UNDERSTANDING WOMEN'S LEARNING EXPERIENCES THROUGH BLOGOSPHERE

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ABSTRACT: *In the body of qualitative research literature, a number of attempts have demonstrated that technology could serve a useful role to enrich and deepen the process of data collection and analysis. The purpose of this study is threefold. First it attempts to explore possible learning experiences within dialogues among women from the platform of the virtual community (the blog). Second, it endeavors to uncover to what extent women could benefit from this virtual community. Finally, it provides an example and possible strategies for qualitative researchers to incorporate technology into their research. Three analytical strategies were utilized: word count, content analysis, and constant comparison analysis. Two major findings are discovered. First, in this virtual community, women are eager to "know others" and "hear others' stories" (see figure 1 and table 1). The findings of constant comparison analysis further confirm the results from word count and content analysis. Second, it seems that for qualitative researchers, blogs or similar online formats could provide a rich and meaningful context data for the investigation.*

KEYWORDS: Blog, qualitative study, learning experience, word count, content analysis, constant comparison analysis.

INTRODUCTION

With the advances in technology, cyberspace has become a popular arena for expressing individuals' voice and concerns. As a result, Hookway (2008) encourages qualitative researchers to include "blogosphere" into their toolboxes. LaBanca (2011) describes the characteristic of a blog as "a personal chronological online journal record of thoughts, beliefs, and activities that has interactive commenting features for both the writer and readers" (p. 1162). As Chenail (2011) argues, weblogs sometimes give readers a "voyeuristic view into the lives and minds of these virtual authors" (p. 249). LaBanca (2011) supports the idea of using blogs as a reflexivity journal and a useful tool for qualitative researchers to discover "diverse and connected thinking" (p. 1168). Most important, this kind of platform facilitates qualitative researchers not only to "collect their data and reach their population but also to encourage rich interactions where a participant reflects on comments made by other participants" (Castaños & Piercy, 2010, p. 948).

In the body of qualitative research literature, a number of attempts have demonstrated that technology could serve a useful role to enrich and deepen the process of data collection and analysis, including using voice-recognition software to foster transcription processes (Brooks, 2010), video equipment to capture lived experiences (Downing, 2008), web cameras to conduct web-based interviews (Matthews & Cramer, 2008), computer software for data management (Wickham & Woods, 2005), online focus groups (Stancanelli, 2010), and naturalistic research

via e-learning formats (Agostinho, 2005). Based on Wickham and Woods' (2005) experience, they felt that with the help of technology, the process of research was not only efficient for streamlining data analysis but also attaining transparency.

The purpose of this study is threefold. First it attempts to explore possible learning experiences within dialogues among women from the platform of the virtual community (the blog). Second, it endeavors to uncover to what extent women could benefit from this virtual community. Finally, it provides an example and possible strategies for qualitative researchers to incorporate technology into their research. The ultimate goal of the study is to reflect on what valuable lessons we could draw from those women's insights in the virtual community, and at the same time how could we, as researchers, take advantage of the use of technology in qualitative studies.

METHOD

To understand how this blogosphere gains access to women's learning experiences, a basic interpretive qualitative research was employed. In essence, the current study was interested in virtual dimensions of learning and how this experience shapes their thoughts and reactions. Merriam and Associates (2002) note that basic interpretive qualitative approaches are "probably the most common form of qualitative research found in education" (p. 38) and the key goal is to discover and interpret "how meaning is constructed, [and] how people make sense of their lives and their worlds" (p. 39).

Data Collection
Data were collected through blogs. All women are members of Women's Global Connection (WGC; http://www.womensglobalconnection.org/index.html).The main goal of this online communication is to facilitate communication among women around the globe. The sample blog consists of 1395 response posts, which included the period August 2003 to October 2012. The majority of participants were women from Africa, who wrote their comments on this virtual platform.

Data Analysis
Leech and Onwuegbuzie (2007) have identified seven most commonly used strategies for qualitative data analysis: constant comparison, keywords-in-context, word count, classical content analysis, domain analysis, taxonomic analysis, and componential analysis (pp. 565-574). In order to attain the rigor and trustworthiness of the findings, the importance of triangulation has been well documented in the literature (Creswell, 2009; Guba, 1981; Merriam & Associates, 2002).

Leech and Onwuegbuzie (2007) argue, "the concept of triangulation also should be extended to analysis tools" (p. 579). In doing so, it will provide qualitative researchers "the opportunity to generate more meaning, thereby enhancing the quality of inferences" (p. 579). In line with this notion, the current study utilized three analytical tools to direct the inquiry in order to obtain triangulation results. First, word count was executed. As Leech and Onwuegbuzie (2007) suggest, "word count is particularly useful if the researcher can assume that frequency of words, categories, or themes provides a good indication of meaningfulness" (p. 576). McNaught and Lam (2010) have demonstrated the usefulness of word clouds as preliminary analysis for

qualitative data. The functionality of word clods is to treat each word as the unit of analysis and then count its frequency in the text. The biggest advantage of "a word clod is a special visualization of text in which the more frequently used words are effectively highlighted by occupying more prominence in the representation" (McNaught &Lam, 2010, p. 630). As a result, in order to grasp some possible patterns in blog text, Wordle (http://www.wordle.net/) was used for the presentation of word count, thereby obtaining a quick, brief, and visualized glimpse of the data.

The second analytical strategy was content analysis. Leech and Onwuegbuzie (2007) point out "classical content analysis is similar to constant comparison analysis . . . [However] the main difference is that instead of creating themes, the researcher counts the number of times each code is utilized" (p. 569). The identified codes were produced and analyzed using descriptive quantitative procedures. Hsieh and Shannon (2005) recognize that content analysis as a research tool could be dichotomized into two paradigms: a qualitative versus quantitative research method. They further explained the idea of qualitative content analysis is for "the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns" (p. 1278). Hsieh and Shannon (2005) identify three different approaches to qualitative content analysis, namely conventional, directed, and summative. The major difference among these approaches is "how initial codes are developed" (p. 1286). In this study, the summative approach was used and keywords "Learning-related terms" were identified and drawn from the raw data. Then a coding scheme was developed. Finally following Leech and Onwuegbuzie's (2007) suggestions, the frequency of codes was calculated in order to obtain "basic insights into how words are actually used" (Hsieh & Shannon, 2005, p. 1285).

Constant comparison analysis was employed as the last tool kit for this study. To perform this analysis, the researcher followed the procedure suggested by Creswell (2007). Leech and Onwuegbuzie (2007) observe constant comparison analysis is the most commonly used approach, especially in the qualitative research course. This method was initially developed from the grounded theory; however, "other qualitative researchers have adopted this method, which involves continually comparing one unit of data with another in order to derive conceptual elements of the theory, even though they may not be developing theory" (Merriam & Associates, 2002, p. 8).

Nvivo 10 software (2011) was also utilized in data analysis. The software textual analysis of the data helped to identify and organize relevant ideas and quotations to support or generate the suitable categories.

FINDINGS

Word Count
The word clod of a blog raw text is presented in Figure 1. This output from the online Wordle system shows some meaningful keywords in this context: "women, know, see, hear, good, and hope." It seems to suggest that women participants in this blogosphere "hoped" to learn by "knowing, seeing, and hearing" others' voices for a "good" purpose.
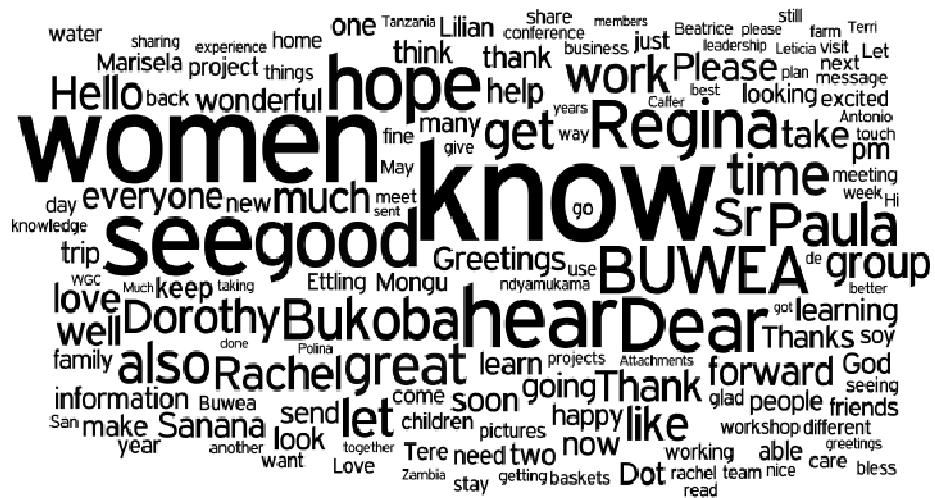
Figure 1. Word cloud of the blog content from the perspective of learning.

Content Analysis

In order to understand what concepts (codes) were discussed most in blogs, classical content analysis was employed. With the first issue pertaining to identifying key words, the coding was then executed. The sampling units were codes from each separate response posts written by participants. Table 1 shows the frequency of codes in the data analysis and "spreading news" was used most (42 times), then followed by "ask for help" (code used 21 times) and "reflection" (19 times). The least used was "express self" and "leadership" (3 times). It seems that sharing information and learning from others are main commonalities existing in this blog. It apparently reflects the functionality of blogs for users to disseminate their thoughts and receive feedback.

Table 1
Codes from a Classical Content Analysis

Code	Number of times used
Ask for help	21
Connection	4
Express self	3
Leadership	3
Learn from different cultures	7
Learn from others	15
Reflection	19
Share stories	18
Spreading news	42

Constant Comparison Analysis

Three broad themes capture the nature of learning experience for women in blogging: (a) a platform for spreading information and seeking help, (b) learning from others and cultures, and (c) sharing experiences and reflection.

A platform for spreading information and seeking help. The first theme found in this blog conversation is that women utilized the biosphere as an extra resource to spread information and ask for advice. Obviously, women make use of the functionality of blogs to report their projects and current status. At the same time if they have any questions, they will post them on this virtual community blog and seek advice around the globe. Those questions included looking for bread recipes, ways of identifying where to obtain drinkable water, translation, recruiting people to complete the survey, hotel reservation, and the procedure of fund application. A woman used this blog to seek advice as follows:

> Does anybody know of an herb or home remedy that I can use for my baby. She is very constipated and I have tried suppositories and half a teaspoon of olive oil. It hasn't work. She is one year old anything that you have used for your children that you could pass along. (February 14, 2004)

In addition to asking for help, a large number of conversations captured instant events. One participant shared good news and updated the current status:

> Today we have finished other two rain water harvest in Kishanje village. We have total of five rain water harvest. It is amazing work done by women some of water problems have been solved. Women are more involved in economic and income generating activities by saving time of going to the river to fetch water. (September 6, 2012)

Another expressed the importance of water in the local area and thanked the team members for building up the water project:

> Water project is a big support to our social development. It will minimize time taken by women going to and for wells fetching water for their home use. The government through Bukoba district commissioner and water engineer promised to work with you in the availability and sustainability of water project. (July 9, 2009)

Another project was also reported and shared with others:

> The soya project is putting up. We have harvested 500kgs. Wonderful! Through experience we have come to realize the good season for soya is from September to January and type of soya which produces more within a short time of two to three months. . . . We are looking for better packing for our soya which will enable us to sell more in different places. (March 25, 2009)

An import area of concern for which women seek information is funding. As a result, members often provide this kind of information to other women. For example, one posted a funding opportunity in Tanzania. Another women spread information on HIV in Africa:

> The Internet is full of information, and we can find a lot of interesting things on it. So here is a text which talks about African HIV positive women's who had their support for food reduced and started to produce it on their own. (January 29, 2009)

Learning from others and cultures. The majority of women used this blogosphere as a channel to know others and to learn different cultures, thereby deeply knowing themselves. For example, one participant said: "through WGC virtual community I can share my story and most importantly learn from people with such a different culture background." Another noted, "the more I am getting to know something about other cultures, the more I am having a closer look at my own and appreciate some things that I never really thought they were that important." One participant remarked,

> It is important to discover together on our gifts and how we can learn from others. I think that the way I have been learning from the women here in Zambia is trying to know them and at the same time to know myself. (February 3, 2004)

Specifically, one women appreciated the idea of understanding others' cultures and wrote:

> I think this is quite an experience because we can understand that being in a foreign country opens our minds and horizons. We have no land boundaries. We are open to learn from one another and welcome one another in solidarity. That is a gift. (September 23, 2003)

Sharing experiences and reflection. One important function of this blogosphere is to share unique experiences as useful references for others. For example, one woman shared her friend's story in the local hospital.

> Yesterday, I went to see a friend of mine who three days ago came from Lusaka after losing her husband. Her husband had been sick in our local hospital for nearly two months . . . . What saddens me the most is the fact that, during the time this man was here in Mongu, medical personnel throughout the country were on strike demanding from government better working conditions. Many patients were left unattended to and my friend's husband just happened to be one of them. Even when the strike was over, he was treated for something else because the hospital has no proper equipment to carry out thorough examinations for many diseases. (October 6, 2003)

Several women described their experiences after reviewing her story. One said, "it feels like you are next door, even though we are thousands of miles away. I can visualize the trip out to the surrounding components and meeting the patients." One woman also reflected:

> It is encouraging and inspiring to read your stories. We have so much in common. Lots of people are suffering in the world. The least we can do is to tell the world that we are all made in God's image and should be treated equal. (October 28, 2003)

After others shared their stories, many participants had some reflections and posted their comments in the blog. One participant reviewed another woman's story in the bog and reflected on African culture in relation to her own Portuguese culture:

> The African culture is as important as or even more important than the Portuguese culture in the Brazilian society. When you travel around Brazil (Bahia state, for instance) you

can tell how our mixture (Africans, Portuguese, Spanishiers, Italians, Japanese, Germans, and so on) made us so particular. (September11, 2003)

Another woman specifically reflected on her inner feelings and stated:

> For a long time I let how someone else felt, or what they believed set my tone, not feeling as if I was worthy to make my own decisions. . . . The fact that I could assist in preventing what happen to me, as a domestic violence survivor, from happening to someone else. And also all the things I'm having the opportunity to learn from working with such incredible women as yourselves. How much richer my life is now . . . and I can't leave without giving thanks to GOD for leading me on this journey! (February 3, 2004)

With regard to the usefulness of this blogosphere, several people had positive comments. One wrote, "I believe at the web site we are doing just that, living boundless and serving goodness while at the same time learning." In a similar tone, another commented:

> I think this space could help us to receive some input in how to deal with situations of loss, grief or loneliness. Perhaps in this space there is somebody else reading who can give us tips in how to work this kind of experiences and we, as well, can help others, like you to your friend for instance. (October 20, 2003)

DISCUSSION

This investigation is based upon the analysis of the blog to explore possible learning experiences under the blogosphere. Three analytical strategies were utilized: word count, content analysis, and constant comparison analysis. By so doing, it is hoped by the triangulation of data analysis to capture a richer understanding of the phenomenon in this inquiry. Taken as a whole, two major findings are discovered. First, in this virtual community, women are eager to "know others" and "hear others' stories" (see figure 1 and table 1). The findings of constant comparison analysis further confirm the results from word count and content analysis. In fact, the results from these analyses are closely integrated to emphasize this direction. The second major finding indicates that the blog might be a useful and powerful tool for learners toward the journey of self-discovery by disclosing their experiences in the public domain, while also receiving advice from women with different perspectives and cultures around the world. This reciprocal flow expands self-awareness. It is clear that women in this virtual community (the blog) not only connect to others beyond physical boundaries, but also share, exchange, seek, learn, and reflect information with the help of ICT.

The major unit of analysis of this study was drawn from the description of blogs. As results reveal several benefits of this kind of communication platform. According to Harper and Harper's (2006) study, they found blogging could promote student self-disclosure and a more open dialogue. Harper and Harper (2006) point out one important feature of self-disclosure "is its reciprocity; meaning that a person's disclosure increases the likelihood that the other party will also disclose" (p. 251). The current study seems to support the idea of self-disclosure in the blogosphere. Most important, women who join this virtual community at least learn from others

and their unique culture. Through sharing their stories, those melodies reverberate through others inner sacred places, which in turn strengthen themselves to practice in their lives what they have learned.

IMPLICATIONS FOR FUTURE STUDY

Banister (2007) provides some scenarios as a springboard for qualitative researchers to consider ethical issues when using digital technology in the practice of data collection, analysis, and distribution. In terms of the use of blogs, there are several ethical issues that need to be considered before taking action. First, as LaBanca (2011) points out, "a researcher choosing to use a blog for reflexive purposes must evaluate the sensitivity level of the data and determine the precautions that are necessary to maintain appropriate levels of confidentiality" (p. 1169). In addition, researchers should recognize the difference between online and offline cultures and communities (Bowler, 2010). Finally, Hookway (2008) reminds us that "there is a strong case for blog researchers to adopt the 'fair game-public domain' position" and respect "copyright law" (p. 105; more discussion, see pp. 104-106).

It seems that for qualitative researchers, blogs or similar online formats could provide a rich and meaningful context data for the investigation. In addition, the current study takes advantage of the assistance of computer software to execute three different analyses from the blog and obtain these triangulating results to further support the validity of the findings. As Wickham and Woods (2005) note, using information technology could help researchers to explore new possibilities and undertake "various elements of qualitative research in new ways and through new forums" (p. 688). Walsh (2003) has the same experience and states "software-based research allowed more freedom to play with ideas" (p. 253). Therefore, it is believed that the notion of integrating technology into qualitative research could assist researchers to pursue another line of inquiry and to consider strategic possibilities of data mining.

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