

Final Report  
Education 2020 Online Course Website  
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## Section 1: Product Description

The evaluated product is a grade 6-12 online tutorial called Education 2020 or more commonly referred to as E2020. This online instructional program is designed for students seeking credit recovery, Advanced Placement courses, tutoring and standardized test preparation. (Education 2020, 2012) The online program provides a mix of direction instruction, vocabulary development, and both formative and summative assessments. Courses in the core content areas such as English, language arts, math, science, social studies and even electives are aligned to state and national CORE standards. According to the Education 2020 website (2012) serves more than 800 school districts and 2,500 schools. In 2011, E2020 was the winner of several awards in virtual classroom excellence including the EdTech Digest Award: Content Provider Solution-Virtual Classroom Suite (Education 2020, 2012). Additional information about the educational product can be found at the product website <http://www.education2020.com/>.

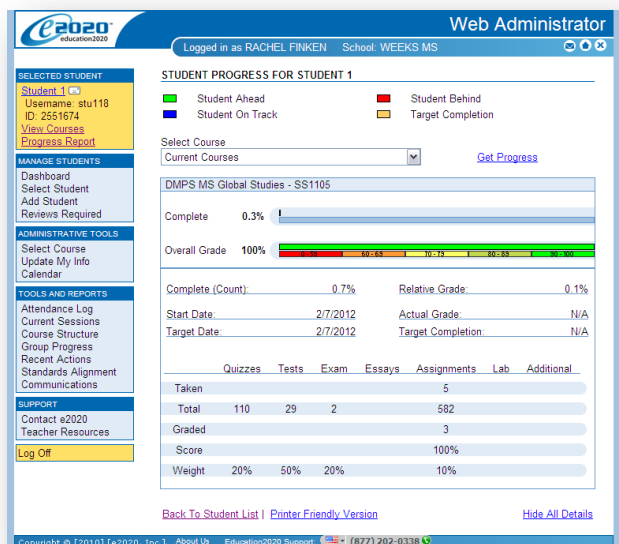
e2020's additional multimedia components:

- Vocabulary development
- Extensions
- Homework/practice
- Support
- Various interactives including Gizmos, labs, essays, journals and threaded discussions

Technology	Direct instruction Vocabulary development Homework/practice Extensions Threaded discussion Contact teacher
Facilitated Learning	Teacher instruction Classroom discussion Intervention
Ongoing Assessment	Formative assessments Quizzes Chapter tests Summative assessments Cumulative/Semester exams

To access the program instructors and students enter the online website through two separate portals. Instructors with a username and password are able to enroll students, manage courses, monitor student work and progress, and create student groupings. The

instructor can access the Administrator portal through the website

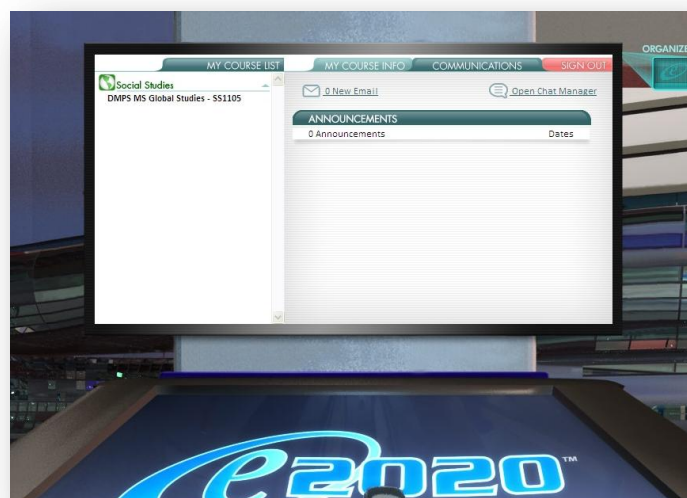


<http://teacher.education2020.com/>. Upon

logging on to the program and viewing the Web Administrator homepage, the left-hand column of the screen contains navigation buttons for the instructor to manage student enrollment and course progress. The navigation column is organized by the following categories: Selected Student,

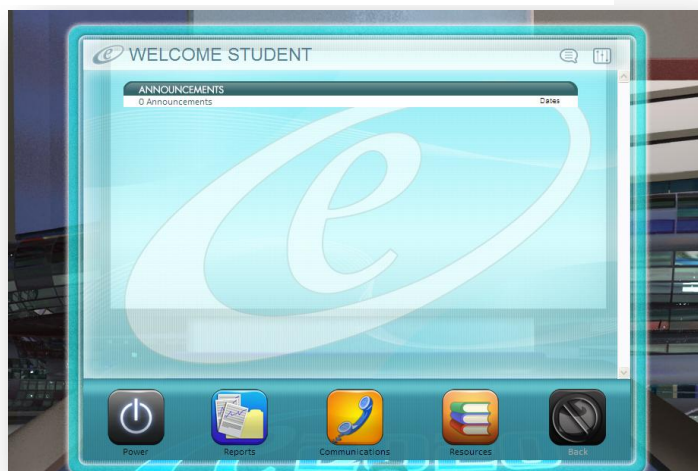
Manage Students, Administrative Tools, Tools

and Reports, and Supports. Each category has several options to help the instructor manage the instructional programs of each enrolled student. He or she is able to review student work and make adjustments to the course if necessary. The navigation column is a permanent fixture of the program for easy navigation. The right side of the program screen is where reports, calendars, course standards, and course content is displayed for the instructor. The top of the screen contains instructor identification information and two



quick navigation buttons. One button is shaped as a house and links the user back to the Web Administrator homepage. The second button is an X, which is a quick link to log the administrator out of the program.

Student users enter the E2020 portal through the website <http://student.education2020.com/> with a user name and password provided by the instructor. The student user opens to the student homepage called the Lobby. In the Lobby, students are able to select the courses they are registered for and check their progress and grades for each course. Floating on the right side of the Lobby screen is a navigation button labeled Organizer. The Organizer has five large navigation buttons



that organize student course resources. Three of the navigation buttons are quick links to Reports (grades, progress, assignment calendars), Communications (Online chat, email, collaboration), and Resources (Support videos, glossaries, calculator), and the remaining two buttons help the student user go back and exit the Organizer. Once the student exits the Organizer and returns to the lobby he or she is able to continue onto their courses. The student will select his or her course and begin or continue on with his or her course of study.

## Section 2: Target Audience

The intended users of the E2020 program are American students in grades 6-12, but this program has also been used to help bring young adults who have dropped-out of school back

into the school system. E2020 is designed to work with a variety of students including homebound, ELL, Special Education, At-Risk, Advanced Placement or those students needing credit recovery. Recently, the University of California has awarded E2020 program status of the official online virtual learning provider. (Education 2020, 2012) E2020 is being used to prepare high school students entering the University will be prepared for the rigor of university academia. Many of the courses offered are geared towards high school or college prep, but courses at the middle school level are offered. In order for students to successfully complete the E2020 online program, students must have a basic knowledge of internet and computer skills (such as typing and web browsing), along with regular access to computer and Internet resources. Depending on the content course and grade level, students should have an elementary understanding and knowledge of the core contents.

### Section 3: Description of Intended Outcomes

The online program E2020 is an educational tool intended to help students obtain mastery of skills and knowledge aligned to national and state CORE standards. E2020 helps to ease teacher burden by quickly measuring student mastery of content through



prescribed assessments, and by providing instant feedback to students on their educational growth. The program also helps teachers to address any gaps in student knowledge and accelerate student progress towards mastering the content. The educational tool also

empowers teachers to accommodate student needs by selecting from a wide variety of courses and opportunities to succeed.

E2020 engages student learning and interest through a variety of leveled course offerings and instructional strategies. The lessons allow students to work at their own pace with access to instructor support and monitoring. The units include multimedia components and varied types of instruction to prolong student interest and motivation for completing the course. Students are only be allowed to move onto the next skill level once an instructor has reviewed their work and made progress towards skill or content mastery. Students should find the assignments, videos and tasks to be appropriately challenging and instructional. The lessons are designed to engage students with multiple learning styles, and formats. The subject matter is aligned to state and national CORE standards, but the content is chosen to be somewhat engaging and interesting to students.

*Cognitive Objectives- Knowledge*

- Define key terms important to the content course
- Complete homework assignments and activities
- Apply knowledge to contextual situations
- Show mastery of content standards
- Online tutor focuses the most energy on cognitive domain

*Affective Objectives- Attitude*

- Students gain confidence with the online learning environment
- Students feel supported by instructional program and online instructors
- Growth the ability to work independently through problems and tasks (develop self-reliance)
- Feel successful in every course

*Psychomotor Objectives -Skills*

- Reproduce example work and skills during guided instruction
- Respond to written or spoken direction
- In electives courses, use software like Blender to manipulate objects and practice predicting behaviors.

## Section 4: Preliminary Evaluation

### *Strengths*

The E2020 program is a well designed tutorial program for secondary student learners. The courses range in a variety of ability levels from grades 6-12, and E2020 even provides courses for college or career preparation. Each course leads students through structured but engaging lesson to help guide students to content mastery. Each course unit utilizes a variety of instructional strategies from vocabulary development, multimedia instruction, threaded discussions, ongoing assessments, and homework practice. Teachers are able to monitor student scores, progress and responses. Students are also able to track their own progress and scores through each of their enrolled courses. Students are able to learn course material at their own pace, and the program does not allow students to move forward without mastering the materials. Instructors are able to review and reassign student activities to help students find success in learning.

Each course is aligned to Iowa Core standards and for each unit within the course a detailed list of standards is provided. The course map for the unit allows both teacher and student users the ability to see the major themes and topics covered by the unit. Each unit is broken down into small manageable chunks that allow for timely stopping points, but are long enough to maintain a feeling of positive momentum. Each unit within the course can be completed within 30 minutes to one hour depending on the pace of the student. A student's work will also be saved if he or she needs to exit the unit before completion. This flexibility in time management allows users to pick up where they left off without having to repeat

instruction or directions. A pace tracker at the top of the course screen monitors the student's progress and informs the instructor and the student if he or she begins to fall behind schedule.

E2020 offers a variety of courses to help fill academic gaps or to provide extended learning opportunities for students. A student who needs a credit recovery course for Geometry, can also complete a course in Spanish I. The amount of courses offered by E2020 allows the instructor to tailor courses for students to best meet their needs and interests.

### *Weaknesses*

The E2020 program does have its limitations for teacher and student use. Although the courses offered by the program are aligned to Iowa CORE standards, the courses may not directly support the same content covered in traditional schools. For example, the DMPS Global Studies course for 7<sup>th</sup> grade is aligned to Iowa CORE standards, but does not reflect the same material or topics covered by district curriculum. The generality of the content may be a drawback when attempting to engage and maintain student interest. Teachers are limited by the few options available to truly tailor the course and instruction to the student's needs. Students are able to retry the unit, but they must repeat the exact same lessons to obtain mastery.

The courses are offered for grades 6-12, but most of the most is geared towards high school students. The lower level courses are not entirely age appropriate for students in the lower middle levels. The web resources and content seems to be offered at lower levels as a possible way to backfill any gaps in student learning, but reading and writing levels may be too difficult for middle level students, especially those who have struggled academically. These

courses for the middle grades could be utilized for students on the accelerated track rather than at-risk or needing credit recovery.

E2020 is not a free program, and for districts the expense would be great if implemented for only a few students or schools. The investment in an E2020 subscription would entail an extensive use by multiple users, schools and programs to justify the costs. The content provider does have the ability to align existing programs to similar school course offerings, DMPS Global Studies 7 as an example, but content cannot be changed or altered to meet the needs of a school or district.

The courses are highly structured and follow the same format for each unit lesson. This predictability could help students develop a sense of confidence in completing the unit, but it could also become an automated process for students and could verge on boring. Student interests and motivations are not taken into account in the course materials and assignments. Students rarely have the opportunity to create, explore, research, or evaluate topics that are not explicitly included in the course unit. Teachers do not have the ability to add content to further engage student learning and motivation. The role of instructor in the program is for quality control, classroom discussions, and program support. Options are available for blended learning environments, but again teacher input and control is limited.

### *Recommendations*

Although E2020 is a well designed program a few changes could be made to enhance the quality of the program. A few changes I would suggest would be relatively easy and inexpensive to implement. First, many of the navigation buttons are large and easily found, but



are not explicitly labeled. This can cause confusion and frustration for both the instructor and student user. A simple label could be added or a pop-up label when the mouse is rolled over the button to identify the button's purpose. Second, for the instructor page a short description of each course offering would be helpful before enrolling a student in a course. Right now the instructor can only chose from the appropriate grade level and subject area, but for now it can be a guess and check process.

Other changes I could recommend may involve a little more time and expense. E2020 does not provide any kind of diagnostic tool to help the instructor select the appropriate levels or courses for the student. The student may just be taking coursed needed for graduation requirements, but if there are serious gaps in knowledge, the instructor has no way of knowing until the student struggles through or fails a higher level course. By including a simple diagnostic tool or pretest, the courses could be properly selected for the student and greater success would be more likely to occur.

Also, student engagement could be enhanced by adding additional tools for students to create projects and complete assignments beyond quizzes and journals. The internet is full of free educational tools students could use to enhance their own understanding of the material and engage with deeper understanding of the content. Each course unit has objectives in Bloom's cognitive domain, but very few of the objectives tackle higher order thinking like analysis, synthesis and evaluation. E2020 could partner with or better utilize web programs like Google Docs, math and physics simulators, blogs, Voice Thread or many other free or inexpensive web tools.

## Section 5: Matrix of Objectives and Instruments

### *Resources Used*

Several resources were invaluable to the development of this evaluation. Fitzpatrick, Sanders and Worthen's (2004) "Program Evaluation: Alternative Approaches and Practical Guidelines," was a helpful text used in developing the focus of the evaluation and also in the selection of evaluation instruments. The CIPP Model of the Management-Oriented Evaluation Approach (Fitzpatrick, Sanders & Worthen, 2004) helped to guide the purpose of the evaluation and also the development of evaluation objectives. This evaluative approach is conducive to creating an evaluation that will help facilitate the decision making process needed by the stakeholders. Other helpful resources were the "Handbook of Usability Testing: How to Plan, Design, and Conduct Effective Tests" by Rubin and Chisnell (2008) and "Designing Effective Instruction by Morrison, Ross & Kemp, 2011) . These two texts were very helpful in the guiding the creation of evaluation instruments and the development of an evaluation plan. Specifically, the text was useful in the creation and formatting of the Try-Out Questionnaire and the means for quantifying qualitative data.

### *Rationale of Questions*

The questions selected for the questionnaire and the focus group were derived from interviews and discussions with stakeholders at the school (principal and other administrative staff) and also through a consultation session with the evaluation sponsor (Dr. Correia, Iowa State University). Interviews with the school principal and helped to determine the motivation for the evaluation as a decision making tool. The school principal was interested in determining whether or not the Education 2020 program would be successful if implemented at the school.

Dr. Correia was instrumental in helping to narrow the focus of the evaluation into determining whether or not the program would be an appropriate tool to implement at the middle school level with at-risk students. The objectives and questions developed for the evaluation provide the means for assisting the school principal in making the final decision about whether or not to implement the Education 2020 program.

#### *Rationale of Evaluation Instruments*

The evaluation uses three instruments for data collection: a survey questionnaire, observation log, and focus group guide. The survey questionnaire is selected as the prime data collection tool because of the ease and efficiency of data collection that questionnaires provide. "Surveys constitute one of the most important data collection tools available in evaluation," (Fitzpatrick, Sanders & Worthen, 2004, pg. 341). According to the authors, surveys provide a structured response format that allows responses to be analyzed statistically, whether they are administered in person or online (2004). The survey questionnaire is formatted with a Likert Rating Scale, again to assist in the collection of data that can be quantifiable.

The observation log is selected as a secondary evaluation tool, because observations can be used to learn about various reactions, interactions and behaviors of participants (Fitzpatrick, et al., 2004). The observer can make note and collect data about participant's reactions to the product, administrators, or environment that would otherwise be unable to gather through the questionnaire. The observations made by the observer, is quantifiable data that will aid in the decision making process.

The last evaluation tool selected is the focus group guide. This guide follows the product try-out and is a supplement to the open-ended responses of the questionnaire. This focus group session is similar to an interview process, but uses the group dynamic to build the discussion. The facilitator can record group reactions to the product by using probing questions for more in-depth responses. The focus group can also be especially helpful in ascertaining suggestions to problems with the product or program (Fitzpatrick et al, 2004). Fitzpatrick et al. (2004) also suggests that the homogeneity of the group make-up will help participants feel more comfortable giving open and honest responses and will also facilitate group interactions. The data collected will be qualitative data, but through organization and coding can be made quantifiable.

#### *Ensuring Validity and Reliability of Evaluation Results*

To ensure the evaluation results are valid, the evaluation process is using multiple evaluative instruments to gather and collect data (Morrison, Ross & Kemp, 2011). The aforementioned evaluation instruments will help to triangulate the data and help to ensure accurate interpretation of the results. The data collected is a mix of quantitative and qualitative data, but through a coding process all of the data will be quantifiable for accurate analysis. Also, the participants are comprised of a homogenous group of evaluators in training that will help to ensure the reliability of the data collected. The evaluation process is systematically planned and carried out to ensure each participant is exposed to the same circumstances and environments. A pilot test of the product try-out was conducted prior to the evaluation try-out that enabled small changes to be made to the instruments and process to ensure a smooth running and relatively trouble-free evaluation process.

Test Objectives	Method	Questions	Materials
Determine participant previous experience and conceptions about online learning environments and online tutorial programs	User's Try Out with E2020 and try out questionnaire	1. I am familiar with using digital learning environments or online tutorials. 2. I am comfortable with using online learning programs.	User Try Out questionnaire (Likert rating scale)
Determine participant's preconceptions of Education 2020 product	User's Try Out with E2020 and try out questionnaire	3. I have had previous experience or familiarity with Education 2020 online tutorial program.	User's Try Out Questionnaire (Likert rating scale)
Determine if the product is easy to use	User's Try Out with E2020 and try out questionnaire Follow up focus group debriefing	4. The product is easy to use.	User's Try Out Questionnaire (Likert rating scale) Focus Group Guide Observation Log
Determine if the product provides engaging learning experiences	User's Try Out with E2020 and try out questionnaire Follow up focus group debriefing	5. The product has engaging learning experiences.	User's Try Out Questionnaire (Likert rating scale) Focus Group Guide
Determine if the product content is age appropriate for the target audience	User's Try Out with E2020 and try out questionnaire Follow up focus group debriefing	6. The educational content is appropriate for the middle school level.	User's Try Out Questionnaire (Likert rating scale) Focus Group Guide
Rate the appropriateness of the product for middle level students	User's Try Out with E2020 and try out questionnaire Follow up focus group debriefing	7. I would recommend this product to be used with middle level students.	User's Try Out Questionnaire (Likert rating scale and open-ended comment section) Focus Group Guide
Rate the appropriateness of the product for use with at-risk students	User's Try Out with E2020 and try out questionnaire Follow up focus group debriefing	8. I would recommend this product to be used with at-risk students.	User's Try Out Questionnaire (Likert rating scale and open-ended comment section) Focus Group Guide
Determine the weaknesses and strengths of the product	User's Try Out with E2020 and try out questionnaire Follow up focus group debriefing	9. What are the weaknesses of the program? 10. What are the strengths of the program?	User's Try Out Questionnaire (Open-ended comment section) Focus Group Guide

Table 1: Evaluation Matrix

## Section 6: Pilot Test

On Monday, March 19<sup>th</sup>, 2012 at 6:30 pm a pilot test of the evaluation was performed with one participant. Aaron, 30, who has some experience with teaching middle school students, was the single participant for the pilot test. Aaron has had no previous experience with the Education 2020 program.

The pilot test began at 6:35 pm and ended at 7:10 pm; the entire evaluation pilot test process lasted 35 minutes, which due to very limited time constraints is right in the target zone. The Welcome Script read to the participant was a little long and wordy; the entire reading process and instruction time went well into 3 minutes. During the debriefing process, I felt the participant lost track of the goal of the evaluation when he was trying to listen for what he needed to complete. For the User Try-Out I will attempt to rewrite the welcome script to read more succinctly, and with clearer directions.

The next step was to begin operating the E2020 program, in which the participant completed the first session in approximately 25 minutes. Aside from a few comments about being unsure of which steps he needed to complete in order move onto the next activity or assignment, this part of the pilot test was uneventful. I am reluctant to provide too much direction in the welcome script and directions to relieve his uncertainty, because I want the qualities and frustrations of program to speak for itself. For the final user try-out, I will shorten the amount of time spent on exploring the program so enough time will be available to administer the questionnaire and focus group guide.

As he completed the first section of the program, I was taking notes on the observation log. The organization of the log worked to compile data, but I will not be able to quantify the data as I had hoped. Instead the observations, comments and questions noted during this time will be compiled for the final report summary.

The survey questionnaire was administered in a shorter amount of time than I anticipated which works well on our tight time schedule. I will need to reword a few questions, as two of the statements tended to be heavy on evaluation and education terminology. I also removed two questions as they seemed to reiterate the same idea. This convolution resulted in unclear reporting of participant results. The focus group guide worked very well and I will not be making any adjustments to it.

## Section 7: Description of Data Collection Process

**Date:** Thursday, March 29<sup>th</sup>, 2012

**Time allotted:** 40 minutes, 5:10 pm -5:50 pm

**Location:** Lagomarcino Hall classroom N0047

**Evaluator:** Rachel Finken

**Participants:** 5 novice or evaluators in training

**Materials:** Mac Laptop Computer Cart, Overhead Projector, PowerPoint Presentation, Education 2020 student website(<http://student.education2020.com/>) with 5 participant user ID's and Passwords, 5 sets of headphones, tokens of appreciation

**Evaluation Tools:** Evaluation Script, Survey Questionnaire, Observation Log, Focus Group Guide, Voice Recorder program

**Procedure:** Welcome Script and participant instructions (2 minutes), Program Try-Out (15 minutes), Survey Questionnaire (5 minutes), Focus Group Discussion & Wrap Up (10 minutes)

*Prior to User Try-Out Session:*

Before the try-out began each Mac computer had the student log in page of the Education 2020 website loaded onto the computer. The same course, DMPS Global Studies, was assigned to each participant to work through. This course was preloaded under each student ID and was instantly ready to begin. A set of headphones was provided for each participant to wear during the try-out session. A PowerPoint Presentation was loaded up on the projection screen that walked the participants through the Try-Out Process. Rachel Finken had the survey questionnaire printed out for each participant to complete after the try-out. Rachel also had a hard copy of the script to read aloud to the participants, an observation log, and the focus group guide of follow up questions. The Voice Recorder computer program was used to record participant responses during the focus group session.

*User Try-Out Session:*

At 5:10pm the evaluation for the E2020 program began with a group of 4 participants who are novice or evaluators in training. Rachel welcomed each participant and read the script aloud as the participants followed along on the projector screen. She asked the participants if they had any questions. The participants were instructed to log onto the E2020 website with the provided user ID and Password and began the DMPS Global Studies course. They were also instructed to use the provided headphones for the video portion of the course assignments. The participants were given 15 minutes to work through the course. A countdown timer projected on the overhead screen kept track of the time. As the participants completed the course, Rachel used the observation log to record her observations of the participant's behaviors and interactions with the E2020 program. A message prompted the participants to



stop when they have reached the final assignment or after 15 minutes passed Rachel instructed the participants to end his or her course session.

*Conclusion of the User Try-Out Session:*

After the course had been completed by the participant, they filled out a survey questionnaire about their experience. Rachel collected this questionnaire from each participant. Time allowed for further probing, so Rachel led the participants in a short focus group session using the focus group guide and the session was recorded using Voice Recorder. Rachel then concluded the try-out session at 5:50 pm and thanked each participant with a small token of appreciation.

## **Section 8: Data Analysis Plan**

The data for the evaluation was collected from three separate instruments: survey questionnaire, observation log, and focus group session. The gathered data began as both qualitative and quantitative data, but for data analysis all qualitative data was coded and become quantifiable. All gathered data was hand-entered into a spreadsheet program. The data was organized into quantifiable data through frequency of responses and comment coding. I used the graphing function of the spreadsheet program to look for patterns for the final report. All quantifiable and qualitative data was analyzed and summarized for final report to school principal. The data and summaries will aid the stakeholder in deciding whether or not to implement the Education 2020 program at the school.

<i>Evaluation Tool</i>	<i>Process for Data Analysis</i>
Survey Questionnaire	<ul style="list-style-type: none"> <li>▪ Responses from Likert Rating Scale are tallied for each individual question</li> <li>▪ Response tallies were entered into a spreadsheet for data and</li> </ul>

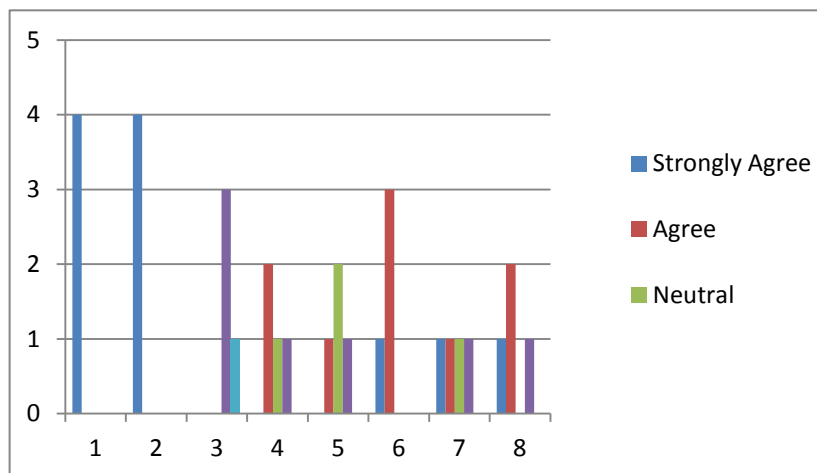
	graph analysis <ul style="list-style-type: none"> <li>▪ Tallies was converted into percentages representing the final response percentage for each question</li> <li>▪ Open-ended comments section responses were recorded verbatim in the spreadsheet</li> <li>▪ Content analysis was performed for each comment to find patterns in survey responses</li> <li>▪ Open-ended responses was categorized and coded for into frequency tallies for quantifiable data</li> <li>▪ Open-ended responses was summarized for final report</li> </ul>
Observation Log	<ul style="list-style-type: none"> <li>▪ Evaluator observations of participant behaviors and interactions during the try-out were recorded in the log</li> <li>▪ Participant errors or questions were recorded in the log</li> <li>▪ Description of general participant pace when using the program were recorded in the log</li> <li>▪ Observations were analyzed for frequency of errors, similar questions, general patterns in behaviors or interactions</li> </ul>
Focus Group Session	<ul style="list-style-type: none"> <li>▪ Responses to each question from the focus group guide were recorded using Voice Recorder</li> <li>▪ Pattern analysis were performed on group responses and recorded into the spreadsheet</li> <li>▪ Responses and suggestions from group were summarized for final report</li> </ul>

## Section 9: Results and Findings

The user try-out session involved four participants and utilized three data collection tools: survey questionnaire, focus group session and administrator observation form. The data collected from the survey questionnaire questions 1-8 was measured using a Likert Scale with responses ranging from Strongly Agree, Agree, Neither Agree or Disagree, Disagree and Strongly Disagree. Questions 9-10 were open-ended response sections. The questions were grouped together in a section around an organizing concept. Each section had a comments section to allow for open-ended comments and more detailed explanations from participants. The responses from questions 1-8 were collected and recorded in a spreadsheet and converted

into response percentages. Each Likert response was assigned a quantitative value of 5=Strongly Agree, 4=Agree, 3= Neither Agree or Disagree, 2=Disagree, 1= Strongly Disagree. The following table below is a summary of the collected data from the survey using the Likert Scale:

Question	Survey Response Data
1. I am familiar with using digital learning environments or online tutorials.	100% Agree, Mean Response= 5.0
2. I am comfortable with using online learning programs.	100% Agree Mean Response= 5.0
3. I have had previous experience or familiarity with Education 2020 online tutorial program.	100% Disagree, Mean Response= 1.75
4. The product is easy to use.	50% Agree, 25% Disagree, 25% Neutral, Mean Response= 3
5. The product has engaging learning experiences.	25% Agree, 50% Neutral, 25% Disagree, Mean Response=2.75
6. The educational content is appropriate for the middle school level.	100% Agree, Mean Response= 4.25
7. I would recommend this product to be used with middle level students.	50% Agree, 25% Disagree, 25% Neutral, Mean Response= 3.25
8. I would recommend this product to be used with at-risk students.	75% Agree, 25% Disagree, Mean Response= 2.5

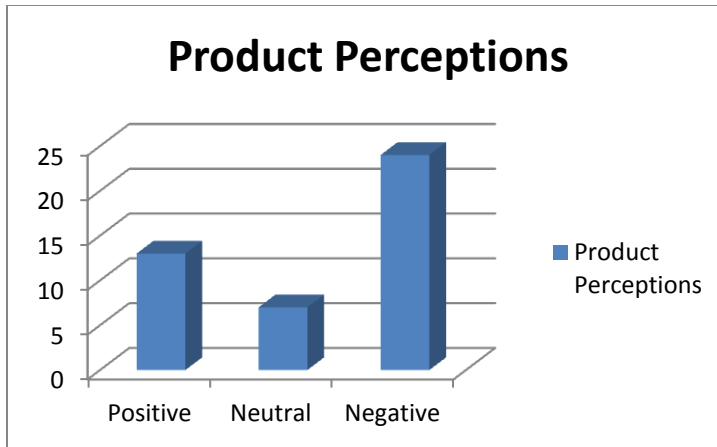


Questions 1-3 were used to ascertain the participants comfort level with online digital learning environments. All of the participants felt comfortable and had experience with online

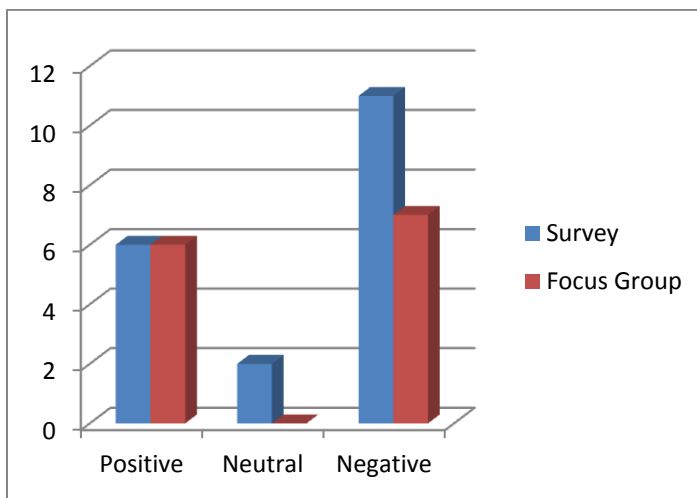
learning environments, but none had any experience or preconceived ideas about the E2020 program. Questions 4-6 were used to ascertain the functionality and ease of use of the program. The majority of participants agreed that the E2020 program was easy to use and appropriate for middle school level students. The participants were split on whether the program provided engaging learning experiences, with the majority of respondents indicating a Neutral response. Questions 7-8 were used to ascertain the participant's overall perception and recommendation of the product. The majority of participants agreed that the product be used with both middle level and at-risk students.

Questions 9 and 10 allowed for open-ended responses to ascertain the strengths and weaknesses of the program. Summarized comments from question 9 described the product weaknesses as difficult to navigate, disorganized, and containing overly-lengthy video tutoring segments. Summarized comments from question 10 described the product strengths as well produced, allowing for self-pacing, and using a familiar conversational style tone.

The Focus Group Guide used four questions to further probe the answers of the participants. Participant's comments were recorded and quantified into response categories of Positive, Neutral, and Negative. The first question concerned the ease and usability of the product, question 2 concerned the level of student engagement, question 3 concerned the possible educational uses of the program, and question 4 concerned program improvements. From the quantified data collected in the Focus Group session, the usability of the program was rated negatively, and the level of student engagement was rate slightly more negative than positive by participants. Overall, the participant perceptions of the product were negative.



The product perceptions by the participants were mostly negative and the overall perception of the product was negative as well. The collective quantified data, including open-ended responses and focus group responses, show a slightly more negative recommendation of the product than positive recommendation. The chart below summarizes the quantified overall participant responses to the program as Positive, Neutral or Negative. The participants had slightly more negative responses and comments about the program than positive responses.



Upon completion of the User Try Out session I am able to conclude that the Education 2020 program could be utilized and implemented for middle level students, but with some reservation. This reservation derives from the negative comments and concerns about the

programs usability and engagement from the expert evaluators. The evaluation expert participants felt the curriculum and content was appropriate with a Positive response score of 4.25 out of 5. But the usability score of the program was a Neutral 3.25, and a Negative score of 2.75 for engagement. The survey questionnaire from the participants indicated an overall recommendation for limited implementation of the product, but also included some reservations about use with at-risk students or credit recovery students, especially the usability and organization of the program. With a few minor adjustments to the program or the administration of the program, E2020 could be successfully implemented with middle level students.

## **Section 10: Recommendations**

After evaluating the Education 2020 online program, I would suggest making several changes to the organization and layout of the course program. These recommendations are based on the open-ended comments section of the survey questionnaire, focus group comments and administrator observations.

### *Organization and Layout*

For ease of use and navigation I would recommend to the program designers to include labels on action buttons to better assist student users with navigating the program. This recommendation was made based on the Negative ratings from the survey and focus group that described the program as “confusing,” “disorganized,” and “difficult to navigate.” This simple pop-up feature in the program would help to alleviate the uncertainty users felt when using the course programs. I would also recommend to the program designers the inclusion of a progress bar that allows users to manage their time and gauge their progress through the

course. Lastly, a brief tutorial or FAQ area should be created on the student home page to help new users learn how to use the course.

**Best Recommendation:** The E2020 program designers should add labels to the action buttons and include a progress bar that runs throughout the course program.

**Alternate Recommendation:** A course instructor needs to provide a brief tutorial describing how the program works and is available to assist students with questions and support.

### *Video Section*

Negative comments were made by each one of the four participants on either the survey or during the focus group session about the excessive length of the instructional video. The video was described as “long and boring,” but overall “well-produced.” The user try-out administrator observed two of the participants attempting to fast forward through the video section, and another participant staring out the window while the video was playing. My recommendation would be to re-edit the video section to shorten the average running time of the video from 9 minutes 37 seconds to closer to 5 minutes in length. This adjustment would help to increase student engagement and attentiveness with the video.

**Best Recommendation:** The instructional video segments need to be re-edited or shortened to help increase student engagement and attention.

**Alternative Recommendation:** The course administrator could exempt students, especially those retaking the course section, from watching the video.

### *Course Goals and Objectives*

At the beginning of each course the only indicator of what the student will be learning is the course or segment title. Two participants commented on the need for creating a “context for the course” or at least stating the learning objectives before the segment begins. This simple addition at the beginning of each section would help to ease the confusion and frustration indicated by the participant’s responses.

**Best Recommendation:** To create a context for the information, include a brief written description of the course segment and objectives to be met before students complete the course.

**Alternative Recommendation:** Instruct the course administrator to explain the lesson or course objectives prior to students' beginning the course to create a context.

## Section 11: Results Comparison

The user try-out session reinforced many of the critiques I found before the evaluation. But valuable insight into the student perspective of the program was gained from participant feedback. In my initial critique I noted the strengths of the program were the structure and format of the lessons. The lessons followed a predictable structure and would help students gain confidence and comfort with the online format. From the user try-out data I was able to confirm that this feature was both a strength and weakness. The structure of the program helped the participants navigate and use the program, but several participants felt the course structure did not provide enough stimulation for students. The predictable lesson structure increased student comfort levels, but decreased student engagement levels.

Another strength I noted at with my initial critique was the functionality of the progress bar at the start of the course. This bar allows the user and course administrator to monitor the user's progression through the lessons and course. Through the user try-out I was able to determine that this function was a helpful feature, but it should also be utilized throughout the individual course lessons. This feature would allow users to better manage their time and keep track of their lesson's progress. The progress bar feature seems to be more of an advantage to the course administrator than the actual course user.

The weaknesses I predicted in my initial critique did not vary from the data collected in the user try-out. I noted the need for labels on the action buttons to avoid frustration and confusion for users, and this was one of the most mentioned weaknesses by the participants. I also noted in



my critique that a short course description would be a helpful feature for the instructor when selecting appropriate courses for students. I found from the try-out that the user's themselves felt they would benefit from a brief description of the course and individual lessons. The majority of participants felt their experience would benefit from being provided with a context or lesson objective before beginning the online course.

Another weakness I noted was the structure and repetitiveness of the lesson structure could lead to a decrease in student engagement. I also predicted the course's educational content may not engage learners, but each participant felt sufficiently engaged throughout the lesson with the exception of the video segment. The predictability of the lesson provided some level of comfort and confidence with the users, but I believed this could lead to boredom and a decrease in student engagement. From the try-out I gathered that users were not bothered by the structure and repetitiveness of the lessons, but rather the excessive length of each lesson segment caused users to lose concentration and engagement in the program. The user try-out confirmed many of the strengths and weaknesses I outlined in my initial critique of the E2020 program, but the try-out session also provided an insightful perspective into the student user's point of view. My initial analysis was limited as I critiqued the program from more of a course administrator's point of view.

Rachel Finken was solely responsible for the creation, administration and analysis of the evaluation for the Education 2020 program, including all evaluation objectives, materials and data analysis results.

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## Appendix A: Survey Questionnaire

### Education 2020 Product Questionnaire

*Please use your expertise as an educational evaluator to rate your experience with the Education 2020 product with the statements below. For each statement please circle one response.*

#### *Online Learning Background:*

1. I am familiar with using digital learning environments or online tutorials.

<i>Strongly Agree</i>	<i>Agree</i>	<i>Neither Agree nor Disagree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
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2. I am comfortable with using online learning programs.

<i>Strongly Agree</i>	<i>Agree</i>	<i>Neither Agree nor Disagree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
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3. I have had previous experience or familiarity with Education 2020 online tutorial program.

<i>Strongly Agree</i>	<i>Agree</i>	<i>Neither Agree nor Disagree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
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Comments: \_\_\_\_\_

\_\_\_\_\_

#### *Education 2020 Product:*

4. The product is easy to use.

<i>Strongly Agree</i>	<i>Agree</i>	<i>Neither Agree nor Disagree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
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5. The product has engaging learning experiences.

<i>Strongly Agree</i>	<i>Agree</i>	<i>Neither Agree nor Disagree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
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6. The educational content is appropriate for the middle school level.

<i>Strongly Agree</i>	<i>Agree</i>	<i>Neither Agree nor Disagree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
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Comments: \_\_\_\_\_

\_\_\_\_\_



*Overall Recommendation:*

7. I would recommend this product to be used with middle level students.

Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
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Comments: \_\_\_\_\_

\_\_\_\_\_

8. I would recommend this product to be used with at-risk students.

Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
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Comments: \_\_\_\_\_

\_\_\_\_\_

9. What are the weaknesses of the program?

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

10. What are the strengths of the program?

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Gender (circle one): Female Male**

**Age (circle one): 0-10 11-20 21-30 31-40 41-50 51-60 61-70 71 and above**

## **Appendix B: Welcome Script and Participant Instructions**

Hello and welcome! Thank you for taking time to participate in our User Try-Out session. My name is Rachel and we are all here to help determine the value of the Education 2020 online tutoring program for middle school level students. This evaluation is not affiliated with Education 2020; this session is strictly for evaluative purposes. After your participation today I will be asking you as evaluative experts to fill out a survey and I will also have a few follow up questions to ask before our task is complete. Today's session will last no more than 40 minutes.

Today we will be exploring the Education 2020 online tutoring course titled DMPS Global Studies. The online program will take you through each lesson and assignment for the first section of the course. This part of the evaluation is for you to work through the program and get a feel for how the program works and is organized. You will be given up to 15 minutes to work through the first section of the course. Due to time constraints, you may not have time to complete the entire course section, but do not worry or feel rushed; your answers are not being scored. Work at the pace you normally would and try to get a feel for the program. After completing the course section or time has run out, you will complete a survey. Use your experience with the program and your knowledge as an evaluation expert to complete the survey.

Once you have completed the survey, I will ask the group a few questions about their thoughts on the program and any suggestions for the use of the program. This focus group discussion will last approximately 10 minutes and I will be recording the group discussion. Your responses to the survey and focus group discussion will be kept confidential and you may opt out of the evaluation at any time.

Do you have any questions? (pause for questions) If not, we will begin our session. Thank you again for your participation in this try-out session!

Please listen closely to the following instructions:

1. Use the username and password provided to log into the E2020 website.
2. Select the DMPS MS Global Studies Course
3. Complete the lessons and activities for the first course section.
4. You will be using the headphones provided for the audio & video sections of the course.
5. I will announce when time has expired.
6. Please log into the website now and begin your course.

## Appendix C: Observation Log

### Observation Log

Session Date \_\_\_\_\_

Number of participants \_\_\_\_\_

Program Start Time \_\_\_\_\_ am/pm

Program End Time \_\_\_\_\_ am/pm

Category	Observations
Interactions with E2020 program	
Major Errors (User error or program error)	
Participant Questions	
Participant Comments	
Other	

Overall Observations: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Appendix D: Focus Group Guide

### Focus Group Question Guide

***Read the following information to the focus group:***

Now that you have explored one course in the E2020, I have a few questions I would like all of you as evaluation experts to think about. I will be recording our discussion for the evaluation process. Remember the goal of this evaluation is to help determine the value of the E2020 program for an education setting at middle school level. Your feedback is an important part of the evaluation for this program and will be helpful in the decision making process.

***Ask each question to the focus group. Check audio recording equipment to make sure it is properly functioning and take notes on participant's comments and suggestions. Be sure to allow sufficient wait time (approx. 7 seconds) for the group to process the question and respond.***

1. Do you think the course program was easy to navigate and follow?
  
  
  
  
  
  
  
  
  
  
2. Did you find the course program structure engaging?
  
  
  
  
  
  
  
  
  
  
3. In what ways could you see this program being used in a school setting?
  
  
  
  
  
  
  
  
  
  
4. What suggestions do you have that could make the program better?