NOT A NOVICE NOW: A WIKI JOURNEY

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ABSTRACT
This paper explores the potential for students to engage in social constructivist (Vygotsky, 1978) learning through the development of a course wiki. As a requirement of the Principles of Learning (PoL) course, at the University of Ontario Institute of Technology, students are tasked with building a collection of online, student-authored learning resources. By providing an account of my experiences as a graduate student contributing to a course wiki for the first time, in relation to relevant learning theories, I am able to outline how I progressed from a novice wiki contributor to a confident content creator. In critical reflection, both the hesitancies and achievements I met while taking part in this active learning assignment help to provide insight into the types of obstacles that can occur when working on a course wiki. With a deeper awareness of discovery-based learning and additional scaffolding supports from the instructor, I believe that I could have better engaged with the social constructivist aspects of the wiki and opportunities to collaborate with my peers. Overall, I have found that the course wiki allowed me to take active ownership of my learning while engaging in higher order cognitive processes (Biasutti & EL-Deghaidy, 2012).

KEYWORDS: Wiki, Social constructivism, Discovery-based learning, Scaffolding.

Over the past six years a scholarly wiki has been developed by graduate students enrolled in the Principles of Learning (PoL) course at the University of Ontario Institute of Technology. The wiki enables current students to build upon a collection of resources to be used by future students in the course (Hunter & Austin, 2015). Over the course of the term students are required to make original contributions to the wiki that add additional information to existing entries, create new entries, or revise entries made by other
students (Hunter, 2017). In building the course wiki students are, in theory, engaging in a social constructivist (Vygotsky, 1978) activity. Social constructivism is a theory of learning that builds knowledge socially through dialogue, interaction, and sharing of material resources; it stresses the need for collaboration among learners, student ownership of learning, and learning experiences that are authentic for students (Reynolds, 2016; Wang, 2014). For this reason, students are cautioned at the onset of the course that wiki contributions are an ongoing responsibility, as massive contributions in the last week would fail to show engagement in social constructivism (Hunter, 2017). This paper documents my contributions to the course wiki in terms of quantity and the quality of my contributions, as well as the reasoning behind them. While I feel that my original content and peer-based editing have contributed to the overall advancement of the course wiki, I failed to truly collaborate and engage with my peers. After an analysis of my course wiki contributions, I will provide a critical reflection on my course wiki activities, in relation to applicable learning theories in an attempt to rationalize my interactions with the course wiki.

**CONTRIBUTION ANALYSIS**

I first visited the course wiki for an introductory assignment that served as an orientation to the site. Overall, I found that the course wiki was easy to navigate. From the wiki’s homepage there are several ways in which a user can search for information, including browsing the main categories located on the homepage and using the search bar. The browsing of main categories lends itself better to unplanned discoveries, while the search bar provides an effective way to locate exact information. For the most part, the entries I viewed for the initial assignment were written clearly and provided thorough information. In a few instances, there were entries with distracting formatting errors and pages with insufficient, unsourced information. In viewing these types of errors, I became aware of how easy it would be to create a public page that seems adequate to me but would be deemed ineffectual by my peers. I feel that this personal insecurity could be part of why I waited so long to make an actual original contribution. However, from this initial assignment I did begin to understand that the course wiki is a living document and that there would be room for me to edit, supplement, and add original information. This set the stage for my work on the course wiki and I immediately added topics to the planned contributions page; a section of the wiki where students are able to share topics they will be working in the near future, in an attempt to avoid duplication of work and encourage collaboration.

With a background in library and information sciences, rather than education, I found the notion of contributing publicly to the course wiki to be quite intimidating. Noted in Zheng, Niiya, and Warschauer (2015) concerns over a personal lack of expertise is a common anxiety that can affect a student’s level of participation on course wikis, in addition they cite students’ technical skills and level of comfort with wikis also play a role. As a novice to learning principles I decided to start with the topic I felt confident that I was an expert in, my author page; which involves writing a short personal profile. However, in reviewing author pages from previous course offerings it became evident that there was not a uniform consensus about what information should be included in an entry. Some pages were just a few lines, while others included in-depth biographies and detailed contribution lists. In reviewing the pages of past students, I started to pull out the details that I
considered to be the most informative with the intention of using those examples in my page.

As I started to format a draft of my page, I realized what I had created could actually serve as a template for others; this would help ensure that future author entries were consistent in content and appearance. The learning curve in creating that first template was enormous. I am familiar with both Wikipedia and basic HTML coding, but had no previous experience with the nuances of creating Wikimedia content. In attempting to create an author’s template based on the instructions in the “Creating a New Page” page I ended up deleting all of the original content on that page. Rather than copying the coding and pasting it into a new page, I unintentionally replaced the instructional content with my author template draft. After saving my changes, I panicked when I realized what I had done; especially because I could not find a readily visible “undo” edit option. It turns out the option does exist on the page history tab, but to find that solution I immediately conducted a Google search, rather than consulting the internal “Wiki Help” page. I ended up finding information about how to revise my edits on the website MediaWiki (2016) and saved this resource to my favourites for later reference. Later, when I was writing this paper, I realized that the MediaWiki link was also included in the course wiki. I find it interesting that when I reached an impasse I defaulted to the information source I knew, Google, rather than the information that was created specifically on the wiki to help guide students. This tendency for students to revert back to information sources that they are most familiar with for input and expertise is echoed by Reynolds (2016) who observed similar behaviour in students involved in discovery-based learning.

Eventually, I was successful in creating an “Author Template,” using proper techniques to include formal sections and a space holder image for students to upload a picture of themselves. While I made a suitable template, my limited understanding of how wiki pages worked, at the time, meant that I left it as an orphan page. The only way a peer would be able to find it was if they searched specifically for an author template in the keyword search. It wasn’t until our professor stressed the importance making sure that pages we created were properly linked during an evening class that I realized my page wasn’t discoverable. After that class I went back and adjusted the page. I added a sentence to the instructions on the “Authors” main page to note that the template was available and included a link to the author’s template; I also added it to the “Wiki Templates” page menu to account for students who may make that page their first stop in developing a contribution. In revisiting the course wiki it does appear that students in subsequent terms have used the template to create their own author page.

Throughout the course, I had very good intentions to contribute regularly to the wiki. I created the author template at the end of the first month of the course but found when I visited the course wiki with the objective to add content in the subsequent month, I was discouraged and always found reasons to put it off. In one of our class sessions, the professor suggested that an easy way to get started would be to add a review of a research article we had used in one of our assignments. I had just finished presenting on a research article in a research methods course and thought I could easily adapt the presentation content to create a research summary entry. However, when I got to the main “Research Study Summaries” page it was so disorganized that I became concerned about information
retrieval for the end-user and did not feel like there would be value in adding my new entry in the page’s current state. The entries listed on that page were scattered, with no organizational framework. While there was a note that entries on the page were to be citations in APA format, only some of the entries were done in that format, others simply included the title of article and nothing else. In addition, some of the research studies listed linked to an internal page with an associated summary while others only provided an external link to the actual article. I ended up leaving the course wiki, without contributing my new entry, feeling overwhelmed about the page’s disorder but unable to realize my agency as a co-creator with the abilities to fix the apparent shortcomings.

After completing our third course assignment I really started to focus on increasing my knowledge of how to create wiki content and also about the theoretical reasoning surrounding the feasibility of using a course wiki as a social constructivist tool (Biasutti & EL-Deghaidy, 2012; Chu et al., 2017; Cole, 2009; Hunter & Austin, 2015; Jimoyiannis & Roussinos 2011; Lin & Reigeluth, 2016; Mazarakis & van Dinther, 2011; Reynolds, 2016; Su & Beaumont, 2010; Wang, 2014). However, it wasn’t until two weeks before this paper was due that I returned to the “Research Study Summaries” main page equipped with the skills and the confidence I needed to tackle what I felt would be a pretty impactful edit to the course wiki. First, I answered a request from the “Help Wanted” page and created a “Research Study Summary Template.” I added the template to the list of templates on the “Wiki Templates” page, which I also organized into alphabetical order for better retrievability. I then formatted each of the fifteen entries listed on the “Research Study Summaries” page to match the new template. This involved retrieving each of the articles from the UOIT Library database, or internet, to fill in gaps in the information presented in the original entry. For some summaries the additions were minor, for other entries I had to do major revisions including writing article summaries and findings. I also choose to find related studies for each of the articles and created external links to the new information sources.

Once I completed these steps for each of the articles listed on the main page, I worked out a way to organize the “Research Study Summaries” main page. While there was a note on the page that entries were to take the form of citations in APA format that listing system was not applied consistently. I ended up creating an alphabetical menu, similar to what was used on the “Theories” and “Theorist” pages, to organize the entries in a uniform manner. I also used HTML coding to italicize the applicable journal and book titles to keep with APA formatting. I honoured the decision made by previous contributor to link the listed research study summaries to their respective pages using the article’s full title. In order to do this, I had to rename some of the pre-existing pages by creating page redirects using the “move” edit feature. A week later, when looking for items to edit on the “Special Pages” page, I found that in editing the summary entries I had inadvertently created double redirects for eight of the entries. While not critical, these errors caused redundancies and I was able to fix the HTML errors by editing the original redirect. Having an understanding of how the double redirect occurred, why they were an error, and how to fix them spoke to my growing comfort with editing in the course wiki and this realization helped to build my confidence.
This personal growth was ongoing, while satisfied with my decisions in how I organized the “Research Study Summaries” page and formatted the entries, there is one aspect I would like to see enhanced by future students. In preparing to write this paper, I reflected on the impact my contributions would have on future students’ learning, and I really gravitated to the importance of page retrievability. I have realized that it might be difficult for future students to find the research study summaries serendipitously. I could have improved the chances of this by adding a keywords section to the template, as an area that lists keywords would essentially tag the entries. This information would be easy to include as it would be similar to the way most authors provide keywords for their article after the abstract. To have this be part of the entry creation moving forward, I made a revision to the “Research Study Summary Template” to include a keywords section and included a suggestion on the “Help Wanted” page to add keywords to the pre-existing entries with justification for the request.

My final contribution to the “Research Study Summaries” section of the course wiki was to create an original entry for an article, as I had initially intended to do when I first visited the page. In linking the research summary for the article to other internal pages in the course wiki I came across the entry for the article’s author. This page included a “List of Works” section that was extremely out of date; articles that were published in 2012 were still listed on this page as “in-press.” I updated the “List of Works” to include all of the works listed on author’s personal website. I also included external links to works that are freely available online; internal links to items hosted on the course wiki, edited entries to include appropriate italicization, and added and populated a “Video / Podcasts” section. This occurrence of visiting a page with the intention of adding one specific item and ending up making a series of minor peer-based edits seemed to happen quite frequently. In working on the wiki I would start on one page and then fall down a rabbit hole making edits and revisions to other pages as I arrived on them.

Two additional pages that I made significant contributions to are the “Asynchronous Online Discussion Forums” page, which was an original contribution, and the “Goal Orientation Theory” page that I renamed and drastically revised. With both pages, I used the research I had undertaken for the PoL course assignments to create page content. With the online discussion page, I created the content and added it to the “Instructional Strategies” menu. The next time I visited the page, with intentions to create internal links to other wiki pages, I found that another student had taken this task on. This was the closest I came to true collaboration and co-construction of knowledge while working on the course wiki. I appreciated the fact that another student found value in my work and was able to connect it to the pages they were developing. In contrast, as I copied the link to the “Goal Orientation Theory” page into this paper, I discovered that someone had linked the word “performance goals” to a new page but had failed to use the new page to define the term or follow through with creating content on the placeholder they had created. This time I did not appreciate the input of my peer as I felt that it resulted in my completed page being left unfinished. Had they created content on the linked page, I would have been able to find significance in their edit but without this additional information it was essentially an empty revision and I deleted the link.
REFLECTIONS

Overall, my personal “Author” page provides links to the five pages I created and the fourteen pages I made significant edits to; according to my user contribution statistics this resulted in over 500 contributions to the site. While I feel that I succeeded in achieving the quantity and quality of posts required for success in this course activity, I failed to make consistent contributions in the frequency that was expected. When reviewing the timeframe of my posts, the most significant contributions I made were just prior to the deadline of this assignment. For this reason, my interactions with the wiki did not truly integrate the social constructivist principles that were intended for the assignment. In engaging higher order cognitive processes my learning was anticipated to be proactive and collaborative (Biasutti & EL-Deghaidy, 2012). However with the exception of the mutual edits to wiki pages and my peer-based editing, I feel like I could have done more to capitalize on the cooperative learning aspect of the project (Cole, 2009). I do feel that I had an active role in knowledge sharing and building, and increased my ability to apply what I learned in the course and associated assignments to a new medium, which is another objective of constructivism (Chu et al., 2017).

I think my hesitancy in beginning to explore and manipulate the course wiki lies in the fact that I was not willing to treat the document as a work in progress, even with my awareness that there was room to edit and add-on at a later date or even in a future term. I grappled with the idea of publically publishing partial pages and found the lack of standardization in formatting to be disorientating. Perhaps my desire for regulation is grounded in the coursework expectations that I have grown accustomed to through traditional approaches to education, which from my perspective have always stressed the importance of producing finished, formal research papers that strictly follow proper formatting and style guides. Rather than being grateful for the freedom to attempt to formulate new connections about course content or to express fragmentary thoughts with the hopes that a peer would be able to fill in the gaps, I initially focused on creating a polished site that would mirror the structure of Wikipedia from the onset. My instinct was to delete the empty page that a peer linked to from my entry; I rationalized that wiki etiquette ought to have dictated that if my peer did not have the intention to complete the work they created a link for, rather than leaving a blank page they would have alternatively placed a request on the “Help Wanted” page for someone else to create a definition. Upon reflection, I can now start see the benefit of having a peer react and build connections on my work, even if it was incomplete the link created the potential for someone else to expand on my content. When I did start to engage with the wiki I naturally fell into the task of peer-based editing, as a librarian my focus is always on the optimal organization, classification, and indexing of information to ensure efficient retrieval. However, I avoided the parts of the assignment that I did not feel competent in until I had time to dedicate myself to becoming an expert on the task and subject matter.

I have realized that in a public forum I was not comfortable engaging in discovery-based learning that exposed my work processes, rough ideas, and unfinished work, as I have grown accustomed to only presenting polished final products. I had trouble letting go of my need for critical fastidiousness. Discovery-based learning experiences are those in which students are assigned a task to complete over time, in which successful completion requires learner-driven inquiry, information resource use, and problem-solving (Biasutti &
EL-Deghaidy, 2012; Reynolds, 2016). In this context, I would have benefited from pursuing further guidance from peers and improved on collaboration by sharing my knowledge and wiki experiences during in-class discussions (Reynold, 2016). I think I would have been more comfortable interacting with the course wiki earlier on had there been more scaffolding supports from the professor, to better understand how to engage in discovery-based learning and social constructivism. While he was available to troubleshoot technical problems, and provided support documents, my student-centered learning would have initially benefited from more structured discovery-based learning activities, an approach that is referred to as “guided” discovery (Reynolds, 2016). Guided discovery could be built into the course by devoting class time early on to providing students with opportunities to interact with each other in relation to the wiki; perhaps the learning transfer group assignment could have involved developing and posting something to the course wiki so that students could become familiar with the ways in which collaboration is possible. Another way to encourage collaboration among students would be to activate the discussion feature on pages created by students (Chu et al., 2017). That way peers would have a dedicated space to comment and discuss problems and settle controversies without effecting the presented content until agreements to revise shared pages can be reached; similar to the way I was unable to edit the course wiki’s main page but left revision notes in the discussion window for our course professor to consider.

CONCLUSIONS
Working on the course wiki was of great significance to my learning. After conquering an initial learning curve in using the wiki platform, I was able to create and edit wiki pages that added value to the course site. Not only was I able to construct my own knowledge and understanding, I was also able to contribute to the knowledge of the group. Had additional instructional scaffolding been provided, I believe I would have developed the necessary pedagogical foundation to refocus my efforts from attempting to create standardization to taking greater advantage of the collaborative learning aspect of the assignment. My lack of subject expertise, technical difficulties, and self-confidence issues prevented me from contributing early on in the course. Once I felt that I had developed the necessary skills, I began to understand the value of the course wiki as a learning tool. In retrospect, I wish I had explored and embodied the concepts related to a social constructivist learning approach at the onset of the course. If I had done this I feel I would have been able to fully align my contributions with the intended collaborative, social constructivist approach to the assignment.

REFERENCES


Biographical note:

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