
ANALYSIS REPORT

BPC 101: Basic Principles of Credibility Online



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Overview

Basic Principles of Credibility Online (BPC101) is a non-credit course for adult learners with low reading skills seeking to acquire new knowledge and skills to pursue their life goals and career aspirations. These adult learners will distinguish between credible and non-credible sources. As a free, open educational resource for adult basic education, BPC101 is to serve as an independent course and is not a prerequisite for another course. Mr. John Venecek and Mrs. Terri Gotschall from the University of Central Florida (UCF) John C. Hitt Library served as subject matter experts (SMEs).

According to Designers for Learning (2016), 774 million adults in the world cannot read and write, and 30 million U.S. adults do not achieve a high school diploma. In addition, College and Career Readiness Standards (CCRS) for Adult Education (2013) state that learners “need to grapple with works of exceptional craft and thought whose range extends across genres, cultures, and centuries,” and that by doing so they can “gain the ability to evaluate intricate arguments and the capacity to surmount the challenges posed by complex texts.” BPC101 aims to meet the needs of all adult learners and help them become college- and career-ready.

The targeted learners for the course are adult learners with low reading skills who are striving to attain a basic education. The course will consist of six modules, with an estimated 1 hour per module. Ultimately, the entire course will take six hours to complete.

BPC101 will be offered as an online course. The adult learners will access all modules, content, and assessments on the Open Educational Resources (OER) Commons under the Adult Learning Zone: A Designers for Learning Project.

The following Analysis Report outlines a goal analysis, a subordinate skills analysis, a learner analysis, a performance context analysis, and a learner and context analysis for the BPC101 course.

Goal Analysis

As seen below in Figure 1, adult learners with low reading skills will recognize the basic principles of credibility to delineate and evaluate credible and non-credible sources online.

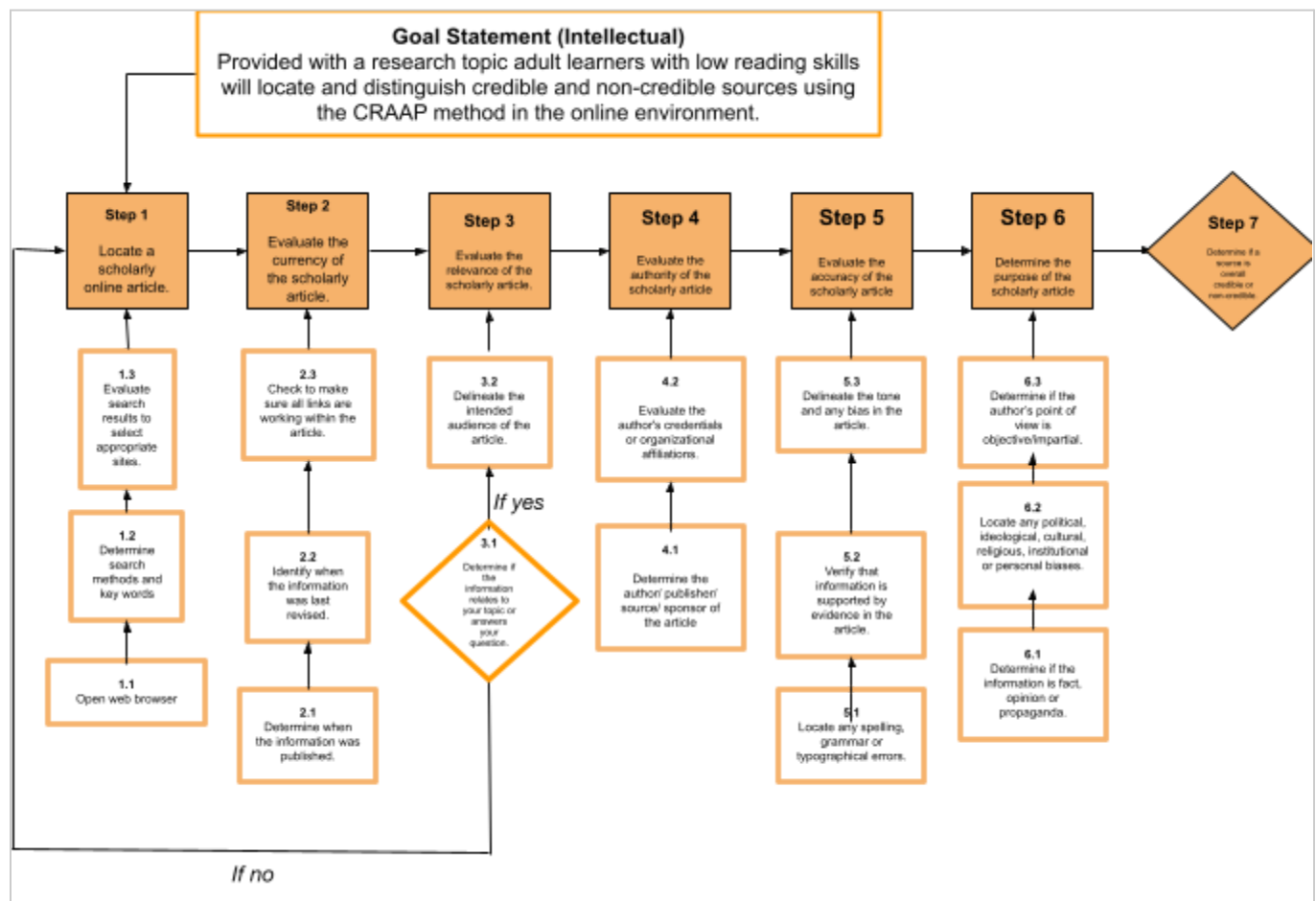
The goal statement was identified by Dr. Chen and the subject matter experts (SMEs) for this course, John Venecek and Terri Gotschall. It states that:

Provided with a research topic, adult learners with low reading skills will locate and distinguish credible and non-credible sources using the CRAAP method in the online environment.

The statement is classified as an **intellectual skill** based on Gagne's taxonomy.

The goal analysis identifies seven major steps needed in order for a learner to carry out the goal statement successfully. The subsequent sections of this analysis report will focus on developing, listing, and identifying the substeps and entry skills necessary to accomplish the goal statement.

Figure 1. Goal Statement & Analysis Diagram for BPC101: Basic Principles of Credibility Online



Subordinate Skill Analysis

Figures 2–5 provide a visual outline of the subordinate skills and procedural tasks associated with substeps 1.2, 3.2, 5.3, and 6.1.

As a result of their participation in the course, learners should be able to identify key concepts related to the principles listed to determine the credibility of online sources. The entry-level skills for the learners demonstrate necessary prerequisite skills, including knowledge of online searching, basic reading and comprehension, and understanding of cultural attitudes.

Figure 2. Subordinate Skill Analysis for Step 1.2 in BPC 101: Basic Principles of Credibility Online

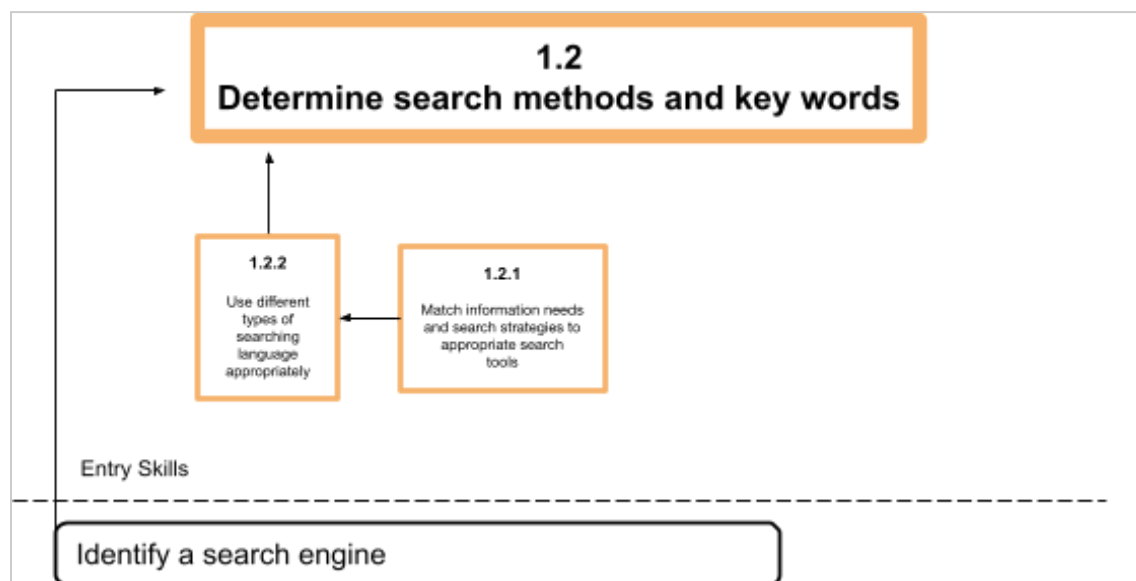


Figure 3. Subordinate Skill Analysis for Step 3.2 in BPC 101: Basic Principles of Credibility Online

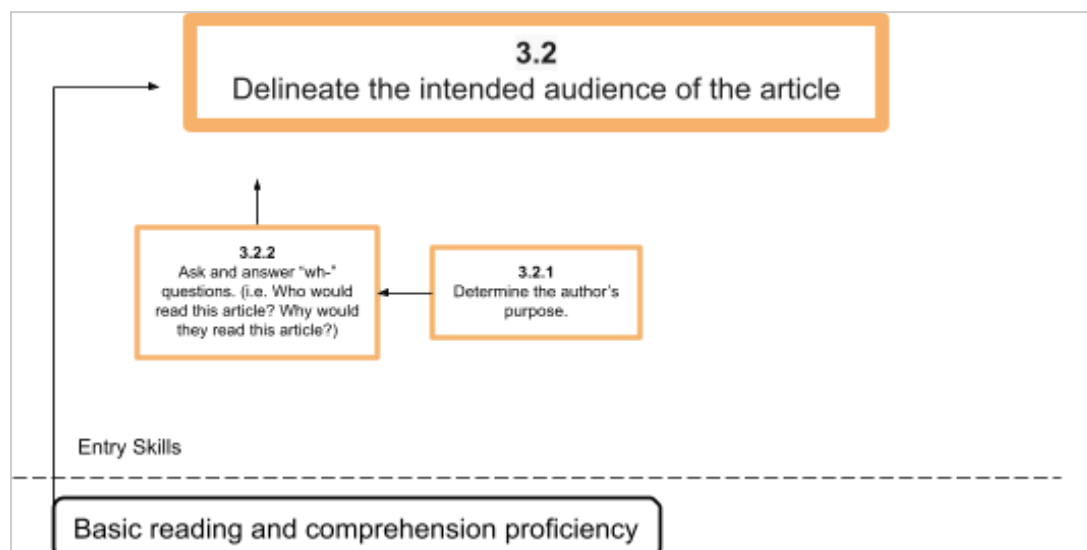


Figure 4. Subordinate Skill Analysis for Step 5.3 in BPC 101: Basic Principles of Credibility Online

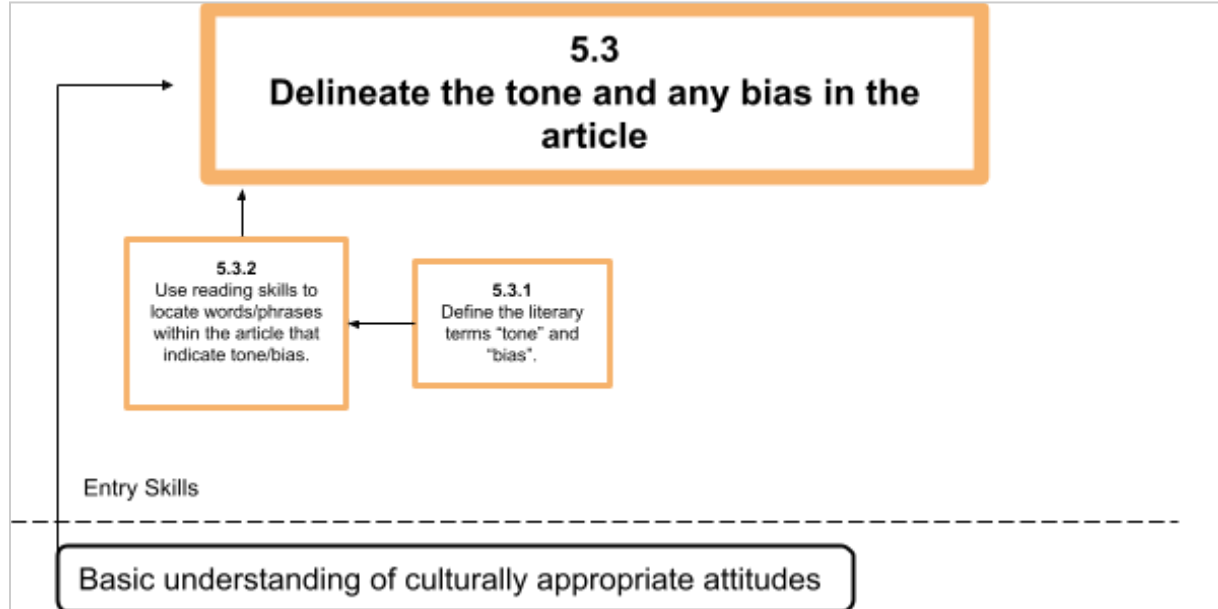
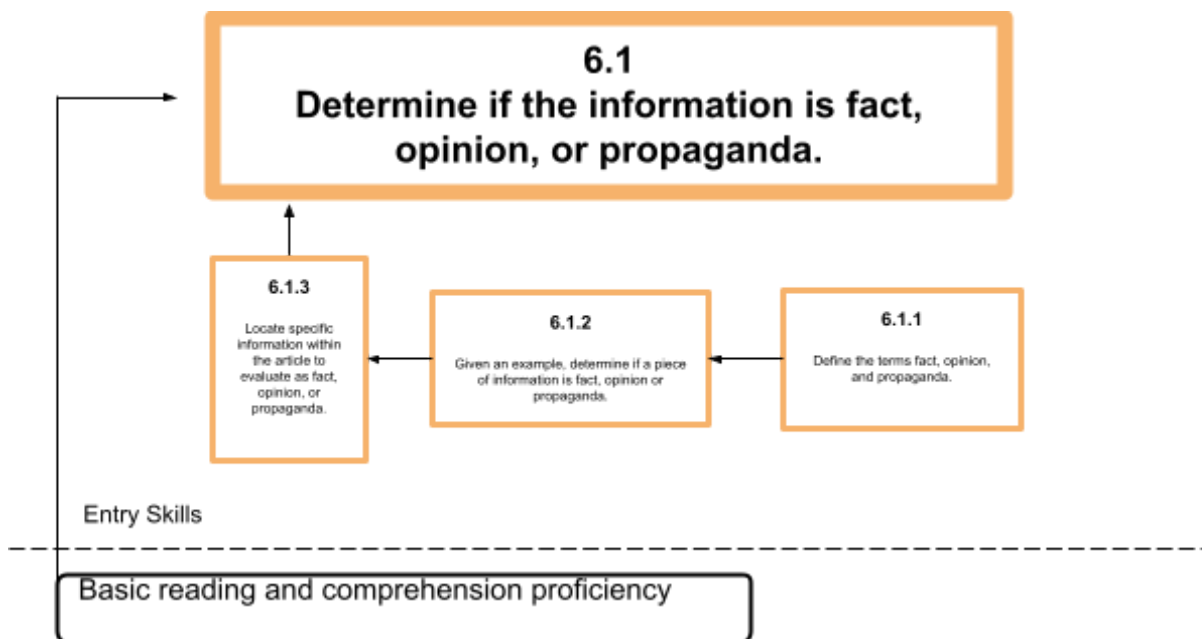


Figure 5. Subordinate Skill Analysis for Step 6.1 in BPC 101: Basic Principles of Credibility Online



Learner Analysis

To create instruction that is effective, it is necessary to evaluate the characteristics of the learners. Table 1 presents nine categories of information for analyzing learners: entry skills, pre-existing knowledge of the subject matter, attitudes toward content, attitudes toward the delivery system, academic drive, educational and aptitude levels, general learning preferences, attitudes toward organization, and overall group characteristics. The table provides details about the data sources, characteristics of each category, and how this information should be used in designing, delivering, and evaluating the instruction.

The team gathered data for the learner analysis by conducting interviews with two subject matter experts, Mr. John Venecek and Mrs. Terri Gotschall, who work at the John C. Hitt Library of the University of Central Florida (UCF). In addition to this, data from a survey that was distributed to potential target learners was also collected. Any gaps or ambiguities in the data were identified, and suggestions for further research are provided beneath the table.

Table 1: Learner Analysis for Basic Principles of Credibility Online BPC101

Information Categories	Data Sources	Learner Characteristics	Implications for Design, Delivery and/or Evaluation
Entry Skills	Interviews: Mr. John Venecek and Mrs. Terri Gotschall (SMEs); Target Learner Questionnaire: Target Learner Survey	Performance and Learning Setting: Open educational resources (OER) are the source of both the performance and learning environments. The survey found that all of the targeted learners had some exposure to sources and credibility, and approximately 50%	Performance and Learning Setting: Most of the skills required will already be present in the target learners. However, since the intended audience does not have prior experience using OER, the introduction should include a brief overview. The skills

		had some understanding of what a source is. The learners surveyed and interviewed have little to no prior experience with OER. The learners have some prior knowledge or exposure to source discovery.	required for the course serve as a foundation for the entry-level skills. Therefore, the only thing that needs to be covered in the course is an overview of the platform because entry-level skills enable the course to begin addressing necessary content related to the credibility of online sources.
Prior Knowledge of Topic Areas	Interviews: John Venecek and Mrs. Terri Gotschall (SMEs); Target Learner Questionnaire: Target Learner Survey	The target learner survey's three respondents indicated that they were familiar with the distinction between credible and non-credible sources. In addition, fifty percent of respondents stated that they were "confident" in their biased knowledge. The remaining fifty percent of respondents indicated a lower level of confidence, but no one said, "Not at all confident."	It provides sufficient support for covering the fundamental concepts of recognizing an online source's credibility, with some respondents indicating a lower level of confidence in their knowledge of an online source's credibility. The more confident learners should be encouraged to participate in cross-disciplinary discussions.

Attitude Toward Content	Interviews: Target Learner Questionnaire: Target Learner Survey Records:	The survey results indicated that most of the intended learners are willing to enroll in a non-credit course based on the credibility of online sources. "Importance of topic and... affect my research," one interviewee stated as one of the reasons they would take the class.	The attitude response is relatively strong; however, it is essential to emphasize the benefits of being able to determine an online source's credibility, not only in terms of how it would affect a research project but also in terms of how it will assist learners in their quest for basic education on how to determine a source's credibility.
Attitude Toward Delivery System	Interviews: Target Learners Questionnaire: Target Learner Survey	50% of the learners favored a "mixed-mode/hybrid" learning climate, and 50% were inclined toward an "online" learning climate; an "in-person/face-to-face" learning climate was not the decision for the respondents. 50 percent of respondents specifically asked about Open Educational Resources (OER) did not have prior experience using the online tool. While	When asked if they had used Open Educational Resources (OER), the target learners who were surveyed provided conflicting responses. Therefore, the learners will learn how to navigate the online resource to succeed in this course and any other course they choose to take to advance in their personal and professional lives by providing a preview—a mini-course

		the remaining individuals had varying perspectives regarding its use.	demonstrating how OER is beneficial.
Academic Motivation	Interviews: Target Learner Questionnaire: Target Learner Survey	As expressed above, a large portion of the expected learners will sign up for a non-credit course on the credibility of online sources. Furthermore, some interviewees showed that the substance is pertinent to helping them in their educational process. In terms of confidence in taking the course, many of the respondents are willing to take the course because it will help them in some way.	The relevance and applicability of the instruction to the learners should be emphasized in the content. Learners have confidence that they will be able to apply the principles to help them succeed if they are confident in the subject. Additionally, learner assessment and reflection should concentrate on specific examples of how learners can apply what they have learned to their ability to discern the credibility of an online source.
Educational and Ability Levels	Interviews: Target Learners Questionnaire: Target Learner Survey Records:	Educational Levels: As they prepare for careers or other adult basic education certifications, the majority of these adult learners have not completed high school.	Educational Levels: We are able to write and present the content at a level appropriate for students with low reading skills because we are aware of the

		Ability Levels: Learners in this course have a wide range of low reading skills. In terms of ability, the learners can read at a level comparable to the sixth grade.	learners' educational attainment. Ability Levels: By identifying their ability level, instruction can be tailored to the learners' prior reading knowledge and experience.
General Learning Preferences	Attitude Data: Target Learning Survey Interviews: Target Learners	Surveys were conducted to find out where learners liked to learn best. 50% of the learners favored a "mixed-mode/hybrid" learning climate, and 50% were inclined toward an "online" learning climate; an "in-person/face-to-face" learning climate was not the decision for the respondents.	Since most learners prefer to learn online, offering online courses shouldn't be hard. Since the learners have no trouble learning online, the media used for the learning can also include video, audio, and text.
Attitudes Toward Organization	Interviews: Target Learners Questionnaire: Target Learner Survey	The learners' attitude toward organization is unnecessary because there is no organization.	The learners' attitude toward organization is unnecessary because there is no organization.

General Group Characteristics	Interviews: John Venecek and Mrs. Terri Gotschall (SMEs); Target Learner Questionnaire: Target Learner Survey Observations:	Heterogeneity: The ages of potential learners will range from 15 to 55. The potential learners who enroll in the class for various reasons will have low-level reading skills. Size: The SMEs claim that learners will complete the course in an unspecified number of cohorts. Overall Impressions: The learners range widely.	The learners will be diverse, but they will all share the same objective of recognizing the credibility of an online source.
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Performance Context Analysis

To ensure effective instructional design, a comprehensive analysis of the performance context is necessary. Four categories of information are presented in Table 2: support from management and supervisors, physical environment, social environment, and the relevance of skills to the workplace. The table provides details about the data sources, characteristics of each category, and how this information should be used in designing, delivering, and evaluating the instruction. The performance context is the online environment where adult learners will find news and information sources to use after they have completed Basic Principles of Credibility Online, BPC101.

The information used for the performance context analysis was obtained through interviews with two subject matter experts, Mr. John Venecek and Mrs. Terri Gotschall, who work at the John C. Hitt Library of the University of Central Florida (UCF). Additionally, data from an

electronic survey administered to the targeted learners prior to the course was incorporated. Any gaps or ambiguities in the data were identified, and suggestions for further research are provided beneath the table.

Table 2: Analysis of Performance Context for Basic Principles of Credibility Online BPC101

Information Categories	Data Sources	Performance Site Characteristics	Implications for Design, Delivery and/or Evaluation
Managerial/supervisory support	Interviews: Mr. John Venecek and Mrs. Terri Gotschall (SME's)	The supervision of adult learners in the online environment is minimal. Since this is a non-credit course, learners will need to be held accountable for completing the course by their own intrinsic motivation.	Managerial Support and Nature of Supervision: The course should be designed to be minimally supervised. The learning system may send updates on course progress or reminders to complete the course periodically to learners in order to keep them on track. Reward System: It might be good to develop a reward system within the course in which learners receive certificates of completion for each module. They can then keep these for their own records, share them with employers, or work with instructors to gain credit for their work online.

Physical Aspect of the site	Observations: Exploring the OER Commons website to gain knowledge of the required technology for online courses.	Facilities/Resources: This course is an online environment provided by OER Commons. Resources include an Internet connected computer or mobile device with a web browser. The OER Commons website lists Chrome, Firefox, Safari, and Edge as supported web browsers for the site. The supported operating systems are Windows 10, ChromeOS x86_64, macOS 10.15, 11, iOS 14-latest, and Android 10-11. The OER Commons website states that for the best user experience, learners should ensure JavaScript is enabled, cookies are enabled, and images are not blocked. Equipment:	Facilities/Resources/Equipment: As the course is delivered online, there is no requirement for physical facilities like traditional classrooms. However, it is essential to make technology available to those learners who do not possess a computer or mobile device. Learners should be provided with a list of facilities in their area, such as public libraries, where they can access these online courses as well. Time: As learners apply these skills outside of the online course, they may find that their process for completing assignments or processing information takes longer. Learners would need to be surveyed in order to fully understand the time implications this may have.
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		To utilize OER Commons, it is necessary to have a computer equipped with a mouse, keyboard, and an Internet connection. While it is not mandatory, it is advisable to have a set of speakers as well. An alternative option is to use a tablet that meets the same technical requirements as the computer, except for the replacement of the mouse with touch input. This configuration is also compatible with the program. Time: Learners will use the skills they acquire within the course outside of it as well when browsing the internet, listening to the news, or completing assignments for academic courses in their career or education.	
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Social aspects of the site	Observations: Exploring the OER commons website to gain knowledge of the required technology for online courses	Supervision: The learners have no supervision during the completion of the online course. Interaction: Learners will not interact with each other in this online course.	Supervision: There are no concerns regarding managerial or supervisory support in terms of design, delivery, and evaluation. Interaction: There are no concerns regarding interaction in terms of design, delivery, and evaluation.
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Relevance of skills to the workplace	Interviews: Mr. John Venecek and Mrs. Terri Gotschall (SME's)	Meet Identified needs: The course should meet the needs of adult learners with low reading skills seeking to acquire new knowledge and skills to pursue their life goals and career aspirations. Learners will be able to apply the skills they learn in their academic pursuits, personal lives, and work lives to assess the credibility of sources accurately. Current/Future applications: The overall goal of this course is for learners to be able to automatically use the assessment skills for sources when they come across new information. This will make it easier for them to use and process information they find on the web and in their everyday lives.	Meet Identified needs: This course should allow learners to expand their knowledge of source credibility and better interpret, understand, and delineate arguments. Current/Future applications: Learners should be able to apply the knowledge they gain in this online course to their future academic endeavors. Students will be able to more efficiently gather sources to write informed essays or conduct research. They will also be given the tools to more confidently interpret and even construct argumentative dialogue with peers.
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Additional Information Requirements

It is advisable to conduct a survey to evaluate whether the prospective learners have access to adequate technical support and the computers required to thrive in the performance context. Furthermore, an additional survey after the course completion may be required to determine whether the learners are effectively applying the skills acquired in the course to real-world situations and which specific tasks the learned information was most useful for.

Learning Context Analysis

To conclude, a well-developed instructional plan takes into consideration the learning context analysis. Table 3 summarizes four types of information: site compatibility with instructional needs, feasibility for simulating the workplace, site compatibility with learner needs, and learning site constraints affecting design, nature, or number of sites. The table also includes data sources, the characteristics of each information category, and the implications for design, delivery, and/or evaluation.

Data sources for the Learning Context analysis include interviews, web resources, and the electronic survey. Recommendations for missing or unclear information and further reading are located below the table.

Table 3: Analysis of Learning Context for BPC101: Basic Principles of Credibility Online

Information Categories	Data Sources	Learning Site Characteristics	Implications for Design, Delivery and Evaluation
Site compatibility with instructional needs	Interviews: Mr. John Venecek and Mrs. Terri Gotschall (SMEs)	Instructional strategies: A variety of instructional strategies can be used in OER Commons, including knowledge checks after each module, multimedia, and discussion posts. Delivery approaches:	Instructional strategies: The SMEs shared that learners can work independently and then share how the readings can be applied to their college courses or career paths. This can take place in the form of discussion

		It is assumed that the learners will have access to a computer or means to one because they are becoming college and career ready. This means the instructional approach of web-based delivery is compatible with the delivery approach. Time: The course is designed for each module to take about two hours to complete, for a total of ten hours for the entire course. However, the modules are self-paced, which allows for them to complete at their pace,time asynchronously. Personnel: There is no personnel needed to assess the progress of the learners throughout the course.	posts. Self-reflection is important to allow learners to share what they have learned. Delivery approaches: All content and materials for this course will be available online to learners with access to a computer and internet connectivity. This will allow access to hyperlinks, media, and other sources within the course. Time: While the two hours for each module are approximate, learners can determine the amount of time to dedicate to each module. This is beneficial for learners, as they are in charge of their learning and can complete the work at their own pace. Personnel: Learners can access
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			other open educational resources on the basic principles of credibility.
Feasibility for simulating workplace	N/A	N/A	N/A
Site compatibility with learner needs	Interviews: Mr. John Venecek and Mrs. Terri Gotschall (SMEs)	Location (distance): This course will be available online, which learners can access on a computer from home, work, or a library. Conveniences: Learning can take place at any time and location that the learner prefers. Space: The public library is available to learners if they do not have a personal computer or internet access. Equipment: A computer is required with a keyboard, mouse, audio, and internet connectivity. A tablet with the same capabilities also works.	Location/Conveniences/Space/Equipment: This is an online course. Therefore, the main implications are convenient access to a computer with internet connectivity and comfortability with online learning, interactions, and tools, all of which are possessed by our target learners.
Number/nature of	Interviews:	Facilities/Equipment/	Facilities/Equipme

sites	Mr. John Venecek and Mrs. Terri Gotschall (SMEs) Guides: OER Commons Help Center, ACRL Framework for Information Literacy	Resources: This course can be accessed in the online learning environment, OER Commons. Learners will also have access to online help through OER Commons Help Center and the ACRL Framework for Information Literacy. Constraints: Learners may have to wait to get support from OER Commons Help Center as there is no live chat option and they have to submit a ticket.	nt/Resources: Since the course is online, it would only be available to learners who have access to a computer. Links to OER Commons Help and the ACRL Framework for Information Literacy will be included in the course. Constraints: No time constraints assessed at this time.
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Additional Information Requirements

The learner context analysis does not include a time to offer the course as it is available on an open educational resource. Further surveying will need to be conducted to determine the optimal time for adult learners to take this course.

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Appendix A

Target Learner Survey

The following questions are from a survey sent to potential adult learners with online course experience. Responses to all questions were required in order to submit the survey.

1. How would you rate your ability to understand what an online source is?
 - ☐ Excellent
 - ☐ Above average
 - ☐ Average
 - ☐ Below average
 - ☐ Poor
2. How many years of experience do you have looking for online sources?
 - ☐ less than a year
 - ☐ 1-4 years
 - ☐ 5-9 years
 - ☐ 10+ years
3. Are you familiar with biases?
 - ☐ Yes
 - ☐ No
 - ☐ Maybe
4. How confident do you feel in your ability to recognize biases?
 - ☐ Very confident
 - ☐ Confident
 - ☐ Somewhat confident
 - ☐ Not at all confident
5. What would encourage or inspire you to take a non-credit course for identifying the credibility of web courses?

6. What is your preferred learning environment?
 - ☐ In-person/Face-to-face
 - ☐ Online
 - ☐ Mixed-mode/Hybrid

7. Rate each type of sources materials for reading online in terms of credibility:

	Not Helpful	Helpful	Very Helpful
Scholarly publications (Journals)	☐	☐	☐
Popular sources (News & magazines)	☐	☐	☐
Thesis & Dissertations	☐	☐	☐
Wikipedia	☐	☐	☐
Conference proceedings	☐	☐	☐

8. How long has it been since you've been in a learning environment?

- ☐ less than a year
- ☐ 1-4 years
- ☐ 5-9 years
- ☐ 10+ years

9. Do you have experience using open educational resources (OER)?

- ☐ Yes
- ☐ No
- ☐ Maybe

10. Are you familiar with the differences between credible and non-credible online sources?

- ☐ Yes
- ☐ No

Appendix B

Target Learner Survey and Interview Results

The following survey results are collected from the online survey. The survey was created in Qualtrics and distributed through individual links. Qualitative information collected from this interview is included at the end of the chart.

Percentages were rounded to the nearest number.

Question	Answers	Responses
1. How would you rate your ability to understand what an online source is?	Excellent	50%
	Above average	0
	Average	0
	Below average	0
	Poor	50%
2. How many years of experience do you have looking for online sources?	less than a year	25%
	1-4 years	0
	5-9 years	25%
	10+ years	50%
3. Are you familiar with biases?	Yes	100%
	No	0
	Maybe	0
4. How confident do you feel in your	Very confident	25%

ability to recognize biases?	Confident	50%																									
	Somewhat confident	25%																									
	Not at all confident	0																									
5. What would encourage or inspire you to take a non-credit course for identifying the credibility of web courses?																											
6. What is your preferred learning environment?	In-person/Face-to face	0																									
	Online	50%																									
	Mixed-mode/Hybrid	50%																									
7. Rate each type of sources materials for reading online in terms of credibility:	<table border="1"> <tr> <th></th> <th>Not Helpful</th> <th>Helpful</th> <th>Very Helpful</th> </tr> <tr> <td>Scholarly publications (Journals)</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Popular sources (News & magazines)</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Thesis & Dissertations</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Wikipedia</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Conference proceedings</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> </table>				Not Helpful	Helpful	Very Helpful	Scholarly publications (Journals)	☐	☐	☐	Popular sources (News & magazines)	☐	☐	☐	Thesis & Dissertations	☐	☐	☐	Wikipedia	☐	☐	☐	Conference proceedings	☐	☐	☐
		Not Helpful	Helpful	Very Helpful																							
	Scholarly publications (Journals)	☐	☐	☐																							
	Popular sources (News & magazines)	☐	☐	☐																							
	Thesis & Dissertations	☐	☐	☐																							
	Wikipedia	☐	☐	☐																							
	Conference proceedings	☐	☐	☐																							

8. How long has it been since you've been in a learning environment?	less than a year	50%
	1-4 years	25%
	5-9 years	0
	10+ years	25%
9. Do you have experience using open educational resources (OER)?	Yes	25%
	No	50%
	Maybe	25%
10. Are you familiar with the differences between credible and non-credible online sources?	Yes	100%
	No	0