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Jaques, Shayla

University of Calgary

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WHAT THE FRONT-LOAD?: LEARNING LANGUAGE THROUGH COMPLEX TASKS

Shayla Jaques Rita Traxler Erica Rae

Calgary Board of Education

How do we engage new Canadians / English Language Learners in complex tasks? For the last 20 years English Language Learning pedagogy has emphasized the development of basic interpersonal communication skills (BICS) through "front loading" with low level, prescribed, rote activities. At Connaught School we know that our students, regardless of their English language proficiency, are capable of successfully developing interpersonal and academic language through complex tasks. We discuss a classroom project that exemplifies a deep exploration of curriculum through robotics to support the language development of a diverse population of English Language Learners and new Canadians.

Keywords: English Language Learners; complex tasks; elementary; language acquisition

CONTEXT

All strategies that we as educators know work (visuals, rephrasing, explicit vocabulary instruction, and so on) live in our daily classroom within each subject area – not isolated, but in context, and personalized for each learner. We ensure that all students are welcomed into a safe and nurturing learning community so that they are able to engage in intellectually challenging tasks; language and fear need not be a barrier. Our innovation is to honour the complexity of

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language development, the histories of our students and the existing complex thoughts and ideas of English language learners. Learning a new language is challenging, and to isolate and simplify it does a disservice not only to the language learner but to language itself. Exposing children to language as it is used within each curricular area, and facing challenges in the process, builds students' language capacity and perseverance. Setting high expectations within a safe learning community invites students to take risks, grow and achieve their fullest potential in all aspects of their learning.

Connaught School is home to 294 students from Kindergarten to Grade 6. 86% of our student population are English language learners. Our students speak 44 different languages and come from 47 countries. Their educational backgrounds vary from no formal schooling at all, to highly traditional experiences, to students who have attended other schools in Canada. A number of our students have come to us from highly traumatic experiences - war, extreme poverty and dislocation. Teaching and learning at our school is situated within a sensitive and informed context of ensuring students have multiple, varied and responsive access points to curriculum; teachers in all grades use a wide and ever-changing repertoire of strategies to ensure growth and success within specific curricular areas as well as in English language acquisition.

THEORETICAL FRAMEWORK

Trends in English language development methodology include pull-out, front loading, repetitive routines, thematic unit teaching and a focus on conversation. Each of these methods may have a time and a place, but current research tells us that language development for many English language learners occurs most naturally and effectively when situated within their classroom through curriculum. Carrejo and Reinhartz (2013) found, in a study of English language learners in a science classroom, that both language and discipline-based instruction improve significantly

when they are integrated in the classroom. They state, "By co-developing science literacy and language literacy in tandem, learning accelerates for both types of literacy" (Carrejo & Reinhartz, 2013). English language learners in an inclusive classroom benefit from interactions with their peers held in the context of a curriculum subject. They can discuss newly acquired vocabulary words, and are able to practice language skills such as questioning, retelling, and listening to instructions. In doing so students gain a deeper understanding of the topic they are studying.

> It is an oversimplification of learning for teachers to claim that the basics must happen first. This is a common mistake that teachers make with culturally and linguistically diverse students. There is an old assumption that such students cannot be expected to learn science until they have mastered the basics of reading and writing (Settlage & Southerland, 2012, p. 311).

Authentic learning experiences and opportunities that allow students to make real world connections foster English language development as well as deep thinking. Sharon Friesen's *Teaching Effectiveness Framework* states:

> The work students undertake requires them to engage in productive collaboration with each other and with discipline and other experts around real problems, issues, questions or ideas that are of real concern and central to the discipline, to the students and to the broader community outside of school (Friesen, 2009, p. 8).

Research shows that English language learners, as well as native English speakers, learn language and subject content effectively through the use of complex and authentic tasks (Ellis, 2003). Using a task focused in science, math or social studies, with specific curriculum goals alongside specific (but unstated) language goals, helps students understand content effectively as well as develop the four strands of language skill (reading, writing, listening, and speaking) (Ellis, 2003).

English language development does not occur in isolation, “Language is learned through a process of social interaction” (Coelho, 2004, p. 141). When students have ample opportunity to interact with their peers and teachers during learning, their understanding both of the subject area and English language improve. Coelho (2004) suggests the use of strategic grouping, peer tutoring, and partner work to provide English language learners opportunities to learn collaboratively with English-speaking students, and to foster an inclusive and safe classroom community.

PEDAGOGICAL APPROACH

Historically, English language teaching has focused on language development prior to students being given access to curriculum. Our driving action research reveals that students at Connaught School learn language most effectively through curriculum. There is no abandonment of curricular content; teachers approach English language development through the teaching of each curricular area.

Our students take part in complex tasks such as robotics programming, building and inventing devices to deal with waste, and circuit building. Their English fluency improves daily as they encounter communication challenges and persevere through them, in order to be successful in complex tasks. English language learners at Connaught face the same high expectations for subject area knowledge as their English-speaking peers.

In October 2015, students had the opportunity to work in small groups to program LEGO Mindstorms robots. Their goal was for their robot to be able to recognize different types of waste and carry them to the correct waste container in the lunchroom. Their teachers broke down the

task into small parts, and grouped the children strategically so that English language learners had an opportunity to work with students at a higher benchmark level, as peer tutors.

The robotics task was developed in a real-world context: a robotics expert was consulted to help students learn how robots can help deal with waste, students had to first test the capabilities of their robots before making a programming plan, and were constantly testing and re-designing their program as they received immediate feedback from their robot when something went awry. This discipline-based learning is the cornerstone of teaching at Connaught School; teachers develop tasks that resemble, emulate, or simulate real-world situations, that professionals within a variety of fields (science, math, sociology, politics and so on) face every day.

RESULTS

After the task was completed, students were asked to write about their experiences in robotics. English language learners were interviewed by their teacher to determine if their language development had been impacted. One student said, "I learned things like the directions words, like spins, speed, medium, backwards, things like that. I used computer, I could see the pictures. I know how to use it now, I see the buttons and I try them and they work or don't work." Challenging the groups to dive in and try programming tested their perseverance as they faced technical problems, their problem-solving skills as their programming broke down or failed, and their English language development as they communicated their ideas with their groups to complete the task.

After the project concluded, all students were able to identify the threats of air, land, and water pollution, and at least one practical solution to the waste problem. English language learners demonstrated confidence in their abilities to speak to the science curriculum, as well as in

everyday social interactions with their peers as they had more time to intentionally practice their oral communication skills. We discovered significant advancements in English language development, particularly in science-specific cognitive academic language proficiency (CALP) (Cummins, 2008). Every single student participated in a class discussion about waste, its effects and potential solutions using appropriate vocabulary and science concepts.

Aside from the significant academic and language progress made as a result of the robotics project, students benefited from the feeling of inclusiveness and success following this project. Because ALL students had participated and collaborated to the same extent, English language learners and native English speakers alike related positive feelings of community and teamwork in their written reflections. In non-language based performance tasks such as programming, English language learners are able to demonstrate deep content knowledge and understanding without requiring language to 'show what they know'. Students felt successful as they persevered through complex problems and hurdles related to group work and technology, and as their group collaborated to meet the target, regardless of English proficiency. English language learners specifically shared back to teachers a strengthened sense of self-esteem and confidence in learning that was gained through their robotics work.

CONCLUSION

A wide range of practices and strategies contribute to language acquisition including explicit vocabulary instruction (Coelho, 2004). At our school, teaching practices consist of diverse approaches embedded within complex and meaningful tasks to ensure that English language learners progress and achieve in their language development but also in the curricular outcomes of the *Alberta Programs of Study*. Our staff is committed to ensuring students have opportunities to engage in learning and demonstrate their understanding through multiple modalities. Teachers

understand that the proficiency of a student's first language impacts their acquisition of additional languages. As we are immersed in working with a diverse population our daily experiences demonstrate that first language experiences must be viewed through a wider lens. We must honour and consider our students' first language abilities, as well as their knowledge of concepts being learned in school and their prior life experiences. Engaging students in complex learning tasks allows them to build on their sophisticated knowledge and rich experiences. It enables students to flourish.

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