WebQuest 2.0: Best Practices for the 21st Century

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Over the last decade, WebQuests have grown in popularity in educational environments. In order to effectively implement a WebQuest in the classroom, best pedagogical practices must be employed; however, these best WebQuest practices should reflect the exigent 21st century skills students need to be successful, productive members of the global community. A number of surveys have been conducted to identify what these skills are and, much to the chagrin of some members of the business community, new entrants to the workforce are gravely deficient in these skills. This article will identify and explore the 21st century skills employers are soliciting for in the 21st century workforce and proffer eight best practices WebQuests should apply to serve as a powerful pedagogical tool, helping prime students for the workforce.

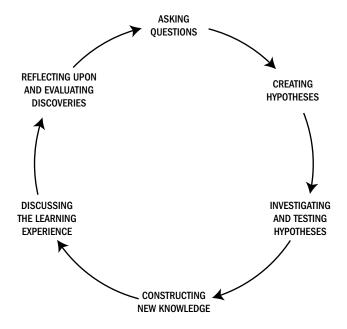
WebQuests are quickly growing as a powerful pedagogical tool. Global web matrix analyzer Alexa (2012) ascribes the web traffic to two of the more visited WebQuest sites: Questgarden (with 315,179 hits per day) and Zunal (with 490,096 hits per day). As enticing and popular as WebQuests are becoming, in order for them to exemplify a quality learning tool, they must be properly designed and incorporate best pedagogical practices. How should these best practices be determined and what should they focus on cultivating? This paper argues that the subscribed best practices should align with the 21st century skills learners need to prepare them for the global workforce. To this end, this article offers eight WebQuest best practices and delineates how to employ and execute them in the classroom space.

WHAT ARE WEBQUESTS?

Dodge (1997), the original architect of the WebQuest model, defines a WebQuest as, "an inquiry-oriented activity, which some or all of the information that learners interact with comes from resources on the Internet" (para.1). Disaggregating this definition, WebQuests are inquiry-based approaches to learning. Inquiry-based learning stems from Dewey's philosophy that learning is cyclical and that we are innately curious beings who desire to learn. The inquiry-based process can be seen in Figure 1. It begins with asking questions, creating hypotheses, investigating and testing the hypoth-

eses, constructing new knowledge, discussing the learning experience, reflecting upon and evaluating discoveries, generating new questions, and inaugurating the process again from the beginning. According to Dodge's (1997) definition, WebQuests are inquiry-based and therefore must be constructed to foster learning.

Figure 1: The Inquiry-Based Process



The second portion of the definition asserts that all or some of the resources students interact with be obtained via the Internet. A WebQuest cannot appropriately be employed if resources are downloaded by the teacher and then disseminated to the students to read, analyze, synthesize, and evaluate. Without active learner engagement, the learning activity is no longer a WebQuest and should be considered when defining what a WebQuest is.

The subsequent sections will propose best practices to cultivate 21st century skills necessary in the global workforce. Before advancing to what these best practices are, let us identify the skills needed in the 21st century workplace.

21ST CENTURY SKILLS FOR THE GLOBAL WORKFORCE

A survey of over 2,000 companies conducted by Corporate Voices for Working Families (2012) found that, "Employers are seeking candidates with a clear understanding of 21st-century workplace demands, including the ability to work in teams, the need for wide-ranging communications skills and the aptitude to solve complex problems" (p. 4). In a collaborative survey initiated by The Conference Board, Partnership for 21st Century Skills, Corporate Voices for Working Families, and the Society for Human Resource Management (2006), the top five skills employers desired new entrants possess were professionalism, teamwork, oral communication, ethical and moral responsibility, and reading comprehension. In the same study, the surveyed companies claim that in these essential skills, new entrants were gravely deficient.

When these companies were asked to project the anticipated skills exigent in the next five years, they asserted fluency in a second language, critical thinking and creativity, and the ability to make positive and appropriate choices. A study was conducted by the International Summit on the Teaching Profession, hosted by the United States Department of Education and the Organization for Economic Cooperation and Development, in an effort to identify the 21st century skills educational institutions worldwide would need to embed in their curricula in order to better prepare learners for the global workforce (Schleicher, 2012). The Summit involved more than 250 researchers and 60 institutions. The compulsory 21st century skills identified were classified into four categories as seen in Table 1 (below).

Table 1: Compulsory 21st Century Skills

Category	Skills
Ways of Thinking	Creativity, critical thinking, problem-solving, decision- making and learning
	Ways of WorkingCollaboration and communication
Tools for Working	Information and communications technology (ICT) and information literacy
	Skills for Living in the WorldCitizenship, life and career, and personal and social responsibility

Examining these 21st century skills identified by members of the global business community to prime learners for the marketplace, one must wonder if educational institutions are leading students to attain these skills. According to the survey conducted by The Conference Board, Partnership for 21st Century Skills, Corporate Voices for Working Families, and the Society for Human Resource Management (2006), the answer is a resounding "no." The surveyed respondents state that 42.4% of high school graduates are overall deficient in workforce readiness skills, 69.6% in critical thinking and problem solving, 70.3% in professionalism and work ethic, 80.9% in written communication, 38.4% in reading comprehension, and 72% in basic grammar and spelling. Another study conducted by the Manpower Group (2012) interviewed over 38,000 employers globally and found that, according to interviewees,33% of applicants lacked technical competencies or "hard skills" to perform. These hard skills include industry specific qualification and knowledge, operation of equipment, computer/information technology skills, speaking/verbal skills, and the ability to speak a second language. The "soft skill" deficiencies these global employers enumerated were interpersonal skills, motivation, team work/collaboration, professionalism, adaptability, problem solving/decision making, and attention to detail.

In examining this data, one may believe that many educational institutions are not equipping students with exigent 21st century skills for the global workforce. WebQuests, if properly created and developed, can be an effective pedagogical tool to help students develop 21st century workforce skills. In order to appropriately infuse WebQuests into one's instructional practices, best practices for implementation must be explored. The next section will describe the best WebQuest practices that complement 21st century workforce skills.

WEBQUEST 2.0 BEST PRACTICES

According to the aforementioned studies, 21st century workforce skills include a range of skills, such as collaboration, cooperation (teamwork), communication (written and verbal), creativity/ innovation, critical thinking and problem solving, information and communication technology (ICT) literacy, field-based knowledge acquisition and mastery, professionalism/work ethic (motivation, completion of tasks, maintaining deadlines, attendance, punctuality, and possessing a positive attitude), adaptability, reading comprehension, and responsible/accountable global citizenry. WebQuest best practices should try to emulate as many of these skills as possible. Below are eight WebQuest best practices that accommodate these 21st century skills needed in the global workforce. If educators want WebQuests to serve as a method for teaching 21st century workforce skills, it is necessary to employ the following eight best practices.

1. Create Collaborative and Cooperative Tasks

WebQuests should assign group-oriented tasks where there is a common goal amongst its members, and everyone must participate in order to achieve the means to the end. Before we discuss this best practice strategy, it is important to dissect the difference between collaborative and cooperative learning. Kozar (2010) differentiates the two by stating, "Cooperation can be achieved if all participants do their assigned parts separately and bring their results to the table; collaboration, in contrast, implies direct interaction among individuals to produce a product and involves negotiations, discussions, and accommodating others' perspectives" (p.17). Since collaboration is one of the requisite 21st century skills employers feel new entrants need but severely lack, WebQuests can help develop and foster this skill. This is not to imply that cooperative tasks are not imperative. Team building and working well with others was another essential skill employers identified. Various roles can be given to group members in order to ensure that all participate, but it is what the students do with their ascribed role that will determine if the task is collaborative. In order for a WebOuest to be considered collaborative, after learners investigate their individual roles, they must come together in consensus to decide how to proceed and to accomplish their assigned goal or task. This cannot

be achieved unless all perspectives have been discussed, analyzed, and synthesized (group accountability) and all members must have completed their individually ascribed task (individual accountability). An example of how to engender a collaborative and cooperative assignment would be to ask students the following:

The year is 1861 and Abraham Lincoln decided to organize a cabinet composed individuals representing various perspectives. Your group members have been selected to be a part of this esteemed cabinet and your job is to come up with the best solution/resolution to avoid imminent bloodshed. Your group members consist of a free African slave, an affluent Southern cotton plantation owner, an affluent Northern Industrialist, a small abolitionist Northern farmer, a Southern slave, a Northern Protestant, and a Southern nonslave holder. How can you avoid a civil war by accommodating as many of your cabinet members' perspectives as possible? After vour cabinet has decided how to achieve this, you will create a presentation to give to the Congress. Each cabinet member will participate in the presentation. Your presentation will be a PowerPoint that must include additional modes of media, such as audio (sound bytes, podcasts, speeches, songs), videos, and images (pictures, graphs, diagrams, political cartoons, photographs). The presentation must be at least 10 minutes in length. Please read the rubric to see how your group will be evaluated further.

Notice that in this example the students have a common goal, a solution/resolution to avoid a Civil War, and they must be aware of the various perspectives involved and respectfully consider these manifold positions in order to accomplish the task. However, in order to consensually create a solution/resolution, the group must work cooperatively and collaboratively.

2. Task Must Invoke and Foster Critical Thinking for Creative Problem Solving and Innovative Ideas
According to Scriven and Paul (1987), critical thinking is:

The intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/ or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action. In its exemplary form, it is based on universal intellectual values that transcend subject divisions: clarity. matter accuracy. precision, consistency, relevance, sound evidence, good reasons, depth, breadth, and fairness. (para.1)

Critical thinking skills are incorporated into problem solving. Problem solving is comprised of identifying the problem, analyzing the problem, devising possible solutions, evaluating potential solutions, selecting the best solution, and reevaluating and reflecting upon the selected solution. The critical thinking skills involved include application, analysis, synthesis, and evaluation. Therefore, the WebQuest task should emulate a challenging problem where critical thinking skills are engaged. Creativity plays an integral role as well. Critical thinking involves more than the abstract, such as processing data and facts in order to apply the higher levels of Bloom's Taxonomy, but the conceptual as well. Creative thinking is subsumed in this application. According to Harris (2012), creative thinking is:

The ability to generate new ideas by combining, changing, or reapplying existing ideas...the ability to accept change and newness, a willingness to play with ideas and possibilities, a flexibility of outlook, the habit of enjoying the good, while looking for ways to improve it. (para. 1)

In order for learners to cultivate this skill, the task must require them to generate new ideas, think "outside the box," and consider alternative ideas and suggestions. This can be accomplished with a WebQuest that asks students to formulate their own solution to a problem rather than furnishing it for them or asking them to choose from teachergenerated choices.

3. Require Written and Oral Communication Within the Task

WebQuests should charge learners to produce both a written product and an oral presentation. The guidelines and rules for both of these can be specified in a rubric. For example, utilizing the Six Traits of Writing (Education Northwest, n.d.) in the rubric will encourage further practice cultivating writing skills which employers claim students lack. There are various forms of writing, such as narrative, expository, persuasive, research, and response to literature. Educators need to decide which to foster for a WebOuest assignment. A WebOuest assignment may focus on one or several of these forms of writing. For example, students may be ascribed the role of scientists and must orally present to their fellow colleagues the current state of the global climate, what to expect in the next ten years, and the role the global community should play in managing and rectifying it. Their task will be to research all relevant theories and decide which they subscribe to, followed by suggestions on how to remedy any concerns. The presentation must include a written persuasive synopsis to disseminate to each member in the audience and an extensive researched paper to the Chair of the United States Geological Survey (USGS), or the teacher, in order for the audience to follow along. The presentation must also exhibit visual components utilizing Web 2.0 tools. This example encompasses both researched and persuasive forms of writing.

Oral communication skills are essential to cultivate for the 21st century workforce as well. Learners need practice executing public presentations; therefore, WebQuests should include an oral component, whether it is a formal presentation, a debate, a class discussion, or small group discussion with the teacher as a moderator or facilitator In order for students to conduct an effective presentation, they need to be taught how to effectively give one. Tips on giving competent and compelling presentations include: (a) being cognizant and versed in the material; (b) organizing one's thoughts and outlining what to say; (c) practicing the speech; (d) articulating the message well; (e) knowing the audience (who are they, how much do they already know, what is their age level, etc.); (f) making eye contact with the audience; (g) starting with an interesting introduction and ending with a brief synopsis and intriguing or challenging ques-

tion or point; (h) keeping the speech conversational and potentially using narratives and/or inserting personal experiences;(i) using inflexion in one's tone and avoiding a monotone voice; (j) using visual aids and selecting them wisely; (k) including a handout or outline for the audience to utilize; and (l) trying to include the audience by posing and answering questions or including them interactively. Students need practice employing these components before being ascribed a summative evaluation of them. After appropriate practice, WebQuest tasks should include this skill.

4. Integrate and Require ICT Skills from Beginning to End

Egan and Education Testing Services (n.d.) define ICT skills as "the ability to use digital technology, communication tools, and networks to define, access, manage, integrate, evaluate, create, and communicate information ethically and legally in order to function in a knowledge society" (slide 4). Acceding to this definition, WebQuests should require considerable research skills. Students need to be capable of performing effective Internet searches, utilizing search engines, evaluating a source's credibility, validity, and reliability, collecting and analyzing the data's objectivity, and determining the purpose of the website's perspective. Students must also have an awareness of copyright laws and learn how to properly cite in order to avoid plagiarism. Since students need to be responsible for searching, accessing, and evaluating research, the teacher should be conservative when supplying direct websites for students to go to unless it is imperative for consistency in data acquisition. Nevertheless, in order to foster 21st century ICT skills, learners need to be cogent in researching appropriate and accurate information. This also nurtures knowledge acquisition skills which employers also feel new entrants are lacking for the 21st century workforce.

Students also need to be versed in how to communicate asynchronously and synchronously utilizing technology, such as email, videoconferencing, like ooVoo or Skype, listservs, wikis, blogs, chat groups, and social networks, like Facebook, Twitter, and LinkedIn. This ICT skill should be incorporated into WebQuest assignments. For example, if students are asked to evaluate and take a stance on whether outsourcing is good or bad for the American economy, they could videoconfer-

ence with Thomas Friedman, author of The World is Flat (2005) and The World is Hot, Flat, and Crowded (2008). Followed by perhaps blogging or tweeting Lou Dobbs regarding his position on outsourcing in his book, Exporting America: Why Corporate Greed Is Shipping American Jobs Overseas (2004). Another example may involve students determining if the American education system is as rigorous and is properly preparing learners for the 21st century workforce as other countries' education systems. In this assignment, students may be encouraged to Skype, Facebook, email, and chat with students from Canada, South Korea, Israel, Japan, and Australia asking them questions about their educational day, curricula, instruction, assessments, hours spent studying, extracurricular activities, relationships their schools have with other stakeholders, mentorships, internships, or community service projects, or examples of assignments or tests utilizing Google Drive.

Lastly, learners need to know how to use and create various Web 2.0 tools, such as podcasts, videos, webpages, blogs, wikis, avatars, videoconferences, social networks, WebQuests, online presentation tools, like Tiki-Toki, Prezi, visual.ly, and SlideRocket. In order for students to successfully execute and employ these diverse modes of media, they must be allotted time to learn and practice utilizing them. This could be accomplished in a media course or during class time. The instructor may require students to create a product for the WebQuest task using a few select Web 2.0 tools in an effort to make students more comfortable and well versed in these tools while building their ICT repertoire.

Embedding ICT skills into a Webquest will not only engender more adroit technical and digital literacy but endow learners with the exigent 21st century ICT skills employers seek. WebQuests can accomplish this by requiring students to closely research sources and resources via the Internet, prudently evaluate and select accurate, valid, and reliable data, and conclude with an innovative product utilizing Web 2.0 tools.

5. Formatively and Summatively Assess for Knowledge Acquisition

Learners must be held accountable for mastering the given topic or concept throughout the WebQuest task. There are several ways to ensure students are comprehending information. Teachers can schedule individual and/or group conferences throughout the assignment or give formative assessments during specific stages of the task by administering online quizzes, posting discussion and reflective questions, or requiring the completion of short answer essay questions. Before moving on to the next task, students would need to successfully demonstrate understanding and mastery of the material up to that point.

Summatively, the students should complete a product utilizing Web 2.0 tools and present it to an audience of peers. The optimal manner to evaluate the end product is via a rubric. Rubrics allow students to see how their performance will be evaluated; identifying the differences between poor and exemplary work (Erlandson, n.d). Considering that most employers determine their employees' success and failure with performance-based evaluations, rubrics not only abet students with what they need to do to earn solid grade but equip them with details on how they will be evaluated in the 21st century marketplace. Rubrics should be well defined and avoid as much subjectivity and ambiguity as possible. For example, if evaluating students on their presentation skills, elaborate what they are being assessed on and how they need to earn the maximum amount of points. Furnish examples and non-examples. Then provide students a few models to evaluate utilizing the given rubric and determine how each should and would be evaluated. Engaging in this exercise will help facilitate understanding of the performance expectations.

6. Incorporate Various Learning Styles into the Task Encouraging Adaptability

A learning style is one's preferred mode of learning. The Institute for Learning Styles Research (1996) identifies seven perceptual learning styles: (a) print-oriented learner (prefers seeing the written word); (b) aural learner (prefers listening); (c) haptic learner (prefers hands-on approach; tactile learning); (d) interactive learner (prefers verbalizing; talking to others); (e) kinesthetic learner (learns by doing; needs whole body movement to concentrate and process information); (f) olfactory learner (uses smell and taste to learn); and (g) visual learner (needs visual aids/ nonlinguistic representations, such as images, diagrams, and graphs). People learn differently; therefore, WebQuests should accommodate as many of these learning styles as possible.

Requiring students in their research to read and take notes on their data acquisition, including text within the WebQuest and its resources, blogs, chat groups, online collaborative document sharing, and the production of a written product will support the print-oriented learner. Inserting podcasts and videos, music, sound bytes, blogs, and videoconferences will gratify the aural learner. Including online educational games, interactive websites. virtual field trips, avatar construction, and the creation of products that utilize keyboarding, as well as diverse media tools, especially for artistic works, will assist the haptic learner. Embedding social networking, blogging, educational chat groups, video conferencing, emailing, collaborative reflective inquiries, group discussions, collaborative projects, instant messaging, and idea and document sharing with web tools like Google Drive, Backpack, and AirSet will appease the interactive learner. Embedding interactive websites that include drop and drag and other mouse-related movements, keyboarding, creating products with Web 2.0 tools, online simulations ,three dimensional graphics and avatars, virtual field trips, videoconferences, and various graphic and note-taking packages, like Notepad, PhotoShop, Corel Paint, and OneNote will assuage the kinesthetic learner.

Incorporating an array of visuals such as videos, images, maps, photographs, cartoons, posters, avatars, graphs, diagrams, charts, demonstrations, videoconferences, presentations, like PowerPoint, Prezi, VoiceThread, and Animoto, augmented realities like Layar, timelines using Tiki-Toki, and infographics, such as Piktochart and visual.ly, will help support the visual learner.

Certainly, students need to be exposed to and practiced in a variety of learning styles in order to foster adaptability. Requiring students to read, hear, view, interact, create, and collaborate will not only develop and cultivate students in a diversity of skills but foment and hone adaptability, a 21st century skill employers charge new entrants need.

7. Create Authentic, Applicable, Relevant, Real World Tasks

WebQuest tasks should emulate organic scenarios, problems, or events occurring in the world around them and should be applied to a variety of contexts. The more genuine and relatable the tasks are and the more students are given the opportu-

nity to apply these events to other contexts, the more likely they are able to cognitively transfer the knowledge to memory (Darling-Hammond & Austin, n.d.; Willis, 2006) and behaviorally perform and enculturate these skills into the 21st century workforce (Lombardi, 2007). Though the outcomes listed above are distinct, there is significant overlap. Authentic tasks equate what is being learned to real world contexts; application is the cognitive process that occurs when connecting the new concept to other situations or concepts; relevancy allows the learner to make connections to what they are learning to their individual lives, and the pertinence of real world tasks is incorporating a real world issue, scenario, or event into the learning in order for students to make and apply connections to their life. Each component is discrete, yet interwoven.

Looking back at the first example involving the Civil War, after students engender a solution or resolution to avoiding war, students may be asked to relate the American Civil War and how they decided to avoid the conflict with recent civil wars, like those in the Sudan and those in the Arab Spring. Instructors may also include a concluding exercise with a relatable issue or fictitious event that involves the students in their school or community, asking them to apply what they learned along with their decision-making skills to the new context/situation. Can they relate the new learning across curricula? Are there any ongoing civil wars, like in Uganda? Is there anything they can do or people they can reach out to assist, share ideas, and seek more information? Who can they communicate with and how? Who else can they involve locally, nationally, and globally? Are there any outreach programs, charity events, aid, or educational awareness they can orchestrate or participate in? What Web 2.0 tools can they use to achieve these endeavors?

8. Embed Individual and Global Accountability and Responsibility into the Task

According to surveys, employers maintain that professionalism/work ethic and responsible global citizenry are imperative 21st century skills new entrants are missing. Professionalism/work ethic includes being motivated, completing tasks, adhering to deadlines, attendance, punctuality, dressing appropriately for the job, and emulating a positive attitude (Norton, 2010; Vitez, 2012). Responsible global citizenry can be delineated as being cogni-

zant of international challenges, regulations, decorum, and fluency in another language (Olds, 2012). Considering these 21st century skills are lacking in many individuals who are entering the workforce, incorporating and fostering these traits in Web-Quests is vital and can be accomplished by embedding individual and global accountability and responsibility into assignments.

One way to achieve this is by creating individual and group deadlines, assignments, assessments, reflections, and project agreements. The individual accountability component will cultivate and hone individual professionalism/work ethic attitudes and behaviors and the group accountability component will nurture and develop the collaborative and cooperative skills employers solicit. To ascertain individual accountability, checklists can be included with assigned duties (designated by the group, individual, and/or teacher), deadlines, and behavioral objectives. This way, an educator can ensure each group member is contributing to the group task and, if not, consequences can be addressed with the individual and not the entire group. Educators can potentially impede this behavior by not only monitoring checklists but also scheduling individual and group conferences in order to audit progress.

WebQuests should also include reflections, either embedded in the WebQuest itself or a hyperlink to a blog or wiki. These reflections should explore both knowledge acquisition of the topic and attitude toward the learning content, its process, and group relations. If a student does not understand the topic, then the teacher must step in and assist via differentiation of content, process, or product. This can be determined though formative assessments and conferencing before the student fails summative assessments or prevents the group from progressing or performing optimally.

Another way to determine student attitudes is by reading individual and group reflections. If group members express concern over an individual's lack of performance or poor attitude, the teacher can quickly identify it and intervene. However, the student's academic insufficiencies should not impede the group's overall performance. If after the student has been given differentiated support, individual conferencing, and guidance and still chooses to not learn the material or alter their attitude, academic consequences should be enacted. WebQuests should be comprised of two grades:

individual and group. If the student elects to not modify their behavior or attitude, both of these grades will be affected for that individual, but not for the group. The group's overall grade will no longer incorporate that individual's contributions (or lack thereof).

WebQuests should include project agreements amongst the members articulating what each member will perform, how to appropriately communicate (etiquette/netiquette) with group members, how to avoid and resolve conflict, and the consequences for failing to adhere to the group's project agreement. Some project agreements may include time tables and deadlines. After the project agreement has been completed, it should be submitted to the teacher for review and serve as a reference and guide, especially if an individual is exhibiting substandard behaviors or attitudes.

Global responsibly can also be built into a WebQuest. Employers contend that new entrants need to be more globally knowledgeable regarding international challenges and regulations. WebQuests can accommodate this by requiring students to consider, compare, locate, and evaluate global issues/events and relate them to the topic. For example, referring to our first example on the American Civil War, students could be asked to relate the American Civil War to those of the Arab Spring and the Sudan. What are the similarities and differences? How and why did each begin? How did each end or are they still ongoing? How did their suggestions for resolving the American Civil War compare to the measures the other civil wars attempted and implemented? Could the other civil wars have been avoided if applying their method of resolution they selected for the American Civil War? Why or why not? Did they consider the economic, political, religious, and social contexts?

Employers also expressed the need for appropriate decorum to be observed, practiced, and respected when interacting, conducting, and soliciting business with other countries. Therefore, integrating this into the WebQuest can be effective for the maturation of this skill as well. Utilizing our same example, the task could ask students if they were to meet and discuss possible solutions for the civil war if it is still ongoing or, if they could have participated in its cessation, what would they propose? How would they communicate this information considering cultural, political, and religious

distinctions? What other considerations must be regarded when meeting and communicating with other countries' delegates?

The last component to global responsibility is second language fluency. This should be integrated into WebQuests whenever the opportunity presents itself; however, due to distinct course curricula, it cannot be enumerated as a practical best practice. Nevertheless, a WebQuest could be interdisciplinary and include the foreign language teacher whenever possible.

CONCLUSION

WebQuests are becoming a more capitalized learning tool. The potential of integrating Web-Quests in pedagogy are many; however, this is only true if the Webquests are properly designed and employed. The way to ascertain this is through incorporating best practices into the WebQuests. These best practices are determined by what skills students need in order to be successful and employable in the 21st century workforce. Various surveys delineated that companies identified a number of 21st century skills in which new entrants are deficient: collaboration and cooperation (teamwork), communication (written and verbal), creativity/ innovation, critical thinking and problem solving, ICT literacy, field- based knowledge acquisition and mastery, professionalism/work ethic (motivation, completion of tasks, maintaining deadlines, attendance, punctuality, and possessing a positive attitude), adaptability, and responsible/accountable global citizenry (Corporate Voices for Working Families, 2012; Levin-Goldberg, 2011; Schleicher, 2012; The Conference Board, Partnership for 21st Century Skills, Corporate Voices for Working Families, and the Society for Human Resource Management, 2006).

In order to effectually implement WebQuests as a tool to develop and cultivate these skills, WebQuest best practices should parallel, exemplify, and foster these very skills. Analyzing and synthesizing the skills employers contest new entrants lack, the following eight WebQuest best practices have been proffered: create collaborative and cooperative tasks, invoke and foster critical thinking for creative problem solving and innovative ideas, require written and oral communication within the task, integrate and require ICT skills from beginning to end, formatively and summatively assess

for knowledge acquisition, incorporate various learning styles into the task encouraging adaptability, create authentic, applicable, relevant real world tasks, and embed individual and global accountability and responsibility into the task. It is imperative we prepare our learners for the 21st century global workforce. Utilizing WebQuests as a conduit to accomplishing this is prudent and attainable if it embodies and includes the proposed best practices. The future is here; our learners need to catch-up to it and we, as educators, need to better teach these requisites.

References

- Alexa. (2012). Analytics for any website. Retrieved from http:// www.alexa.com
- The Conference Board, Inc., Partnership for 21st Century Skills, Corporate Voices for Working Families, and Society for Human Resource Management. (2006). Are they ready to work?: Employers' perspectives on the basic knowledge and applied skills of new entrants to the 21st century U.S. workforce. Retrieved from http://www.p21.org/storage/documents/FINAL_REPORT_PDF09-29-06.pdf
- Corporate Voices for Working Families. (2012, September). A talent development solution: Exploring business drivers and returns in learn and earn partnerships. Retrieved from http://corporatevoices.org/system/files/LearnEarn_Report2_web.pdf
- Darling-Hammond, L. & Austin. K. (n. d.). Session 11 Lessons for life: Learning and transfer. Retrieved from http://www.learner. org/courses/learningclassroom/support/11_learning_transfer. pdf
- Dobbs, L. (2004). Exporting America: Why corporate greed is shipping American jobs overseas. New York: Warner Books.
- Dodge, B. (1997, May 5). Some thoughts about WebQuests. Retrieved from http://webquest.sdsu.edu/about_webquests.html
- Education Northwest. (n.d.). *About 6+1 Trait*® *Writing*. Retrieved from http://educationnorthwest.org/resource/949
- Egan, T., & Education Testing Services. (n. d.). *ICT literacy* assessment: Information and communication technology. Retrieved from http://www.ncahlc.org/download/annualmeeting/05Handouts/GSUN0145k_Egan.pdf
- Erlandson, C., Saskatchewan Teachers' Federation, & University of Regina. (n.d). *Rubrics: When? Where? How: Connecting the pieces*. Saskatchewan Instructional Development and Research Unit. Retrieved from http://www.education.gov.sk.ca/Default.aspx?DN=c300841e-940f-48ac-867d-dc7d5fbcc575
- Friedman, T. L. (2008). Hot, flat, and crowded: Why we need a green revolution-- and how it can renew America. New York: Farrar, Straus and Giroux.
- Freidman, T. L. (2005). The world is flat: A brief history of the twenty-first century. New York: Farrar, Straus and Giroux.
- Harris, R. (2012). *Introduction to creative thinking*. Retrieved from http://www.virtualsalt.com/crebook1.htm

- The Institute for Learning Styles Research. (1996). *Overview* of the seven perceptual styles. Retrieved from http://www.learningstyles.org/index.html
- Kozar, O. (2010). Towards better group work: Seeing the difference between cooperation and collaboration. *English Teacher Forum, 2.* Retrieved from http://exchanges.state.gov/englishteaching/forum/archives/docs/files-folder111111/48_2-etf-towards-better-group-work-seeing-the-difference-between-cooperation-and-collaboration.pdf
- Levin-Goldberg, J. (2012). Teaching generation TechX with the 4 Cs: Using technology to integrate 21st century skills. *The Journal of Instructional Research*, 1(1), 59-66.
- Lombardi, M. M. (2007, May). Authentic learning for the 21st century: An overview. Educause Learning Initiative paper. Retrieved from http://net.educause.edu/ir/library/pdf/eli3009.pdf
- The Manpower Group. (2012). 2012 talent shortage survey research results. Retrieved from http://www.manpowergroup. us/campaigns/talent-shortage-2012/pdf/2012_Talent_Shortage_Survey_Results_US_FINALFINAL.pdf
- Norton, A. (2010). 10 Things that define a true professional.

 Retrieved from the Techrepublic http://www.techrepublic.com/blog/10-things/10-things-that-define-a-true-professional/
- Olds, K. (2012, March 11). Global citizenship-What are we talking about and why does it matter? Retrieved from Inside Higher Education at http://www.insidehighered.com/blogs/ globalhighered/global-citizenship-%E2%80%93-what-are-wetalking-about-and-why-does-it-matter
- Schleicher, A. (Ed.). (2012). Preparing teachers and developing school leaders for the 21st century: Lessons from around the world. OECD Publishing. Retrieved from http://dx.doi.org/10.1787/9789264xxxxxx-en
- Scriven, M. & Paul, R. (1987, Summer). *Defining critical thinking*. Retrieved from http://www.criticalthinking.org/pages/defining-critical-thinking/766
- Willis, J. (2006). Research based strategies to ignite student learning: Insights from a neurologist and classroom teacher. Alexandria, VA: Association for Supervision and Curriculum Development.
- Vitez,O. (2012). Meaning of professionalism and work ethic.

 Retrieved from http://smallbusiness.chron.com/meaning-professionalism-work-ethic-746.html

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Jennifer Levin-Goldberg earned her Bachelor's in History from Penn State University, a Master's from Arizona State University in Curriculum and Instruction, and a doctorate degree in Curriculum and Instructional Leadership from Northcentral University. At the collegiate and university level, she served as an Associate Professor at Arizona State University and an Adjunct Online Professor for Grand Canyon University since 2008. At the K-12 level, she was a middle and high school social studies teacher, Instructional Coach, Dean of Academics, Department Chair, Team Leader, teacher mentor and coach, Chair of Academic Cadre, District Social Studies Leader, and Curriculum Committee. Her professional affiliations include Kappa Delta Pi Honor Society, Association of Supervisors for Curriculum Developers, and the National Council of Social Studies where she served at the Co-Chair to the Membership Committee, and elected to the Arizona Council of Social Studies Board of Directors.