

Critical Pedagogical Transition in Instructional Content Development: A Vocabulary Intervention Using Social Media for Indigenous Youth

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Abstract

Indigenous students speak diverse languages, and many of them are English language learners (ELLs). Research has consistently shown that it takes at least 5–7 years for ELLs to catch up with their English-speaking peers in academic language skills. Inequitable access to learning resources, along with diverse political, socioeconomic, and historical issues, have led to Indigenous students' persistent academic underachievement, in particular for Indigenous youth in high school, where considerably increased academic language demands in content areas place them at high risk of academic failure and lead to extremely high dropout rates. Technology may enable us to bypass costly infrastructure requirements to develop innovative language interventions, given Indigenous students' increasing interest in digital technology use. Considering culturally responsive pedagogy, our project aims to develop a content-based literacy intervention using social media for Grade 9–10 Indigenous students.

This includes 30 curriculum units we developed integrating the Indigenous tradition of oral storytelling as a springboard to engage students and support their learning of academic vocabulary. These units based on First Nations youth's stories are aligned with Ontario curriculum in subject content areas.

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This paper focuses on content development of our instructional design, where we honor “Indigenous ways of knowing.” With a transformative approach to teaching and learning, the project designed to support Indigenous youth’s academic language development aims to go beyond academic success. The school has been proven to be a significant protective measure against adverse factors that lead to the high suicide rate among Indigenous youth. This intervention project capitalizes on technology to promote literacy engagement and overcome the impact of low socioeconomic status and the intergenerational effects of historical trauma that have negatively affected the well-being and academic progress of many Indigenous youth.

Keywords: English as second language, Academic Literacy, Social media, Innovative content development, Curriculum development

Background to the Study

Indigenous students in Canada speak diverse languages, and many of them are English language learners (ELLs). Research has consistently shown that it takes at least 5–7 years for ELLs to catch up with their English-speaking peers in academic language skills even though basic conversational fluency is usually acquired within 1–2 years (Cummins, 1981, 1991). Many ELLs require additional long-term support in their development of language skills (Geva & Farnia, 2012; Farnia & Geva, 2013; Hakuta et al., 2000). In addition, inequitable access to learning resources and opportunities, along with diverse political, socio-economic, and historical issues, have led to Indigenous students’ persistent academic underachievement (Ball, 2009; Peterson, 2016). Across Canada, Indigenous students are lagging behind grade expectations at an alarming rate. “High school has become a major site of struggle” for Indigenous youth (Pulla, 2015, p. 13), where considerably increased academic language demands in content areas place them at high risk of academic failure and lead to extremely high dropout rates (Anderson & Richards, 2016). Therefore, there is an urgent call for a transformative pedagogy to develop innovative interventions that are deeply rooted in First Nations values, culture and traditions.

Research has shown that as their non-Indigenous peers, Indigenous students demonstrated an increasing strong interest in digital technology use (Li & Brar, 2022; Li et al., 2022), therefore this may enable language educators to bypass costly infrastructure requirements to help these Indigenous ELLs learn academic language skills. In light of culturally responsive pedagogy, our project aims to develop a vocabulary-focused, content-based literacy intervention using social media for Indigenous high school students.

Previous Studies on Vocabulary Intervention

The content development of this project was based on research-informed vocabulary learning principles, including 1) teaching high-utility and academic words, 2) the sequence of vocabulary acquisition, and intervention research using mobile technology tools, including 3) repeated word exposure and 4) small chunks of word information input (e.g., Biemiller, 2010; Li & Cummins, 2019; Li & Deng, 2018; Li et al., 2015; Snow, 2010). This paper focuses on the content development of our vocabulary instructional design, where we honor “Indigenous knowledges and ways of knowing” (Moore & Nesterova, 2021) and critically “examine contexts, beliefs, values, knowledge and attitudes (in content development) with the goal of developing spaces for self-reflection, appreciation of diversity and critical thinking” (UNESCO, 2017).

Methodology

For this intervention, we developed 30 curriculum units based on culturally relevant content, integrating the Indigenous tradition of oral storytelling as a springboard to engage Indigenous students and support their learning of academic language skills. The procedures include storytelling, story collection and co-writing stories using academic and discipline-specific words to teach content-area knowledge; each unit has its their specific goals covering vocabulary and subject content knowledge.

To develop curriculum in line with Indigenous youth life experience, our team visited a First Nation high school in Northern Ontario and invited Indigenous students for open-ended interviews to talk about themselves, their families and communities—any stories that they would like to share with us. We transcribed all the interviews verbatim and analyzed transcripts for their vocabulary use using VocabProfilers and storylines, then co-wrote the stories using academic vocabulary. In addition, researchers and graduate student research assistants also shared their stories of their life. Based on these stories, we developed curriculum units that aligned with Grade 9–10 curriculum of Ontario in subject content areas (i.e., English Language Arts, Math, Science, Social Studies). Careful consideration was given for its delivery using social media flatforms, such as text messaging and Facebook group chat.

For example, each unit teaches four academic words through a 400-word text adapted from an Indigenous story on a weekly topic of interest to students (see Table 1 for intervention activities).

Table 1. Daily and weekly activities in intervention using text messaging

Day	Time	Mobile app – students are given their weekly topic
Mondays– Thursdays	8:00 am	A word with its built-in text-to-speech pronunciation, a simple, contextualized definition, and a sample sentence are given
	12:00 pm	A phrase with the daily target word, and a brief explanation are given
	8:00 pm	A 100-word paragraph, containing the daily target word, from the weekly 400-word text adapted from an Indigenous story, is sent with an intriguing question
Fridays	8:00 am	Four weekly target words with contextualized meanings are given
	12:00 pm	Four phrases containing the four weekly target words are given
	4:00 pm	A game with four multiple choice questions (1 per target word) is played

Results and Discussion

It is well established that vocabulary knowledge is a pivotal predictor of reading comprehension for first language learners (Bialystok, 2002; Snow et al., 1998; Stahl & Nagy, 2006). This is even more critical for ELLs (August & Shanahan, 2006; Farnia & Geva, 2013). Based on an overview of research findings, Genesee et al. pointed out: “achievement in English reading, including comprehension, is significantly related to diversity and depth of ELLs’ vocabulary knowledge in English” (2005, p. 370). This transformative pedagogy enabled us to develop curriculum units that focuses on enhancing Indigenous students’ academic vocabulary knowledge will help their reading comprehension and engagement with subject content. The intervention is not only culturally relevant to this specific group of First Nations youth’s life experience and aspirations, but also are in line with their interest in their ways of using specific social media platforms. Preliminary feedback from teachers at the Indigenous high school provided positive feedback on the curriculum materials; this school year, we aim to implement the intervention through social media and teleconferencing platforms such as text messaging, Facebook and Zoom. It is expected that the project not only will contribute to improve language and literacy skills for this group of extremely vulnerable Indigenous youth, but it can also effectively support their engagement with curriculum content to enhance retention rates, the current lack of which is a factor strongly related to extremely high dropout and suicide rates at the school.

Conclusions

How to develop culturally responsive and innovative instructional content using new technologies that can engage a specific group of First Nations English learners and meet the curriculum requirements of the Ministry of Education, is important as well as reflects “Transitions in CALL.” The “new language pedagogy” focuses on the real-life experience of learners, including their interest in social interactions using digital media, social media and mobile technology, their aspirations and challenges, such as land-based topics and critical mental health issues. It places the “roles of learners” in the center of curriculum development in contrast to Euro-centric curricula. This deeply rooted community project takes into account critical contextual factors to develop intervention content by acknowledging the truth of Indigenous history and honoring its culture and traditions (Hampton & DeMartini, 2017).

With a transformative approach to teaching and learning, the project, which is designed to support language learning of extremely vulnerable Indigenous youth, encourage them to stay at school, also aims to go beyond academic success. The school has been proven to be a significant protective measure against adverse factors that lead to the high suicide rate among Indigenous youth. This intervention project capitalizes on technology to promote language and literacy engagement and overcome the impact of low socio-economic status and the intergenerational effects of historical trauma that have negatively affected the well-being and academic progress of many Indigenous youth (Aikens & Barbarin, 2008; Bombay et al., 2014; Richards, 2014).

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