
A Participatory Photonovel as a Linguistic Tool for Educating ESL-Speaking Immigrant Women About Health Information

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Issues such as the linguistic and informational barriers to health care must be addressed if immigrant women are to achieve optimum health status for themselves and their families. This study used a participatory photonovel as a tool to educate ESL-speaking immigrant women about health information. This research illustrates five ESL-speaking immigrant women's responses to the use of a participatory photonovel as a health literacy tool. The findings reveal the women's perspectives on the use of culturally relevant visuals and simplified English in the photonovel as being conducive to their understanding of health information.

Il est important d'aborder des questions comme les barrières linguistiques et informationnelles en matière de soins de santé pour que les immigrantes puissent assurer un état de santé optimal pour elles-mêmes et pour leurs familles. Dans cette étude, nous avons utilisé un photo-roman participatif pour transmettre de l'information sur la santé à des immigrantes qui avaient l'anglais comme langue seconde. Cette recherche décrit la réaction de ces cinq immigrantes face à l'utilisation d'un photo-roman participatif comme outil de transmission d'information sur la santé. Les résultats indiquent que les femmes estiment que l'emploi du photo-roman, avec des images culturellement pertinentes et un anglais simplifié, a favorisé leur compréhension de l'information portant sur la santé.

Introduction

Background: Literacy and Health

In 1994, Human Resources Development Canada and other agencies funded the International Adult Literacy Survey (IALS) using an instrument that assessed *prose*, *document*, and *quantitative* literacy on a five-point scale (Rootman & Ronson, 2005). Similarly, in 2003, the Adult Literacy and Life Skills Survey: IALLS) (Statistics Canada, 2005) was administered across the country, with results showing that two in five 16- to 65-year-olds scored below Level 3 in prose literacy, which is the desired threshold for coping with the increasing skill demands of a knowledge society. Notably, however, the 2003 survey found that immigrants performed significantly lower than the rest of the Canadian population, with about 60% of immigrants falling below Level

3 in prose literacy, as compared with 37% of the Canadian-born population. These findings resulted in a claim that Canada is facing a literacy crisis. The results, however, have recently been contested by literacy researchers, who point out that the assessment was given only in French and English and does not accurately represent the diversity of first languages spoken by the Canadian population (Purcell-Gates & Tierney, 2009). It is significant that 70% of new immigrants to Canada speak a mother tongue other than one of Canada's two official languages, resulting in the possibility that the English or French IALSS testing may be unreliable (Purcell-Gates & Tierney). Despite the dubious nature of the IALSS, a Statistics Canada (2008) report based on the 2003 IALSS scores argued that there is a need for more complex understandings of literacy proficiencies and methods of assessment to specifically target individuals who scored low on the IALSS, namely, older, less educated, immigrants (Statistics Canada).

A specific form of contextual literacy that has recently emerged is health literacy. Health literacy can be understood as

the cognitive and social skills, which determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health. Health literacy means more than being able to read pamphlets and successfully make appointments. By improving people's access to health information and their capacity to use it effectively, health literacy is critical to empowerment. (Nutbeam, 1998, p. 357).

Health literacy is considered the single best predictor of an individual's health status: stronger than age, income, employment status, educational level, and racial or ethnic group (Weiss, 2003). People with inadequate health literacy skills often have difficulty understanding a diagnosis, discharge instructions, and treatment recommendations. Pamphlets and other written materials often require at least a grade 9 reading comprehension level (Wilson, 2003). More precisely, inadequate health literacy directly affects patients' abilities to follow instructions from physicians, take medication, comprehend disease-related information, learn about disease prevention and self-management, and understand their rights. Even though some would argue that there are no perceived barriers to accessing Canada's public health care system, many ESL-speakers still face obstacles in obtaining health information because it is incomprehensible to them (Zanchetta & Poureslami, 2006).

A Vulnerable Population

Some of the most vulnerable populations in Canada today are new immigrants: studies show that the health of many actually deteriorates after they arrive here. For example, researchers at the Canadian Institute for

Health Information (2004) examined health data from the 2000-2001 Canadian Community Health Survey and found that most immigrant women initially said that they were in good to excellent health for the first two years after arriving in Canada. However, after having been in Canada for two years, when they were asked again, immigrant women responded that they tended to have poorer health and had developed chronic health conditions like arthritis, diabetes, or asthma. Of relative significance is the growing concern in Canada that immigrant and minority women are not always included in health research (Anderson & Hatton 2000).

Although literacy rates for Canadian adult men and women are comparable, immigrant women have lower literacy rates on average than men (Boyd, 1991). Issues such as the linguistic and informational barriers to health care must be addressed if immigrant women are to achieve optimum health status for themselves and their families (Hyman, Guruge, Makarchuk, Cameron, & Micevski, 2002). The following gives an overview of the literature that supported the actualization of my study, which engaged ESL-speaking immigrant women in the participatory process of creating a photonovel in order to understand health information.

Review of the Literature

Traditional Patient Education Materials

There are many reported factors that can affect ESL-speaking immigrant women's health on coming to Canada such as financial burdens, nutrition, and social support (Hyman et al., 2002; Anderson, 1985; Lee, Arozullah, & Cho, 2004). However, one of the primary reasons, on which I focused for the purpose of this research, is that language barriers can impede an ESL-speaker's ability to understand health information (Wilson, 2003). Much of the literature I reviewed illustrates that traditional patient education materials (PEMs) are not sufficiently effective in informing vulnerable populations about health information (Horner, Surrat, & Juliusson, 2000). The research suggests that simplifying the language improves comprehensibility in written education materials, but it does not necessarily create sufficient comprehensibility for this crucial health information to be understood and remembered (Weiss, 2001).

Visual literacy approaches used with text are also discussed as being effective for enhancing literacy comprehension. The effects of concreteness and imagery on reading and text recall have also been well-established by researchers such as Paivio, Walsh, and Bons (1994), who indicated that concreteness and imagery effects have been found to be among the most powerful in explaining performance on a variety of language tasks because they are imaginable, comprehensible, memorable, and interesting to the reader. However, although using pictures or symbols in PEMs has been

shown to be effective (Michielutte, Bahnson, Dignan, & Schroeder, 1992), little comprehension will occur without ESL learners having background knowledge about the meaning of these symbols or pictures in a context of Western culture (Finan, 2002). This suggests that pictures and symbols should be accompanied with instruction or should be culturally relevant.

The literature provides a strong argument for including culturally relevant content in health materials. In the United States, for example, written health materials often assume that readers' worldwide views, cultural orientations, and health needs will reflect a white, middle-class perspective, which makes this information of little use to a wide range of the population (Sissel & Hohn, 1996). Singleton's (2002) opinion—based on both the academic literature and on years of teaching health content to ESL-speaking immigrant students—is that PEMs should be culturally sensitive. She believes that ESL learners should be consulted when discussing or creating health materials. Based on the current literature, however, I found that the strongest suggestion for involving ESL learners in learning about health content is through participatory education.

Participatory Education

Through participatory education, ESL learners are empowered and encouraged to create their own PEMs and work together to find solutions to their health-related concerns and questions. Such procedures are consistent with social constructivism. As Vygotsky (1978) noted, "the acquisition of language can provide a paradigm for the entire problem of the relation between learning and development.... [because] language arises initially as a means of communication between [a person] and the people in his [or her] environment" (p. 89). This social interaction takes place in cooperative group learning and interactive discourse, which are the basis of participatory education. Thus when peers are working together, the process of scaffolding will occur because they will draw on each other's language and cultural understanding to create new knowledge.

Participatory Photonovels

One participatory educational tool that can be used with immigrant women is the photonovel. Photonovels are similar to the genre of comic books, but rather they contain photographic stills with balloon-captioned text that is usually expository; that is, it is meant to inform the reader about something (Butler Flora, 1980; James et al., 2005; Rudd & Comings, 1996). The significance of a literacy tool like the photonovel is that it is participatory, and thus it allows participants to shape their own reality through the creation of images and print.

A background look into the history of photonovels reveals that they have been popular in Latin America since the 1950s. According to Butler Flora

(1980), photonovels were made accessible to the public by being sold at newsstands across Latin America. For those Latin Americans who have low literacy skills, the captioned photographs—which mimic the emotions and struggles of daily life—are more true to life than the politically tainted information that is often found in newspapers. There is limited literature that discusses the use of photonovels in research. However, photonovel research projects have been conducted with populations in the US (Rudd & Comings, 1996), China (Wang & Burris, 1994), and South Africa (James et al., 2005). To the best of my knowledge, this is the first reported study in Canada using a participatory photonovel as a health education tool.

Participatory Photonovels and Critical Health Literacy

According to Freire (2000), our orientation in the world places the question of the purposes of action at the level of critical perception of reality and involves humanizing the world in order to transform it. Based on this educational philosophy—which promotes critical consciousness and empowerment—engaging participants in the creation of words and images to form a health-specific photonovel challenges a more traditional educational approach wherein the learner is a receiver and not a creator of information (Wang & Burris, 1994). The photonovel process inherently involves learners in problem-posing education, because it involves naming their world so that they can become conscious of the historical, social, political, ideological, and value-centered relations of particular systems of knowledge and social practice. Learners thus become subjects of the process of reading and writing as they engage in an act of creation and locate themselves in their own histories.

This study thus reflects a critical perspective on health literacy. By facilitating access to information, critical health literacy enables individuals to make informed choices, to influence events, and to exert greater control over their lives (Nutbeam, 1999). Critical health literacy is defined by the World Health Organization (WHO, 1978) as more than being able to read pamphlets and successfully make appointments. It also involves the ability to analyze information critically, increase awareness, and participate actively in using information to exert greater control over one's life, which allows for greater autonomy and personal empowerment (WHO, 1998). In the light of the goals of critical health literacy, this research aimed to provide access to comprehensible health information and also space for empowerment for ESL-speaking immigrant women.

Methods

Participants

The participants were immigrant women who attended an immigrant center in the capital of one of the Canadian provinces. The core group was com-

posed of five women, whose source countries were China, Colombia, Indonesia, Chile, and Japan. They were between the ages of 35 and 80, and their time in Canada ranged from 10 months to 35 years. All the women spoke English as a second language, and their degree of fluency in English ranged from about a low-intermediate to an intermediate level. Three women held permanent immigration status, whereas the other two did not. Three had a university education, and the other two had attended high school. Finally, two women were currently working in insecure jobs, one was at home with her child, and the other two were at retirement age and thus not working.

Procedure

This intervention proceeded for three months, for two hours each week at the immigrant center. My role as researcher was to implement the intervention and work collaboratively with the women in the creation of a photonovel. At our first meeting, the women engaged in dialogue and indicated collaboratively that nutrition was their main health concern on migrating to Canada. In response, for the following meeting I invited a public health nurse to teach the women about healthy foods and diets in Canada. The following four meetings involved having the women create characters and write a script for their photonovel. The last few sessions included the women taking photographs, directing and editing their photonovel *From Junk Food to Healthy Eating: Tanya's Journey to a Better Life*.

Research Questions

My research question was: How does the process of creating and using a participatory photonovel act as a tool to educate ESL-speaking immigrant women about a specific health topic? Individual and focus group interview questions asked before the photonovel project aimed to create a deeper understanding about the factors influencing the women's health on migration to Canada. Individual interview and focus group discussion questions asked after the photonovel project attempted to discover how the women responded to creating and using the photonovel as a health literacy tool. The final interview questions were as follows: (a) in your opinion, is the photonovel a good tool to learn about health? (b) did you learn anything about nutrition during this process? (c) did the photonovel help you remember the information the nurse taught you? (d) did you understand the language in the photonovel? (e) do you think it helps to have health materials like this to read if you do not speak English very well? (f) is the photonovel a reflection on your own cultural health values? (g) does it matter that, when you read a photonovel or health material, the people in the story are like you? and (h) what can you do in the future to have more control over your health?

Data Collection

Using multiple data collection approaches to allow for the triangulation of converging lines of inquiry (Muscari, 1994). I (a) transcribed recordings of one-hour-long pre- and post-interviews with each participant, (b) transcribed recordings of two hour-long group discussions, (c) took field notes made during the once-a-week meetings, and (d) took photographs of the photonovel project.

Immediately after each session, I wrote field notes in which I reflected on group dynamics, how the women responded to the activities, and on my role as a researcher (Lather, 1986). Artefacts collected through photographs were gathered as an indication of the levels of the women's engagement in various aspects of the project. Multiple sources of evidence provided multiple measures of the same phenomenon, thus increasing validity (Yin, 1989).

Data Analysis

I began my data analysis by reading through all field notes and interviews and observing the photographs I had taken of the research process. I then looked for specific theme generation in the focus groups and individual interviews, which was guided by the work of Colaizzi (1978), and I read over each participant's descriptions in order to gain a general sense of them. I next highlighted "significant statements" (p. 59) that were connected to the research question. These significant statements ranged from a few words to an entire sentence. Some examples of these statements are as follows: (a) "you don't need much English, just looking at the pictures in the photonovel you can get the message," (b) "I am more confident about eating well now; cooking my foods from home and not having western eating habits" and (c) "I feel important to know other women will read this and see a face and story that they can relate to." I also took note of any metaphors that the women used because "metaphor takes the researcher into the heart of what matters in inquiries" (Aita, McIlvain, Susman, & Crabtree, 2003, p. 1430).

Furthermore, I paid attention to any silences embedded in the interviews because "in many cases, what is not said may be as revealing as what is said.... [as] silences are profoundly meaningful" (Poland & Pederson, 1998, p. 294). I found that the silences in the data were quite important because "just as silence is part of voice, so voice is implicated in silence" (p. 294). For example, at the end of the initial group discussion, I asked the women whether they felt that not having their normal social support system (friends, family, etc.) had affected their health at all. I found it fascinating how the group fell completely silent. In fact, I had to ask the question twice, and finally, a participant said: "It could affect your emotional health. At the beginning I had a lot of homesickness, so, it gets to your body ... I get sad or whatever and get homesick for a little while, but try not to do it cause it affects my health and doesn't change my situation ... I try not to think about

it." Even after the participant made this comment, the group remained completely silent; so I changed the topic by asking the women another question because I sensed the sensitivity around this issue.

I then read over the data again and formulated the following first-order themes: (a) general impressions of the photonovel project, (b) the use of visuals in the photonovel, and (c) low-level ESL speakers can understand the language in the photonovel. I organized the participants' words by highlighting their significant statements and then writing my interpretation of them in the left column. Then I repeated the above steps vertically and horizontally. Vertical readings of data involve reading each participant's data from start to finish, and horizontal readings involve comparing each participant's answers to each question (LeCompte, 2000). Examples of some subthemes that emerged at this stage included (a) the photonovel project as memorable and engaging, (b) the visuals as effective for low-level ESL speakers, and (c) the photonovel as culturally sensitive. I then referred back to the original transcripts to validate my themes by making sure that I had not missed any possible themes, and to check if I could collapse any of them.

Results

General Impressions of The Photonovel Project

The women made many positive comments about the photonovel process and the photonovel product. One woman spoke about how the photonovel is readable because it is engaging and entertaining. This comment is similar to findings from a photonovel study conducted by Rudd and Comings (1996), who noted that in one instance the photonovel that the immigrant workers created in their study was considered more readable by the building trades locals than pamphlets created by the National Cancer Institute.

I also found it fascinating when one participant commented that she would remember more of the learning in the project because she was actively involved in the educational process: "You remember more when you make the thing really. It's like in school you have to touch, to feel ... if you only sit it's not enough. It's good to feel it." In addition, another woman noted in her interview that she would remember the photonovel because she was able to name a health issue that was important to her. These comments are consistent with Freire's (2000) critique of the banking method of education, where the teacher simply deposits information into the learner, and his notion that instead the teacher and learner should engage in a dialogue together to form new knowledge. Freire also suggested that learners be encouraged to distance themselves from their reality and think critically about it. He believed that by moving from the sensory experience (reading of the world) to a more generalized and concrete understanding (reading of the word, that is, read-

ing of the photonovel) we come to comprehend reading and the world around us critically, which is empowering for the learner.

Finally, some commented about how the photonovel was a new and different form of communication for them, saying that they had a lot of fun and created friendships by being part of the project. As VanderPlaat (1998) noted, researchers who are focused on creating “empowerment based practices tend also to see the research process in terms of a collective social activity, as opposed to the more traditional emphasis on the individual” (p. 73), evident in the empowering community-building process that occurred in the photonovel project.

The Use of Visuals in the Photonovel

The women spontaneously commented on the visuals in the photonovel when I asked them if they understood the language in the photonovel. For example, one woman said that she believed the photonovel would be effective because people would be able to visually understand clearly what the message was. In the following passage, she described how having pictures in the photonovel would make it accessible to various populations:

I think the photonovel can go to any kind of age group. If people don't speak English they look and it gives you a story page by page. So you understand it. You don't need English, you just have to point at the picture and look at it.

Another participant, who was a new mother, also spoke about how the pictures helped her understand content because she often felt like a child again trying to read English:

The pictures help me a lot. For me I feel like a little child learning English. Like when you learn to read ... you start with little ... small words and big pictures. It's the way you learn and start to read ... it's the way that Angelita [her five year old daughter] is starting to read.

One of the participants also noted that she would read the photonovel in a doctor's office in preference to a traditional health literacy material because it would attract her attention. She said, “I am pretty sure people would read it just to see what it is. You know those little bubbles and balloons. I am sure, yeah.”

As stated in the literature review, the effects of concreteness and imagery on reading and text recall have been revealed by researchers such as Paivio et al. (1994). Furthermore, Finan (2002) noted that the results from her study demonstrated that the value and success of health education materials could be considerably enhanced by adhering to a semiotic framework. In general, the women's comments about the use of visuals in the photonovel are consis-

tent with other research that supports the use of visuals as a means to enhance health literacy comprehension by learners (Michielutte et al., 1992).

Most interestingly, one woman also voiced her opinion on the culturally competent aspect of the pictures in the photonovel when she said, "It's just an ordinary person in the picture, but that story gives you some idea how to cook with healthy foods." Thus her comment alerts us to the fact that perhaps having characters that seem *normal* to immigrants (in this case a main character from Hong Kong) is appealing to them. Her comment was then reiterated by another participant, who stated, "It is easier to relate to pictures of people who look like you." This participant's perspective ties into research that suggests that health education materials should include simple, meaningful, and culturally sensitive graphics. Thus it is important that illustrations include a variety of races and cultures, particularly a variety of ethnic and cultural groups (Mayeaux et al., 1996).

Low-Level English-Speakers Can Understand the Language in the Photonovel

Once again, health literacy is defined as a confluence of "cognitive and social skills, which determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health" (Nutbeam, 1998, p. 357). Based on research that states that many ESL-speakers face barriers in obtaining health information because it is incomprehensible to them (Wilson, 2003; Canadian Institute for Health Information, 2004), it was interesting to listen to the women's opinions about whether the use of simplified language in the photonovel was effective. One participant seemed to be pleased with the final product of the photonovel and spoke to the simple language in it.

This is very simple and you don't have to have difficult words. When you see it you know right away: "Oh, I have to do this and I have to do that." If you don't speak English this is the best way to educate. It's the best one I know.

One woman also expressed how effective the use of minimal text was, and that "some people who have trouble with English, then look at the book. Because there is only a little English in it, they can understand it."

Another interesting angle that surfaced about the use of simplified language in the photonovel came from a participant who noted that after someone immigrates and the honeymoon period is over, that person starts to realize she is a minority in Canada, and thus it helps to have materials adapted to her level of English. She said,

Everything starts to go downhill and then you realize that you are a minority and that you have an accent and you are learning a new language and in some cases you look different.... so, um, it really helps

to have materials that are adapted to your level of English and with characters of people who look like you.

This is a powerful comment because it reminds us that language is one door through which an immigrant woman may access power (Mojab, 1999). Also notable was a participant's comment that she appreciated it when the women changed the words that she did not understand to more simple words, which would inevitably help other low-level ESL-speakers understand the photonovel. The same participant also commented that she learnt new words from the women when creating the photonovel too. As noted, when peers are working together, they will draw on each other's language and cultural understanding to create new knowledge (Vygotsky, 1978), which as we can see from this woman's comment, did in fact occur in the participatory photonovel process.

Discussion

It is apparent that the use of visuals and simplified language in the photonovel contribute to its being a comprehensible and engaging health literacy tool for a population of Canadians who have difficulty understanding mainstream health information. According to Wilde (1991), most information absorbed by human beings is collected through the sense of vision. Thus it seems reasonable to emphasize the development of visual skills as a way to deliver health information to others. The visuals in the photonovel were regarded by all the women as being an important component for comprehension. Another notable aspect of the women's comments on the visual component was that they could relate to the photonovel story because the main character was an immigrant.

It was interesting to listen to the women's opinions about whether the use of simplified language in the photonovel was effective. They commented on how the simple language in the photonovel made it comprehensible, which is consistent with research that states that the language in PEMs needs to be made easier for learners to understand (Mayeaux et al., 1996). Weiss (2001) noted, however, that although there is research suggesting that patient education materials should use simplified language directed to second-language-speakers, there is minimal evidence that these interventions solely have a significant effect on the health status of these individuals. Thus as noted above, approaches such as including visuals (Paivio et al., 1994) and culturally competent techniques (Horner et al., 2000) are ways of enhancing ESL speakers' health literacy comprehension that are indeed found in the photonovel.

Conclusion

Educators of adults, specifically immigrants, will find the results of this study useful. Aside from the valuable information gathered about the promise of the photonovel as a health literacy tool, this project also revealed how lessons can be designed to situate literacy pedagogy in a genuine social context by drawing on real-life activities and situations. The women's overall engagement with the project suggests the inherent benefits of involving learners in authentic literacy practices for real-life purposes. This article contributes to areas of comprehension, health literacy and popular culture, technology and adult literacy processes, and motivation in the domain of second language education. Finally, results from this study will interest those concerned with critical theory and with a pedagogical approach that is based on the premise that the human mind is embodied, situated, and social. Ultimately, this research may encourage dialogue among ESL instructors, researchers, and health professionals regarding effective ways to deliver health content to a vulnerable population of ESL speakers in Canada in a manner demonstrating respect and empowerment.

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