal and societal outcomes. The investigative team is well-experience and seems qualified to conduct the proposed study. The investigators have access to the usual and expected facilities and resources, with especially strong computing and online technology resources for distance education (tele-education).The eMentoring program is innovative in that it employs a novel emerging type of adult mentoring for at-risk high school students using an internet based format. This approach, in some ways, capitalizes on the popular appeal of online social media in this age group. However, the program does not seem to fully capitalize on the most unique and engaging aspects of social media. It basically presents an electronic document that is much like a hard copy would be. As presented, it provides the student with the adult mentor's responses to the same questionnaires and it has a video segment, but is mainly didactic and not really interactive in real time, which misses a major advantage of social media. Conducting an evaluation of an existing already operational program's effects on psychological and behavioral self-report measures is not especially innovative, and the design and methodology proposed are not innovative or unusual. The design is quasi-experimental thus there may be selection bias as to which classrooms are assigned to intervention or waitlist control groups, and time or seasonal effects are not completely controlled for. Given that the goal is to reach at-risk students, it is likely that the most at-risk students will have poor reading skills. The intervention and online surveys are highly dependent on reading ability. There is no provision for how students with difficulty reading might be assisted in participating. Although the study is conceived as longitudinal with a pre-post comparison, the two year timeframe may not be long enough to see significant changes in dropout rate and so the results may be largely dependent upon indirect proxy measures that are associated with dropout risk.

1. Significance:

Strengths The proposed studies address an important and costly problem, high rates of youth who drop out of high school and as a result are likely to have lower earning potential, more health and mental health problems; higher rates of suicide, unplanned pregnancy, delinquency, drug abuse, incarceration; higher morbidity and mortality rates, shorter life expectancy; and to have children who also eventually have similar problems. This is particularly a problem in rural states such as West Virginia where dropout rates are even higher than the national average, and this research has relevance to low SES inner city communities as well. There is a critical need for culturally sensitive programs that will help prevent school dropout and promote long-term employability, health and well-being in these at-risk populations. If the eMentoring program can be shown to change dropout rates, there could be significant economic and health benefits to the individual students who complete high school and possibly continue on to higher education and better occupations, and to society because of costs saved by preventing some of the negative consequences of dropout.

Weaknesses None noted.

2. Investigator(s):

Strengths The PI has broad background and training in educational psychology, human development and cognitive science and is currently an associate professor of educational psychology at West Virginia University. PI has strong expertise in research methods and program evaluation using quantitative, qualitative and ethnographic approaches. PI has a good history of research funding from NSF, State, and foundation resources. PI founded and now directs the Program Evaluation and Research Center (PERC) housed in the Department of Technology, Learning, and Culture in the College of Human Resources & Education at West Virginia University. PERC conducts research and evaluation, guide the work of practitioners and policymakers concerning the effectiveness of existing programs and the needs of specific populations, and for improvement of educational and social outcomes. Co-investigator, Markstrom, is a professor of child development and family studies who is a developmental psychologist who has specialized in research with high school and college students from rural, low income and racially diverse samples in terms of identity formation and indices of resilience. She has expertise that is complimentary with the positive youth outcome focus of the proposed work. She has a strong scholarly record of productivity in terms of publications. Co-investigator Kusimo is the President and CEO of the Educational Alliance, which has connections with both the educational and business community in West Virginia. The Alliance has already secured the funding for implementing the eMentoring program in West Virginia high schools. The funding is from a nongovernmental foundation. Kusimo has 30 years of experience with education of children and was previously the President and CEO of a state agency, the West Virginia Center for Professional Development. Co-investigator Moilanen has training and experience in statistical techniques required for the study including repeated measures ANOVA, multiple regression, missing data modeling, and structural equation modeling. She is the statistical consultant on an NIDA supported R01 longitudinal study of substance abuse in at-risk young men. Altogether, the investigative team is well-experienced and seems qualified to conduct the proposed study.

Weaknesses In a 23 year career in academics and research, the PI has a modest number (22) of peer-reviewed publications.

3. Innovation:

Strengths The proposed research is innovative in that it is aimed at assessing the effects of a novel, emerging type of adult mentoring of at-risk high school students using an internet based format. This approach, in some ways, capitalizes on the popular appeal of online social media in this age group. The use of online eMentoring to try to prevent high school students from dropping out before graduation is an innovative idea.

The application of a positive youth development framework that focuses on asset building and capitalizes on each youth's strengths, as opposed to focusing on and studying their deficits, is a relatively novel and definitely refreshing approach. This web-based program overcomes geographic and time barriers that often prevent business volunteers from mentoring students. eMentoring removes structural or geographical barriers to mentoring, makes it available for youth who typically may not have access to an appropriate mentor; it minimizes status differences between mentor and student that might deter participation; it provides for anonymity in giving and receiving advice, and removes transportation barriers.

Weaknesses The actual eMentoring program has already been funded by a nongovernmental foundation and is already being implemented. Conducting an evaluation of this program's effects on psychological and behavioral self-report measures is not especially innovative. The design and methodology are not unusual. The eMentoring program does not really seem to capitalize on the most unique and engaging aspects of social media. It basically presents an electronic document that is much like a hard copy would be. As presented it provides the student with the adult mentor's responses to the same questionnaires and it has a video segment, but is mainly didactic and not really interactive in real time.

4. Approach:

Strengths The proposed research is well-justified via a thorough literature review. The proposal has a strong conceptual and theoretical basis in the family stress model and the positive youth development model that advocates for intentional youth engagement through opportunities and experiences that connects them with assets in their community. Will conduct a quasi-experimental pretest-posttest, waitlist control group design across 320 participants (14-17 years of age), with 20 participants per class in 8 fall implementation classes and 8 spring implementation classes. The classes will be from 4 different schools over 2 years. Each student participating in the eMentoring program participates for 10 weeks. The investigators provide a sample size and power analysis to support the feasibility of the study. The program will be implemented in the classroom setting with initial introduction and guidance from teachers. Mentoring will be provided via on-line materials from adult mentors from the business community who are matched to the students based on the adults' career and the students' occupational/vocational interests. The primary outcome measure is school dropout, which is supplemented by proxy measures of self-efficacy, hope, purpose, depression, identity distress, self-regulation, drug use, delinquency and sexual risk-taking. These constructs are either completely face valid (drug use or sexual risk taking) or assessed using measures with established acceptable psychometric qualities. These constructs have been shown to be significantly associated with school dropout in previous research.

The study measures are administered via online surveys. The specific aims and hypotheses are clearly stated, related logically to the study measures and procedures; the data analytical plan is adequately described, and methods for managing missing data are described.

Weaknesses The design is quasi-experimental and time effects are not completely controlled for given that one set of classrooms will receive the intervention in the fall and the other in the spring. Even though each season will have both an intervention and a waitlist control group, the closer temporal proximity to actual graduation time for the spring group may produce some confounding influence on student engagement and motivation. Thus the results for the two different seasons could potentially cancel each other. Although the study is conceived as longitudinal with a pre-post comparison, the two year time frame may not be long enough to see significant changes in dropout rate and so the results may be largely dependent upon indirect proxy measures that are associated with dropout risk. The eMentoring program as presented in the research plan and appendix is not especially interactive or presented in a way that seems unusually appealing to at risk youth. The content of the eMentoring program and the online survey measures are all very dependent on reading ability. Given that the goal is to reach at-risk students, it is likely that the most at-risk students will have poor reading skills. There is no provision for how students with difficulty reading might be assisted in participating. Some of the intervention is in video format, but this appears to be a small portion of the content. Some

provision for a peer "buddy" or teacher to assist with reading might be necessary. It is not clear that there is any opportunity for real time conversation with or feedback from the mentor, which would seem to be a unique and appealing possibility if really capitalizing on social media technology.

5. Environment:

Strengths The investigators have access to the usual and expected intellectual and physical resources at a research university. The office and laboratory facilities of the Department of Technology, Learning and Culture, the College of Human Resources and Education, and the Program Evaluation Research Center at West Virginia University are very strong and the computer, internet, AV technology, equipment and software of the PERC are excellent. The Education Alliance's mission is to ensure all public school students complete high school ready for careers or educational opportunities after high school. The Alliance received a two-year award from the Benedum Foundation and the program's pilot was successfully implemented during the 2010-2011 school year and plans made to expand the program to other West Virginia high schools. During June 2011, The Education Alliance received additional funding from Frontier Communications to expand the WV eMentoring program to 15 additional high schools serving high-poverty student populations. The foundation funding supporting the implementation of the eMentoring program is a definite strength allowing this research to be conducted with only the cost of the evaluation piece potentially supported by government funds.

Weaknesses None noted.

CRITIQUE 2:

Overall Impact:

This study seeks to evaluate whether an existing eMentoring program promotes positive youth development in order to improve health outcomes, reduce high school dropout, and increase postsecondary education. A waitlist-control design is proposed for 320 high school students over the 2-year award period. Although a strong case is made for the necessity of an efficacious program to prevent school dropout and associated sequelae, no description of the program is provided in the body of the application, making it impossible to evaluate the merits of the program or understand how it fits into the logic model. The proposal also suffers from inadequate description of the theoretical model, and the health components are discussed as both precursors and consequences of school dropout. Finally, the short-term design of the study will not permit the examination of school dropout, and the study would have been strengthened by more clearly focusing on the proximal outcomes. As the proposal currently stands, it does not have strong potential to make a substantive impact on the field of mentoring or dropout prevention.

1. Significance:

Strengths The economic and social impacts of school dropout were clearly delineated, as was the connection to public health outcomes.

Weaknesses Do the investigators hypothesize that dropout leads to risky health behaviors or vice versa? This is confusing in the application as risky health behaviors are discussed as both predictors and outcomes. This section is missing a review of efficacious mentoring programs on

the outcomes of interest. The mechanism by which eMentoring should impact self-efficacy, a sense of hope and purpose, and self-regulation is unclear. Although there is a logic model, a visual theoretical model would help explicate these relationships and the underlying framework.

2. Investigator(s):

Strengths The investigative team possesses expertise in educational and developmental psychology, identity formation, adolescent risk behaviors, academic achievement, high-risk youth and longitudinal analyses, all of which are relevant to the proposed activities. The PI has a strong background in program evaluation. Key personnel include individuals from the Educational Alliance, the organization which has obtained nongovernmental funding to implement the eMentoring program.

Weaknesses The PI has not published in top-tier journals and has not received federal funding, despite serving as an evaluator on other NSF projects. The PI does not appear to have any substantive content interest in prevention research, mentoring, or high-risk youth. The content of the PI's publications is very heterogeneous. The investigators do not appear to have experience running clinical trials.

3. Innovation:

Strengths The use of technology in delivering the intervention, which overcomes some key limitations of face-to-face mentoring, is a strength. Few studies have examined the efficacy of eMentoring programs on career-focused outcomes.

Weaknesses Dr. Curtis appears to already have funding from the Education Alliance to conduct an evaluation of the mentoring program, so it is unclear how this study will be innovative. The study will not be able to answer the key questions of interest.

4. Approach:

Strengths The study proposes a large N. A clear description of measures was provided.

Weaknesses The timeframe is too short to answer key questions of interest (e.g., dropout). Additionally, the notion that the program will have the identified impacts after 1 semester is unrealistic. No preliminary data were provided to support the program's preliminary efficacy. Scant details regarding implementation are provided. How will classroom teachers be selected? In what classes will this be implemented? What grades will participate? The proposal does not appear to allow time to conduct analyses or publish data. No timeline was provided. No description of the eMentoring program is provided in the body of the application, although over a page is spent describing the measures. There was no description of how the online survey will be administered. Will the surveys be conducted at school? The analyses do not account for the fact that students are nested within classrooms and schools. There are no provisions for the collection of any academic data in the Measures section, including data on the main outcome of interest, dropout. Why not have teachers (not those administering the program) complete rating forms on youth as well? It seems that this may be a more unbiased source of information.

5. Environment:

Strengths West Virginia University appears to have adequate resources for the conduct of the proposed research.

Weaknesses No description of the Educational Alliance's facilities or expertise was provided. The Program Evaluation and Research Center conducts evaluations of existing programs, and as such, does not appear to have any content foci. The heterogeneity of the Center's work may limit its ability to have a sustained impact on the field of mentoring research.

CRITIQUE 3:

Overall Impact:

Better understanding of the impact that teacher facilitated e-mentoring has on youth living in rural areas in terms of positive youth development and health outcomes and how this relates to successful high school completion and continued postsecondary education participation is important. Understanding the link between education and health can inform prevention and intervention strategies. The Education Alliance has external funding to implement a three year e-mentoring program in 25 high schools serving low SES populations. Students will interact on a line with an adult mentor whose career interests the student. An on-site classroom teacher will facilitate the process. The approach is sound. This project is innovative in that it uses teacher facilitated web based e-mentoring. The interdisciplinary team is capable and experienced with grants. Having the President and CEO of the Statewide Education Alliance as co-investigator and the Director of e-mentoring as Program Manager of the project will contribute to the success of this research. The environment at West Virginia University (where the PI and two co-investigators are based) is a supportive one. The College of Human Resources and Education's technology offers avenues for teaching and research as well as their Department of Technology, Learning and Culture offices and labs which are available to the PI and co-investigators. The overall environment will contribute to the research.

Appendix: Expert Review Panel Feedback

Note: Responses to the qualifications and background question in reviews were omitted here to protect confidentiality of individual reviewers' comments, but are provided above in the section identifying panel members and their qualifications.

Expert Review #1

1.   What was the first activity that you reviewed?

Activity 1.

2.   Please describe up to three elements of this activity you feel are particular strengths. For each, please explain your reasoning for their inclusion as particular strengths. Additionally, please provide any suggestions you have for making each even stronger.

I applaud the idea of interleaving instructional modules with eMentoring interactions. This seems like a smart approach to ensuring that the discussions between the mentors and mentees are properly informed, on both sides. In my experience and research, one of the key problems in eMentoring is the problem of "visibility," in which mentors can't construct good advice because they don't know enough about what their mentees are thinking and doing. So, the fact that mentees have to do a little bit of "homework" (e.g. end-of-activity written reflections) in this program means that the mentors can potentially have a substantial amount of material from mentees to respond to, and can may construct better advice.

I also like that the overall tone of the materials for this Activity is optimistic with respect to employment opportunities. This may help to counteract some of the hopelessness that might be generated by negative economic reports in the press, etc.

Finally, I appreciate the fact that this Activity encourages students to consider postsecondary options besides a 4-year college. As is pointed out in the materials, a 4-year college degree is an expensive proposition (even at a state school), and often means that students carry a high debt load.

3.   Please describe any elements of this activity you feel are in particular need of revision, improvement, or deletion. For each, please explain why you feel they need revision, improvement, or deletion. For any you feel need revision or improvement, we are particularly interested in your suggestions for HOW (in as much detail as possible) you feel they should be improved.

Have the mentor and mentee been introduced before the student completes this activity? If not, I'm not sure the student will want to confide much or ask many questions. It might be better to cut out the "gather your thoughts" piece from this activity and just let the mentor respond to what the student has said in response to the earlier questions. I'm afraid that pushing the mentees to say too much to someone they don't know yet will produce a chilling effect. I've seen this kind of reticence in my programs, even when students are not talking with their mentors about something as personal as their career goals.

There is a small consistency issue on p. 6. It seems as though you wanted all the "hot" jobs to be in red and have two exclamation points at the end, but Telephone Operator (a "not hot" job) has exclamation points at the end, too.

There is some inconsistency in wording between pages 6 and 7. The question asks what percentage of **occupations** require a 4-year degree. But the answer on p. 7 is expressed in terms of **jobs**. Jobs and occupations are two different things. "Plumber" is one occupation that many people share. Each one of those people has a job. So, is the question about the percentage of occupations or the percentage of jobs? It looks like you mean jobs. If so, avoid the word occupations. This may seem like semantics, but it could genuinely be confusing for students.

Pages 14 and 15 ask for "short answers" but give students a whole screen to enter text. This could be off-putting. In my experience with student surveys (I've administered many of these in person), the more blank space you provide for an answer the fewer words you get – students get intimidated by all the empty space, and shut down.

I felt there were too many open-ended questions near the end of this activity. Do you really need them all? Where do the answers go – to the mentor? If so, you're just looking for a good starting place for conversation, and could afford to lose some questions. I would get rid of "what do you think about when you think about your future after high school" and "what will be the key to your career success?" They seem repetitive to me.

4.   What was the second activity that you reviewed?

Activity 2

5.   Please describe up to three elements of this activity you feel are particular strengths. For each, please explain your reasoning for their inclusion as particular strengths. Additionally, please provide any suggestions you have for making each even stronger.

I appreciate the effort made by the activity designers to integrate a variety of current information about potential degrees and the average salaries of people in particular job roles. The materials are relatively brief but comprehensive.

6.   Please describe any elements of this activity you feel are in particular need of revision, improvement, or deletion. For each, please explain why you feel they need revision, improvement, or deletion. For any you feel need revision or improvement, we are particularly interested in your suggestions for HOW (in as much detail as possible) you feel they should be improved.

Content

p. 3 States in part, "More education = more earning power" but this is sometimes untrue. For example, some college English professors have a lower starting salary than high school science teachers, though they have many more years of education. (In general, a Ph.D. does not pay off economically, but has intangible benefits.)

p. 5 You need to say more about the doctorate than that this is the highest degree possible. I would suggest "Most college professors have this degree."

p. 6 Jobs should be sorted by annual salary, to make it easier for students to make comparisons. It seems that some of your lists are sorted by salary, while others aren't.

p. 6, 7, 8 I am not really confident that students will process this material very deeply without some kind of specific task to do or question to answer. They will understand that larger dollar amounts are better, but they have no way of imagining what lifestyle can be supported with each salary. Some high school students have wildly unrealistic ideas about how little it takes to live a comfortable life.

Maybe, given what your goals for this activity seem to be, you could choose a handful of jobs with similar salaries that require different credentials. You could put these side-by-side on one screen (a column for 2-year diplomas, a column for 4-year degrees), so students could see that, for instance, a web developer can have a higher starting salary than an English teacher with fewer years of education and less debt. This doesn't make one job better than the other for

everyone, but is worth thinking about.

There seems to be a huge leap form p. 8 to p. 9. You should do something to help students anticipate and understand this transition.

Presentation

On p. 3, why hide the text in the 4 boxes? This seems to have been intended as a way to make the content more interactive; but it doesn't really. Functionally speaking, you're still just turning pages; and you wind up with a very crowded screen that is harder to read.

p. 4 Is a matching task a good idea when you haven't taught the material yet? For example, the word "licensure" is likely to be off-putting if you haven't seen it before, and many of these students may not have. I would think carefully about formally introducing these terms prior to the matching task. If you're not willing to do so, you should probably cut them out altogether.

p. 5 Ditto my comment about matching tasks here. I know from personal experience that many high school students have no idea at all about graduate school.

p. 10 There is WAY too much text in each of the boxes. I wonder if you really need it all. Actually, I'm not sure what the point is of providing catalog descriptions of college courses, which are pretty likely to seem intimidating to most high school students – unless the idea is to make them wonder why anyone would want to go to college! If you choose to keep this page in, I would provide only four course descriptions (maybe the ones least likely to be offered in high school, such as African Studies, History of Jazz, Criminal Justice and Film Studies). It will be less overwhelming, but give students the idea that the stuff they have to take in college is quite different from what they have taken in high school.

Vocabulary

The definition provided for military service on this page uses the word "simultaneously." I would suggest the more readable "at the same time."

p. 9 should explain what a "major" is.

p. 12 the 2-year degree program is described as if it were just a ladder to a 4-year degree, but it's not.

7.   What was the third activity that you reviewed?

Activity 9

8.   Please describe up to three elements of this activity you feel are particular strengths. For each, please explain your reasoning for their inclusion as particular strengths. Additionally, please provide any suggestions you have for making each even stronger.

Given the enormous problem of student debt and fears about a looming student debt default crisis, it's a very good idea to get students thinking about how to pay for college. Defining the difference between grants and loans, and providing a pointer to a web site about available grants, is great.

I also appreciated that some terms have been defined in everyday language – e.g. "academic rigor" has been defined as "how challenging the classes are." You can build on this.

9.   Please describe any elements of this activity you feel are in particular need of revision, improvement, or deletion. For each, please explain why you feel they need revision,

improvement, or deletion. For any you feel need revision or improvement, we are particularly interested in your suggestions for HOW (in as much detail as possible) you feel they should be improved.

p. 1. There's too much text in these boxes. I think it would be better to have each chunk of text on its own page, with a "next" button, like many of the other screens.

p. 3 This is another matching task that doesn't seem appropriate to me (see notes above). I wouldn't be surprised if many students could not do the matching properly with the information given. There are quite a few possible combinations, and they might give up in frustration.

p. 4 In the statement of the Goal for this activity, it seems a word or two is missing.

p. 4 Some more of the terms in this section need to be defined, such as "ethnic composition" and "religious affiliation." "Facilities" should have an example or two for clarity (e.g. "pool", "football stadium"). I would also add a plain-language definition of the term "admission criteria," such as "what it takes to get in."

10.   Please explain the degree to which these activities address all elements you believe important to include in a mentoring program for high school students aimed at improving high school graduation and post-secondary education participation rates. If any such elements are missing, please be sure to identify them and to make specific suggestions for how they might be incorporated.

I did not have many concerns about what might be missing from this program. The materials seem quite comprehensive. The only thing I might suggest is that the materials include some information about the average debt loads of current graduates, how long it generally takes people to pay off student loans, and the fact that under current legislation you can't escape student loans, even by going bankrupt. This is a little scary, but it's important to know. Many students are too cavalier about piling up long-term debt. All they can think about is the personal freedom associated with going away to college.

Most of my suggestions for improvement relate to the amount of content that is provided in the materials, how it is organized, and the nature of the tasks constructed around it. In Activity 2, for instance, I felt strongly that students were not likely to learn much from three long lists of job titles and average salaries. It appears that what you really want is for students to make comparisons ACROSS the pages, which they can't do from memory. If you want students to make comparisons, they need all the information on one screen.

I don't know what sort of budget the project has for materials development, so I don't want to make suggestions that will seem unreasonable. However I should point out that the instructional modules are mostly structured on a "page-turning algorithm" that is not likely to be very engaging for secondary students. Many of the pages are text-heavy, and (as with Activity 2 mentioned above) sometimes have no clear task for working with the material presented. This seems unlikely to promote deep processing or good recall of the material. I would say "less is more" here, and recommend removing some text and adding relevant illustrations -- even if they are just clipart pictures of work situations. Think of the materials as you would a PowerPoint presentation.

On some screens, matching tasks are employed with the apparent purpose of making the materials more interactive. However in several instances the matching tasks are "testing" students on material that has not yet been presented to them, and there is a real risk that students

will balk at this approach. They may not be able to complete the sorting tasks correctly, or in an amount of time they find reasonable, and may give up.

Overall, I think the approach of having students work through instructional materials and generate written responses before interacting with their assigned mentors is great. My understanding is that the instructional materials are preparation for the mentoring interaction, not a replacement for it. If I understand this correctly, you want the instructional materials to provide a springboard for a good conversation with the mentor – they don't need to stand on their own. So, you could put less content in the Activity itself (e.g. the lists of jobs in Activity 2), and instead provide the links to mentors and mentees as reference material to support their conversations.

I enjoyed looking at the materials, and hope these comments are useful.

Expert Review #2

1.   What was the first activity that you reviewed? **#1 New Thinking About Career Success**

2.   Please describe up to three elements of this activity you feel are particular strengths. For each, please explain your reasoning for their inclusion as particular strengths. Additionally, please provide any suggestions you have for making each even stronger.

> **1) Identification of "hot jobs".** First, I think the premise of helping students, who may have limited opportunities, think pro-actively about life after high school is incredibly important. I like the quiz format for looking at the "hot jobs" and stressing the fact that this is based on current research and data. I'm sure there are jobs listed here that many high school students have not heard of or thought about. This section could be strengthened, however, by some further explanation as to why some of these jobs are hot but not others. For example, jobs in the home health care field, or orderlies/nurses are hot because of the aging of the 78 million baby boomers, who will be living far longer than their predecessors over all and who need for care will be on going and intense. Telephone operators are not in such demand because so much is automated (I am assuming). Was interested in why a marine engineer was not a hot job as I would have guessed otherwise. I think some of that factual information would be very useful. It might also help young people realize the importance of understanding trends and paying attention to demographics etc so they can make informed decisions going forward.

> **2) Range of options regarding education and skills training.** I like the quiz format for making the point that a four year college degree (or beyond) is only ONE way into the job market and does not represent the majority of job opportunities. (I actually learned some new things by reading this). I think this is especially important given the emphasis that is often placed on getting a four year college education and financial hardships that that can accompany that degree.

> The emphasis on developing skills is a strong point. The sample jobs you identified could benefit from additional explanation e.g. on-going opportunities etc. I questioned the inclusion of "machinist" just from a financial perspective—a median salary of $31,000 seems low, particularly if you think of someone trying to support a family. On the other hand, if there are on-going opportunities in that field then I better understand why it's on the list.

> **3) Concluding questions regarding plans after high school.** I think it's often difficult for young people to answer questions about their future. "Where do you want to be in five years?" doesn't cut it for kids who can barely think about what will happen a week from now. That being said, I thought the way you lead up to the questions about the future were helpful—"how do you feel about school, what type of student are you, what will your friends be doing, what do your parents want you to do, what do you want to do" are all concrete concepts. Liked the fact that you weren't asking for an essay but something short and to the point.

3.   Please describe any elements of this activity you feel are in particular need of revision, improvement, or deletion. For each, please explain why you feel they need revision, improvement, or deletion. For any you feel need revision or improvement, we are

particularly interested in your suggestions for HOW (in as much detail as possible) you feel they should be improved.

Pulling It All Together and Notes to Your Mentor. I think these activities are the core of the curriculum in terms of the mentor's role. My questions : What kind of introduction are you providing? Need more of a context e.g. role of mentors? What is the nature and frequency of mentor-youth contact? Do they ever meet face-to-face? Who are the mentors and how are they selected? Who are the youth and how are they selected?

Once I took a look at the other modules I didn't have any suggestions for improvement for this one. I was looking for material that focused on interests, passions, skills, abilities, aptitudes etc and saw that you covered that in subsequent modules. One thing that would have been helpful to me as a reviewer is a table of contents so I could have an overview.

4. What was the second activity that you reviewed? **#9 Post Secondary Education Choice**

5. Please describe up to three elements of this activity you feel are particular strengths. For each, please explain your reasoning for their inclusion as particular strengths. Additionally, please provide any suggestions you have for making each even stronger.

    Financial Aid Information. I think this it is really helpful for young people to understand there is a wide range of financial aid opportunities available, so I appreciated this section. From what I could gather, this information was geared to 2 or 4 year college education and not to any of the other options you have previously identified. I could be wrong, given that I have had limited time to review all of the other modules, so if I am in error please ignore this comment. If I am not, please consider describing financing options for other types of programs.

    Prioritizing Options. Again, I liked the way you identified choices for young people in terms of considering their options e.g. type of training (4 yr. /2 yr, apprenticeships etc) and community/social considerations (mileage from home/co-ed etc). I did go to the "College Navigator Website", entered some data for the area in which I live and looked to see what came up. I did get a lot of information regarding more academically focused programs. Where are the links to the training/apprentice programs? Have I missed them? Might I have not missed them if I had a Table of Contents/Index to the entire training?

    Writing Your Mentor. I think the last component e.g. describing assets and resources you have to help you complete the program is a very important aspect of career choice and, again, one that many young people (or adults for that matter) don't often take into account. I'm wondering if a formal networking mapping exercise might not be useful. I teach a four session seminar called "Explore Your Future" which is actually for older adults thinking about the "what's next" question but could also be used for students as well. One of the activities is a Network Support Map that helps people look at who/what is in their personal network e.g. Individuals, Organizations and Groups, Support Professionals and Services and Miscellaneous Support. Might be helpful.

6. Please describe any elements of this activity you feel are in particular need of revision, improvement, or deletion. For each, please explain why you feel they need revision, improvement, or deletion. For any you feel need revision or improvement, we are particularly interested in your suggestions for HOW (in as much detail as possible) you feel they should be improved.

Use of the term "college" to describe post-secondary choices. I'm not sure this is helpful given the emphasis on "choices" that may not be academically driven in the strictest sense. We're talking about "skill-building" which certainly can be learned from a college experience but also from a myriad of other opportunities, which is also the point of this training. I would reconsider how these are described.

7.   What was the third activity that you reviewed? **#10 Ending the Relationship**

8.   Please describe up to three elements of this activity you feel are particular strengths. For each, please explain your reasoning for their inclusion as particular strengths. Additionally, please provide any suggestions you have for making each even stronger.

Since this module is very brief and all about coming to the end, I don't have too much to say about it. Since I don't have much information about the mentoring relationship it's hard to say anything about termination that isn't already here. In one to one relationships termination is a much more dramatic process—obviously less so here.

An additional question to consider is whether or not the student would recommend this experience to peers and if so why (or why not).

Wasn't sure from looking at the activities in the other modules but wondering if there is one page where all the data/information is entered from all of the activities—an Action Plan Worksheet—or something to that effect.

9.   Please describe any elements of this activity you feel are in particular need of revision, improvement, or deletion. For each, please explain why you feel they need revision, improvement, or deletion. For any you feel need revision or improvement, we are particularly interested in your suggestions for HOW (in as much detail as possible) you feel they should be improved.

10.   Please explain the degree to which these activities address all elements you believe important to include in a mentoring program for high school students aimed at improving high school graduation and post-secondary education participation rates. If any such elements are missing, please be sure to identify them and to make specific suggestions for how they might be incorporated.

I think this program will make an important contribution to helping high school students understand the options that are available. My comments are embedded in my responses to the questions but one issue that comes to mind is the identification of resources to help kids who are really struggling. That may be beyond your purview but just thinking it may be helpful e.g. access to tutoring, help in completing financial forms, what to do if/when your parents are clueless etc. That may also be the role of the mentor but some concrete information might help.

Expert Review #3

1.   What was the first activity that you reviewed?

        I selected Activity 5 dealing with Career Clusters (because after I glanced at it I noticed

            information that was inconsistent with WV career clusters)

2.   Please describe up to three elements of this activity you feel are particular strengths. For each, please explain your reasoning for their inclusion as particular strengths. Additionally, please provide any suggestions you have for making each even stronger.

        It is important for middle and high school students to explore and understand career options.

        I liked the analogy between different types of music and different types of careers within a cluster.

        I liked the definition for career cluster.

3.   Please describe any elements of this activity you feel are in particular need of revision, improvement, or deletion. For each, please explain why you feel they need revision, improvement, or deletion. For any you feel need revision or improvement, we are particularly interested in your suggestions for HOW (in as much detail as possible) you feel they should be improved.

        The 16 Career Cluster Concept may be confusing to WV students because WV students only have 6 career clusters from which to choose. This component needs to be aligned with the WV Career Clusters and Concentrations.

        I liked the game format, but it should be aligned with the WV Clusters and Concentrations to make it applicable to WV Students.

4.   What was the second activity that you reviewed?

5.   #2 Setting the Stage

6.   Please describe up to three elements of this activity you feel are particular strengths. For each, please explain your reasoning for their inclusion as particular strengths. Additionally, please provide any suggestions you have for making each even stronger.

        • Simulated an interactive card game to learn about different post secondary options

        • Describing various options of post-secondary education, not just a four-year college

        • Discuss of entrance requirements for each option

7.   Please describe any elements of this activity you feel are in particular need of revision, improvement, or deletion. For each, please explain why you feel they need revision, improvement, or deletion. For any you feel need revision or improvement, we are particularly interested in your suggestions for HOW (in as much detail as possible) you feel they should be improved.

- Maybe revising the name that more closely aligns with the purpose of this activity, maybe … Setting the Stage for Post-Secondary Success. If we want students to understand what we mean by 'post-secondary' then use the term.

- Add graphics throughout to make it more engaging

  o Add graphic to the back of the card game

- Maybe divide this one into two sessions – one on understanding post-secondary options and the other on College Coursework. The course information is not relevant to apprenticeship or associate degree programs. The initial information asks them to explore all their options, but the second half describes 4-Year college coursework before going in to entrepreneurship which isn't even mentioned in the beginning. Maybe a lesson on what can I expect in a two year college compared to a four-year as a second session.

TOO MUCH Information and not consistent with what the initial slides outlined.

8.   What was the third activity that you reviewed?

Activity 3 – Gathering Your Thoughts

9.   Please describe up to three elements of this activity you feel are particular strengths. For each, please explain your reasoning for their inclusion as particular strengths. Additionally, please provide any suggestions you have for making each even stronger.

- The math scenario was a great way to introduce aptitudes and abilities

- Having students examine their favorite subjects and how they relate to career choices was good

- Again, I like the use of cards, clicking on them to see what was behind each one was a good strategy, but I would add color and graphics… a little boring looking for kids who are used to using a lot of graphics and color in their technology tools.

10.   Please describe any elements of this activity you feel are in particular need of revision, improvement, or deletion. For each, please explain why you feel they need revision, improvement, or deletion. For any you feel need revision or improvement, we are particularly interested in your suggestions for HOW (in as much detail as possible) you feel they should be improved.

- There are several free aptitude/ability tests that could be utilized here to help students actually discover these facts about themselves including the ASVAB (it is both an interest and aptitude test). I would try to contract with the military to add this as a tool or reference these tools from the www.cfwv.com a one-stop career and post-secondary planning site that is available to all West Virginia students.

- All WV students take the PLAN and Explore which is an aptitude/interest tests. I would ask the question "Have you taken the EXPLORE (8th grade) and PLAN (10th grade)?" and review how to use these scores to determine what they are good at and help them understand how they can use these free tools to help with academic planning and career decision-making.

- Use graphics and color

- These comments are also applicable to Activity #4 which I did not write a formal review, although I examined it.

11. Please explain the degree to which these activities address all elements you believe important to include in a mentoring program for high school students aimed at improving high school graduation and post-secondary education participation rates. If any such elements are missing, please be sure to identify them and to make specific suggestions for how they might be incorporated.

   Overall, I think the topics are relevant and will help students process through the right steps to guide their academic and post-secondary planning. However, I think

   - The program could be specifically tied to West Virginia options including:

     o WV Career Clusters and Concentrations (available on the WVDE Career and Technical Education website)

     o Guiding student to use of their own EXPLORE and PLAN and now COMPASS scores to assist them with exploring and planning.

   - I would definitely tie your mentoring program with www.cfwv.com . There are grade level activities already online that you could pick and choose from to compliment your activities. All WV students should register and use this free resource. Your program could insure the student you assist take advantage of this valuable tool.

   - Please add color and graphics. As is, I don't think the program will hold a student's attention very long. A good programmer could have the cards make various sounds as they are clicked on and spin around. If students click on a wrong answer they could get a loud buzz, etc.

   I hope you find this helpful. If you need additional help or have questions, please let me know.

Expert Review #4

1.   What was the **first** activity that you reviewed?

Activity 3: Abilities and Aptitudes.

2.   Please describe up to three elements of this activity you feel are particular strengths. For each, please explain your reasoning for their inclusion as particular strengths. Additionally, please provide any suggestions you have for making each even stronger.

I like the idea that this exploration of careers introduces the concept of abilities and aptitudes early on in the sequence. It's an important "hook" in getting young people to see their strengths and understand how those strengths and personal characteristics can be used to identify potential careers.

I also liked that the activity differentiated between abilities and aptitudes, although I do have some critiques of the treatment of those concepts (see #4 below).

Perhaps the most useful aspect of this activity is the process of seeing what careers match with particular abilities and aptitudes. I think this is a simple way of demonstrating that subjects one does well at in school, or things that a student might have natural talent for, can help focus career options. But I found myself wondering where this matching of abilities/aptitudes and specific jobs pulled information from as students made their selections. Is this tied to a database of careers and associated keywords? I ask because if it is, there may not be a need to limit a student to three choices on any of the page 6 screens. That limit to three choices seemed kind of arbitrary, considering that there was a long list of abilities/aptitudes and specific jobs. If this is pulling from a database, you may want to allow for more options and filtering for the student.

So while I liked all of the elements above, their effectiveness was somewhat diminished by the issues noted below in #4.

3.   Please describe any elements of this activity you feel are in particular need of revision, improvement, or deletion. For each, please explain why you feel they need revision, improvement, or deletion. For any you feel need revision or improvement, we are particularly interested in your suggestions for HOW (in as much detail as possible) you feel they should be improved.

I felt like this module confused the definition of ability and aptitude with concepts like enjoyment and success. Page 2 starts by talking about choosing a job based on "things you are good at" and "things you enjoy." I felt like the "enjoyment" concept might have fit better in Activity 4, which is supposedly dealing with personal interests.

I liked the scenario on page 3 about the difference between ability and aptitude. However, it implies that individuals can excel in school subjects without making much effort, so long as they have aptitude for it, which I think could be a dangerous message, especially in the context of finding a good career. I would include a scenario that notes that success at anything is a combination of those traits; it's never either/or.

I would also include an out-of-school-time scenario to explain this concept. Learning the guitar or building a skateboard ramp or something. This activity in general seemed to be about school-related abilities/aptitudes, but then would randomly throw in things like "going to art festivals" and "caring for others."

This begins to be an issue starting on page 5 of the activity. After just learning that success can come through either diligent work or some level of natural talent, we get the questions "What classes to you enjoy?" "What do you get complimented on?" and "What activities do you gravitate towards?" It ends with "things that you do in your spare time," which introduces the idea of hobbies to the mix.

Then we get the list of abilities and aptitudes starting on page 6, which throws a number of school subjects into the mix, along with concepts like "customer service" and "speaking."

This left me feeling like there were a lot of concepts being conflated and misidentified for the student here. Here is how I would go about fixing this section of pages:

- If this section is really about ability and aptitude, then I would have separate sections asking the student to reflect on two things: 1) What they think they excel at because they work hard at it, and 2) what they think they have some natural ability with. I would do this separately for school and academic-related things and extracurricular and "everyday life" things. This gets them thinking about abilities and aptitudes from the world of formal learning, but also the same for their life outside of school (which is where a lot of our career passions and interests come from).

- I would also keep the concept of enjoyment out of this section, especially if the next activity is focused on "what do you like to do and what interests you." (Although I note later that the activity on personal interests seems to be more about personality type, not interests.)

- Even if you don't reconfigure the activity in the way I suggest above, you may find it helpful to separate page 6's lists of school subjects, natural abilities, and general skills into those three categories. It was odd seeing them lumped together on one list.

- One other change you may want to consider is allowing the student to see a job description or further detail about the careers that pop up based on what abilities and aptitudes the student chooses. They may have picked "history" as an aptitude for some reason, but might not understand the relationship of that to the career of "political scientist"—or even know what that career really is. Providing more information about the jobs may help the student draw connections about how abilities/aptitudes really influence your chances for success in a career.

So in general, I would try and focus and clarify the concepts of ability and aptitude here. Make it clear that those things can manifest themselves in school <u>and</u> in many other areas of life. But also demonstrate that those concepts are different than "what you enjoy" or "how you spend your time." And if you are getting them to make connections between these abilities/talents and specific careers, consider providing more content so the kids can really understand how being a good time manager or public speaker can help in a certain career.

One last thought: You may want to include the idea in here somewhere that there are certain abilities, such as being organized or good writing skills, which can help in ANY job. They need to learn that almost every job requires some level of ability or aptitude in some pretty common areas. I know the purpose of this course is to focus their next few years, but I hope there is room for emphasizing abilities and aptitudes that can help in just about any job.

4.   What was the **second** activity that you reviewed?

Activity 4: Personal Interests

5.   Please describe up to three elements of this activity you feel are particular strengths. For each, please explain your reasoning for their inclusion as particular strengths. Additionally, please provide any suggestions you have for making each even stronger.

I liked the tone of this activity early on, especially the "birds of a feather…" quote on page 3, which I think gets students thinking about the idea that their career can consist of being around people who have interests or mindsets that are similar to theirs. Work can be "community" and "family" and that's probably not a concept most teens understand.

(One note about page 3: I'm pretty sure the first sentence of the second paragraph is supposed to read "people who **are** like them" not "people who like them." I don't think Dr. Holland thought of being liked as a prerequisite for a job.)

I liked the overall concept of exploring personality types and their relation to types of jobs. But I felt the title of this activity was a bit misleading. Personality type is not the same as interests. When I think of interests, I think of "what do I like to do/gravitate to/find fascinating." If that concept gets taken out of activity 3 as I recommend, I think it fits here. Just change the title of the activity to "personal interests and personality type." I think those concepts can go in the same section, but just look for instances where the content weaves back and forth between them.

I really liked the pie chart on page 4 and the descriptions of the "types"—although the list of jobs below each seemed really long and not that helpful. But the review of how aspects of who you are impacting the work you would find rewarding was really nice.

6.   Please describe any elements of this activity you feel are in particular need of revision, improvement, or deletion. For each, please explain why you feel they need revision, improvement, or deletion. For any you feel need revision or improvement, we are particularly interested in your suggestions for HOW (in as much detail as possible) you feel they should be improved.

For me, the biggest issue with this activity is the Holland type Career Interest Survey. I'll be honest and admit that I do not know much about the work of Dr. Holland and his research on the link between "types" and specific careers or tasks. So I don't know how grounded in respected research this survey is. But I'm wondering if it gets a lot of "unsure" responses from students.

I think it's confusing for the activity to go from this discussion of broad personality types to this survey listing specific tasks. It asks you to rate whether you would like to do a task without any other qualifying information: What do jobs with these tasks pay? Is this task all I would do in a job? Am I supposed to rate whether I would find this fun? Or just would be OK with having that task as part (or all of) a job. Unless you knew quite a bit about some of these jobs as a teen, how would you know if you'd like it?

The list of tasks itself is a bit odd. It is hyper-specific for some tasks ("Type labels for packages and envelopes" or "sell compact discs and tapes at a record store") and totally vague for others ("negotiate contracts" or "assemble electronic parts"). There are a few redundant items (I count about 5 tasks that involve selling items retail and multiple items related to caring for the elderly, sick, or disabled). Some seem to refer to very specific careers ("represent a client in a lawsuit" is "do you want to be a lawyer?") and others are more general ("study animal behavior" which could be everything from biologist to conservationist to zookeeper).

Some of the wording seems to make several of the tasks sound sexier than others, which I think influences how students would answer. "Buy and sell stocks and bonds" sounds pretty boring until you tell them what a junior broker at Goldman Sachs makes. And I didn't see some modern careers represented here, especially things around web design and programming/coding and more "information economy" jobs.

I just had a hard time imagining students answering this survey effectively. These tasks are mostly asking "would you like this job or not?" which seems odd coming right after a discussion about these rather broad personality types and how they might let you enjoy (or make you hate) a particular type of job. I felt this would have been a stronger and more appropriate survey for the context it's in if it asked (or also asked) questions like:

- Do you like to build things with your hands?

- Do you like working with computers (software or hardware)?

- Do you like being outdoors?

- Do you like being around animals?

- Do you like to cook?

- Do you like being in fast-paced environments?

- Etc…

These things are more general personality traits and not so specific on a singular career. "Do you want to be the guy behind the counter at the record store?" seems to be less of a relevant question than "Would you like a job where you could help people find and learn about art" or "would you like a career that involved music?"

I know that Dr. Holland's survey is probably written the way it is for very good reasons. I know it probably has very solid research behind it. I'm sure it's a reliable tool, so I hesitate to question it too much. It just seemed kind of clunky in this activity.

I do like the end result of the survey which is a list of jobs that match these broad aspects of your personality. If you could somehow merge those results with the results of some kind of "what are your hobbies and what do you feel passionate about" survey, then you'd have something. The student could see that they have a personality type <u>and</u> level of interest that fit a particular job. And if that dovetails with some aspect of their skills and abilities from activity 3, then they are really close to "finding a calling," so to speak.

So I'm not sure how to proceed with improving this activity. It's very dependent on the survey and I'm unsure as to how much that can be changed or adapted.

7.   What was the **third** activity that you reviewed?

Activity 10: Personal Interests

8.   Please describe up to three elements of this activity you feel are particular strengths. For each, please explain your reasoning for their inclusion as particular strengths. Additionally, please provide any suggestions you have for making each even stronger.

This activity was a very simple and brief "saying thanks and goodbye" activity. I don't have much to add about the activity itself. It seems pretty straightforward and I think the prompts that

are given to the student are appropriate. I do have some ideas for improving the activity below in #10.

9.   Please describe any elements of this activity you feel are in particular need of revision, improvement, or deletion. For each, please explain why you feel they need revision, improvement, or deletion. For any you feel need revision or improvement, we are particularly interested in your suggestions for HOW (in as much detail as possible) you feel they should be improved.

One thing I'm going to focus on in my response to #11 is that the mentoring relationship in this program seems to be a bit "light" and that it could be enhanced to create more positive impact for the students. So I would recommend making this activity more robust, but only if there are steps in the previous weeks to build the relationship to a point where a more robust "goodbye" was worth considering. Things you may want to consider around the goodbye activity:

- Having the mentor focus on some specific strengths and characteristics of the youth that they think will serve them well as they embark on a career.

- Having the counselor or teachers who are working with the students recommend some specific encouragements that would mean a lot to the student.

- Some kind of reward or token of appreciation for participating in the relationships. This is very common in in-person mentoring programs, and I know your students and mentors don't ever meet or really know each other, but perhaps the staff could provide some kind of memento or token of appreciation.

- Providing the student with tips on finding their next mentors on this career journey.

- Encouraging the mentors to express what they got out of the experience.

And this is perhaps my biggest concern with the program that I will clarify below: I'm unsure about the interactions the mentor is providing. Without a staff person working with the mentor on some level, these volunteers could be saying all kinds of things to the students. As it pertains to the closure activity 10, I would expect that staff would communicate with mentors to ensure that the relationships ends really positively and that the student walks away feeling the value of the relationship. The mentoring research is clear that mentoring relationships—even virtual ones—that end poorly do a lot of damage to future relationships the child has. So hopefully the staff administering the program can emphasize working with mentors to make sure it ends smoothly, regardless of the specific way they say goodbye.

10.   Please explain the degree to which these activities address all elements you believe important to include in a mentoring program for high school students aimed at improving high school graduation and post-secondary education participation rates. If any such elements are missing, please be sure to identify them and to make specific suggestions for how they might be incorporated.

Obviously, my experience is much more on the youth mentoring side of things than the career exploration curriculum side, so I did have some big-picture thoughts about the overall course and ways that the mentoring component could be enhanced.

- I have some concerns about the overall level of interaction between the mentors and the students. It seems like their relationship boils down the 10 pieces of feedback from the

mentor and a short response from the student. I'm not sure, based on the material provided, what a typical mentor "activity response" looks like. At one point, it sounded like the mentor also fills out the activity, but that didn't seem to make sense from the way they were written and how the final "conversation" pages of the activities were structured. I don't know if mentors write tons of content, provide links, share personal stories, offer a few kind words, pour their heart out, or harangue the kids into doing X or Y with their lives. ☺

I would require students to give much more than the 50 or 70 word minimums that some of these activity responses require. Once again, I'm not sure if mentors have a minimum word count (they should), but I think you need to build more interaction into the weekly activities, especially if one back-and-forth message is all they get in a week. Why not more interactions? A series of discussion questions for each week? I think the program could provide a lot more structure around the communication between mentor and mentee. Get them really talking about that week's activity and what they learned. I know that's the general point here, and maybe that's happening a ton in real life and I'm just not seeing it in these review materials, but do everything you can to get more interaction and exchange going on a weekly basis.

I know that a lot of this program is built on the idea of it not taking much time for either party (especially busy mentors). But if it's going to have the word "mentoring" in the name, perhaps putting even more focus on their interaction would support that. I also realize that the private, proprietary nature of the software used is part of the appeal here. But there are several software options for e-mentoring now that allow for what is essentially email/messaging on a private network tightly controlled by program staff. Something like iMentor would allow for more frequent and timely communication between mentor and mentee, but still keep tight controls on people's privacy and monitoring of safety concerns. So don't let the technology restrict the nature of the relationships. There are many more options than there was even five years ago.

- Another concern I have is the interaction between program staff and the mentors, which you described as somewhat minimal. With only 15 minutes of training heading into these interactions, I wonder how well mentors do at emphasizing the right messages, offering proper encouragement, allowing the youth to have a voice in the conversation, and facilitating an effective exploration of careers. I would strongly encourage the program staff to monitor every interaction a mentor has with a student and offer the mentor advice and constructive criticism on how to give better and more appropriate advice. They can also share limited information about the student that would help the mentor tailor their advice and responses.

I think this is especially critical because the youth and mentors may come from wildly different backgrounds, have different personalities, and think radically different thoughts about particular careers. A mentor might think that, say, being in retail is a poor career choice or perhaps tell a student to downplay one of those personality types in their pursuit of a career. They may make the world of work sound better or worse than it really is.

I think any mentoring program is only as good as the interactions between the people running it (who ultimately have responsibility for what the kids get out of it) and the mentors. The mentors need coaching and advice on how to respond when a student seems

bored/confused/hopeless/defeated/scared/panicked/overconfident about the whole "what am I going to do with the rest of my life" aspects of this program. Adults botch those conversations with teens all the time. Make sure the staff of counselors and teachers doesn't let them botch it in the program.

- I wonder if the program wouldn't be even stronger if you matched mentors and students after the students picked a few initial career ideas. That puts a real burden on the program to find mentors with careers and skills that are a decent match, but maybe if you grouped it broadly enough (computers and tech, medical, science, helping professions, etc.) you could at least get the students someone in the right ballpark to talk knowledgably about their options or provide some insight into that particular career.

  Alternatively, maybe students get a second mentor once they make the choice. That way, new mentors could still do this at the simple 15-minute a week level, while those who wanted to give more could match with a student based on career path.

- The only other mentoring weak spot I see goes back to that "depth of interaction" issue. Choosing a vocation is a very context-rich process, by which I mean the student's family, friends, personal history, demographics, and emotions all come into play—the student is not exploring this in a vacuum. It is very likely that student's career choices will be dictated by life circumstances, parental wishes, and a host of other factors that could bubble up at any moment. Are the students allowed to talk about these things? Can they say "I can't go away to college because I have to take care of my little brothers?" Can they talk with their mentors about poverty limiting their choices in some way? Can they talk about the learning disability they have that impacts some of those abilities and aptitudes? Can they really open up to the mentor? I guess my question is, are these mentoring "matches" or are they mentoring relationships. Because I think your mentors could be even more valuable if they also get chances to talk about overcoming circumstances or juggling life and career.

Here are some other random notes I made as I read through the other activities you provided:

- There were a few ideas related to career exploration and planning that I thought were missing (I realize that counselors may cover this outside of the eMentoring part):

  1. This goes back to a point I made earlier, but there should be an emphasis on general skills and abilities that can help with multiple career pathways. Things like reading comprehension, basic computer skills, people skills, etc. Make it clear to students that just about all workers, regardless of field, need to bring certain things to the table and that often the best thing they can do to ensure a solid working future is master these core general skills.

  2. Consider building in the notion that most Americans' careers are as much the result of happenstance as they are careful planning and selection. Let students know that their path may change. A lot. As in, like three times their freshman year. I entered college as a photography major, and here I sit writing this review of your course. ☺ To that end, I recommend having them pick a few plans in activity 8, just in case door #1 closes for some reason. Get them to understand the importance of flexibility and adaptability in career choices.

- Activity 1 covers a lot of ground and has a lot of writing. I wondered if this might turn students off early in the program. Could this be broken up somehow? Or explored with less writing?
  I found activity 6 to be kind of, I guess, old fashioned in its treatment of the gender issue. I mean I think it's great to introduce the concept of non-traditional careers. But recent years have seen massive shifts in the demographics of women in certain industries and fields. These notions of "this is a woman's or man's job" are changing pretty darn rapidly in this country. I felt like the language in this chapter was a bit stuck in the past. You could also talk about non-traditional careers from the perspective of race, class, disability, etc. It seemed odd to focus on the gender aspect when I think the race and class factors are equally compelling and important. But if you do want to stick with something on gender, be sure to mention things like the push around STEM careers, which are getting a ton of money dumped into them to increase female and minority representation. I think the core takeaway should be "these issues are changing, especially in certain fields, and lots of jobs are becoming much more diverse."
  I really liked activity 7. Just a great look at picking up relevant career skills whenever and however one can.
  I had a really specific question about Activity 9: Why are these links listed next to where the students enter their specific school choices on page 4?

  Interested in the military?
  • Military careers and learning opportunities

  Interested in Apprenticehips, an Associate Degree
  • Community and Technical College System of West Virginia

  How can you pay for college?
  • College Foundation of West Virginia

  What do you like?
  • Explore Career Information

  They seemed out of place and redundant of earlier content.

I know it seems like I've focused a lot on things to change in this, but I really did find the course to be a good tool for doing many of the common career exploration tasks. It could perhaps use some more fun (maybe some new graphics) and some additional scenarios, but I thought it covered the expected ground. I think just clarifying some of the concepts, especially in the sections I reviewed, and beefing up the mentoring component, will really make it sing.
If it would be helpful, feel free to take a look at this e-learning module I helped develop for YouthBuild students on this topic last year: **http://youthbuildmentoringalliance.org/whats-next-pse.**

This combines content in the module with a series of worksheets and activities that mentors and mentees do together (for the most part) offline. It covers a lot of the same ground as your e-mentoring efforts here. Feel free to borrow any activities or ideas from this to improve the West Virginia eMentoring program!

Expert Review #5

Activity 5. Career Cluster and Pathways

Strength Elements (3).

The three elements include: a) solid grounding in the research and development knowledge base on career clusters which are aligned with national findings in terms of job opportunities for today's youth; b) internal unity or coherence of the activity packet; and 3) logical flow from the respondent's frame of reference.

The developers present a clear, engaging, and easy-to-use process to introduce high school students to the landscape of opportunities out there in the world. The categories are logical in terms of descriptions and presentation. Respondents do not have to double think meanings since both the clusters and pathways clarify by supporting each other. There's a sense of objectivity in the format and this begins with a clearly articulated goal that is achievable, rooted in student interest, and relevant. What engaged secondary youth would not be interested in terms of exploring the various pathways he/she can craft for his/her future. In other words, these are research-based career choices that youth are presented with and the more advance thinking that's done the more of an advantage youth will have—especially in the case of mentor selection.

The structure of the activity packet is logical in terms of paralleling the manner in which respondents are likely to think through the information and response. In other words…the goal is followed by a quick stage-setting piece introduced by Socratic questioning. It is assumed that youth identify with music and the connection will be made easily. See sentence: "Depending on your likes and dislikes, you may prefer one category of music. In the same way, chances are you will prefer one career cluster over another." You many want to modify this since youth appear to enjoy several types of music. I would eliminate "chances are…" May take us down another line of thinking.

Language is appropriate…geared generally to a 9th grade level so this should not be a problem. Language is appropriate, specific, concrete, with little ambiguity in terms of understanding.

Easy transition in the Setting the Stage session as you move from Organizing Careers into Clusters and then define very carefully a career cluster. Clickon tabs are wonderful to hold interest, engage and motivate students to search for more! At first, I thought that each cluster requires further definition but I withdraw that comment. They are clear, appropriate, aligned with the research-based and can be researched further by an interested mentee and also mentor.

A stronger point needs to be made about career pathways—further clarity, relationship of the parts to the whole. Activity 5 is well framed…love the selection of 3 of interest and then scaling down to specifics. Very clear definitions of clusters. Activity 5 completes the first part of your journey…and that is to provide information about the pathways.

Good use of "congratulations" as an intrinsic reward for working through the information and acquiring significant learning.

Excellent reflection section—Gathering Your Thoughts. The language is of a personal nature and one can hear the voice of the narrator. Effective use of providing feedback—especially Pathway description. WriteYour Mentor is an excellent way to now link the learner to the content to the mentor…completing, in a sense, a learning cycle. Without proselytizing, the mentee is forced to reflect and share his/her opinion/perception about the experience. Good pedagogical learning

methods! I am wondering about the monitoring of letter writing the development of an interpersonal relationship

The tech platform being used is very appealing for today's youth—clickons, framing, and selection—all stimulating.

Again, there is a strong sense of internal unity in the packet in that it has a clear flow, purpose, and guides the respondent through basic new understandings of career clusters and career pathways. Often this is missed by high school youth who fail to see connections. And it is through the connecting tissue of the packet that youth have an excellent opportunity to make new and relevant meaning. In this sense,it is an excellent self-instructional product.

Activity 4: Personal Interests

Three particular strengths include: a) the section is anchored in a personalized, active learning approach for respondents. Their values, choices, and experiences come into play; and, inclusion of significant research and development findings in a clear, straightforward, and succinct manner providing clear learning

Respondents have opportunities to look inward—at their own forming values, assumptions, and aspirations. This section, above all, addresses choice and the relationship between one's chosen field(s) and enjoyment and consequently greater opportunities to succeed, to be more self-satisfied, to make a contribution.

Framed in Holland's findings and personality types, the product underscores key findings by Csikszentimihalyi (Finding Flow, 1997) and the quest of the individual to find his/her passion, the ability to become lost in one's work and devote the total self to one's work.

Again, the clickon boxes make the product easy to use, straightforward, and taps the curiosity of respondents. The three-part display (i.e., pie-shaped wedges, clear definition of descriptor, and linking it to various career choices) are exceptional in terms of clarity, accuracy of information, and balance relating to personality types. Scoring is relatively self-explanatory and helps student make the connection between real-world learning and his/her interests in personality types.

The Gathering Your Thoughts session contain appropriate self-reflective questions. Activity results, of course, are extremely interesting; in some cases, perhaps self-validating and in others a genuine discovery of underexplored interest areas.

The information that this activity yields is exceptional in nature…it literally moves from the respondent's interests and aligns them with various. The rating posits (i.e., Like, Unsure, Dislike) appeal to those who may not be certain and provides a sense of openness and understanding that to be "unsure" is not necessarily a negative.

From a mentoring perspective, the information gleaned can have significant implications in terms of recruiting, matching, and forging a partnership. I have no suggestions for revision of any part of this activity—it is a solid, coherent, piece appropriate in scope and well balanced. Youth will enjoy the experience.

Activity 6. Non Traditional Workplace Roles

Of the three Activities examined, this is by far the most challenging from several perspectives. First, we are dealing with assumptions, biases, and values that are formed early in the lives of youth and as they move into teen-age years, become more pronounced and difficult to change for

the most part. From a pedagogical (mentoring) point of view, it can also be a powerful focus to change values and beliefs. There are several socio-cultural variables that impact this area. For example, if a given mentor has a traditional orientation and views his/her role as holding fast to traditional values, it becomes more difficult to expose a potential mentee to other options beyond a traditional career. From another perspective, if a given mentee is anxious to explore non-traditional roles/careers, the available pool of mentors has to reflect these diverse perspectives. Place or culture is another factor. There must be a blending and understanding of various diverse perspectives as mentoring programs move from one culture to another. Logically, biases and prejudices enter into this situation in terms of not only tolerance but moving beyond to embracing non-traditional mentees into a career is challenging.

Moving into the product, I think that a more diverse choice be made re. p.3, 4, and 5…greater diversity of more real-world jobs as they apply to gender (e.g., women carpenters, male nurses, women astronomers, etc.). The clickon boxes that present facts on job satisfaction, higher salaries/better benefits/ better advancement opportunities, variety, and opportunities to learn are extremely effective and, I suspect, informative for many.

I am not certain about p.7. Did You Know? Challenges posed by non-traditional careers. The format departs from the clickon box but more importantly appears as a simply "laundry list" of challenges that could dissuade a potential mentee who is interested in a non-traditional career to take advantage of it. I recommend reformatting this section. The inclusion of the video is an interesting inclusion..different, personal, and change of format.

Activity 6 appears narrow in scope. I suggest that respondents choose 2/3 very different careers. Here's where real-world learning can emerge. One is too limiting in scope.

The purpose of this section is clear and appropriate in scope. There's a logical sequence/flow among the parts of this section except for the Challenges section. Content accuracy, unity, and tone make for ease of reading and visual appeal. Language usage in all of the three sections is appropriate, jargon free, and written at the 9th grade level making for ease of comprehension.

Conclusion.

Mentoring is integral to personalized learning. To link today's youth to significant others who are willing to devote their time and energy to support, care for, and nurture them is one of the most promising strategies for youth development (Kochan & Pascarelli, 2003). What I find most appealing about the format of the activities in this product is the straightforward, crisp tone of the information presented and the exciting format that I'm certain today's youth will find appealing. The activities comprise a personal journey of self-discovery prompted by significant research and development findings. The activities are not preachy or pontificatory in nature; rather they are simply presented and communicate to today's youth the landscape of options available to them…a sense of hope and the ability to craft a possible future of one's choice. Working through the Activities, it is likely that each respondent will make his/her own personal meaning—sense making so that he/she is wiser, more intentional, and deliberate in goal-setting. The role of mentor in these situations can be considered truly a gift to one who has the privilege of experiencing youth growth.

Expert Review #6

1. What was the first activity that you reviewed?

   a. <u>Activity 5</u>: Career Clusters and Pathways

2. Please describe up to three elements of this activity you feel are particular strengths. For each, please explain your reasoning for their inclusion as particular strengths. Additionally, please provide any suggestions you have for making each even stronger.

   The module on career clusters 1) provided several opportunities for the mentees to interact with the presentation by clicking the various boxes to learn more about the different career clusters. By allowing participants to either select clusters quickly or learn more about them by hovering the mouse over different options the module was able to include a high volume of information without becoming tedious. 2) The activity provided participants with the opportunity to personalize their experience by learning more about career clusters that they found most interesting. This feature will allow mentees to filter out career options that do not appeal to them while deepening their understanding of career choices that they find most attractive. 3) One of the strongest parts of the module was summary of activities that is provided at the conclusion. This will allow mentees to review what they learned about career clusters they found most interesting.

3. Please describe any elements of this activity you feel are in particular need of revision, improvement, or deletion. For each, please explain why you feel they need revision, improvement, or deletion. For any you feel need revision or improvement, we are particularly interested in your suggestions for HOW (in as much detail as possible) you feel they should be improved.

   After reviewing <u>Activity 5</u> several weaknesses of the module became apparent. First, it seemed as if participants were tracked into career pathways very quickly without allowing them to learn about those career clusters they did not initially select. It is reasonable to assume that many participants will the select career clusters that they already know more about which may ultimately be less informative. One Idea that could promote maximum exposure to new careers would be to engage students in a sorting activity in which they could compare two career clusters in order to understand how they differ and then having them choose which one they prefer the most. This way they would get exposure to more career options while still being able to learn more about careers they find most interesting. Another way this could be addressed is by allowing mentees to complete this module several times exploring new career clusters each time.

   My second concern was that the module conveyed no information about the type of education typically required for the mentees' selected career pathway. This concern could be addressed by including a summary of the types of degrees individuals within a career pathway typically earn. This information would be helpful to include as part of the activities results section.

   Thirdly, and perhaps most concerning, was where this module fell in the overall sequence of the program. In later modules (such as module 7), mentees are encouraged to broaden their thinking about what type of careers they might find fulfilling; however, in this module they are funneled into a specific career pathway. Mentees may be receiving mixed messages as to whether they should be actively committing to one career pathway

or remaining open to many career opportunities. Perhaps if this module appeared later on in the program it would lessen this potential confusion.

4. What was the second activity that you reviewed?

    a. <u>Activity 6</u>: Non Traditional Workplace Roles

5. Please describe up to three elements of this activity you feel are particular strengths. For each, please explain your reasoning for their inclusion as particular strengths. Additionally, please provide any suggestions you have for making each even stronger.

    This activity has several strengths. First, it is important to educate students about nontraditional workplace roles, so the topic itself is a strength. Many students are brought up in homes in which traditional gender roles are valued, and they are expected to follow a certain career path. This activity can help encourage more creative thinking in choosing a career and can fight stereotypes. A second strength of this activity is the fact it is interactive and includes multimedia. Specifically, the true/false section was not only interactive, but was well balanced and educational. Additionally, I believe the video on pg. 8 will increase engagement in the activity. I think it is especially helpful in this activity because the video is placed after two text-heavy pages. Finally, the facts about nontraditional roles were balanced by providing both the potential benefits of choosing a nontraditional career as well as some of the challenges posed by nontraditional careers. I appreciated that facts were presented in an honest and open manner.

6. Please describe any elements of this activity you feel are in particular need of revision, improvement, or deletion. For each, please explain why you feel they need revision, improvement, or deletion. For any you feel need revision or improvement, we are particularly interested in your suggestions for HOW (in as much detail as possible) you feel they should be improved.

    There are several elements of this activity that could be improved upon revision. First, are the technical aspects to this section that need revision. In particular, changing the reading-level of some words and phrases such as "liable," "internal challenges," "career ladders," "overcoming the barriers imposed by gender" will help increase comprehension of the activity for high-school students. There were some grammatical inconsistencies in the phrase "non-traditional." Specifically, it is written in this section as "non-traditional," "nontraditional," and "non traditional." On page 10, "Did you Know?" has a period placed before the question mark. Additionally, on the same page, the scroll bars seem unnecessary. I would consider a formatting change (i.e. adjust margins) to account for a couple words that are cut off or try to reduce the amount of text on that screen.

    Second, I would recommend having the students choose more than one nontraditional career. The goal of the activity should not be to simply arrive at an answer or to force a choice. Thus, I would recommend offering multiple choices that they could compare side-by-side. It is possible that unmotivated students might just rush through the activity and not utilize the "choose other career" button located on pg. 9. By having them choose more than one nontraditional career up front, the students have the opportunity to learn more. Along the same vein of opening more options and allowing students to learn more, the category of "nontraditional careers" could be broadened to include careers that are not

just gender-specific. For example, nontraditional careers could include jobs that did not exist 10 years ago (such as social media managers or bloggers).

Finally, one strength of this activity is that it promotes divergent thinking. That being said, I would recommend sequencing <u>Activity 6</u> before <u>Activity 5</u>, in order to provide more information on these types of careers before the students chose which career clusters they are more interested in.

7.   What was the third activity that you reviewed?

   a.   <u>Activity 7</u>: Experiencing Careers While Still In School

8.   Please describe up to three elements of this activity you feel are particular strengths. For each, please explain your reasoning for their inclusion as particular strengths. Additionally, please provide any suggestions you have for making each even stronger.

   a.   Setting the Stage: I liked the interactive nature of scenario. The "what do at a meeting" challenge was good and used a well-supported strategy of teaching through relatable examples. I think this example could be expanded upon so that the participants understand how different behaviors may be perceived in the work place.

   b.   Section on Vocabulary/Matching—Good way to rehearse those concepts and to educate on the different types of options

   c.   My work-related experiences- Great start to get the students start thinking about building a resume.

   d.   The card sorting activity was an excellent way to quiz and teach at the same time. This strategy allowed for maximum exposure to work related opportunities. I think that this strategy would be important to implement in other sections where the participant is instructed to select only one option to learn more about.

   e.   I also liked the work experience cards. This could be a great way for a participant to start thinking about building a work portfolio, however, this activity may not be useful for individuals without work experience. It may be useful to have an option for less experienced participants to list opportunities in their community they are interested in. They could also make a list of jobs they plan to apply for.

9.   Please describe any elements of this activity you feel are in particular need of revision, improvement, or deletion. For each, please explain why you feel they need revision, improvement, or deletion. For any you feel need revision or improvement, we are particularly interested in your suggestions for HOW (in as much detail as possible) you feel they should be improved.

   a.   The answer for the interactive part of the Setting the Stage scenario was not obvious. It wasn't clear whether "taking notes" occurred during the meeting or prior to the meeting (during his first week). Also, the learning objectives weren't apparent.

   b.   Make sure there is a section to edit the Work-Related Experiences (so students have the option to go back and make changes)

      c. I would add a section after the vocabulary section that identifies helpful individuals from whom to get advice about how to get involved in these types of workplace activities. Even something like a resource list would be helpful.

      d. I thought that the slide with the "work experience can give you…" tag was lacking in content. It includes such terms as "self awareness" and "real life skills" that are not explained and may be difficult for high school aged participants to comprehend. I think it is wise to avoid vague terms and instead teach about such things with stories and examples that are more relatable.

      e. The McDonalds example is good, but perhaps overused and perhaps can be augmented with another, more creative example, especially for young people who might not see McDonalds as a desirable employment option.

      f. Consider providing a checklist of important but specific job skills they might have learned during the work experiences. These could include very basic but key skills such as time management, responsibility, communication, punctuality, scheduling, and goal seting. This puts a clear emphasis on important "life skills". It might also help if the points listed in the McDonald's story were part of that checklist (so these life skills are not lost on the youth).

      g. It would help to offer the story of one adolescent who was able to get an internship after initially struggling and getting rejected.

10. Please explain the degree to which these activities address all elements you believe important to include in a mentoring program for high school students aimed at improving high school graduation and post-secondary education participation rates. If any such elements are missing, please be sure to identify them and to make specific suggestions for how they might be incorporated.

      a. Good job incorporating a range of important elements into the mentoring program

      b. I fear that there may not be enough instruction about what the mentee is supposed to say to their mentor. They are often instructed to finish the activity and then send a message to their mentor. I think it would be beneficial to the relationship to give a little more guidance to the mentee so that he/she has some ideas about what he/she will be talking discussing.

Expert Review #7

1. What was the first activity that you reviewed? **Activity 6. Non Traditional Workplace Roles**

2. Please describe up to three elements of this activity you feel are particular strengths. For each, please explain your reasoning for their inclusion as particular strengths. Additionally, please provide any suggestions you have for making each even stronger.

    I like the fact that students have an opportunity to view a question, think and reflect upon it and then see the answer. I think the answers could have some more information and detail. For example, tell a bit about the field and why men or women might fit well into it. For example, if you use psychologists, you might add that the skills needed in this job are the ability to communicate, to have empathy, etc. and say something like- do you have these skills ? – just to bring in reflection a little earlier into the situation.

    I think having a short question/answer is helpful and will keep the students' attention.

    It might help to have some figures/cartoons/ or something like that on the pages as they look really blank. Perhaps a character that can follow them through the process.

3. Please describe any elements of this activity you feel are in particular need of revision, improvement, or deletion. For each, please explain why you feel they need revision, improvement, or deletion. For any you feel need revision or improvement, we are particularly interested in your suggestions for HOW (in as much detail as possible) you feel they should be improved.

    I think the examples should be something a bit more closely aligned with what students might know. I think most of the examples are things students would not relate to very well. For example, rather than males in social work being a minority, I think I would use something like nursing or elementary school teacher- which almost all students would have more experience with. Also, I am not sure they have that much experience with psychologists, so maybe something like veterinarians (I think they are more than 50 % now, not sure about whether it is 75- - but something more attuned to what they might have experience with. Likewise, I do not think they would know what a human resource manager is.

    I think the notion that non- traditional roles pay higher salaries does not really make sense because it means that all jobs are at higher salaries I know it says that for women, but I think this category is confusing and I would drop it. The same thing is true for them being unionized or offering better benefits- that seems to be something that also relates to men. I might add something about the importance of matching personality, ability, and interests to the job instead.

    I am a female and I am finding that many of the nontraditional paths which were held by men are now being held by women. We have over 50% of our college enrollments in pharmacy, science, veterinary sciences being filled by women. The field is changing. I am not saying that things are equal, but I think the focus of this module needs to be that individuals should not let their gender influence their choices and I am not sure that I see that coming through as strongly as it should. I think you should add more data about being happy in the job and expand on the meaning of job satisfaction.

I think you need more detail about the issues you have addressed- i.e job satisfaction and what that means and give some examples. The same thing holds true for work skills. In the section talking about the wide variety of jobs, you might add something that gives an estimate of how many jobs/careers there are and the fact that they are every changing so one must seek to do that they love, regardless of gender. You might add examples of woman and men of distinction who worked in non-traditional roles- particularly people the students might know.

I am not sure the list of jobs is a sample of whether it is the final list but it seems very limited and does not seem to include very many professional jobs. Also, in the text for the position, it lists only interests. I think I would add things like abilities, personality traits, other things that need to be considered.

In the self-reflection, it is not clear if the student would be expected to know things like the education required. I do not see that in the description of the job so I do not know how they would consider that unless that is somewhere in the text. I think the job descriptions

I do not have access to the video, so I am not sure what is on it and there may be some things there that negate my suggestions.

4.   **ACTVITIY 7 Second Activity-** Please describe up to three elements of this activity you feel are particular strengths. For each, please explain your reasoning for their inclusion as particular strengths. Additionally, please provide any suggestions you have for making each even stronger.

   I think the topic is very important and it should get the attention of the reader. The ways to get involved cards provide interesting insights that should assist students in thinking about this topic. However, I think the mentoring description is misplaced on page 6 (There are 2 page 6's so possibly the first one was supposed to be deleted).

   I think the outlines and worksheets for the work-related experiences would be very helpful and meaningful. You might add something like things I liked most about this job and things I likes less. Then they could go back to those when they are thinking about selecting a job career and when gathering their thoughts. I would probably put this before what I learned.

5. Please describe any elements of this activity you feel are in particular need of revision, improvement, or deletion. For each, please explain why you feel they need revision, improvement, or deletion. For any you feel need revision or improvement, we are particularly interested in your suggestions for HOW (in as much detail as possible) you feel they should be improved.

The title is misleading and I think looking at the activities, that it needs to be broadened. In reality, the activities are not "experiencing a career while you are still in school." I think instead that they are guiding students to reflect upon experiences that will help prepare them for a career while they are still in school. This may seem trivial, but reflection on jobs you have had and determining the skills you have learned does not seem like it ties in with having experiences to prepare you for a career BUT it does help students to begin to see how things that they are already doing or that they might do, could assist them in preparing for a career.

I think the module is in a strange kind of order and it is confusing. It begins by suggesting that it is about experiencing a career while still in school. Then, it switches to asking questions about what someone might do in a particular situation. Next it presents ways one could experience a career while in school and then it switches to reflections on jobs you have had. There does not seem to be a focus of a flow.

My suggestion would be

Rename the module- Experiences to prepare you for a career while you are still in school.

I think the next screen should it is very important to gain work experiences while you are in school because this can develop many skills

Next would be the screen which is now page 4- Workplace experiences can give you

Next I would use the screen that is now page 2. GOOD question

Next I would say that this module helps you to do that by:
Examining things you have already done

Engaging in some scenarios that will help you to understand some job skills

Give you some information about specific work experiences you may want to engage in.

I would then have a slide that says
Examining what you have already done

> Gives you an understanding of the skills you already have developed

> Creates self-awareness

> Guides you to areas you might be interested in.

Then I would put in the page with the McDonalds information (page 2).

I would use the work-related experiences next adding the what I liked most and least as suggested above.

If you are going to use scenarios, I think you need to prepare students. I do not think they will understand the purposes and values. I think you need something that says

Gaining work experiences through scenarios. Scenarios are helpful because

They are an easy way to consider what happens on a job and how to handle it

> They give you a chance to learn a skill in a safe way, without making a mistake on the job

I think you need more than one scenario. I would think you need at least three. Then you might have them write what skill they learned either after each scenario or after all three. I think this gives them an understanding of the value of doing something like this.

I would have the last thing be

Gaining experience through workplace activities

I think the way these are fine. I do not know if you want to add something about what they think would be most meaningful to them at this time or not.

What was the third activity that you reviewed?

Activity 8. To identify a career goal and justify your selection

6.   Please describe up to three elements of this activity you feel are particular strengths. For each, please explain your reasoning for their inclusion as particular strengths. Additionally, please provide any suggestions you have for making each even stronger.

The topic is very important and is leading the students to an important goal. I think it will be exciting to them. I think the questions in setting the stage are very solid and that they will help guide students. I think there should be something added about the types of interests/ skills/ aptitudes that most suit this job (i.e liking the outdoors, liking people, working with your hands).

Having the ability to search a career is fantastic and I think students will gain a great deal from being able to do that. I really do not have any suggestions for this module. I think it looks comprehensive and requires thought and reflection. Except for my suggestions below, I think it is well developed.

7.   Please describe any elements of this activity you feel are in particular need of revision, improvement, or deletion. For each, please explain why you feel they need revision, improvement, or deletion. For any you feel need revision or improvement, we are particularly interested in your suggestions for HOW (in as much detail as possible) you feel they should be improved.

I think the first questions do not fit the module and would start making students think in terms of needing a college degree to have a career. I think that this should have something about the consequences of not having a career goal. Some examples might be

Not getting the training you need to do something they would enjoy doing

Ending up in a job that you do not enjoy

Finding out that the job you are seeking will not be financially acceptable to you.

8.   Please explain the degree to which these activities address all elements you believe important to include in a mentoring program for high school students aimed at improving high school graduation and post-secondary education participation rates. If any such elements are missing, please be sure to identify them and to make specific suggestions for how they might be incorporated.

I do not know if the total modules as a group deal with all elements. I think the three modules capture most of what is needed except in what I have noted. I think module 7 needs a lot of work but 6 and 8 seem to be fairly well developed and comprehensive.

Expert Review #8

1. What was the first activity that you reviewed?

   Activity 7

2. Please describe up to three elements of this activity you feel are particular strengths. For each, please explain your reasoning for their inclusion as particular strengths. Additionally, please provide any suggestions you have for making each even stronger.

   a. In the section where the student is asked to describe their work-related experiences, I felt the explanation of previous work experiences was very good. It not only gave them a lot of options to pull from, so they didn't feel they had nothing to write about, it may have also broadened their definition of work.

   I would recommend taking out the sentence "You may need to be creative." This may make it feel like they are "cheating" when including the babysitting job or the lemonade stand. And it may deemphasize the importance of these type of first time jobs and they roles they play in learning how to be successful in the work place.

   b. The section on McDonalds was also good. I think some jobs may not be considered valuable to a teenager. These messages are heard through both peers and adults. Given them an example of a job that may not seem "cool" but still has a lot of value and why it has value could be an important message. Teens with these types of jobs could use this information if challenged by peers or adults.

   One possible way to strengthen this section is to include an example of someone who started their working career at McDonalds, had a positive experience and attributed some of that experience to their success.

   c. The section of opportunities for work experiences was also good. I liked how it covered several possible ways to get work experience and again widened the teen's view of possible opportunities.

   One suggestion for improvement is to provide examples of how to find these opportunities. Maybe list some websites or places in the community where this type of information is available.

3. Please describe any elements of this activity you feel are in particular need of revision, improvement, or deletion. For each, please explain why you feel they need revision, improvement, or deletion. For any you feel need revision or improvement, we are particularly interested in your suggestions for HOW (in as much detail as possible) you feel they should be improved.

   It may be helpful to note the percentage of high school students that work.

   In the section where Michael is attending a meeting, I thought it was good to give an example of how to prepare. However, I think there should be explanation as to why taking notes and sharing is the best way to prepare. Explaining that as a teen, after a week of being at the office, a list of likes and dislikes would most likely not be received well. That as an intern he really should be there to listen and learn. If he has ideas about improvements, they would first be shared with his supervisor. By taking notes and

sharing his goals for the semester he is demonstrating that he values what others are saying and is serious about the internship and the opportunity the company has given him. If he doesn't say anything or take any notes, folks may feel that he does not value what they are saying and is not taking the internship seriously.

Additionally, I didn't see anything about summer employment. Given the demands of school, working in the summer may be the best option for some students. Discussing possible summer jobs and where to find information about applying for these jobs would be helpful.

4.   What was the second activity that you reviewed?

       Activity 8

5.   Please describe up to three elements of this activity you feel are particular strengths. For each, please explain your reasoning for their inclusion as particular strengths. Additionally, please provide any suggestions you have for making each even stronger.

       a.   I thought the fact about the percentage of students changing their major at least once was an excellent point. And really helps make the point of the importance of thinking through your post education choices before you start your post education.

            To help strengthen this section, I would include some consequences of changing your major. For example, having to spend more time/money at college because you don't have enough credits in your new major or not having enough time for classes outside your major that you were interested in taking (i.e. a photography class or foreign language). Additionally, providing the percentage of college students that work in their field of study, along with the percentage of adults who feel they are a good fit may also be helpful.

       b.   I also felt the six areas to consider when choosing post secondary education were well thought out and presented. These are certainly things many high school students would not think through, but are essential in making choices for future success. And having them go through this process with their selected career in mind looked very good.

            I am not sure what information is provided for supporting themselves financially, but I think it would be helpful to give them concrete things to consider for them to determine what salary they would consider acceptable. What are some essential things they want as adults? What are the financial costs of these things? Will they be able to afford them with the career they are thinking of?

6.   Please describe any elements of this activity you feel are in particular need of revision, improvement, or deletion. For each, please explain why you feel they need revision, improvement, or deletion. For any you feel need revision or improvement, we are particularly interested in your suggestions for HOW (in as much detail as possible) you feel they should be improved.

       I thought this was an excellent activity.

7.   What was the third activity that you reviewed?

       Activity 9

8.   Please describe up to three elements of this activity you feel are particular strengths. For each, please explain your reasoning for their inclusion as particular strengths. Additionally, please provide any suggestions you have for making each even stronger.

   a. The section on paying for college was very helpful. I thought the explanations were easy to understand and liked that you included a link to the College Foundation of West Virginia. I also like how the different grant options were given, along with the fields they represented.

   However, I do have a few suggestions. I would emphasize the loans need to be paid back and give some examples of how that would work after they receive their degree/training. Showing how a monthly student loan payment could have a negative impact on their economic future. For example, delay their ability to buy a car, or move out of their parent's home. Though student loans can be very helpful, they also need to be something entered into with full knowledge. Also, I would include a link to other grant opportunities. And more information on work study jobs and the possible opportunities. For example, as a non-profit, BBBSA employs work study students. These jobs do not only provide money for the students, but also great work experience and ways to make connections for future full-time job opportunities. They can be similar to internships, but paid. Even if a student decides to pay for college with other opportunities, applying for work study funds can be beneficial for their future career success.

   b. Identifying three post-secondary college options was presented very well. I thought the process of clicking their choices was not only helpful in making their decision, but also again emphasized the issues they need to consider. My only suggestion is to limit the number of boxes they can check in order to make them think about what factors are really most important.

9.   Please describe any elements of this activity you feel are in particular need of revision, improvement, or deletion. For each, please explain why you feel they need revision, improvement, or deletion. For any you feel need revision or improvement, we are particularly interested in your suggestions for HOW (in as much detail as possible) you feel they should be improved.

   As I mentioned above, the one area I would expand on is the student loans. I would include the dangers of student loans, how important it is to only take out as much as you need and to not take out money to pay for a nicer apartment, or to have the ability to go out to dinner. And provide examples of someone with their first job that has no college debt, a moderate amount of debt and a high amount of debt. And what that means for the apartment and/or car they can afford and other things they can or cannot do based on their debt.

10.   Please explain the degree to which these activities address all elements you believe important to include in a mentoring program for high school students aimed at improving high school graduation and post-secondary education participation rates. If any such elements are missing, please be sure to identify them and to make specific suggestions for how they might be incorporated.

I thought the elements I reviewed did a good job at helping youth think through their post-secondary options and expanding their view of what post secondary education looked liked. And by explaining the options, it made "college" more accessible. I also thought the process of having them think about what was important to them for their future and career; it put them in more control and again, made it more accessible.

For the mentoring component, I thought the questions at the end were good, but I felt like there should be suggested mentor/mentee conversations after each section. I am not sure what type of training the mentors will go through or other resources available to the mentors, but I thought it would be helpful to have some more structure around the activities and mentor/mentee dialogue. For example, asking them why they selected the factors they did for their choice of college; after learning about the different ways to pay for college, what they are going to pursue and why?; besides taking notes and sharing goals for the semester, what were other things Michael could do to have a good internship?, etc.