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# INTRODUCTION BY THE EDITOR

## Marion Terry, Ph.D.

Welcome to the eighteenth issue of the *BU Journal of Graduate Studies in Education*, devoted to rural, northern, and Aboriginal education. Our authors for volume 9, issue 1, are current BU Faculty of Education graduate students. The "Spotlight on Undergraduate Scholarship" section features an article by one of our B.Ed. students. I thank all of these scholars for sharing their work. Together, they have produced a collection of articles from the perspectives of Manitoba school administrators, teachers, counsellors, and special educators.

- o Derek Marvin's research report compares two distinct models of Canadian education implemented abroad: educational franchise schools and provincially affiliated schools.

- o Laurie Bachewich's refereed article considers the infusion of Aboriginal perspectives in the classroom while honouring the seven sacred teachings.

- o Kristen Welsh's refereed article examines the role that classroom teachers play in addressing the needs of students with selective mutism.

- o Riel Langlois' refereed article applies attachment theory to adolescent counselling.

- o Nancy Caines' refereed article recommends social skills programming to help individuals with autism reduce their anxiety and develop more appropriate social behaviours.

- o Nicole Koroluk's refereed article advocates co-teaching as an effective tool in the professional development of classroom teachers.

- o Debra McKinnon's refereed article describes key practices in K-3 literacy instruction. examines the role of the teacher in the complicated process of teaching children to read.

- o Terry Knight's refereed article explains how personalized learning strategies can motivate students to become independent thinkers and lifelong learners.

- o Robert Dinsdale's refereed article outlines tools that administrators can use to create a positive school culture.

- o Davion Johnson's refereed article identifies ways that teachers influence students' motivation to learn.

- o Tyler Sloan's refereed article discusses the roles that teachers, parents, and peers play in helping students to complete high school.

- o Sherine Salmon's opinion paper explores the nature of her anticipated administrative role as a transformative leader.

Also included in this issue is our "Celebration of Graduate Scholarship," to honour M.Ed. students who completed their degrees with theses in 2016.

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**RESEARCH REPORT**

# Canadian Education Abroad:
## Exploring the Strengths and Weaknesses of Two Distinct Models

## Derek Marvin

A growing number of schools around the world are using different models of Canadian education. There is a dearth in research that examines how each model operates and how their policies, processes, and programming are implemented in foreign contexts. This mixed method thesis study explored the strengths and weaknesses of two distinct models of Canadian education implemented abroad: educational franchise schools and provincially affiliated schools (PA).

Educational franchise schools contract experienced Canadian educators to train local teachers to implement Canadian curriculum and pedagogy in their country of origin. Canadian Educational Services Latin America Inc., otherwise known as Maple Bear (MB), is the educational franchise presented in this study. There were 28 participants from 10 different MB schools. MB stakeholder groups consisted of franchise administrators, teacher-trainers, curriculum writers, school owners, academic coordinators, and classroom teachers. PA schools require provincially certified teachers and administrators to provide an education for local students using Canadian curriculum. There were 48 participants from 12 different PA schools. PA stakeholder groups were government liaison officers, school principals, and teachers.

Quantitative data were gathered through an online survey consisting of 15 Likert-scale questions. Qualitative data were collected through 5 open-ended survey questions and one-to-one interviews. A discussion of the strengths and weaknesses of each distinct model was organized into 11 themes: systems and structures; staff profile; recruitment and retention; community perspective; school climate; cultural and professional preparation; professional development; curriculum, resources, and materials; methodology; English language learning; and student as a learner.

## Conclusions and Recommendations

The strengths and weaknesses of each model were examined critically, in order to develop conclusions and recommendations that were universally applicable in any form Canadian education used abroad. In this research, conclusions and recommendations were organized into four topics: "The Power of the System," "Recruiting and Retaining Teachers," "Peering Through a Cultural Lens," and "Creating a Culture of Professional Development and Collaboration."

### The Power of the System

MB and PA schools are smaller parts of larger systems. These systems are important. "The Power of the System" refers to the processes of coordination, collaboration, and quality assurance that occur within systems of education and their interactions with external private institutions and public government agencies. The following recommendations promote the value of developing strong systems that are formative, collaborative, and sustainable:

- The Canadian federal government should research the potential costs/benefits of organizational/financial support of offshore Canadian schools.

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- Provincial departments of education should increase transparency and collaboration regarding the policies, programming, successes, challenges, and plans of PA offshore schools.
- Canadian offshore schools should develop collaborative relationships with other Canadian schools in their international settings.
- Canadian offshore schools should provide scholarships or financial accommodations for the tuition of lower income families.
- Canadian offshore schools should administer multiple forms of assessment (reading scores, student work, observational assessments, EAL tracking, etc.) to collect, measure, and track school data.
- Canadian offshore schools should develop a system for assessing and tracking language development.
- Canadian offshore schools should use school data to inform school planning and staffing, and to establish clear priorities. For school planning to be effective, all school stakeholders must engage in the development process. An attention to school priorities will encourage continuity and explicit focus for teacher-training and professional development.
- Canadian offshore schools should establish professional development, programming, and assessment/tracking strategies that integrate the unique needs of English language learners with high-quality pedagogy.
- Policy-makers should identify the specific reasons that families enrol children in offshore schools. This information should be included when schools develop their school plans.
- Canadian offshore schools should track the success of their graduates in Canadian post-secondary institutions. This data should be included when schools develop their school plans.

**Recruiting and Retaining Teachers**

This research found that Canadian offshore schools perpetually deal with the challenge of "Recruiting and Retaining Teachers." Many factors contribute to this issue that are unique to each school, context, and model of Canadian education. The following recommendations identify successful recruitment and retention practices implemented in individual contexts, while providing additional approaches for addressing the challenges that are universal among Canadian schools abroad:

- Canadian offshore schools should consider monetary incentives for long-term service.
- In contexts where local non-native English speakers are hired to teach in Canadian offshore schools, the practice of hiring individuals first as teacher assistants, then grooming them to become teachers, is effective and should be applied wherever possible.
- Canadian offshore schools should invest in support staff at the discretion of the school principal or academic coordinator. These decisions should be informed by school data and consider the cultural ideologies of the local context. For example, students attending offshore schools in South Korea were reported to have high levels of anxiety and therefore would benefit from the support of school counsellors. Clinical support from local individuals such as psychologists, occupational therapists, and speech/language pathologists would also be beneficial in some of these contexts.
- Canadian offshore schools should invest in English as additional language specialists to support, and in some cases supplement, the classroom teacher.

- Canadian offshore schools would benefit from developing associations with individual Canadian post-secondary institutions.
- Canadian universities should offer courses tailored to preparing teachers for the unique experiences of international teaching.
- PA schools should provide a thorough cultural orientation to prospective teachers, in order to prepare them for living in foreign contexts. This programming should be developed and administered by individuals who have first-hand experience living and working in these specific contexts.
- Canadian offshore schools should provide extra support to foreign (Canadian) staff as they initially move and acclimatize to these new cultural contexts. A local individual who is fluent in English and has a deep understanding of school policies, the local culture, and the nuances of living in these contexts should facilitate this support.

**Peering Through a Cultural Lens**

The topic "Peering Through a Cultural Lens" explored the impact of culture on Canadian schools operating abroad. Each country values education for a different reason. In many Asian countries, for example, the purpose of education is to rank and sort students for post-secondary education. Similarly, schools in Brazil aim to prepare students for the Vestibular, a public university entrance exam. Canadians tend to value education as a way to prepare students for life, which includes academic, social, emotional, and physical domains. The following recommendations consider a variety of issues in offshore Canadian education that become evident when examined through a cultural lens:

- Federal/provincial governments should provide financial support and leadership in purchasing and distributing educational resources for Canadian offshore schools.
- Canadian offshore schools should ensure that schools are supplied with up-to-date resources that support teachers' instruction and students' learning. Each Canadian offshore school must invest in an inventory of resources that meet the specific needs of its teachers and learners. Resources should include literature on best practices for instruction, intervention programming, standardized assessment tools, high-quality levelled literature, and sensory tools.
- Curriculum should be written and revised by writers who are experienced and educated in curriculum design and development, and are culturally familiar with the local context.
- Because the staff profile of most Canadian offshore schools consists primarily of young inexperienced teachers, curricula should be written or revised to be more prescriptive and detailed.
- Curriculum should incorporate formative assessment strategies. Furthermore, teachers should undergo specialized training in how to incorporate these strategies.
- Curriculum should incorporate strategies tailored to the unique needs of ELLs.
- Canadian offshore curricula must clearly differentiate between content and outcomes. Teachers should be offered some flexibility in adapting content to meet the specific needs of their students. The process of adapting curriculum should be supported and overseen by school leaders.
- Offshore Canadian curriculum should include content and outcomes that are tailored by local/foreign school leaders, in order to attend to the culture of the local learners.
- Canadian offshore teachers should consider the culture of their local students when planning and delivering instruction, and assessing student learning.
- Canadian offshore schools should explore ways to support parents in fostering English language- and literacy-rich home environments.

- Students who will be graduating from Canadian offshore schools should engage in learning opportunities that explicitly teach them about living and going to school in Canada.

**Creating a Culture of Professional Development and Collaboration**

The development of a school culture that is focused on continuous professional collaboration and improvement was found to be critical to the perceived success of offshore Canadian schools. This research explored a variety of processes/practices used by PA and MB schools that either benefited or hindered the development of a positive school culture. The following recommendations draw from both models of offshore Canadian education, in order to outline approaches that offshore Canadian schools can use in "Creating a Culture of Professional Development and Collaboration":

- Canadian offshore schools should promote and finance internal and external professional development opportunities for teachers.
- School principals/academic coordinators should be pedagogical leaders in the school. When managerial demands overwhelm the principal's ability to be an effective pedagogical leader, a second position should be created to fulfill this role.
- Canadian offshore school principals/academic coordinators must engage in professional development specifically tailored for their particular roles as managers and pedagogical leaders.
- Provincial departments of education should develop online networking resources that provide offshore teachers access to professional learning, sharing, and collaboration opportunities.
- Canadian offshore teachers should be provided with regularly scheduled opportunities for professional collaboration.
- Canadian offshore school principals/academic coordinators should engage in regular and ongoing professional collaboration with others in their role.

*About the Author*

*Derek Marvin defended his M.Ed. thesis in curriculum and instruction in March 2017. After 10 years of service as a teacher and resource teacher, Derek is currently the vice-principal of Dawson Trail School in Seine River School Division.*

**REFEREED ARTICLES**

# Aboriginal Perspectives in the Classroom: A Journey to Healing

## Laurie Bachewich

*Abstract*

*Aboriginal perspectives are a very important topic in today's educational system. There is an urgent need for educators to infuse these perspectives in classrooms and school culture, ultimately benefitting communities. However, in doing so, there are several challenges, including how to infuse these perspectives respectfully while embracing the seven teachings of the good life. A variety of resources is available to help educators do this challenging, but rewarding work. Once the educational system as a whole embraces the truth of our Canadian history, faces the challenges, and celebrates diversity, true infusion will happen and the journey to healing will begin.*

The inclusion of Aboriginal perspectives in the classroom is a very prevalent and important topic in today's schools. In light of the report given by the Truth and Reconciliation Commission, changes to the Manitoba curriculum, and the desire that educators are demonstrating to learn and understand more, a real shift is starting to take place in this area of education. In order for Aboriginal perspectives to be successfully infused within the classrooms of schools, it is important to look at three areas: the importance of infusing Aboriginal perspectives into the classrooms of today, the challenges faced in doing so, and how to infuse these perspectives while honouring the seven teachings of the good life (Toulouse, 2008). Our history as Canadians has been responsible for wounding the spirit of the Aboriginal peoples across this country. There is a great hope that the educational system can set us on the journey to healing that wound, and to creating a new way of thinking (Battiste, 2010).

### The Importance of Infusing Aboriginal Perspectives in the Classroom

In order to begin the process of infusing Aboriginal perspectives in the classroom, educators must first look at the reasons it is important, and at our own values, beliefs, and knowledge of the topic. First, teachers must look at the single perspective narration that many of the dominant culture have to come to understand about Canadian history, and in turn how to change that story. Second, teachers have to look at the achievement gap that exists between Aboriginal and non-Aboriginal learners within classrooms. Last, it has to be considered how education can begin to "revitalize the learning spirit" of many Aboriginal learners and begin the healing journey (Battiste, 2010, p. 16).

Historically, a single story has been presented to learners and to educators in the field about Aboriginal peoples and their relationship with Canada. The way that story has been told has influenced how people see themselves in the world, and how they form relationships with the "other." This single story limits learners and educators from seeing other stories or perspectives (Scott, 2013). In many cases, knowledge taught in schools holds the values of the dominant group. Educators need to make that shift in perspective so that learners do not miss out on valuable cultural knowledge, and the opportunity to know more than one story about Canada's history (Kanu, 2011). Citizens in the world all have different views, and their views can create issues when they become judgemental and interpret another culture as "less" or "different" (Lindsay, Nuri Robins, & Terrell, 2009, p. 57). It is vital that educators expose students to new ways of knowing cultural traditions. When this exposure happens, new doors

can open (Scott, 2013). It is also important to help our learners understand the relationship between Canada and Aboriginal peoples in relation to creating stronger, more respectful relationships, and pursuing success for all learners, Aboriginal and non-Aboriginal alike (Blimkie, Vetter, & Haig-Brown, 2014).

Re-telling, and looking at the relationships between Aboriginal peoples and other Canadians through a different lens, will "disrupt colonialism" and heal the relationships among Aboriginal and non-Aboriginal learners and educators (Tupper, 2014, p. 474). When people choose to be open-minded, instead of judgemental, and examine their own personal beliefs and values as well as how these impact their work, then a shift will happen in the educational system (Lindsay et al., 2009). Educators can also influence change by reflecting on school culture and beliefs, recognizing the barriers that exist, and embracing diversity. As a result, all students will begin to see themselves as valued members of a community and partners in education. Presenting multiple perspectives to learners is vital in order for students to become transformative citizens in the world. This approach strongly validates why Aboriginal perspectives have a place in classrooms.

Academic achievement for Aboriginal youth needs to be considered when contemplating the infusion of Aboriginal perspectives in the classroom. The academic achievement of many Aboriginal learners is much lower than that of non-Aboriginal learners (Ledoux, 2006). Many Aboriginal and non-Aboriginal educators attribute this achievement gap to the lack of relevant curriculum that reflects Aboriginal cultures. Curriculum should connect with the daily lives and experiences of Aboriginal learners. When Aboriginal learners find a sense of belonging within school systems, educators will then see achievement levels improve. The achievement gap that presently exists is a major concern for educators, and infusing Aboriginal perspectives within the classroom needs to be seriously considered for the success of all learners (Kanu, 2011).

Finally, the "learning spirit" of Aboriginal youth has been damaged through the intergenerational trauma that learners have suffered (Battiste, 2010, p. 16). Infusing and normalizing Aboriginal perspectives in the curriculum will create a better cultural understanding among all students, cultivate better relationships, and develop stronger communities (Battiste, 2010). A better school climate will result, ultimately benefitting both Aboriginal and non-Aboriginal learners (Kanu, 2011). An educator's role is to help students "re-imagine" the role of Aboriginal peoples, Aboriginal cultures, and their communities (Scott, 2013, p. 41). Once this shift happens, healing can begin, bringing back the spirit in which relationships were once built. Achieving this type of healing will take practice, positivity, perseverance, and love. This is hard work; however, once all stakeholders are engaged, learners' spirits will begin to heal (Battiste, 2010).

**Challenges That Educators Face**

Infusing Aboriginal perspectives in the classroom can present many challenges for educators today, three of which are paramount. First, educators often believe that there is a lack of time and resources. Next, there is lack of knowledge among educators on the topic of Aboriginal perspectives. This lack of knowledge can create a fear of offending others, taking risks, and making mistakes. Finally, when educators are forced to face their own reality or attitudes, a real challenge can emerge. Looking within is very difficult for humans in general. It means exposing ourselves to the idea that maybe the values, beliefs, and perceptions that we once had about Aboriginal peoples and their cultures were wrong. It is important to look at each of these challenges very carefully, and confront them. When educators confront these issues, we open the door to new and exciting learning opportunities for all learners, and for ourselves.

Educators feel that there is a lack of time to teach the perspectives, and a lack of relevant resources. While these issues are improving, they continue to be concerns for educators. Some educators feel that Aboriginal perspectives are an "add-on" or just another thing on their list to

teach, which then creates a time issue. Ultimately, educators need to infuse perspectives within the day-to-day curriculum. Infusion is about transformation, not including a "token amount" (Blimkie et al., 2014, p. 58). There can also be a lack of compatibility between our school system and Aboriginal cultural values (Deer, 2013). Due to this disconnect, educators face the challenge of finding relevant content that honours Aboriginal cultural values, goes beyond the curriculum, and relates to Aboriginal learners and their daily experiences (Deer, 2013; Kanu, 2011). When educators can not find resources or time, we often fall back on the norm because it is comfortable, which does not always meet the needs of all learners. With proper education, training, and support in finding materials, this challenge can be overcome.

Lack of knowledge leads to misunderstandings, fear, and discomfort. Educators today can bring a very "uni-cultural" view to our work, and this lack of knowledge of Aboriginal perspectives creates a fear amongst educators to take a risk, because we "may not do it right" (Deer, 2013, pp. 184-187). Many teachers struggle to admit to making mistakes or not having all the answers, which results in a fear to teach beyond the curriculum, and provide different views on Aboriginal cultures (Blimkie et al., 2014). Many educators felt that we could teach Aboriginal perspectives only in relation to a historical item or event, and not within the curriculum (Scott, 2013). This lack of knowledge and discomfort about Aboriginal cultures, values, beliefs, and struggles that Aboriginals faced every day leads to a weak relationship, and results in little or no participation from Aboriginal learners (Deer, 2013; Silver & Mallett, 2002). Lack of knowledge creates a gap between the school and the beliefs of the Aboriginal families whom we serve (Deer, 2013). Knowledge is power; in order to overcome this challenge, there is a need to educate teachers and administrators, and close the gap so that the schools and families are serving children together to the best of their ability.

One of the most difficult challenges facing educators is the necessity to confront our own attitudes about infusing Aboriginal perspectives in the curriculum and our own personal views on Aboriginal cultures. In some cases, educators feel uncomfortable integrating, teaching, or discussing Aboriginal perspectives because it may appear unfair to other ethnicities in the classroom, and these feelings result in educators only adding some Aboriginal content to the already existing curriculum, which can often be Eurocentric (Kanu, 2011). Some educators have a difficult time seeing the historical story any other way than how it has conventionally been presented. We can sometimes "retreat behind a wall of ignorance" when it comes to seeing history a different way (Scott, 2013, pp. 34-35). At times, how we see our relationships with Aboriginal peoples can directly affect the way that we teach Aboriginal perspectives within the classroom (Scott, 2013). When a movement toward infusion begins, educators have to reflect on our own culture and potentially let go of parts of it in order to create a new norm. Educators are not always aware of how we see the students in our classrooms, so we may treat them differently. We must look at our own biases so that we can better serve our students (Silver & Mallett, 2002, pp. 49-50). Looking within can be one of the most challenging things we face as human beings. However, as educators we must start by looking inside at our own biases, values, and beliefs before trying to teach and infuse those of other cultures.

### Infusing Aboriginal Perspectives in the Classroom
### By Using the Seven Good Life Teachings

When infusing Aboriginal perspectives, the challenges can seem daunting. However, there is a way to do it. One way to infuse these perspectives, making them a part of everyday teaching, is to examine at the Ojibwa seven good life teachings: respect, love, bravery, wisdom, humility, honesty, and truth (Toulouse, 2008). Each of these teachings is a pathway to infusing Aboriginal perspectives in the classroom. Each teaching provides a different theory and set of strategies that can help educators do what may feel overwhelming. Ultimately, the goal is the good life for educators, students, and families.

The first teaching is respect. It is vital that Aboriginal students and teachers feel they have a place in school. Educators must ensure that we have high expectations of Aboriginal learners, thus showing a strong belief in them. One way is simply by ensuring that the Aboriginal cultures of the area are represented within the school, classroom, and activities. The cultures can be represented through celebrations, school programs, and the literature available, and by making sure that the Aboriginal territory is represented somewhere in the school (Toulouse, 2008). Educators should use a variety of culturally sanctioned symbols in the classrooms so that Aboriginal students feel a sense of value, identity, and place. Those symbols should not only be displayed, but also infused within everyday teaching (Dragonfly Consulting Services Canada, 2012). The school system must also be prepared to support adult and pre-school learners. Many Aboriginal students have returned to finish school, and they need the commitment to success from educators. Pre-school learners deserve the best start possible to their educational career, through either Head Start or pre-school involvement. Some of the high school Aboriginal learners struggle to work within the prescribed workday, therefore requiring a different school day that accommodates education and part-time work (Silver & Mallett, 2002). In order for Aboriginal students of all ages to feel successful, valued, and respected, the educational system needs to "re-think" how things are being done (Silver & Mallett, 2002, p. 51).

The second teaching is love. Educators can fulfill the teaching of love by supporting Aboriginal students' learning styles within the classroom through a variety of strategies. Educators need to teach the whole child from a holistic viewpoint, use a kinesthetic approach, give time to process and reflect, and use collaboration in their teaching (Toulouse, 2008). Aboriginal learners may also have a preference for oral stories, and for showing their learning through art or demonstration. Reviewing material extensively is also important (Kanu, 2011). It is an educator's job to teach individual students at their level and by whichever method is best suited to their needs. This is a way to ensure that the teaching of love is part of everyday practice.

The teachings of bravery and humility go hand in hand in the educational system. They are two of the most important teachings that should be considered. Teaching and infusing Aboriginal perspectives is challenging, and educators need to have the bravery and humility to rely on other experts and methods to help us do it. It is important to find the right resources, create relationships with Aboriginal communities, and bring in resource people to support the curriculum (Toulouse, 2008). These endeavours can be accomplished by discussing the difficult topics of residential schools and survivors of the cultural genocide, engaging in talking circles, examining the Indian Act, listening to oral traditions, discussing realities of Aboriginal peoples today, and bringing in speakers with different cultural views and perspectives (Silver & Mallett, 2002). Land-based learning is also very important for Aboriginal students (Delta School District #37, n.d.). Knowing where they come from, who the Elders are in their community, and what their different traditions are in relation to celebrating the land is very important to infusing Aboriginal perspectives in the classroom. One way to celebrate the land is through treaty education. Treaty education is an opportunity for peace building and awareness of history in classrooms, which encourages educators and learners to look at the relationships between settlers and First Peoples of Canada (Tupper, 2014). This can be challenging and uncomfortable, but it necessary for us to move forward.

Another resource that can support the infusing of Aboriginal perspectives is the Project of Heart program (Tupper, 2014). This program encourages students to create art, talk to residential school survivors, and participate in smudging together. Learners reflect on the past and how it influences present day. Reaching out to Aboriginal parents and families is also important. Reaching out can be done through feasts or other involvement with community events (Silver & Mallett, 2002). These strategies are all wonderful opportunities to engage Aboriginal learners and infuse cultural perspectives in the classroom. When educators use the teachings of bravery and humility to create partnerships and bring different tools and viewpoints

into our teaching, infusing Aboriginal perspectives is not as much of a challenge as many may have thought.

The teaching of wisdom is a reminder that educators are lifelong learners along with their students. It is important to share our knowledge, what works, what does not work, and what else needs to be discovered in order to support learners in and out of the classroom (Toulouse, 2008). It is important to take a "whole child method" and teach the mental, physical, emotional, and spiritual child through a variety of methods, including oral history and language (Ledoux, 2006, p. 1). The professional development of educators is key in this teaching. Educators must realize that continuing our own learning benefits not only ourselves, but also our students as well (Toulouse, 2008). There is wisdom in knowing what we already know, but also in knowing that there is much more learning that needs to happen. Being open to this process is key.

The teachings of honesty and truth can be partnered, as well. Truth is knowing the reality of the present-day situation. Honesty is understanding the gap that exists between Aboriginal and non-Aboriginal learners, and that there has not been a significant change in the last decade (Toulouse, 2008). It is understanding that there is a crisis, and that a real change needs to happen in order for Aboriginal learners to be successful. Educators and the educational system as a whole are accountable for this change. Educators today are open and "thirsty" for this change. While it is frightening to be honest and face the truth of the Aboriginal student success gaps, there is excitement as well in working to close those gaps.

## Conclusion

The arguments for infusing Aboriginal perspectives in the classroom are strong. Educators face several challenges while starting the journey of infusing those perspectives. However, there are also a variety of strategies, programs, resources, and teachings for the good life available for our educators, youth, and communities to infuse these perspectives successfully. The integration of Aboriginal perspectives in the classroom will benefit all learners. Aboriginal history and cultures are Canadian history and culture (Kanu, 2011). When infusing Aboriginal perspectives and cultures into classrooms, the journey to healing will truly begin. There will be a healing to all the injustice that came before us, and opportunities created for Aboriginal learners to be successful and live the good life. During this process, the lives of non-Aboriginal educators and learners will become enriched as well. It is important for all educators to rise to the challenge, understand the importance of infusing Aboriginal perspectives in the classroom, take the risk to overcome the challenges, and embrace a new way of thinking. Only then the journey of healing truly begins.

> Whether we are young or old, whether our skin is light or dark, whether we are man or woman, we share a common humanity and are headed for a common destiny. That should bind us together more strongly than divisions can push us apart. So long as anything other than love governs our relationship with others, we have work to do.
>
> (Kinew, 2015, p. 268)

## References

Battiste, M. (2010). Nourishing the learning spirit: Living our way to new thinking. *Canadian Education Association, 50*(1), 14-18. Retrieved November 6, 2016, from http://www.cea-ace.ca/education-canada/article/nourishing-learning-spirit-living-our-way-new-thinking

Blimkie, M., Vetter, D., & Haig-Brown, C. (2014). Shifting perspectives and practices: Teacher candidates' experiences of an Aboriginal infusion in mainstream teacher education. *Journal of Educational Research*, *23*(2), 47-66.

Deer, F. (2013). Integrating Aboriginal perspectives in education: Perceptions of pre-service teachers. *Canadian Journal of Education / Revue Canadienne De L'éducation, 36*(2), 175-211. Retrieved from http://www.jstor.org/stable/canajeducrevucan.36.2.175

Delta School District #37, Aboriginal Education Department. (n.d.). *Weaving Aboriginal perspectives into the curriculum: 10 ways to weave Aboriginal ways of knowing into classroom curriculum.* Retrieved October 9, 2016, from https://deltalearns.ca/numeracy/files/2016/01/Weaving-Aboriginal-Perspectives-into-the-Curriculum.pdf

Dragonfly Consulting Services Canada. (2012). *A guide to including Aboriginal perspectives*. Retrieved November 3, 2016, from http://dragonflycanada.ca/resources/diversity-aboriginal-perspectives/

Ledoux, J. (2006). Integrating Aboriginal perspectives into curricula: A literature review. *The Canadian Journal of Native Studies*, *26(2),* 265-288.

Lindsay, R. B., Nuri Robins, K., & Terrell, R. D. (2009). C*ultural proficiency: A manual for school leaders.* Thousand Oaks, CA: Corwin Press.

Kanu, Y. (2011). *Integrating Aboriginal perspectives into the school curriculum: Purposes, possibilities, and challenges.* Toronto, ON: University of Toronto Press.

Kinew, W. (2015). *The reason you walk.* Toronto, ON: The Penguin Group.

Toulouse, P. R. (2008). *Integrating Aboriginal teaching and values into the classroom* (Research Monograph #11). Ottawa, ON: The Literacy and Numeracy Secretariat. Retrieved from http://www.edu.gov.on.ca/eng/literacynumeracy/inspire/research/toulouse.pdf

Tupper, J. A. (2014). The possibilities for reconciliation through difficult dialogues: Treaty education as peacebuilding. *Curriculum Inquiry*, *44*(4), 469-488, doi:10.1111/curi.12060.

Scott, D. (2013). Teaching Aboriginal perspectives: An investigation into teacher practices amidst curriculum change. *Canadian Social Studies*, *46*(1), 31-43.

Silver, J., & Mallett, K. (with Green, J., Simard, F.). (2002, December). *Aboriginal education in Winnipeg inner city high schools.* Ottawa, ON: Canadian Center for Policy Alternatives Manitoba.

***About the Author***

*Laurie Bachewich is the principal of Erickson Elementary, a K-6 school in Erickson, Manitoba. She has been an administrator for the last seventeen years, classroom teacher for twenty years, and has taught all grade levels from K to grade 11. She is presently in the graduate program in the area of educational administration. Her main goal while in this program is to broaden her personal learning journey.*

# Addressing Selective Mutism in the Classroom

## Kristen Welsh

***Abstract***

*Classroom teachers play a pivotal role in the early identification and treatment of students with selective mutism. In order to successfully identify students and to collaborate effectively with a professional team, classroom teachers must educate themselves on the intricacies of this anxiety-based disorder. Students with selective mutism remain unidentified when classroom teachers are unaware of the presenting symptoms, available treatments, and proactive classroom-based interventions. In fact, without an adequate understanding of selective mutism, teachers could unknowingly be supporting mutism behaviours in the classroom. Teachers can be the first to connect students and their families with necessary support; but only if they are aware of the complexities of selective mutism.*

As members of a collaborative team of professionals, classroom teachers are key players in the early identification and treatment of students with selective mutism. Limited research exists that stresses the significance of the symbiotic relationship between clinical based interventions and compatible teacher supports in the classroom. There are a number of responsibilities that teachers should embrace when working with students with selective mutism. First, teachers must be well versed in the presenting behaviours of selective mutism in order to refer students confidently for further testing. In fact, without proper knowledge, teachers may be inadvertently working against the researched interventions by supporting a student's defining selective mutism behaviours. In addition to extending their knowledge on presenting behaviours, teachers must be knowledgeable on the different types of therapies used to treat selective mutism. If teachers know about therapy options and their general goals, they can collaborate with professionals and generalize objectives in the classroom. Finally, teachers must stay up-to-date on classroom-based interventions for selective mutism in order to provide adequate support in the absence of professional recommendations. When students are experiencing selective mutism behaviours, their social growth, development, and safety are compromised; therefore, it is the responsibility of teachers to apply their knowledge when necessary. Classroom teachers work as part of a multidisciplinary team, and they need to see themselves as a linchpin when it comes to early identification, knowledge of treatment options, and application of supports in the classroom for students with selective mutism.

The role that classroom teachers play in identifying early behaviours consistent with selective mutism is a critical first step in the diagnosis and early intervention process. In order to provide adequate classroom support for students with selective mutism, teachers should take responsibility for educating themselves on the intricacies of this complex disorder. The Fifth Edition of the Diagnostic and Statistical Manual of Mental Disorders identifies selective mutism as an anxiety disorder diagnosed when "children . . . do not initiate speech or reciprocally respond when spoken to by others" (American Psychiatric Association, 2013, p. 195). Students diagnosed with selective mutism have a tendency to communicate verbally "in comfortable situations such as at home or with friends" (Howard, 2011, p. 73). Although children with selective mutism may feel comfortable speaking in their own homes, they often display radically different social behaviours in any environment where they are not comfortable. School is a common example of this type of uncomfortable environment, however not speaking at school puts these students at risk "because often they do not communicate with teachers regarding their academic or personal needs" (American Psychiatric Association, 2013, p. 196). Students may feel comfortable talking to their parents and friends at home, therefore school might be the

first environment wherein selective mutism behaviours are presenting themselves. In many cases, classroom teachers are the first to notice a pattern of behaviours (Martinez et al., 2015). Classroom teachers who are cognizant of the presenting behaviours of selective mutism are more likely to take action in providing early intervention and support for their students.

The most notable behaviour that a classroom teacher should be aware of is a "persistent refusal to talk in one or more social situations" (Giddan, Ross, Sechler, & Becker, 1997, p. 128). Examples of this include refusal to speak when called on in class, inconsistency when communicating with adults and peers, and refusal to speak in groups. These behaviours sound relatively straight-forward in theory; however, they are not always easy to identify. Selective mutism does not present the same from one child to the next. One student with selective mutism may appear shy, withdrawn, and anxious, while another student may appear defiant or rebellious. There are, however, defining characteristics that are consistent indicators of selective mutism. In order for speech refusal to be characterized as selective mutism, it must continue for longer than four weeks, hinder academic achievement, be a barrier for the development of social relationships and not be attributed to additional language learning or a specific communication disorders (Giddan et al., 1997). As an important aside, the month of speech refusal can not be calculated during "the first month of school because many children may be shy and afraid to speak" at the beginning of the school year (Hung, Spencer, & Dronamraju, 2012, p. 222). The role of classroom teachers to be proactive in identifying selective mutism behaviours is critical because selective mutism behaviours can strengthen over time and without intervention. With each occurrence of social interaction that strengthens mutism behaviours, selective mutism becomes more difficult to treat. If classroom teachers are aware of these various defining behaviours, they will be more likely to refer students appropriately for further testing and enhance the chance of responding to early intervention strategies.

Teachers who increase their understanding of treatment options for selective mutism are more likely to support therapy approaches in their classrooms. If teachers are aware of the intricacies of treatment, then they will be able to make supportive choices in their classrooms and will not involuntarily support mutism behaviours. Teachers support the prescribed clinical therapy approaches by following a firm set of professional recommendations and also by generalizing therapy goals in their day-to-day interactions with their students (Mitchell & Kratochwill, 2013). Teachers are critical players in delivering therapy recommendations in the classroom and providing observations to the governing clinical professional. Therefore, any additional knowledge that teachers acquire about treatment options will serve to focus their efforts in the classroom in ways that are congruent with the therapy goals.

Teachers should understand that selective mutism treatments are rooted in the researched idea "that social anxiety is a key feature of many cases of selective mutism (Kearney, 2010, p. 52). Social anxiety is a much broader anxiety disorder that is characterized by intense fears and distress related to social situations. More specifically, social anxiety is caused by an "intense fear of being embarrassed or evaluated negatively by others" (Canadian Mental Health Association, 2016, "Social anxiety disorder," para. 1). The cognitions and behaviours associated with social anxiety can be described as falling on a spectrum that ranges from mild shyness to extreme fear of socialization. Individuals with social anxiety may still regularly communicate to others, but likely experience discomfort when doing so. Social anxiety becomes more specifically selective mutism when social anxiety symptoms are so extreme that they include communication avoidance and refusal to speak (Martinez et al, 2015). Since selective mutism and social anxiety are closely connected, the treatment for selective mutism is meant to address the fundamental anxiety that underlies mutism behaviours. In other words, professionals treat selective mutism the same way that they treat anxiety because selective mutism is an extreme form of social anxiety.

Many types of therapies are used to treat social anxiety and selective mutism. The majority of research suggests that "cognitive behavioural therapy (CBT) is generally considered the

recommended approach for selective mutism (SM)" (Oerbeck, Stein, Pripp, & Kristensen, 2015, p. 758). CBT is a type of therapy that highlights the importance of how our behaviours and our cognitions are interconnected. In other words, our thoughts affect our behaviours and our behaviours affect our thoughts. CBT can range from intense one-on-one talk therapy sessions to real-world experience therapy. In the end, the participant will acquire a set of tools to utilize when undesired feelings or behaviours arise. The goal of CBT is to make the individual aware of the relationship between thoughts and feelings, and learn strategies to alleviate the presenting symptoms in the moment that they occur. Teachers should be well versed in the different types of CBT interventions used for students with selective mutism, and what they look like in therapy. Examples of CBT interventions include "stimulus fading, contingency management, shaping, learning theory approaches, escape-avoidance, and self-modeling techniques" (Mitchell & Kratochwill, 2013, p. 37). Treatment has a better chance of being successful when "teachers are included in the intervention process and when clinicians use an approach that is collaborative" (Mitchell & Kratochwill, 2013, p. 38). When teachers are familiar with what is involved with interventions then they become an asset to a collaborative team; teachers can generalize the treatment in their classrooms, increasing the likelihood that treatment will be effective.

Classroom teachers are a prominent members of a collaborative team working to support students with selective mutism. Whenever possible, teachers should seek the qualified consultation from any of the following professional supports. School psychologists can provide an "initial psychological assessment" to determine relevant background information, anxiety based tendencies and triggers for the student (Rye & Ullman, 1999, p. 315). Therapists provide in-school programming congruent with their overall treatment plans, and work best in collaboration with teachers wherein the team can "develop assignments that [facilitate] treatment" (Rye & Ullman, 1999, p. 322). Medical personnel can provide the school with information in regards to prescribed pharmalogical interventions. Speech Language Pathologists can provide programming specific to their domains and expertise and "are often the professionals first consulted when a child is not talking in school" (Giddan et al., 1997, p. 127). The collaborative team approach is critical to successful treatment in students with selective mutism, and teachers should never feel alone in their quest to provide support for these students.

Students may display significant selective mutism behaviours but not have the proper support to seek professional help. When additional support is not available or desired, it is even more important for classroom teachers to understand which strategies support students because in its typical form "the academic environment accommodates to the child and unintentionally supports the behavior" (Giddan et al., 1997, p.127). Selective mutism is a type of disorder that requires specific types of supports, and claiming ignorance to how to support students with selective mutism may be the same as unintentionally strengthening mutism behaviours (Giddan et al., 1997). Each time that mutism behaviours are strengthened, it becomes more difficult for students to respond to interventions. Selective mutism behaviours are easily reinforced in the classroom without the teacher even being aware that they are doing so.

The most important fact for teachers to remember is that selective mutism is an anxiety disorder and is not an act of defiance (Shipon-Blum, 2016). If children with selective mutism are forced to speak when they are uncomfortable doing so, then their avoidance behaviours are continuously reinforced (Shipon-Blum, 2016). Any time the child is asked to speak, an anxiety response is triggered and consequently reinforced by not speaking. Teachers should put in extra effort to form a comfortable and trusting relationship with the student and parents (Shipon-Blum, 2016). If this trusting relationship exists, then the students recognize that they will not be forced into an anxiety-ridden experience at school. It is common for students who are selectively mute to find ways of communicating nonverbally, and a teacher can support nonverbal communications with the student by accepting these as suitable modes of communication

(Shipon-Blum, 2016). Students with selective mutism lack sureness in their abilities to navigate social situations, so "increasing self-esteem and confidence in social settings is another integral objective" for teachers (Camposano, 2011, p. 48).

One last consideration for the classroom teacher is to "not make a 'big deal' over any verbalization that does occur" (Shipon-Blum, 2016, para. 21). The student may become comfortable enough to speak or may do so by accident; in either case, an over-reaction from the teacher could trigger an associated anxiety response. Professionals are still learning about selective mutism and in many cases the classroom teachers are the only available support, so it is important that the teachers are aware of how to support students displaying mutism behaviours in the absence of professional recommendations.

In conclusion, it is essential that classroom teachers educate themselves on identifying selective mutism, available treatment options, and how they can best provide support in the classroom. Because selective mutism is inconsistent across environments, teachers may be the first to see behaviours that are consistent with selective mutism. Their professional opinions could lead to early intervention and treatment of selective mutism. Although teachers would not be making any specific decision in regards to clinical therapies, if they are well versed in the available treatment options then they can generalize the goals of treatment in their classrooms. Teachers who understand what specific interventions look like will have an easier time collaborating with parents and clinicians on treatment plans and procedures. Finally, if a child does not have the support or access to resources that they need, teachers can still provide positive supports in their own classrooms if they suspect selective mutism. In fact, many of the beneficial supports for students with are selectively mute are actually considered to be beneficial for all. If the classroom teachers do not have the proper knowledge in regards to what type of supports are significant for students who are selectively mute, then they could be reinforcing these behaviours without meaning to. Therefore, in order to support students with selective mutism in a positive and holistic way, teachers can gain understanding of identifying characteristics, treatment options and proactive classroom supports.

## References

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.

Camposano, L. (2011). Silent suffering: Children with selective mutism. *The Professional Counselor, 1*(1), 46-56. doi:10.15241/1c.1.1.46

Canadian Mental Health Association. (2016). *Anxiety disorders.* Retrieved June 20th, 2016, from http://www.cmha.ca/mental_health/understanding-anxiety-disorders/

Giddan, J. J., Ross, G. J., Sechler, L. L., Becker, B. R. (1997). Selective mutism in elementary school: Multidisciplinary interventions. *Language, Speech & Hearing Services in Schools, 28*(2), 127-133. doi:0161-1461/97/2802-0127

Howard, A. P. (2011). A review of: "Kearney, C.A. (2010). Helping children with selective mutism: A guide for school-based professionals." *Child & Family Behavior Therapy, 33*(1), 72-77. doi:10.1080/07317107.2011.545017

Hung, S., Spencer, M.S., & Dronamraju, R. (2012). Selective mutism: Practice and intervention strategies for children. *Children & Schools, 34*(4), 222-230. doi:10.1093/cs/cds006

Kearney, C. A. (2010). *Helping children with selective mutism and their parents: A guide for school-based professionals.* New York, NY: Oxford University Press.

Martinez, Y. J., Tannock, R., Manassis, K., Garland, E. J., Clark, S., & McInnes, A. (2015). The teachers' role in the assessment of selective mutism and anxiety disorders. *Canadian Journal of School Psychology, 30*(2), 83-101. doi:10.117/082957351466377

Mitchell, A. D., & Kratochwill, T. R. (2013). Treatment of selective mutism: Applications in the clinic and school through conjoint consultation. *Journal of Educational and Psychological Consultation, 23*(1), 36-62. doi:10.1080/10474412.2013.757151

Oerbeck, B., Stein, M. B., Pripp, A. H., & Kristensen, H. (2015). Selective mutism: follow-up 1 year after end of treatment. *European Child & Adolescent Psychiatry, 24*(7), 757-766. doi:10.1007/s00787-014-0620-1

Rye, M. S., & Ullman, D. (1999). The successful treatment of long-term selective mutism: A case study. *Journal of Behavior Therapy and Experimental Psychiatry, 30*(4), 313-323. doi:10.1016/S0005-7916(99)00030-0

Shipon-Blum, E. (n.d.). Helping our teacher's [*sic*] understand selective mutism. *Selective Mutism Anxiety Research & Treatment Center.* Retrieved May 26, 2016, from http://www.selectivemutismcenter.org/Media_Library/helpteacherunder.pdf

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# Attachment Theory in Adolescent Counselling

## Riel Langlois

### Abstract

*John Bowlby's (1982) attachment theory can be applied to an existing therapeutic framework to enhance the effectiveness of therapy. Using the Adult Attachment Inventory (AAI), a therapist can identify the type of attachment the client formed with his/her caregivers, and use this to navigate an authentic attachment between client and therapist. This paper focuses on the application of attachment theory in adolescent counselling, because in adolescence a person has the linguistic and psychological constructs in place to recognize the significance of attachment, and can take advantage of the brain's adaptive state before brain development reaches its adult configuration.*

John Bowlby (1982) introduced attachment theory in 1969 to describe the different ways that children can attach, or fail to attach, to their parents or caregivers. Although it is a well-supported theory, it can not itself form the basis of therapy, but can be a useful framework to facilitate therapy (Ross, Hinshaw, & Murdock, 2016), and pairs well with common established therapeutic approaches. Specific attachment styles can be identified by a reliable (Lorito & Scrima, 2007) test called the Adult Attachment Interview (AAI), which is also used in a modified form to assess adolescents (Mikulincer & Shaver, 2007). The AAI can identify clusters of mental health challenges that are associated with each attachment style. Adolescence is a time when people exhibit behaviours and experience feelings that lead to therapy, and these feelings and behaviours are connected to the level of attachment that the person experienced as an infant. Adolescence is an effective time for an intervention based on attachment theory, because parental attachment is still evolving but adolescents have the cognitive structures in place to engage in metacognitive analyses of their own attachment relationships (Allen, 2008).

Bowlby (1982) developed attachment theory in order to describe the different ways, both secure and insecure, that children attach to parents or caregivers. A secure attachment is what makes for a healthy parent-child relationship. There are three kinds of insecure attachment: avoidant, anxious, and disorganized (Cassidy, 2008). A child who is insecurely attached in an anxious style (Ross et al., 2016) is emotionally sensitive, highly dependent on caregivers (marked by an inability to process negative emotions without help from others), and preoccupied with feelings of being unloved and unaccepted. Children who are insecurely attached in an avoidant style (Ross et al., 2016) have a self-image that hinges upon comparing themselves to others: avoidant children can see themselves in a positive light only by evaluating comparative others negatively. Avoidants tend to be preoccupied with personal power, have suppressed feelings of failure and worthlessness, and deal with negative situations by avoiding them through social isolation. They are also more likely to find ways of numbing the emotions that they are experiencing through substances such as alcohol or drugs.

The most extreme form of insecure attachment is the disorganized style. Children who exhibit the disorganized style of insecure attachment (Holmes, 2004) are theorized to do so because of the unpredictability of their primary caregiver: approaching the caregiver for nurture sometimes led to rejection or even injury, if not simply disinterest. As the disorganized child matures to adolescence and early adulthood, typical characteristics begin to manifest: an urge to control others, an attitude of aggressiveness, an inability to work through negative emotions (e.g. anger management issues), a tendency toward dissociation, and an inability to escape from harmful relationships. This style was not part of Bowlby's (1982) original theory, but was developed by Mary Main (Mikulincer & Shaver, 2007, p. 25). The disorganized style often

seems to be dismissed outright in papers and studies that connect attachment style to counselling approaches, "because it is characteristic of severe levels of psychopathology" (Ross et al., 2016, p. 401). The reason for the dismissal seems to be, at least on the surface, that clients presenting with the disorganized style usually require "intensive psychotherapy" (Blakely & Dziadosz, 2015, p. 287), and therefore the therapeutic path required is too complex for an overview in an article or study that also explores the other forms of attachment.

As with all of the attachment types, they are often given slightly different names over time and across different researchers; for the purpose of clarity, a terminology was chosen and translated from the different terminologies used in different articles and studies, and this is the accepted method in attachment theory. There is one additional clarification of note regarding disorganized attachment: the term "disorganized" is also a point of contention between researchers, in a sense. Beyond semantics, there are at least two schools of thought: (1) that a disorganized child grows into a disorganized adult with characteristics that can be extrapolated from infant to adult, and (2) the disorganized child develops into the fearful avoidant adult, which is kind of like an extreme form of both avoidant and anxious styles combined (Mikulincer & Shaver, 2007). The second example implies that the disorganized style is more a product of both extreme neglect and extreme fear from the caregiver during infancy and not something that is completely different from the anxious and avoidant styles. Intuitively, the *fearful avoidant* seems a more apt label with slightly different implications, because "disorganized infants are characterized by simultaneous or rapidly vacillating displays of approach and avoidance behavior toward an attachment figure" and "fearful avoidance in adolescence or adulthood probably has to be extreme before it parallels disorganization in infancy . . . but when a person scores quite high on both the anxiety and avoidance scales[1] . . . he or she may qualify as disorganized" (Mikulincer & Shaver, 2007, p. 43). It is perhaps why most studies seem to dodge the whole category, but for very practical reasons: attachment could be looked at as being secure or insecure, and the insecure attachment can be either anxious, avoidant, or both, and following this there is no real "disorganized" type. If attachment is considered in this light, then the studies and articles that seem to omit the disorganized type are actually addressing its components (the anxious component and the avoidant component).

Although attachment theory can be a valuable therapeutic tool, there is evidence that it should not be the singular guiding principle of a therapeutic intervention. Burke, Danquah, and Berry (2015) interviewed 12 therapists who had a "stated interest" in attachment theory (p. 144), and concluded that attachment theory can not be the sole template used for a therapeutic model, but is indispensable as an "informing paradigm" (p. 146). Burke et al. found that attachment theory was being successfully paired with the classic psychoanalytic model, the psychodynamic model, and with cognitive-behavioural approaches in practice. The study also revealed specific applications of attachment theory for understanding the development of mental health issues, as an alternative to the diagnostic model but also for explanations to the client and other clinicians. The study also revealed that different attachment styles affected therapy, including the interaction of the client's attachment and the therapist's. Further, Burke et al. found that therapists using attachment theory to complement their therapy style found it useful to analyze each therapeutic relationship as an attachment relationship. Though this study was aimed at therapists of adult clients, its conclusions are encouraging for clinicians who help adolescents.

In a study of nursing students in Israel (Moked & Drach-Zahavy, 2016), the researchers sought to find a connection between attachment style and support-seeking behaviour. The students in the study were between the ages of 22 and 50, but the average age was 25.44. The study concluded that the attachment style of the supervisor was much more a factor in whether

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[1] Mikulincer and Shaver (2007) seem to be referring to scores on the AAI, a test they introduce in the preceding chapter, but they do not refer to it specifically, but rather to scoring high on "a measure of adult attachment" (p. 40).

students seeking support actually received support, and that supervisors with non-secure attachments, meaning avoidant and anxious, were not very helpful. The study also found that securely attached students did not seek out support from supervisors as much as students identified as having avoidant and anxious attachments. These findings are significant and relevant to clinical interventions with adolescents. The modern view of adolescence is that it ends at a later age than 18, the entry into adulthood perhaps better set around age 25 (Arnett, 2007, p. 68). Arnett (2007) argued that Erikson's developmental theories are still valid but require a slight tuning for the 21st century: it made sense that 18 was the end of adolescence in the mid-20th century, when most people were married and stably employed by age 20, but now marriage happens on average much later and securing stable employment remains an ongoing challenge for many, a marked contrast to the stability of the mid-20th century society.

One reason that adolescence is a good time for therapeutic intervention is because, according to Allen (2008), adolescents develop the ability to "de-idealize" (p. 420) their parental figures; that is, adolescents are able to evaluate more objectively the performance of their parents, and can even engage in a metacognitive way to unpack and mentally reorganize their attachment experiences. The adolescent brain is developed to the point where individuals can fully engage in "mentalization": the ability of a person to empathize with others in order to discern the intentions of others (Shemmings & Shemmings, 2011, p. 129); in a child, it refers to being able to see from the perspective of the caregiver and guess at his/her motivations, and in the caregiver it refers to attributing child behaviour to motivations. Mentalization also enables individuals to use the insights gained in order to predict the behaviour of others. Shemmings and Shemmings (2011) drew a brief connection to Rogerian therapy when describing the emotional facet of mentalization: the mentalizer can mislabel one's own feelings; to be a good mentalizer, like an effective Rogerian therapist, one needs to accurately identify one's own feelings and the feelings of others.

Identifying the attachment issues of an adolescent and having the adolescent share in the analysis enables the adolescent to begin to develop new insights based on these staked territories. In this way, individuals may continue the journey into adulthood with a clearer insight into their own behaviours, with less baggage, and with a new lens through which to view their behaviours, thoughts, and emotions in reaction to life's challenges, and also with a gauge to evaluate their own new attachments as new relationships begin to develop.

One tool that facilitates the pairing of attachment theory with therapy frameworks is the AAI, a keystone for facilitating adolescent therapy. In a recent test of the content validity of the AAI, it was found to accurately categorize people into the attachment type (Lorito & Scrima, 2007). When attachment theory is incorporated into an existing therapy framework, the AAI enables the therapist and the adolescent to verify which style of attachment is prevalent in the adolescent. Granted, the test does end up labeling the client, but given that the different styles of attachment seem to be connected to particular clusters of mental health challenges, it can be useful for assisting in diagnosis; however, the therapist must be careful to use it more as a system of verification and validation for analysis rather than as a replacement for analysis.

The secure attachment is protective, in that secure individuals are less likely to develop psychological dysfunction, which has been proven statistically in many cases, including for posttraumatic stress disorder (Dieperink, Leskela, Thuras, & Engdahl, 2001). For the insecure attachment types, research has linked attachment styles to certain kinds of psychological dysfunctions. Anxious attachment is associated with dependent, histrionic, and borderline disorders, whereas avoidant attachment is associated with schizoid and avoidant disorders (Mikulincer & Shaver, 2007). Crawford et al. (2007) found that attachment anxiety is associated with personality disorders that are connected to irregularities in emotional regulation, which includes identity confusion, anxiety, spontaneous emotional outbursts, cognitive distortions, submissiveness, an irrational and pronounced opposition to authority, self-harm, narcissism, and suspiciousness. The anxious style of insecure attachment has been found to be

significantly correlated to "dependent, histrionic, and borderline disorders" (Mikulincer & Shaver, 2007, p. 372), while the avoidant style of insecure attachment was significantly correlated to "schizoid, avoidant" disorders. As compared to secure attachment and disorganized attachment, the anxious style and avoidant style together are associated with depression, clinically significant anxiety, post-traumatic stress disorder "suicidal tendencies, and eating disorders. Borderline personality disorder was significantly correlated with types connected to anxiety (anxious and disorganized) but not to avoidant (Mikulincer & Shaver, 2007).

Thus, the AAI can help the therapist look for these clusters of possible afflictions, but it can also work backwards and see a manifestation of these afflictions as having a specific attachment root. Used in this way, the AAI becomes like a GPS for sussing out potential diagnoses, but just like a GPS it can send one down the wrong avenue if one is not careful (or even if one is careful). That said, continuing with the GPS analogy, one can usually find the right neighborhood eventually even if one has been wrongly directed into a couple of cul-de-sacs along the way. This analogy is apt in the sense that the GPS is not meant to replace a therapist's instincts and common sense: no one drives into a river just because the GPS says so, and, in the same spirit, a therapist should not accept the AAI or the clusters associated with its selection if the information does not mesh with what is being observed and assimilated by the therapist (a caution encapsulated by the Russian proverb, "trust, but verify").

Bowlby's (1982) attachment theory has been supplemented by other researchers, including Mary Main's addition of the disorganized style of attachment (Mikulincer & Shaver, 2007). Attachment theory is a therapy tool that can not itself form the basis of therapy, but can supplement established therapeutic approaches effectively (Ross et al., 2016), and the AAI is a linchpin to this therapeutic pairing. The AAI is a reliable test that can identify an adult's specific attachment style (Lorito & Scrima, 2007), and has been successfully modified to assess adolescents (Mikulincer & Shaver, 2007). When a child reaches adolescence, the child's core attachment relationships are still evolving, making it an effective time for therapeutic intervention because the child is newly able to engage in mentalization and metacognition (Allen, 2008; Shemmings & Shemmings, 2001). Adolescents are uniquely positioned to shift perspectives between the children they once were and the adults they will soon become, thereby enabling them to process childhood experiences and incorporate insights facilitated by therapy toward the construction of a resilient adult persona.

## References

Allen, J. P. (2008). The attachment system in adolescence. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 419-435). New York, NY: Guilford Press.

Arnett, J. J. (2007). Emerging adulthood: What is it, and what is it good for? *Child Development Perspectives, 1*(2), 68-73. doi:10.1037/0003-066X.55.5.469 Retrieved from http://jeffreyarnett.com/ARNETT_2007_Emerging_Adulthood_What_is_it_and_What.pdf

Blakely, T. J., & Dziadosz, G. M. (2015). Application of attachment theory in clinical social work. *Health & Social Work*, *40*(4), 283-289. doi:10.1093/hsw/hlv059 Retrieved from Psychology and Behavioral Sciences Collection database.

Bowlby, J. (1982). *Attachment* (2nd ed., Vol. 1). New York, NY: Basic Books.

Burke, E., Danquah, A., & Berry, K. (2015). A qualitative exploration of the use of attachment theory in adult psychological therapy. *Clinical Psychology & Psychotherapy*, *23*(2), 142-154. doi:10.1002/cpp.1943 Retrieved from PsycINFO database.

Cassidy, J. (2008). The nature of the child's ties. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 3-22). New York, NY: Guilford Press.

Crawford, T. N., Livesley, W. J., Jang, K. L., Shaver, P. R., Cohen, P., & Ganiban, J. (2007). Insecure attachment and personality disorder: A twin study of adults. *European Journal of Personality, 21*(2), 191-208. doi:10.1002/per.602 Retrieved from http://onlinelibrary.wiley.com/doi/10.1002/per.602/pdf

Dieperink, M., Leskela, J., Thuras, P., & Engdahl, B. (2001). Attachment style classification and posttraumatic stress disorder in former prisoners of war. *American Journal of Orthopsychiatry, 71*(3), 374-378 doi:10.1037/0002-9432.71.3.374 Retrieved from PsycARTICLES database.

Holmes, J. (2004). Disorganized attachment and borderline personality disorder: A clinical perspective. *Attachment & Human Development, 6*(2), 181-190. doi:10.1080/14616730410001688202 Retrieved from Academic Search Premier database.

Lorito, L., & Scrima, F. (2011). The content validity of the Adult Attachment Interview: an empirical investigation using text analysis. *Testing, Psychometrics, Methodology in Applied Psychology*, *18*(4), 243–255. Retrieved from http://www.tpmap.org/wp-content/uploads/2014/11/18.4.4.pdf

Mikulincer, M., & Shaver, P. R. (2007). *Attachment in adulthood: Structure, dynamics, and change*. New York, NY: Guilford Press.

Moked, Z., & Drach-Zahavy, A. (2016). Clinical supervision and nursing students' professional competence: Support-seeking behaviour and the attachment styles of students and mentors. *Journal of Advanced Nursing, 72*(2), 316-327. doi:10.1111/jan.12838

Ross, A. S., Hinshaw, A. B., & Murdock, N. L. (2016). Integrating the relational matrix: Attachment style, differentiation of self, triangulation, and experiential avoidance. *Contemporary Family Therapy, 38*(4), 400-411. doi:10.1007/s10591-016-9395-5

Shemmings, D., & Shemmings, Y. (2011). *Understanding disorganized attachment: Theory and practice for working with children and adults.* London, England: Jessica Kingsley.

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# Autism and Social Skills Programs

## Nancy Caines

***Abstract***

*Autism is a developmental disorder that impairs many individuals' social development and ability. Children and adults with autism show difficulty functioning in everyday behaviours due to the anxiety and social impairments they possess. Social skills programs are effective in helping individuals with autism to develop necessary skills to function more normally on a daily basis and to reduce their anxieties in social situations.*

As members of school and society, all children and adults need to cope with daily activities such as going to school or work. Those with autism often have difficulty functioning in common situations due to lack of social skills and high anxieties. The majority of children in the school setting, for example, pick up on behaviours that provide them with the necessary skills to interact with other children without hesitation; they are not faced with anxiety in social situations. Children and adults with autism are often not as fortunate when engaging with others. Social skills programs can provide individuals with autism the skills needed for daily social interacting and functioning. In the school environment, many children with autism are fortunate to be offered a social skills program to assist with the struggles of daily routines. Investing in social skills programs for children and adults with autism provides the opportunity for growth in many areas, such as social interactions and anxiety regulation. The benefits can be immeasurable for many children as they are given the opportunity to function more habitually on a daily basis.

Autism is a developmental disorder that includes impairments in social situations, communication skills, learning abilities, and behavioural confronts (Centers for Disease Control and Prevention, 2016). Children who are diagnosed with autism often show characteristics of the disorder before the age of three (Grønberg, Hansen, Nielsen, Skytthe, & Parner, 2015). Intervention at an early age is crucial because connections must be made with the brain, in order to form experiences that will help the child to function better on a daily basis (Whitman & DeWitt, 2011). Social skills programs and interventions may be a natural way for children with autism to learn strategies to cope with the difficulties of social interactions and anxiety.

## Social Interactions

Individuals with autism often do not have the underlying social skills for interaction with others (Bauminger-Zviely, Eden, Zancanaro, Weiss, & Gal, 2013). Children with autism spend less time interacting with their peers than children without autism (Casenhiser, Shanker, & Stienben, 2011; Deckers, Roelofs, Muris, & Rinck, 2014). Social interactions are important for all children because of daily interactions that they encounter in different environments such as school. Children with autism are all different when it comes to how well they can communicate with others (Stasolla, Damiana, & Alessandro, 2014). Some children can communicate more easily, speaking in sentences, while others can not maintain eye contact or formulate a sentence during a conversation. A social skills program that is centered on developing social interactions is an effective way to develop skills in those with autism.

Social skills-based programs have shown much promise for developing social interactions in children with autism (Radley, Jenson, Clark, & O'Neill, 2014). Social skills programs vary in the amount of time that they are delivered. Improvements in social skills can be seen with as little as 60-90 minutes of intervention per week (Milner, 2013). When children or young adults

have the opportunity to avail of even one hour per week of a social skills program, the benefits are visible when observed for social competence.

There are many ways to deliver a social skills program, such as by using technology that incorporates video modelling and iPad and tablet applications. When children watch instruction on social interactions and are asked to model them back to the instructor, it instills typical social interaction behaviours (Shukla-Metha, Miller, & Callahan, 2010). The use of an iPad has been an interesting topic for social skills, as well. Many applications can be downloaded to develop social skills that children genuinely enjoy (Boyd, Hart Barrett, & More, 2015). The world is evolving rapidly in the eye of technology, and the efficiency of technology helps teachers, parents, or therapists deliver up-to-date programs at their fingertips.

Many school children diagnosed with autism benefit from social programming, and the effects are shown daily. I am fortunate to teach in a school where pervasive children with autism receive social skills support for 40 minutes each day. Children who come out for social skills programming work on many outcomes, such as how to play with other students, how to make appropriate choices when interacting in groups, and how to cope with anxiety when something does not go their way. Working on these outcomes through social stories, role-play, and videos provide students with necessary instruction for proper social interactions. Social interactions are easy to gauge while teaching, because simple observation of a child with a peer group can tell much about what they have learned. When children are successful with the outcomes of their programs, it is rewarding for me to see the social and peer interactions each day.

Social skills programs benefit adults as well as children. Adults who have undergone programming for social interactions to develop communication skills have shown tremendous growth after receiving 16 weeks of intervention ("Young Adults," 2015). When adults receive instruction to interact properly with peers, they develop more peer relationships that were not present prior to instruction (Gantman, Kapp, Orenski, & Laugeson, 2012). Adults with autism are more socially accepted when they are can exist in society more naturally; social skills programs provide adults with autism the opportunity for more social normality (Gantman et al., 2012).

Individuals with autism lack of social interactive skills have to be developed for everyday functioning. Through the use of social skills programs, children and adults with autism can finally develop the necessary skills for everyday interaction with their peers. Through the use of programming, technology, and a teacher or program deliverer, both children and adults can begin to acquire the social normality that is necessary for positive social interaction.

## Anxiety Regulation

Children with autism commonly experience high-anxiety behaviours (Neufeld, Law, & Lucyshyn, 2014). These behaviours are often linked to poor peer and family relationships (Neufeld et al., 2014, p. 259). Many children tend to have social difficulties due to the high levels of anxiety that they experience around their peers (Melonashi, 2013). Children with autism have different triggers for their anxiety-related behaviours. Something as small as a minor change in the school-day schedule can lead a child to become extremely anxious and upset (Gillott, Furniss, & Walter, 2001). Providing children with a social program for anxiety regulation is a successful way to ensure that children learn strategies to cope with their anxiety when triggered.

One reason that children with autism have such social impairment is their high levels of anxiety while interacting with others (Bellini, 2004b). Extreme worrying is a common trait that individuals with autism experience when in situations they are uncomfortable with – such as social interactions (Bellini, 2006). The anxiety prevents the formation of meaningful relationships, whether it is with a parent or friend (Bellini, 2006). An effective way to develop anxiety regulation is through a social program delivered by a parent, teacher, or counsellor.

I deliver social programming daily for anxiety regulation to children with autism aged 9-11. One important outcome is developing and implementing strategies for coping with anxiety when

it arises. Many students develop anxiety in school when the schedule is changed that day. For example, if the library has to be used for a presentation and the class will miss a library period, that sparks anxiety for children with autism. It is important to develop skills and strategies that students can use to cope with such situations, rather than acting out because they are unsure what will happen because of a schedule change. Working with anxiety regulation is more difficult than social interactions because, depending on the day or emotional state of a child, a schedule change may be a "big deal" one day and not so much the next. Although challenging, children need to develop strategies to help them control anxieties for a situation that may arise in their day, helping these children get through a normal school day as "normally" as possible.

Teaching social skills has been suggested to help children with anxiety develop skills to cope in a variety of situations (Bellini, 2004a). Children who have undergone extensive social skills interventions to help with emotional regulations have shown improvements with their anxiety levels (White et al., 2010). A program called Friends for Children is delivered in the regular classroom to help children cope with anxiety and has had success lowering anxiety rates (Chalfant, Rapee, & Carroll, 2007). My school just delivered a similar program called Friends for Life. It focused on developing relationships and dealing with anxiety for all of the grade 4 children in the school. Although not directly delivered to the children with autism, the effect that it had on those students was significant. The guidance counsellor of the school delivered the program while the special education teacher sat with the child(ren) of the class. The effects of the program were seen when the children with autism began doing group activities with reduced anxiety during the time of the program. A social program, whether delivered to a full class or an individual student, has tremendous influence on the way that all children function. In this case, the benefit that it had on children with autism was remarkable.

## Conclusion

On a daily basis, children with autism face many challenges that normal functioning children would have trouble understanding. Individuals with autism have to learn to cope and work with the difficulties of social interactions and anxiety regulation for everyday functioning. With the work of a teacher or parents, children (and even adults) can lead lives wherein they do not feel like the world is crushing down on them just to have a conversation with another person. Social skills programs are one way for individuals with autism to develop necessary skills.

## References

Bauminger-Zviely, N., Eden, S., Zancanaro, M., Weiss, P. L., & Gal, E. (2013). Increasing social engagement in children with high-functioning autism spectrum disorder using collaborative technologies in the school environment. *Autism, 17*(3), 317-339.

Bellini, S. (2004a). Living in fear: Anxiety in adolescents with autism spectrum disorders. *The Reporter, 9*(3), 1-2. Retrieved from https://www.iidc.indiana.edu/pages/Living-in-Fear-Anxiety-in-Adolescents-with-Autism-Spectrum-Disorders

Bellini, S. (2004b). Social skills deficits and anxiety in high-functioning adolescents with autism spectrum disorders. *Focus on Autism and Other Developmental Disabilities, 19*(2), 78-86.

Bellini, S. (2006). The development of social anxiety in adolescents with autism spectrum disorder. *Focus on Autism and Other Developmental Disabilities, 21*(3), 138-145.

Boyd, T. K., Hart Barrett, J. E., & More, C. M. (2015). Evaluating iPad technology for enhancing communication skills of children with autism spectrum disorders. *Intervention in School and Clinic, 51*(1), 19-27. doi:10.1177/1053451215577476

Casenhiser, D. M., Shanker, S. G., & Stieben, J. (2011). Learning through interaction in children with autism: Preliminary data from a social-communication-based intervention. *Autism, 17*(2), 220-241. doi:10.1177/1362361311422052

Centers for Disease Control and Prevention. (2016). *Facts about ASD.* Retrieved June 7, 2016, from http://cdc.gov/ncbddd/autism/facts.html

Chalfant, A. M., Rapee, R., & Carroll, L. (2007). Treating anxiety disorders in children with high functioning autism spectrum disorders: A controlled trial. *Journal of Autism and Developmental Disorders, 37*(10), 1842-1857. doi:10.1007/s10803-006-0318-4

Deckers, A., Roelofs, J., Muris, P., & Rinck, M. (2014). Desire for social interaction in children with autism spectrum disorder. *Research in Autism Spectrum Disorders, 8*(4), 449-453.

Gantman, A., Kapp, S., Orenski, K., & Laugeson, E. (2012). Social skills training for young adults with high-functioning autism spectrum disorders: A randomized controlled pilot study. *Journal of Autism & Developmental Disorders*, *42*(6), 1094-1103.

Gillott, A., Furniss, F., & Walter, A. (2001). Anxiety in high-functioning children with autism. *Autism, 5*(3), 277-286. doi:10.1177/1362361301005003005

Grønberg, T. K., Hansen, S. N., Nielsen, S. V., Skytthe, A., & Parner, E. T. (2015). Stoppage in autism spectrum disorder. *Journal of Autism and Developmental Disorders, 45*(11), 3509-3519. doi:10.1007/s10803-015-2497-3

Melonashi, E. (2013). Social anxiety in the school setting for students with autism. In E. Kalyva (Eds.), *Social anxiety: Perceptions, emotional and triggering symptoms and treatment* (pp. 127-140). Hauppauge, NY: Nova Science.

Milner, K. M. (2013). Social skills groups training for children with autism spectrum disorder. *Journal of Paediatrics and Child Health, 49*, 595-597. doi:10.1111/jpc.12287

Neufeld, V., Law, K. C. Y., & Lucyshyn, J. M. (2014). Integrating best practices in positive behavior support and clinical psychology for a child with autism and anxiety-related problem behavior: A clinical case study. *Canadian Journal of School Psychology, 29*(3), 258-276.

Radley, K. C., Jenson, W. R., Clark, E., & O'Neill, R. E. (2014). The feasibility and effects of a parent-facilitated social skills training program on social engagement of children with autism spectrum disorders. *Psychology in Schools, 51*(3), 241-255. doi:10.1002/pits.21749

Shukla-Mehta, S., Miller, T., & Callahan, K. J. (2010). Evaluating the effectiveness of video instruction on social and communication skills training for children with autism spectrum disorders: A review of the literature. *Focus on Autism and Other Developmental Disabilities, 25*(1), 23-36. doi:10.1177/1088357609352901

Stasolla, F., Damiana, R., & Alessandro, C. O. (2014). Promoting constructive engagement by two boys with autism spectrum disorders and high-functioning through behavioral interventions. *Research in Autism Spectrum Disorders, 8*(4), 376-380.

White, S. W., Albano, A. M., Johnson, C. R., Kasari, C., Ollendick, T., Klin, A., . . . Scahill, L. (2010). Development of a cognitive-behavioral intervention program to treat anxiety and social deficits in teens with high-functioning autism. *Clinical Child and Family Psychology Review, 13*(1), 77-90. doi:10.1007/s10567-009-0062-3

Whitman, T. L., & DeWitt, N. (2011). Selection of appropriate interventions. *Key learning skills for children with autism spectrum disorders: A blueprint for life* (pp. 11-32). London, United Kingdom: Jessica Kingsley.

Young adults with autism show improved social function following skills program: Gains from "PEERS" training persist 16 weeks later. (2015, July 31). *ScienceDaily*. Retrieved May 23, 2016, from www.sciencedaily.com/releases/2015/07/150731103705.htm

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# Co-Teaching: An Effective Professional Development Tool

## Nicole Koroluk

***Abstract***

*Effective models of co-teaching enhance the quality of instruction in dynamic classrooms, contribute to increases in student achievement, and assist teachers in building their capacity to meet the diverse needs of students in today's classrooms. Additionally, co-teaching provides teachers with regular opportunities for collaboration, expertise sharing and reflection. When executed as a mutually beneficial and valued partnership, co-teaching should be considered as an effective professional development model for teacher enhancement.*

Today's educators faced the heavy responsibility of educating students with a wide range of abilities and needs in their classrooms. Schools are becoming more and more diverse, and the task of providing each student with individualized programing that meets each specific need is a very daunting task. Dedicated teachers spend countless hours planning for their students; and yet many feel that they have only scratched the surface with regards to meeting the needs in their classrooms. In the face of this seemingly unattainable task, teachers are often evaluated on their ability to meet the needs of each learner in their classrooms, through their planning, instruction, and assessment practices. Administrators often find themselves in supervisory positions, where they are expected to observe and evaluate teachers' abilities to achieve this goal, while also providing professional development opportunities to assist teachers in developing their abilities and increasing their capacities to meet the evolving needs of their students. Finding effective professional learning opportunities can be a challenge, given the unique characteristics of each teacher's classroom, experience, and needs. One style of professional learning that has proven to be successful for many teachers is known as the co-teaching model; this model has taken on many forms throughout the years, but it is founded on the premise that two teachers work together to teach a group of students, while sharing the responsibilities of planning, delivering, and assessing the instruction, as well as organizing the physical space (Bacharach & Heck, 2007; Friend & Cook, 2004; Kamens, Susko, & Elliott, 2013). This article explains the co-teaching model, discusses ways in which co-teaching provides an opportunity for teacher enhancement, and identifies some considerations for improving the success of co-teaching as an effective professional development tool.

Co-teaching is an idea that has been around for decades; as early as the 1960's, educators have been exploring the possibilities of this collaborative teaching model (Cook & Friend, 1995). The model of co-teaching has changed and evolved through the years, from a team-teaching model in which teachers share the responsibilities of instruction and assessment while continuing to teach separately, to a collaborative and shared teaching experience in which both professionals co-plan, co-instruct, and co-assess a group of students (Kamens et al., 2013). In the latter model, instruction is provided by both teachers on a consistent basis, such that neither teacher is considered the main teacher of the class (St. Cloud State University, 2012b). The latter model is also characterized by the understanding that co-teachers are "peers with equivalent credentials and status in the classroom . . . [and] are partners in the instructional process on behalf of all of their students" (Simmons & Magiera, 2007, p. 2). This shared delivery model of instruction is the focus of the term "co-teaching" in the remainder of this paper.

Through a variety of different methods, including (but not limited to) supportive co-teaching in which one teacher takes a lead role while the other teacher provides support, parallel co-teaching in which both teachers instruct two different groups of students at the same time, and complementary co-teaching in which instruction is provided by both teachers to the same group

of students at the same time, teachers are better able to focus on the essential components of the curriculum while providing differentiated instruction to all students in the class (Nevin, Villa, & Thousand, 2009). Co-teachers are jointly responsible for differentiating instruction, assessing student achievement, and maintaining classroom climate, which "provides a greater array of dynamic structures than is possible when only one teacher is present" (Rahmawati, Koul, & Fisher, 2015, p. 395). This collaborative method of teaching creates an atmosphere in which all students can receive improved instruction, develops a foundation of support among teachers, and has been proven to be an effective model for supporting the achievement of students with disabilities (Altieri, Colley, Daniel, & Dickenson, 2015; Friend & Cook, 2004).

Many researchers have concluded that the co-teaching model has a positive effect on student achievement for all students, including students who are academically gifted, average-ability students, at-risk students, and students with identified special needs (Bacharach & Heck, 2007; Cook & Friend, 1995; Murawski & Swanson, 2001; Rice & Zigmond, 2000; St. Cloud State University, 2012a). One reason for this observed success has been attributed to the merging of expertise in the classroom (Ahmed Hersi, Horan, & Lewis, 2016; Altieri et al., 2015). Co-teaching offers an opportunity to bring general education, special education, and content-area specialists together to collaborate; each professional brings their own unique perspectives and strengths of their specialization into the partnership, combining their complementary teaching competencies to enhance instruction and better meet the needs of all students (Beamish, Bryer, & Davies, 2006; Cook & Friend, 1995: Kamens et al., 2013). Mainstream students in co-taught classrooms benefit from the combined expertise of multiple teachers, and students with disabilities benefit from "working with a content specialist, as well a professional who can modify instruction to meet their individual needs" (Kamens et al., 2013, p. 167), in the structure of an inclusive classroom (Bacharach & Heck, 2007; Cook & Friend, 1995; Shin, Lee, & McKenna, 2016). The merging of professional teaching expertise offers obvious implications with regards to student achievement; however, the benefits of this teaching model extend to the professionals as well.

Co-teaching offers a unique opportunity for collaborating teachers to participate in high quality professional learning (Friend & Cook, 2004). The shared planning time, the opportunity to examine and discuss student learning, teaching methodologies, curricular content, and classroom management approaches, and the self-reflection that results from co-teaching can "increase teachers' knowledge and change their instructional practice in ways that support student learning" (Darling-Hammond, 2013, p. 100). Effective co-teaching addresses many of the indicators of high quality professional development, as identified by Darling-Hammond (2013), including a focus on student learning of specific curriculum content, practical application of real challenges, sustained over time, supported by modelling, reflection and feedback, and connected to teachers' collaborative work. Co-teachers have the ability to improve their instructional practice, develop their content knowledge, and increase their capacity to meet the needs of their students by participating in opportunities to try new techniques in a supportive environment, receive peer-coaching, and reflect on shared experiences. Of particular value to co-teachers, is their distinct ability to discuss and analyze the learning of their shared students, increasing their ability to identify needs, recognize mastery of skill, and develop instructional strategies to support struggling learners. In addition, co-teachers work in a system of shared expertise which promotes collaboration and knowledge sharing, and this is a "key aspect of an effective system [of teacher evaluation]" (Darling-Hammond, 2013, p. 111) that facilitates continuous learning (Bacharach & Heck, 2007).

Various factors impact the effectiveness of co-teaching, and these factors must be carefully considered in order to maintain an effective systemic approach to professional learning. The most effective systems create time for co-teachers to plan, discuss, and reflect on their teaching, to ensure that all teachers have a shared understanding of their roles and responsibilities within the system, as well as their direction (Cook & Friend, 1995; Darling-

Hammond, 2013; Kamens et al., 2013). Time is also needed for professionals to form collaborative working relationships with each other (Friend & Cook, 2004). Professional learning is more likely to occur when strong working relationships have been developed, creating a sense of trust and receptiveness to constructive feedback (Darling-Hammond, 2013).

Effective co-teachers must be willing and able to work as members of a team; they most often demonstrate flexibility, strong interpersonal and communication skills, and an ability to collaboratively solve problems and make decisions (Cook & Friend, 1995). Compatibility should not be disregarded as an important factor in successful co-teaching relationships (Kamens et al., 2013; Shin et al., 2016). The collaborative nature of co-teaching presents an opportunity for teachers to examine their own beliefs about teaching and learning, reflect on their teaching styles, and dialogue about the routines and structures in their classroom (Rahmawati et al., 2015). In an effective system of evaluation, administrators need to consider a teacher's willingness to participate in a collaborative co-teaching environment before assigning them to do so (Friend & Cook, 2004).

Teacher expertise and training should also be considerations for co-teaching, as a tool for professional development. In order to provide the best professional learning possible, experienced co-teachers must take on mentorship roles, and these mentors must have the skill, knowledge, and capacity to consistently model strong teaching in a range of roles, in ways that improve teacher practice, both during teaching and before and after instruction (Gardiner & Weisling, 2016; Heck & Bacharach, 2013). Another key consideration is in the amount of training that co-teachers receive. Research suggests that the variability in the implementation of co-teaching, due to the lack of proper training and ongoing support from administration, causes gaps in the professional learning process (Simmons & Magiera, 2007). These gaps can be diminished by providing frequent and in-depth training on the methods and principles of co-teaching, as well as by providing administrative support for co-teaching practices, based on a modelled understanding and shared belief in its value (Ahmed Hersi et al., 2016; Kamens et al., 2013; Pancsofar & Petroff, 2016).

Effective co-teaching models, which provide content-rich, differentiated, multi-level instruction for all students, as well as daily opportunities for teachers to collaborate, share expertise, optimize on each other's strengths, and reflect on their own beliefs about teaching and learning, contribute to increased levels of student achievement and improve teachers' capabilities to meet the needs of their students (Beamish et al., 2006; Rahmawati et al., 2015). Moreover, effective co-teaching provides a platform for rich, professional learning when collaboration is focused and expertise is shared (Darling-Hammond, 2013). When value is placed on protecting time for shared planning, reflection, and relationship building; understanding each person's readiness and compatibility for working as a member of a team; identifying the expertise of teachers; increasing the availability and quality of training opportunities; and establishing a shared belief in its philosophy, co-teaching can be an effective professional development tool.

## References

Ahmed Hersi, A., Horan, D. A., & Lewis, M. A. (2016). Redefining 'community' through collaboration and co-teaching: A case study of an ESOL specialist, a literacy specialist, and a fifth-grade teacher. *Teachers & Teaching*, *22*(8), 927-946. doi:10.1080/13540602.2016.1200543

Altieri, E. M., Colley, K. M., Daniel, L. S., & Dickenson, K. W. (2015). Merging expertise: Preparing collaborative educators. *Rural Special Education Quarterly*, *34*(1), 17-22.

Bacharach, N., & Heck, T. W. (2007). Co-teaching in higher education. *Journal of College Teaching & Learning, 4*(10), 19-26.

Beamish, W., Bryer, F., & Davies, M. (2006). Teacher reflections on co-teaching a unit of work. *International Journal of Whole Schooling, 2*(2), 3-19.

Cook, L., & Friend, M. (1995). Co-teaching: Guidelines for creating effective practices. *Focus on Exceptional Children, 28*(3), 1-25.

Darling-Hammond, L. (2013). *Getting teacher evaluation right: What really matters for effectiveness and improvement.* New York, NY: Teachers College Press.

Friend, M., & Cook, L. (2004). Co-teaching: Principles, practices, and pragmatics. *New Mexico Public Education Department*, 1-33.

Gardiner, W., & Weisling, N. (2016). Mentoring 'inside' the action of teaching: Induction coaches' perspectives and practices. *Professional Development in Education*, *42*(5), 671-686. doi:10.1080/19415257.2015.1084645

Heck, T. W. & Bacharach, N. (2013, November 1). A new student teaching model for pairing interns with clinical teachers. *Edutopia*. Retrieved October 1, 2016, from http://www.edutopia.org/blog/co-teaching-internship-model-teresa-heck

Kamens, M. W., Susko, J. P., & Elliott, J. S. (2013). Evaluation and supervision of co-teaching: A study of administrator practices in New Jersey. *NASSP Bulletin*, *97*(2), 166-190.

Murawski, W. W., & Swanson, H. L. (2001). A meta-analysis of co-teaching research: Where are the data? *Remedial and Special Education, 22*(5), 258-267.

Nevin, A. I., Villa, R. A., & Thousand, J. S. (2009). *A guide to co-teaching with paraeducators: Practical tips for K-12 educators.* Thousand Oaks, CA: Corwin Press.

Pancsofar, N., & Petroff, J. G. (2016). Teachers' experiences with co-teaching as a model for inclusive education. *International Journal of Inclusive Education*, *20*(10), 1043-1053. doi:10.1080/13603116.2016.1145264

Rahmawati, Y., Koul, R., & Fisher, D. (2015). Teacher-student dialogue: Transforming teacher interpersonal behaviour and pedagogical praxis through co-teaching and co-generative dialogue. *Learning Environments Research, 18*(3), 393-408.

Rice, D., & Zigmond, N. (2000). Co-teaching in secondary schools: Teacher reports of developments in Australian and American classrooms. *Learning Disabilities Research & Practice, 15*(4), 190-197.

Shin, M., Lee, H., & McKenna, J. (2016). Special education and general education preservice teachers' co-teaching experiences: A comparative synthesis of qualitative research. *International Journal of Inclusive Education, 20*(1), 91-107. doi:10.1080/13603116.2015.1074732

Simmons, R. J., & Magiera, K. (2007). Evaluation of co-teaching in three high schools within one school district: How do you know when you are truly co-teaching? *Teaching Exceptional Children Plus*, *3*(3), 1-11. Retrieved from http://files.eric.ed.gov/fulltext/EJ967127.pdf

St. Cloud State University. (2012a). Research Results. *University of Minnesota*. Retrieved October 1, 2016, from http://www.cehd.umn.edu/teri/co-teaching/foundations/Research.html

St. Cloud State University. (2012b). What is co-teaching? *University of Minnesota*. Retrieved October 1, 2016, from http://www.cehd.umn.edu/teri/co-teaching/foundations/What.html

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# Early Years Literacy Instruction

## Debra McKinnon

*Abstract*

*Literacy skills are the cornerstones of student learning and achievement. Now more than ever, educators are expected to produce quantitative data that demonstrates a high level of literacy success. Simultaneously, teachers are encountering a diverse student population that requires greater differentiation in instructional strategies. This research review identifies fundamental topics in early years literacy instruction, kindergarten to grade 3. Skills such as printing and phonics have been curricular constants for generations. Other key facets of literacy development, including text structure awareness, vocabulary instruction, and content-area knowledge, continue to require attention. These best practices are all integral to long-term educational success.*

Early literacy skills are the foundation for future learning in all other subject areas. With school days that already seem to move at a frenetic pace, teachers are being asked to intensify literacy instruction for young students and to produce substantial results. Meanwhile, the growing diversity of the primary classroom demands a wider array of instructional strategies, particularly when it comes to literacy support. Alphabet work, phonological awareness, and phonics development should all be integral components of this literacy instruction, because these skills are the cornerstones of all reading and writing. With penmanship practice and authentic writing opportunities, graphic symbols become words that turn into sentences and eventually develop into meaningful pieces of written work. Early exposure to a variety of texts, both narrative and informational, provide teachers with opportunities to instruct young students regarding diverse text structures, relevant content area knowledge, new vocabulary, and useful comprehension strategies. While they may only be at the beginning of their formal education, our youngest students are certainly capable of tackling all of these literacy components.

Solid literacy skills in the primary grades are vital for general, ongoing success in school. From very early, children can begin to learn about language and print, as adults talk with them and read to them from the time they are born (Strickland, 2010). Subsequently, children are better prepared for school when their parents demonstrate how literacy is important in daily life (Strickland, 2010). With the provision of quality instruction from kindergarten to grade three that focuses on phonemic awareness, phonics, and sight vocabulary, reading struggles can often be avoided. Strong early literacy skills place students on the long-term path to academic success.

## Current Educational Context

Currently, there is a huge focus on literacy growth, improvement, and achievement for those in education, which extends out into the larger community. Many Manitoba school divisions have set literacy goals as a part of their strategic plans. Teachers are expected to have a variety of fool-proof strategies at their fingertips to support diverse student needs. However, there is a lack of training on the part of those being asked to teach these more challenging literacy skills (Duke & Block, 2012). Teachers are often provided with prepared programs to follow rather than opportunities for relevant professional development that will make them better literacy teachers. Unfortunately, the desire for immediate, quick-fix results causes easier literacy skills, which can be acquired quickly, to become the focus of instruction. Limited time is another obstacle that prevents educators from implementing best practices when

teaching reading and writing. Literacy development is currently a hot-button issue, and early years teachers must be cognizant of the skills required for early literacy success.

Today's student population is more diverse and complex than ever before (Strickland, 2010). Students' academic and English language development is affected by a number of factors, including social and cultural background, abilities and level of education in his/her native tongue, the duration of his/her experience with English, the quality of classroom instruction, and the amount and quality of oral language opportunities provided by the teacher (Brouillette, 2012). Between 2001 and 2006, two-thirds of Canada's population growth was due to immigration. Immigrants constitute almost 20% of Canada's "population and labour force" (Adesope, Lavin, Thompson, & Ungerleider, 2011, p. 630). Therefore, student populations today include more immigrants, many of whom can not read or write in their primary language (Smith & Elish-Piper, 2002). This is the reality for their parents as well, and unfortunately adults with poor literacy skills often have children who struggle to read and write. These families may also have limited experience with school systems and educators. Teachers need to explain to low-literate parents how schools operate and the kind of instruction they provide. The oral language and writing expected in school is often very different from what is required at home. Teachers need to impress upon all parents the importance of literacy development and education in general, and outline the expectations of school staff. Our students who are learning English as an additional language add another layer of complexity to our literacy instruction.

## Key Literacy Skills and Strategies

Alphabetic skill in early years is the strongest indicator of future literacy success (Reutzel, 2015), yet learning the alphabet is a difficult, abstract skill for children to grasp. Teachers can use a variety of strategies when providing alphabet instruction. The own-name effect enables students to begin learning the alphabet by becoming familiar with the letters found in their given name. This is a word that they will have seen and heard many times, and generally children have had lots of exposure to the letters in their own name (White, 2005). Another strategy is the alphabetic-order effect, which identifies the beginning and end letters of the alphabet as being easier to remember. There is also the letter-frequency effect, which states that the more frequently a letter appears in reading and writing, the faster it is learned. Additionally, there is the distinctive visual features letter writing effect, in which students learn letters based on their distinctive shapes, such as curves or straight lines. The Handwriting Without Tears program uses this strategy (Olsen, 2013). Teaching students to make these distinctive shapes and lines before learning to write complete letters increases printing success (Reutzel, 2015). On average, daily alphabet work should comprise only about 12 minutes of the school day (Reutzel, 2015, p. 18). This time should include letter identification and naming, letter/sound connections, letter discrimination, sorting upper and lower case letters, and printing. It is suggested that working on a letter each day, as opposed to a letter each week, and repeating all letters several times during the school year promotes greater success in learning letter names. Assessment of letter name knowledge at the beginning of the school year is the best indicator of student success later, in the second and third terms (Strickland, 2010).

From a very early age, children pick up on and respond to the "rhythms and patterns of spoken language" (White, 2005, p. 3). This is the beginning of a student's phonological awareness, which is "the ability to tune in to and identify the sounds that make up our language" (White, 2005, p. 3). Phonological awareness includes the phoneme-related skills of "rhyming and phonemic identification and manipulation" (Reutzel, 2015, p. 16) in oral language. These are the skills that enable children to generate a list of rhyming words, such as *cat, sat, bat,* and *mat,* by simply changing the first sound. It should be noted that rhyming ability is not a precursor to phonemic awareness, as was often thought to be the case. In fact, phonemic dexterity has been identified as a better predictor of reading success than rhyming ability (Reutzel, 2015).

Phonological awareness should not be taught in isolation, but rather in conjunction with alphabet and decoding skills in a context of relevant words and meaningful instruction (Duke & Block, 2012). While this is an important skill, phonological awareness should not be the only focus. Unfortunately, teachers are spending more than half of their literacy instruction time working solely on phonological awareness and phonics (Al Otaiba et al., 2008, as cited in Duke & Block, 2012), up to an average of 33 minutes a day (Connor et al., 2009, as cited in Duke & Block, 2012, p. 59). Nevertheless, the recommendation is that in kindergarten, phonological awareness instruction should constitute no more than 18 hours of the entire school year, and no one lesson should be more than 30 minutes long (Duke & Block, 2012, p. 62). For our youngest students, rhythm and word rhyming tasks are an integral part of early literacy development.

Segmenting, or breaking a word into parts, is crucial to reading and writing development. Phonics skills deal with the symbol-sound relationship of graphemes and phonemes in print. Having students develop phonetic knowledge, such as chunking or sounding out words, has "sparked more optimal brain circuitry than" sight word memorization (Wong, 2015, p. 1). In fact, phonics instruction causes increased brain activity on the left side of the brain in the visual and language areas that are the key to reading success (Wong, 2015). Sustained stimulation and "engagement" (Wong, 2015, "Instructional Strategies," para. 7) of the left side of the brain is a characteristic of good readers, but is deficient in those who struggle to read. In the past, young children have generally been taught "grapheme to phoneme," meaning that they first learn to spell a word, and then learn the corresponding sound that each letter or word part makes. The United Kingdom's National Literacy Strategy (1998) suggested that children first play with the sounds that each word part makes, and then learn the graphic representations for the letters that spell that word (as cited in White, 2005). It is suggested that graphemes and their phonemes be presented in specific groups, and in a particular order, beginning with the letters *s, m, c, t, g, p, a,* and *o* (White, 2005). These groupings were established "based on usefulness, ease of discrimination and development of handwriting" (White, 2005, p. 4). Knowing the initial sound in a word is the first skill of segmenting. Children should practise identifying the first sound in a word, and then learn the name of the letter that makes that sound. This seems to be a logical progression, because children develop oral language skills first, before reading and writing. Isolating and identifying the sounds in a given word is an indicator of future literacy success (Strickland, 2010).

In this era of technology and instant communication, penmanship is often viewed as a skill from the past that no longer warrants instructional time. However, for young students, printing letters stimulates the reading area of a child's brain more than any other motor activity, such as sand writing or building letters with play doh (Reutzel, 2015). As children mature, the speed and legibility of one's writing is a predictor of quality and quantity of work, as well as one's ability to take notes and score well on written assessments such as tests and exams. This is known as transcription fluency. Poor transcription fluency can result in a lack of "clarity, organization, coherence, and creativity" (Reutzel, 2015, p. 15) in one's written work; students who are slow and/or illegible writers have difficulty getting their ideas down on paper fast enough to keep up with their train of thought. It is important that students possess transcription fluency so that they can direct their energy toward higher level thinking instead of focusing solely on the fine motor skills required for simple written output. Teachers often think that the answer to slow writing is to allow students to use word processing technology, but there is a "high correlation between handwriting speed and typing speed" (Reutzel, 2015, p. 15), so children who struggle to print and handwrite will also have difficulties with keyboarding skills. While good printing and handwriting may seem obsolete, penmanship tasks provide important brain stimulation and development.

Good readers are also better writers, and poor readers often struggle with writing. It is important that early years teachers try to instill a joy for writing in young students and provide them with engaging writing activities. Writing tasks should be incorporated into their play

opportunities as often as possible, and students should be writing for diverse audiences and for a variety of purposes. Process writing opportunities, such as writer's workshop, can be a successful strategy to use with even the youngest of students (Reutzel, 2015). They may also benefit from Self-Regulated Strategy Development (SRSD), which utilizes a cycle of scaffolding, writing strategy instruction, teacher modelling, monitored practice, and time for independent writing in which model texts are used as exemplars (Reutzel, 2015). Reading and writing should be facilitated in conjunction with one another, because the skill development in one literacy area significantly influences the other.

Young students need opportunities to talk about various text formats. Even preschoolers can increase their comprehension when text structure is explored and they have a chance to talk about it (Reutzel, 2015). Unfortunately, early years teachers do not spend adequate time teaching text structures. Therefore, children who have poor oral language skills in kindergarten and the primary grades often demonstrate reading comprehension difficulties later on. Just because young students can not read does not mean that they can not demonstrate comprehension of text and its structure. They can do this orally, and should practise frequently before they work on it in independent reading. When introducing text structures, it is helpful when students can interact with types of texts that they have previously seen or used at home (Strachan, 2014). Children grasp new concepts more easily when they connect with something that the children already know. Using texts similar to what students have seen in their personal environment demonstrates to them that reading is an activity people do all day long, both in school and at home. Later literacy reading comprehension can be supported by giving our very young students opportunities to be read to, learn about text structure, and then talk about it.

The majority of text that young students are exposed to is in narrative, fictional form. In addition, the lower the socio-economic status of a community, the less exposure students have to informational text (Strachan, 2014). It is recommended that elementary students read an equal number of fictional and informational types of texts and that both include a wide array of literature forms. Each genre of informational text is unique, and because it comes in many different formats, it does not facilitate the same transfer of knowledge that narrative text provides. Using a wide variety of text types helps to expand students' content area knowledge; reading instruction can simultaneously be incorporated into this content area work. Teachers can tackle the instruction of informational text structures while providing content area information. Even a read-aloud can be an informational text that introduces students to new subject matter and contextual language (Richardson, 2009). In turn, these increases in content area knowledge and vocabulary contribute to improved student comprehension. Similarly, students have shown greater improvements in both reading development and content area knowledge when these two skills are infused together during instruction (Strachan, 2014). A lack of instruction in the content areas of science and social studies early on will affect students in later grades when they are expected to work with and comprehend informational text independently (Duke & Block, 2012). In one survey (Griffin & Scharmann, 2008), more than 50% of primary teachers were spending less than 90 minutes a week on science instruction (as cited in Duke & Block, 2012, p. 60). This is the equivalent of less than 20 minutes a day. Even the youngest students need access to more than just story books. They need to be provided with a multitude of diverse text materials, both fiction and non-fiction.

All too often, there is very little vocabulary instruction happening in early years classrooms. Vocabulary development can be sporadic or spur of the moment, often occurring during read-alouds when an unfamiliar word comes up in the text. Less than two-thirds of K-3 teachers teach vocabulary, and for those who do, it only takes up approximately 5% of their instructional time (Duke & Block, 2012, p. 59). Vocabulary growth is crucial to developing oral language, whether in one's primary language or in an additional language (Brouillette, 2012). Increased diversity in our student population requires vocabulary instruction. Word knowledge is necessary for adequate comprehension, and best practices for vocabulary development of

English language learners also promote vocabulary growth for native English speakers. By middle years, vocabulary and word knowledge are better predictors of reading comprehension than are word reading/decoding skills (Duke & Block, 2012). Unknown words require direct instruction and repeated opportunities for students to work with them in genuine scenarios. Teachers need to explain new words explicitly and give students a chance to talk about them and work with them in authentic ways.

Students must be taught specific strategies to improve their reading comprehension skills. These skills can include predicting, inferring, visualizing, summarizing, and questioning. Student reading comprehension is greatly affected by the quality of the texts chosen by the classroom teacher. On average, only 23% of literacy instructional time is spent on reading comprehension in the early years, and it generally is provided in a whole-class format (Donaldson, 2011, as cited in Duke & Block, 2012, p. 59). The larger focus on phonemic awareness and phonics instruction has spawned children who are "word callers," or students who are good decoders and sound like solid readers, but fail to comprehend what they have actually read (Duke & Block, 2012, p. 66). Even our youngest students require cognitive flexibility, which is being able to consider the multiple meanings of a word, and choose the appropriate one for the given context. Obviously, children who have greater cognitive flexibility have stronger reading comprehension skills. To fully comprehend and interpret text material, students need a toolbox of ideas that they can call upon when they struggle to understand what they are reading.

## Conclusion

The development of basic literacy skills in our youngest students is vital if they are to experience future academic success. Currently, early years teachers are being held accountable for early literacy achievement and growth in their classrooms more than ever before. Simultaneously, the academic and language skills of students are becoming increasingly varied and demanding. The traditional skills of alphabet knowledge and letter-sound relationships should continue to be focal points of instruction for all children in kindergarten and grade one. Similarly, even in our technological world, meaningful, legible writing is still a necessity. Then there are the additional skills of text structure awareness, adequate subject-specific knowledge, and an ever-growing vocabulary that can support and enhance reading comprehension of both fiction and non-fiction text. While many children possess basic literacy skills when they arrive on the school doorstep, early years educators must work to support the complex development of these skills so that students can interact with and respond to the literacy-filled world around them.

## References

Adesope, O. O., Lavin, T., Thompson, T., & Ungerleider, C. (2011). Pedagogical strategies for teaching literacy to ESL immigrant students: A meta-analysis. *British Journal of Educational Psychology, 81*(4), 629-653. doi:10.1111/j.2044-8279.2010.02015.x

Brouillette, L. (2012). Supporting the language development of limited English proficient students through arts integration in the primary grades. *Arts Education Policy Review, 113*(2), 68-74. doi:10.1080/10632913.2012.656494

Duke, N. K., & Block, M. K. (2012). Improving reading in the primary grades. *The Future of Children, 22*(2), 55-72.

Olsen, J. Z. (2013). *Printing power – grade 2*. Cabin John, MD: Handwriting Without Tears.

Reutzel, D. R. (2015, July-August). Early literacy research findings primary-grade teachers will want to know. *Reading Teacher, 69*(1), 14-24. doi:10.1002/trtr.1387

Richardson, J. (2009). *The next step in guided reading: Focused assessments and targeted lessons for helping every student become a better reader: Grades 1-8*. Toronto, ON: Scholastic.

Smith, M. C., & Elish-Piper, L. (2002, October). Primary-grade educators and adult literacy: Some strategies for assisting low-literate parents. *The Reading Teacher 56*(2), 156-165.

Strachan, S. L. (2014). Expanding the range of text types used in the primary grades. *The Reading Teacher, 68*(4), 303-311. doi:10.1002/trtr.1302

Strickland, D. S. (2010). *Essential readings on early literacy*. Newark, DE: International Reading Association.

White, H. (2005). *Developing literacy skills in the early years: A practical guide*. London, England: SAGE.

Wong, M. (2015, May 27). Stanford study on brain waves shows how different teaching methods affect reading development. *Stanford News*. Retrieved from https://news.stanford.edu/2015/05/28/reading-brain-phonics-052815/

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*Debra McKinnon recently began her Master of Education, with a focus on curriculum and instruction. She is currently on maternity leave from her position as a resource and middle years teacher in Garden Valley School Division. She and her partner, Michael, have three young children: Evan, Lauren, and Brendan.*

# Enhanced Student Success
# Through Personalized Learning Strategies

## Terry Knight

### Abstract

*Creating successful students beyond the classroom means creating students that are confident, independent, lifelong learners who engage in the world around them. By giving students time to learn, constructing meaningful tasks, and teaching them how to become learners, educators can foster important skill sets that motivate students to learn and become autonomous thinkers who can become effective members of society and make a positive difference in the world.*

Traditional teaching creates a learning environment that usually focuses on lecturing and testing. Creating today's successful students is about creating students who can succeed beyond the classroom and who have a personal investment in their learning. It is about creating meaningful connections between them and the content, and teaching them how to learn. Successful students are an amalgamation of essential skills; they are inquisitive and confident, they collaborate with others and participate in their learning, and they are independent thinkers. For learners to be successful, according to these criteria, educators must give them time to learn at their own pace and in their own way. One way for educators to foster this process is to have students learn the fundamental concepts at home, which would free up class time for enrichment activities to enhance learning, creating a flipped classroom, or blended classroom (a combination of the flipped and traditional classroom models). The flipped and blended classrooms give room for students to become more engaged in their learning and, thus, more accountable for their learning. It gives students time to perform and create authentic tasks for the learners to demonstrate understanding. Successful students will more likely become productive members of society, think critically about the world around them, and transfer skills to succeed outside the classroom.

Traditional teaching generally creates a learning environment that uses lectures and practice work in class, where the learners will take notes, do practice problems, and then write a test recalling information to show that they understand what was taught; however, the majority of students may not remember the material after they have completed the course. Traditional teaching assessments rely on recalling facts or solving problem sets to show that students have successfully mastered and learned a concept but reproducing information may not show learning. Traditional teaching usually teaches to a uniform set of standards for all students and does not account for the personal interests or goals of the students (Clarke, 2015). It focuses on assessments that do not necessarily assess students' understanding or their ability to problem solve. Traditional test scores show answers related to a specific type of problem, rather than conceptual understanding. Direct interaction with students is needed in order for the students to demonstrate conceptual understanding (Peck & Jencks, 1974). The interaction shows that students have acquired some understanding of the content in a moment of time. Tests are good only for students who are adept at test-taking, but for those who struggle with test anxiety or who are just not good test-takers, success is minimized. If traditional teaching is the only method of teaching, students will learn only to take notes, do homework, and recall facts.

Creating meaningful connections to knowledge will help students learn. Bloom's revised Taxonomy of Cognitive Domain puts remembering and understanding at the bottom of six hierarchical levels of knowledge and synthesising, and puts applying information at the top (Krathwohl, 2002). Students genuinely learn when they can master more complex problems that involve evaluating the material and forming opinions about it, or creating new meaning from the

material (Pickard, 2007). If students can create meaning, they will more likely remember the concept and apply their knowledge because they have actually learned it, authentically and for the long-term – not just for the test.

To help students be successful, learners must first learn how to learn. Learning requires meaningful connection and practice in order to remain in long-term memory (Doyle & Zakrajsek, 2013). Students are more engaged when they take a direct approach to learning (Clark, 2015); and if students are actively engaged in their learning, there will be a stronger connection to their learning. Educators can actively engage students by helping them to use all of their senses, because learning is multisensory (Doyle & Zakrajsek, 2013). Students learn better and retain more when they can see, hear, touch, and do tasks that are related to what educators are trying to teach them. When toddlers are first learning about the world around them, they rely on all of their senses to make sense of things, and, as they grow and go to school, they receive more unisensory tasks – reading a textbook for example - than multisensory tasks; however, just as when they were toddlers, they still need all of their senses to make sense of the world. Educators need to provide learning tasks that enable students to retain the skills learned beyond the classroom. If educators teach them to use their senses by creating tasks that are more multisensory, students can learn how to make meaningful connections, and learn how to learn and thus become more successful students.

Essential assets for students to be successful, in school and outside the classroom, include being inquisitive, being confident, collaborating with others, participating in their learning, and being independent thinkers. Personalised learning is the most recent trend in helping students to attain these assets; they are more likely to become more successful in school, and more engaged in learning. Personalised learning builds personal skills and critical thinking skills in learners. It is less structured and gives students ownership of their learning (Buckley, 2014). Learning occurs at different rates within each of us and happens because of interactions with others (Clarke, 2015). In the first stage, students identify an area of interest. The teacher helps by continually pushing students to ask questions. Then the students converse with peers or others in their community, and research their question. These series of interactions help students to achieve learning of the content, and becoming confident and critical thinkers. Students need to care about what they are learning, and to do that they need be engaged and involved in order to learn (Clarke, 2015). Personalised learning is tailored to the learners and thus helps students to develop the skills needed to be successful in the world.

Giving students time to learn helps to engage them in their learning. One of the ways to give students time to learn at their own pace is using the flipped or blended models of teaching instead of the traditional model of teaching. The flipped model focuses on students learning the lessons at home and using the class time for enriched activities. Blended models use a combination of flipped and traditional teaching methods, utilizing class time for lectures when necessary. Traditional teaching methods focus on lecture and practice in the classroom, where students have limited time to take in new concepts, try them out, and then move on to the next concept. There is little time to process information. In the flipped and blended models of instruction, the instruction part takes place at home via videos and other lessons assigned by the teacher, and class time is spent in engaging in active learning (Clark, 2015). The videos and lessons have students learn at their own pace and in their own way at home, stopping the instruction as needed and giving them time to take in and process information. If students have questions about the concept, they have time in class to have them answered, or they can access a variety of other resources to answer the question or to acquire a different perspective on the concept (Gerstein, 2012). The flipped and blended models are approaches that help students to learn at their own pace; if students learn at their own pace; they may be more motivated to learn, becoming more engaged in their learning (Christensen, 2010).

When instruction is done at home, class time can be used to answer questions, initiate peer collaboration, and engage in enrichment activities, all of which increases student engagement

and communication (Clark, 2015). Today's students are sociable and use technology for both communication and learning needs. The flipped and blended models create a space wherein students can interact with peers and teachers, and wherein students can develop collaboration, communication, and interpersonal skills. Educators can create tasks and discussion groups based on learner needs that will enhance these skills and actively involve the students in their learning. Most students want to connect to others; the personalised classroom becomes a more social environment wherein students build stronger relationships and become engaged in their learning (Taylor & Parsons, 2011). When they make these meaningful connections, they reflect on what they are learning and reconstruct as necessary, showing true understanding (Gerstein, 2012). Because the knowledge and fact parts of the learning are done at home, the enrichment activities provide a way for the students to understand the concepts and learn skills that they will need to move beyond school, such as teamwork and communication skills.

The flipped and blended models create a unique situation wherein the accountability of learning shifts mastered a concept, rather than reproduce knowledge on a test (Kirvin, 2015). Students need to be accountable for their learning because, in order to participate in class activities and discussions, they need to have participated in the video and lesson instructions at home. Educators can also help students by creating tasks that get the students involved. If students have to respond to a peer in a blog or do an entrance slip at the beginning of class, they are made more accountable for their work because they will have to demonstrate they did their homework.

Authentic tasks and assessments create more successful students because they are interested and engaged. Authentic tasks and assessments require students to demonstrate understanding beyond the content by synthesizing the content and applying it to real-world problems. They inspire curiosity and challenge students, engaging students into wanting to learn (Clarke, 2013). Traditional teaching creates problems for students to solve, but the students may be disconnected from the problems because they either have no interest in content or they can not relate to the content because they have not experienced it. When students have to learn about a topic that is far removed from them, it is an "artificial" task (Clarke, 2013, p. 25). It is meaningless to them because they can not foresee the importance of the topic (Clarke, 2013). They can not become engaged if they are disinterested or have no connection to the topic. Authentic tasks create more successful students because they are engaged and want to learn.

Society and educators want students who "think outside the box," who can think creatively and innovatively to solve real-world problems and to contribute to society. Test scores can not show creativity or mastery. They can not show how a student thinks or how successful students have been at learning (Peck & Jencks, 1974). Being a productive member of society requires more than recall; it requires a person to acquire knowledge and then apply it. Students must learn to synthesize information and create solutions in order to problem solve. Performance tasks and assessments are a better way to show understanding and learning (Westerman, 2014). Students demonstrate they will be contributing members of society because they think beyond recall and facts, and are more creative in solving real-world problems.

Critical thinkers are creative and engaged, and consequently become more successful students. In order to be critical thinkers, students must analyze information, evaluate it, make judgements about what is important and what is not, and create and act on a plan for applying it where it is needed (Krathwohl, 2002). The best way to do this is to engage students in a topic they are interested in and have them create the way that they demonstrate their learning to the educator. If students can demonstrate they have mastered a concept, that shows true understanding (Gerstein, 2012). They have shown they are engaged, creative, and, thus, critical thinkers.

Creating today's successful students means teaching them to succeed outside the classroom walls, beyond content and facts. Successful students engage in the learning process,

construct meaningful connections between the content and the world around them, and are curious, confident, independent, and team players. They think critically, deconstruct previous knowledge, and apply it to new surroundings in order to solve real-world problems.

## References

Buckley, D. (2014). *What is personalized learning?* Retrieved May 28, 2016, from https://makeschoolpersonal.wordpress.com/what-is-personalised-learning/

Christensen, C. (2010). *Disrupting class*: *How disruptive innovation will change the way the world learns* (2nd ed.). New York, NY: McGraw-Hill.

Clark, K. (2015). The effects of the flipped model of instruction on student engagement and performance in the secondary mathematics classroom. *Journal of Educators Online*, *12*(1), 91-115.

Clarke, J. (2013). *Personalized learning: Student-designed pathways to high school graduation*. Thousand Oaks, CA: SAGE.

Doyle, T., & Zakrajsek, T. (2013). *The new science of learning: How to learn in harmony with your brain*. Sterling, VA: Stylus.

Gerstein, J. (2012). *The flipped classroom: The full picture* [Kindle edition]. Retrieved from http://www. amazon.ca

Krathwohl, D. (2002). A revision of bloom's taxonomy: An overview. *Theory into Practice*, *41*(4), 212-218.

Peck, D., & Jencks, S. (1974). What the tests don't tell. *The Arithmetic Teacher*, *21*(1), 54-56. Retrieved from http://www. jstor.org/stable/41190811

Pickard, M. (2007, Spring). The new bloom's taxonomy: An overview for family and consumer sciences. *Journal of Family and Consumer Sciences Education, 25*(1), 45-55. Retrieved from http://uncwweb.Uncw.edu/cas/documents/PickardNewBloomsTaxonomy.pdf

Taylor, L., & Parsons, J. (2011). Improving student engagement. *Current Issues in Education*, *14*(1), 1-33. Retrieved from http://cie.asu.edu/

Westerman, E. (2014). A half-flipped classroom or an alternative approach? Primary sources and blended learning. *Educational Research Quarterly*, *38*(2), 43-57.

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# The Role of Leaders in Developing a Positive Culture

## Robert Dinsdale

### Abstract

*Principals play a vital role in determining school culture. This culture sets the context within which staff and students work; therefore, it is important that school leaders strive to create a positive culture. This paper examines collaboration, development of staff, provision of resources, transparency of vision, management of workplace stress, and professional development of school leaders as tools to create a positive school culture. These areas are based on my professional experience as a coach and teacher, in addition to current research.*

As front line leaders in schools, principals play an important role in developing the culture of a school. Student success in learning and staff success in teaching can be hindered or aided by the culture that is developed by school leaders. The culture of a school is a mix of the norms, values, attitudes, behaviours, and traditions that define the school; culture develops as people interact and work together (Peterson & Deal, 1998). Every school has a culture within which its stakeholders operate. The tone of school leadership helps to determine whether the culture is toxic, indifferent, or focused on growth (Barth, 2002). As a coach and educator, I have experienced both toxic and growth-oriented cultures. Throughout my research, I considered practices that contributed to the different cultures I have experienced, and I sought to find literature on current practices that promote positive culture. Through this process, I pinpointed six areas that can greatly influence the culture and success of a school, based on the decisions of administrators: collaboration, development of staff, provision of resources, the transparency of their vision, management of workplace stress, and their own professional development. Principals should strive to make decisions that create a positive culture. Schools are naturally resistant to change; therefore, once a school develops its culture, all standards and innovations within that school will be subject to the culture that exists (Barth, 2002). For these reasons, it is important that school leaders understand the crucial role that they play in developing a culture that maximizes student and staff success and minimizes stress for these same groups.

The level of collaboration among staff in a school is a major determinant of whether the culture of that school is positive or negative. Schools that have high levels of collaboration among staff tend to promote higher behavioural and academic standards (Bettini, Crockett, Brownell, & Merrill, 2016). Many principals have implemented professional learning communities (PLCs) to create a collaborative culture that improves teaching and learning (DuFour & Mattos, 2013). Teachers are more likely to improve their efficacy when they work with others who are experts in the same subject area. Many schools implement middle leaders, those who are experienced in teaching and interacting with a subject, to lead and focus PLC meeting time (Edwards-Groves, Grootenboer, & Ronnerman, 2016). Middle leaders can more effectively lead PLCs, when compared to a principal, because they are immersed in the professional learning and teaching practices of the school (Edwards-Groves et al., 2016). As a beginning teacher, I worked in an environment where there was little collaboration. I spent countless hours planning and creating lessons while I struggled to learn new content. This was a very challenging and lonely experience that caused me to consider leaving the profession. Had collaboration been promoted among staff, I believe that I would have had more supports to aid me through this process. Promoting collaboration among staff members, with proper focus and leadership, creates a positive environment in which teachers can share best practices that are responsive to student needs. Thus, principals can positively influence their school culture through the use of strategies that encourage collaboration.

Teaching can be a very isolating career; schools with positive cultures have principals whose leadership style creates a supportive environment to develop staff. Leadership styles that do not promote the development of staff and focus on staff being responsible for their own development nurture a negative school culture (Du Plessis, Carroll, & Gilles, 2015). Communication is essential in creating a supportive environment wherein staff members feel comfortable approaching leaders. Principals can encourage communication by informing staff of how, when, and where they can communicate concerns (Stickle & Scott, 2016). Praise and recognition for good work, and showing an understanding work-life balance, create an atmosphere wherein employees feel valued and there is a sense of trust and team (Stickle & Scott, 2016). When leaders show an awareness of employees' needs and seek to support those needs, they create a culture of caring that better develops staff (Du Plessis et al., 2015). When staff feel appreciated and understood, they are more likely to communicate issues that are difficult to address. The more issues that staff members are comfortable communicating to leaders, the more positive the culture and health of the school will be because the teachers feel supported (Barth, 2002). Through six years of coaching, I have found that I can create a strong level of trust with the athletes I coach by openly communicating my standards and providing opportunities for them to bring forward their concerns. This has cultivated a positive culture in the football program and created a culture of trust in the program. Leaders who create a culture of open communication, praise employees for good work, and show awareness of employees' needs create a positive school culture and better develop their staff members.

Creating a positive culture in a school requires that administrative leaders provide access to the necessary resources for successful teaching. Instructional resources influence how teachers present their lessons, the scope of instruction, and how teachers evaluate learning (Bettini et al., 2016). Thus, available instructional resources (books, supplies, technology, curriculum supports) influence the quality of classroom instruction. Teachers with ready access to strong curriculum resources experience higher levels of success, as compared to teachers who do not have this access (Bettini et al., 2016). Teachers with the right resources are better able to manage their classrooms and teach students the required content, but teachers who lack the correct resources experience lack of confidence, increased disconnectedness, and breakdowns in communication (Du Plessis et al., 2015). Leaders who focus on the resource needs of their staff create conditions that encourage staff to develop so that students achieve their goals more effectively (Bredeson, 2006). At the start of my career, I struggled to find meaningful curriculum resources to aid my planning. I was unaware of the resources available to me, and I underwent a time-consuming process of research, trial, and error. This resulted in many challenges for me as an educator and a less-than-ideal environment for my students. In contrast, today my school has a continuous improvement coach who helps teachers to acquire appropriate curricular supports. By providing the correct resources, leaders empower their teachers to be more successful, which promotes a positive culture within the school.

Parents, students, and staff need to understand their leader's vision for their school, in order to understand and believe in that vision. A culture of transparency and openness helps parents, students and staff to support their school leaders. Leaders can create this transparency by communicating their goals and beliefs (Peterson & Deal, 1998) by such means as social media, home visits, and leadership meetings with parents. A culture that is transparent and involves the community fosters relationships that can be beneficial in difficult times (Schwartz, 2014). One of the best ways that principals can be transparent is to clarify their non-negotiable standards (Westerberg, 2016). A short list of non-negotiable standards reduces unpredictability and improves relationships and trust. Another way to promote transparency is by being a visible member of the school population. Simply being visible in common areas of the school, attending extra-curricular events, and visiting students and teachers in the classroom creates a culture of trust that inspires students and staff to view principals as more than just enforcers of rules (Westerberg, 2016). Organizations who develop a strong vision and transparently communicate

this vision experience higher levels of success. As a coach, I have experienced the results of developing and communicating a strong vision. The football program that I coach struggled for many years with attendance, fundraising, and attitude. In response, the coaching staff developed a vision for the program based upon character, commitment, and competition. This vision was accompanied by an off-season program and was clearly communicated to athletes, parents, and coaches. In response, the program has experienced improved attendance, fundraising, and participation levels. Being visible, engaging with the school community, and providing a clear vision create a level of transparency that builds a positive school culture.

Stress is a part of any work environment; how that stress is dealt with can significanlaty affect the culture of that workplace. Leaders need to understand stress and the consequences of stress, in order to avoid negative outcomes caused by workplace stress (Stickle & Scott, 2016). One of the strongest ways to combat stress in the workplace is to develop stress intervention policies and provide resources that encourage employees to deal with their stress in a healthy way. School leaders need to be mindful of the effect that they can have on their employees' stress levels. It is important that leaders know how they interact with others and how their personal interactions and behaviours can stress individuals within their organization (Stickle & Scott, 2016). Running an educational facility can be extremely demanding on a principal's time and can distract him/her from issues such as teacher stress. If teachers bring concerns to a principal and they are not dealt with in a timely manner, the staff members may feel insecure and exacerbate their feelings of stress (Du Plessis et al., 2015). Failing to deal with staff concerns can create a toxic culture within the school. When a principal takes time to listen to the employees' concerns and addresses them in a timely manner, it helps to reduce stress on those employees. The provision of a comfortable workspace that has reasonable noise and temperature levels can also reduce employee stress (Stickle & Scott, 2016). By developing an awareness of stressors in the workplace and providing resources and strategies to reduce workplace stressors, principals can influence the school culture in a positive manner.

In order to create a positive culture, leaders need to engage in their own professional development. The quality of a school's leadership is linked to its overall student achievement (Miller et al., 2016). One of the most important forms of professional development is involvement with a learning community that supports and mentors school leaders (Schwartz, 2014). Learning communities embolden leaders to seek feedback, share ideas, and receive support when they are struggling. Support from learning communities can reduce feelings of isolation and pressure that accompany leadership positions, which will in turn promote collegiality with their school and help them to develop a positive school culture (Du Plessis et al., 2015). School leaders who engage in professional development express that they are better able to handle complex change and experience greater confidence in instructional leadership. These principals encourage the following behaviours in their schools: (1) more collaboration between teachers, (2) more feedback from parents in the community, (3) greater focus on goals for learning the curriculum, and (4) higher standards of teaching (Miller et al., 2016). Principals set the tone, direction, and expectations of professional development in their school by what they do and what actions they reward (Bredeson, 2006). Professional development is critical to me as an educator and coach. Every year, I strive to improve my craft as a teacher and coach by attending professional development sessions, listening to podcasts on my subject areas, and observing others in their practice. In the past, I have experienced times when professional development was not a priority, and the learning environment was negatively affected as a result. I believe that as my students watch me learn and grow as an educator, it empowers them to do the same. Principals who model professional development encourage staff and students to follow their example, which in turn nurtures a positive school culture.

Principals are responsible for creating successful teaching and learning environments for staff and students. In doing so, they need to ensure that the culture of the school is positive. Leaders who succeed in developing a positive school culture encourage collaboration between

teachers, in order to ensure that best practices are shared and that teachers are working toward a common goal. In addition to collaboration, leaders need to create a supportive environment that provides feedback and promotes open communication in order to develop staff members. Principals who ensure that their staff members have the necessary classroom resources create a strong level of trust in the leadership of the school. Leading in a transparent way that clearly communicates the school's vision and involves all stakeholders promotes trust in one's leadership. Reducing workplace stress and providing strategies and resources to cope with this stress in a positive manner encourages trust between leadership and teachers. Finally, strong leaders encourage development in their staff by engaging in their own professional development with learning communities of fellow school leaders. School leaders play an essential role in developing a positive school culture that promotes student and staff development. Strong school leaders implement the discussed strategies to create this positive culture.

## References

Barth, R. S. (2002). The culture builder. *Educational Leadership, 59*(8), 6-11.

Bettini, E. A., Crockett, J. B., Brownell, M. T., & Merrill, K. L. (2016). Relationship between working conditions and special educators' instruction. *Journal of Special Education, 50*(3), 178-190. doi:10.1177/0022466916644425

Bredeson, P. V. (2006). The school principal's role in teacher professional development, *Journal of In-service Education, 26*(2), 385-401. Retrieved from http://www.tandfonline.com/doi/pdf/10.1080/13674580000200114

Du Plessis, A., Carroll, A., & Gillies, R. M. (2015). Understanding the lived experiences of novice out-of-field teachers in relation to school leadership practices. *Asia-Pacific Journal of Teacher Education, 43*(1), 4-21. doi:10.1080/1359866X.2014.937393.

DuFour, R., & Mattos, M. (2016). How do principals really improve schools? *Educational Leadership, 70*(7), 34-40.* Retrieved from http://www.ascd.org/publications /educational-leadership/apr13/vol70/num07/How-Do-Principals-Really-Improve-Schools%C2%A2.aspx

Edwards-Groves, C., Grootenboer, P., & Ronnerman, K. (2016). Facilitating a culture of relational trust in school-based action research: Recognising the role of middle leaders. *Educational Action Research*, *24*(3), 369-386. doi:10.1080/09650792.2015 .1131175

Miller, R. J., Goddard, R. D., Kim, M., Jacob, R., Goddard, Y., & Schroeder, P. (2016). Can professional development improve school leadership? *Educational Administration Quarterly*, *52*(4), 531-566. doi:10.1177/0013161X16651926

Peterson, K. D., Deal, T. E. (1998). How leaders influence the cultures of schools. *Educational Leadership, 56*(1), 28-30.

Schwartz, K. (2014, May 19). How transparency can transform school culture. *KQED news.* Retrieved November 10, 2016, from https://ww2.kqed.org/mindshift/2014/05/19/how-transparency-can-transform-school-culture/

Stickle, F. E., & Scott, K. (2016). Leadership and occupational stress. *Education, 137*(1), 27-38.

Westerberg, T. (2016). The principal factor. *Educational Leadership*, *74*(1), 56-60.

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# The Role of Teachers in Motivating Students To Learn

## Davion Johnson

*Abstract*

*Many factors motivate students' to learn. These factors may be intrinsic or extrinsic. This article discusses the role of the teacher in students' motivation to learn. The literature on learning and motivation reveals the ways that teachers can increase students' motivation to learn. While students may have an innate desire to learn, the external support provided by the teacher has a significant impact on students' learning. The teacher's role in motivation includes, but is not limited to, creating an environment conducive to learning. The teacher's role in encouraging support of students' autonomy, relevance, and relatedness of the material increases motivation to learn. Additionally, the teacher's ability to develop students' competence, interest in subject taught, and perception of self-efficacy are all important factors that influence students' motivation to learn. This article, however, does not attempt to answer the extent to which these factors increase students' motivation to learn.*

Motivation increases students' learning (Theobald, 2006). Students' learning can increase because of their own innate desires to perform or accomplish a task; however, students' learning may be affected by external factors such as rewards or incentives (Bain, 2004; Theobald, 2006). Students' learning is not entirely dependent on their own motivation. Teachers' play a vital role in increasing students' learning through motivational support (Schuitema, Peetsma, & Oort, 2016; Theobald, 2006; Thoonen, Sleegers, Peetsma, & Oort, 2011). Teachers can increase students' motivation to learn by support of students' autonomy, relevance, relatedness, competence, teachers' interests in the subject, and self-efficacy (Ferlazzo, 2015; Schiefele & Schaffner, 2015; Schuitema et al., 2016; Zhang, Solmon, & Gu, 2012). Though motivation can be intrinsic or extrinsic, it is important for teacher to create an environment that motivates students' learning.

Motivation is perceived to have several meanings. Motivation is conceptualised as an innate desire that drives individuals to participate in an activity because of the satisfaction derived from it (Theobald, 2006). Another view of motivation suggests it is goal-directed learning, which stimulates and guides individuals toward a particular direction (Alexenoamen, 2009). As students are motivated to learn, they are more likely to achieve the goals set for them, either by themselves or by the teacher (Theobald, 2006). Motivation, while it may have several definitions, influences students' learning.

Students' motivation to learn is derived from various sources, either intrinsic or extrinsic (Theobald, 2006; Zhang, 2014). On one hand, students are motivated to learn naturally because of their own interest and enjoyment in the subject or task, which gives deep meaning to what they learned and the effects on their lives (Bain, 2004; Zhang, 2014). On the other hand, some students learn best because of a tangible reward or the value that is attached to the outcome of learning (Biggs, 1999; Bain, 2004; Zhang, 2014). Students who are intrinsically motivated tend to perform better on the given tasks and are keener to achieve success (Theobald, 2006; Biggs, 1999; Zhang, 2014). Both intrinsic and extrinsic motivation increases students' drive to learn.

Teachers play a vital role in creating an environment that supports students' learning. They often do this through their support for students' autonomy (Schuitema et al., 2016). Teachers enable students to identify with self, personal interests, and values by supporting their freedom of choice (Ferlazzo, 2015). By supporting students' choices and interests, teachers help students develop personal interest, involvement, and ownership of their work, which aid in motivation (Schuitema et al.; Stearns, 2013). Teachers also help students to learn by increasing their responsibility and participation in their own learning through letting them create their own

goals and objectives (Theobald, 2006). Research conducted on the nature of the relationship between students' perception of social support and autonomy support from their teachers, and self-regulated learning and achievement, showed a significant correlation between the students' perception of their teachers' autonomy support and self-regulated learning (Schuitema et al., 2016). Teachers who help their students to become authors of their lives, take ownership and develop personal interest in their own work stimulate students' motivation, and increase their drive to learn.

Connecting to the personal world of students is another way that teachers support their students' learning (Thoonen et al., 2011). Teachers connect learning to the personal world of their students by making learning tasks more relevant through relating instructions to students' experiences (Ferlazzo, 2015; Thoonen et al., 2011). Students who understand the relevance for learning a particular concept, and what that learning implies for their everyday living, will generate interest (Theobald, 2006). A study explored the use of four classroom practices – process-oriented instruction, differentiation, connecting to students' world (relevance), and cooperative learning – in order to determine their relationship to students' motivation (Thoonen et al., 2011). The findings revealed that connecting to the personal world (relevance) of students had a positive outcome on students' motivation (Thoonen et al., 2011). Students need to see the links between what they do in class and how meaningful it is to their lives (Martin, Hodges-Kulinna, & Cothran, 2002). For example, students could write reflections about the effect of course materials on their lives (Ferlazzo, 2015). Students are more likely motivated to learn when what is learned has meaning and importance to their lives.

Teachers who build positive relationships with their students are more likely to influence their drive to learn (Ferlazzo, 2015). Building trust in a relationship takes time. Teachers should take time to know their students and their interests (Theobald, 2006). To achieve this trust, teachers should be open minded and occasionally share their own stories of success, struggles, failures, and achievement (Bain, 2004). Satisfaction of individuals' basic need for relationship promotes intrinsic behaviour that can lead to students' motivation to learn (Schuitema et al., 2016). Building relationship with students can be difficult; however, being positive and encouraging can contribute to students' intrinsic motivation (Ferlazzo, 2015; Theobald, 2006). Research conducted into the relationship between students' perception of social support and autonomy support from their teachers, and self-regulated learning and achievement, concluded that the students' learning, performance in school, and social and emotional well-being were all affected by the relationship with their teachers (Schuitema et al.). The early establishment of a willingness to work with students one on one can build the nature of the teacher-student relationship (Stearns, 2013). Teachers' positive, caring, and trusting relationships with their students can instigate students to learn.

Teachers motivate their students to learn by providing them with positive feedback, in order to develop competence. Providing feedback enables students to gain control over their own learning and a sense of belief about their abilities (Bain, 2004; Ferlazzo, 2015). Teachers who provide feedback to students about their efforts give them the idea that through hard work, they can achieve tasks and do well (Theobald, 2006; Ferlazzo, 2015). Developing students' competence maybe achieved in several ways. The most common strategies include providing written or verbal praise, identifying fewer errors, recognizing students' strengths, and focusing on what is positive about their work (Bain, 2004; Theobald, 2006). Research findings on the role of teachers' support in predicting students' motivation and achievement outcomes in physical education showed that perceived teacher competence support, such as positive feedback, positively predicted students' expectancy-related beliefs about their abilities to perform tasks proficiently (Zhang et al., 2012). Students will be motivated to learn when teachers recognize their efforts for accomplishing the tasks.

The level of teachers' interest in their teaching affects students' motivation to learn. Teachers who are energetic and enthusiastic about their subject or task generally attach

positive feelings and importance to how they teach (Schiefele & Schaffner, 2015; Zhang, 2014). Students observe what their teachers do in class and how they act. A teacher who displays interest and positive feelings about a subject can reflect those positive feelings toward students, thus increasing their motivation to learn the subject (Theobald, 2006). Students' motivation to learn maybe affected by the teachers' outlook, interests, and enthusiasm in their subject (Zhang, 2014). Zhang's (2014) study examined the effects of teacher enthusiasm on student engagement and motivation to learn, by asking 165 college students to participate in a survey. The survey required students to rate their perception of the enthusiasm of the teacher; provide a self-assessment of their behavioural, cognitive, and emotional engagement; and rate their intrinsic and extrinsic motivation to learn. The results showed that teacher enthusiasm had a significant effect on students' engagement; in addition, the teacher enthusiasm was an effective predictor of students' intrinsic motivation. Students' motivation to learn maybe enhanced through the teachers' interests in their subject, the level of enthusiasm, and energy they display while teaching.

Teachers' beliefs in their abilities to reach unmotivated students can increase students' motivation to learn. Teachers' beliefs in their abilities to use effective teaching strategies, classroom management, and engage students in participation can enable students' learning (Bain, 2004; Schiefele & Schaffner, 2015). Thoonen et al.'s (2011) study conducted on teachers' perceived self-efficacy, in addition to four classroom practices, showed that teachers' sense of self-efficacy had a positive effect on students' motivation and on their own teaching. Though the teachers' ability to hone their teaching skills and techniques is important to self-efficacy, attention should focus on the students' learning by stimulating dialogue, giving clear instructions, and giving thorough explanations (Bain, 2004). Some teachers engage students in bantering, which enables them to ask questions, reflect and maintain active participation in the topic. In another study, Sugita & Takeuchi (2012) examined the efficacy of a teacher's motivational strategies to determine whether they had any effects on students' learning English as a foreign language. The students' degree of motivation and their proficiency in English were evaluated at the beginning of data collection. The results showed that 7 of the 17 motivational strategies had a positive influence on students' motivation. Teachers' belief in their craft, pedagogical skills, and effective classroom management enhance students' motivation to learn.

In summary, students' learning is influenced by motivation. Though students are born with the natural ability to learn, much is dependent on the teachers' involvement. Sometimes, students' energy, drive, and enthusiasm for a subject or task may wane and therefore require continued reinforcement through external support. Teachers, who are responsible for creating a supportive environment that facilitates and increases students' learning, often provide this external support. The teachers' role in facilitating students' motivation is perceived through their support for developing students' autonomy, relevance, relatedness, competence, teachers' interests, and teachers' self-efficacy about teaching their subject. Though students' motivation to learn can be intrinsic or extrinsic, the role of the teacher in supporting their learning and creating the right environment will further enhance their motivation to learn.

## References

Alexenoamen, (2009, August 4). *Ways of motivating EFL/ESL students in the classroom* [Web blog post]. Retrieved from http://www.teachingenglish.org.uk/blogs/alexenoamen/ways-motivating-efl-esl-students-classroom

Bain, K. (2004). *What the best college teachers do*. Harvard University Press.

Biggs, J. (1999). *Teaching for quality learning at university*. Buckingham: Open University Press.

Ferlazzo, L. (2015, September 14). *Strategies for helping students motivate themselves*. Retrieved October 6, 2016, from http://www.edutopia.org/blog/strategies-helping-students-motivate-themselves-larry-ferlazzo

Martin, J. J., Kulinna, P. H., & Cothran, D. (2002). Motivating students through assessment. *Journal of Physical Education, Recreation & Dance*, 73(8), 18-19. doi:10.1080/07303084

Schiefele, U., & Schaffner, E. (2015). Teacher interests, mastery goals, and self-efficacy as predictors of instructional practices and student motivation. *ScienceDirect*, *42*, 159-171.

Schuitema, J., Peetsma, T., & van der Veen, I. (2016). Longitudinal relations between perceived autonomy and social support from teachers, and students' self-regulated learning and achievement. *Learning and Individual Differences*, *49*, 32-45. doi:10.1016/j.lindif.2016.05.006

Stearns, S. A. (2013). Motivating students to offer their best: Evidence based effective course design, *College Teaching*, *61*(4), 127-130. doi:10.1080/87567555

Sugita McEown, M., & Takeuchi, O. (2012). Motivational strategies in EFL classrooms: How do teachers impact students' motivation? *Innovation in Language Learning and Teaching*, *8*(1), 20-38. doi:10.1080/17501229.2012.741133

Theobald, M. A. (2006). *Increasing student motivation: Strategies for middle and high school teachers.* Thousand Oaks, CA: Corwin Press.

Thoonen, E. E .J., Sleegers, P. J .C., Peetsma, T.T.D., & Oort, F. J. (2011). Can teachers motivate students to learn? *Educational Studies*, *37*(3), 345-360. doi:10.1080/03055698.2010.507008

Zhang, Q. (2014, February 14). Assessing the effects of the instructor enthusiasm on classroom engagement, learning goal orientation, and academic self-efficacy. *Communication Teacher*, *28*(1), 44-56. doi:10.1080/17404622.2013.839047

Zhang, T., Solmon, M. A., & Gu, X. (2012). The role of teachers' support in predicting students' motivation and achievement outcomes in physical education, *Journal of Teaching in Physical Education*, *31*(4), 329-343.

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# Supporting Student Learning

## Tyler Sloan

***Abstract***

*Graduation from high school is a tremendous achievement and requires perseverance, determination and the ability to retain information from the various courses and subject areas throughout this journey. Teachers, parents, and peers play an important role in helping a student to attain their maximum potential. Every student has different strengths and weaknesses and every path to success is unique. Teachers need to engage the different learners in the classroom, and use their peers and parents to help support them through the educational process.*

Students will embark on a 13-year journey through the hallways of different schools, searching for wisdom and guidance in hopes that when graduation comes they will have the necessary skills and knowledge to be successful into adulthood. Many individuals will help along the way, so the student does not go on this quest alone. The student will rely on many supports to achieve graduation. Through interactions with parents, teachers, counsellors and peers, students will develop strategies to strengthen their understanding of key concepts, along with skills to behave more independently and become critical thinkers (Gonzalez-DeHass, & Willems, 2016). In order for the student to be supported effectively, the teachers, parents, and peers must be aware of what supports the student needs, help the student to overcome barriers that may get in the way of success, and guide him/her as he/she develops an authentic learning experience.

Teachers interact with students on a daily basis and understand their strengths and weaknesses in learning. Parents have an in-depth understanding of the student as a person, whereas teachers understand the strengths and weaknesses of the student across different subject areas (Tomlinson, & Imbeau, 2010). Teachers will determine the student's knowledge of various learning outcomes throughout the courses they instruct. In order to support the learning of the individual, the teacher needs to become aware of the learning style that is best suited for each student. Just as a snowflake is unique to others, so are the needs of the students in a classroom (Watts-Taffe et al., 2012). This has not been an easy task for teachers, because the class sizes increase along with the complexity of class composition, creating a strain on finding enough time to achieve the key learning outcomes (Anderson, Austin, Barnard, Chetwynd, & Kahn, 2001). It is a tremendous balancing act of finding time to address core learning outcomes while creating an educational experience that is unique and meaningful to each learner in the class.

Along with teachers, parents play a vital role in the academic success of their children. Parents are integral in communicating with students the importance of education and being actively engaged in their children's education. Parents can accomplish this by becoming involved in school functions, creating a positive environment for learning in their home, and engaging in conversations with their children about school and the value of education (Wang, & Sheikh-Khalil, 2014). Attending student-centred conferences, helping students with homework, and engaging in meaningful conversation about the importance of education will model positive behaviours for their children. Opening a line of conversation between parents and teachers is instrumental in student success. Teachers should rely on parents to share their understanding of how their children need to be supported in school (Tomlinson, & Imbeau, 2010). When a teacher and parent work together to achieve educational goals, it is easier for the student to see value in the importance of education. Student engagement also increases when parents take an

active role in their children's education (Wang, & Sheikh-Khalil, 2014). Teachers should not be the only driving force behind a student's academic achievement, but rather serve as part of a team with parents to engage the students and establish the value of education.

Especially in adolescence, students' peers help to shape their identity and can be a positive influence in sharing the value of education and knowledge. Each year across many school divisions in Manitoba, a survey is completed called Tell Them From Me. The results are very similar every year, although the groups of students change. This influence is especially evident in the category of personal importance. In students' time through high school, it is not their teachers' opinions, or their parents or their principal's, that they value most. Peer groups are number one every year in this category. In the classroom or at home, the students are more comfortable to ask for advice or explanations from classmates and peers than they are from their teachers and parents (Gonzalez-DeHass, & Willems, 2016). A good teacher will tap into this resource and create opportunities for students to support each other in their learning. These opportunities include having students teach each other key concepts in class, and organize small group discussions about what they are learning. Students will take more ownership for their learning by creating study guides with each other for upcoming assessments. These are excellent opportunities for students to support each other in their learning process. These situations will not always happen naturally, so the teacher should guide the peer learning opportunities (Gonzalez-DeHass, & Willems, 2016). Creating authentic learning environments for students to learn from and with their peers is a tremendous tool to help students take ownership of their learning. Making sure that teachers, parents, and peers are alongside the students will help them to feel more engaged about their learning.

Even with all the supports in place, students may still experience barriers that impede their learning process. Equipping students with the required strategies to get through these blockages is important in their learning process. When students feel overwhelmed and they do not feel good about themselves or their abilities, it can affect their performance and learning. Self-esteem plays a major role in students' learning and social interactions in the classroom. Students who have a positive self-image are better able to deal with difficult situations as they arise, and are comfortable in social settings because they feel more accepted by the group (Peters Mayer, 2008). One of the biggest contributors to students having poor self-esteem is when the student is obese or overweight. Girls who feel that they are obese often have low self-esteem, and will generally struggle academically and have a difficult time learning in school (Sabia, & Rees, 2015). The best way for students to build resiliency when feelings of poor body image impede their learning is to build exercise into their daily routines. Not only will exercise help to maintain a healthy body weight, but the endorphins released into the body are hormones designed to reduce stress and depression. If students include a daily routine of activity in their schedule, this would help to improve their mental health and academic achievement (Sabia, & Rees, 2015). Building confidence in one's skills and abilities and having good self-esteem will help to improve a student's mental and academic success.

Anxiety can be quite disabling to students and will interfere with their ability to learn and manage their behaviours in a classroom setting. The most common form of anxiety for students in the high school setting is the generalized anxiety disorder. Students who struggle with this disorder often worry or stress about things that they have no control over, such as tests, group work, and engaging in conversation with other students (Mychailyszyn et al., 2011, p. 223). Teachers and parents can work with students to create strategies to deal with anxiety. Developing these positive strategies will help to keep a student on track to meet his/her academic objectives (Cane, & Oland, 2015). Giving students tips on how to interact with their peers and working on study techniques that help a student to prepare more efficiently for assessments are some ways that a teacher can assist a student who is struggling with anxiety.

Taking risks and leaving one's comfort zone is when real learning takes place. However, if students do not feel comfortable to take these risks due to the environment not being safe, then

they are not going to learn to their full potential. If the conditions in the classroom or school do not make the students feel safe to take risks because of a fear of public ridicule or social ostracism, then these are not optimal conditions for learning (Bradshaw, Waasdrop, Debnam, & Johnson, 2014). There is a social experiment wherein students are asked to remove their shoes and place them on their opposite feet. They then walk around the classroom, and possibly to the closest water fountain for a drink of water, and then return to their seats. This activity helps students to make connections about what it is like to walk around in someone else's shoes. This activity helps students to get a physical feeling about what it must be like for new students in a school where everything is different for them. Some students may feel reluctant to participate in this activity because they feel that they would be criticized and made fun of by their peers. If the classroom is created in a way so that all students and staff who enter feel safe to take these risks, then not only will the students find success academically but they will be more willing to get involved with social interactions (Bradshaw et al., 2014). Removing the element of fear of failure and ridicule in the classroom will persuade students to take more risks and learn more effectively. When students find activities that help to build their self-esteem, find strategies that reduce their levels of anxiety, and learn in a safe environment where risks are encouraged, they will develop the necessary tools to overcome some barriers that impede learning in the classroom.

Teachers can lead students to find authentic learning opportunities by making connections with their learning and the students' everyday life. When students see the value in what they are learning and how that relates to their real-life experiences, students will become more engaged. Awareness of the individual needs of the students and an understanding of their circumstances will help teachers to connect with students in a meaningful way (Cane, & Oland, 2015). Students who struggle to find connections to school and teachers will not achieve as well academically. Creating an environment that nourishes the students' emotional and mental health is important to student learning (Cane, & Oland, 2015).

Trust is an important part of creating an environment wherein optimal learning will take place. For students to feel that their thoughts and ideas are valuable to their learning of key concepts and outcomes, and for them to feel comfortable to take risks to allow learning to take place, a teacher must create a level of trust with each student (Tomlinson, & Imbeau, 2010). Trusting that what they are being taught has applications in their life will help students to recognize the value in what they are learning. When students have opportunities to discover their learning styles and develop a level of trust with their teacher, they can create more authentic learning experiences.

Students must see the value in their learning through the educational process, and it is the teachers, parents, and peers that who will guide the students and support their learning. These supports will help students to overcome obstacles and barriers that may impede their progress and allowing opportunities for authentic learning experiences to take place. Teachers are entrusted to ensure that each student finds success and must recognize the uniqueness of each learner and create experiences whereby students can demonstrate their knowledge (Tomlinson, & Imbeau, 2010). It is the students who need to be accountable for their learning and to look for support in their journey to a higher education.

## References

Anderson, J., Austin, K., Barnard, T., Chetwynd, A., & Kahn, P. (2000). Supporting student learning. *Teaching Mathematics and Its Applications, 19*(4), 166-172. doi:10.1093/teamat/19.4.166

Bradshaw, C. P., Waasdorp, T. E., Debnam, K. J., & Johnson, S. L. (2014). Measuring school climate in high schools: A focus on safety, engagement, and the environment. *Journal of School Health, 84*(9), 593-604. doi:10.1111/josh.12186

Cane, F. E., & Oland, L. (2015). Evaluating the outcomes and implementation of a TaMHS (Targeting Mental Health in Schools) project in four West Midlands (UK) schools using activity theory. *Educational Psychology in Practice, 31*(1), 1-20. doi:10.1080/02667363.2014.975784

Gonzalez-DeHass, A. R., & Willems, P. P. (2016). Nurturing self-regulated learners: Teacher, peer, and parental support of strategy. *The Educational Forum 80*(3), 294-309. doi:10.1080/00131725.2016.1173751

Mychailyszyn, M. P., Beidas. R. S., Benjamin, C. L., Edmunds, J. M., Podell, J. L., Cohen, J. S., & Kendall, P. C. (2011). Assessing and treating child anxiety in schools. *Psychology in the Schools, 48*(3), 223-232. doi:10.1002/pits.20548

Peters Mayer, D. (2008). *Overcoming school anxiety: How to help your child deal with separation, tests, homework, bullies, math phobia, and other worries.* New York, NY, AMACOM.

Sabia, J., & Rees, D. (2015). Body weight, mental health capital, and academic achievement. *Review of Economics of the Household, 13*(3), 653-684. doi:10.1007/s11150-014-9272-7

Tomlinson, C. A., & Imbeau, M. B. (2010). *Leading and managing a differentiated classroom.* Alexandria, VA, Association for Supervision and Curriculum Development.

Wang, M., & Sheikh-Khalil, S. (2014). Does parental involvement matter for student achievement and mental health in high school? *Child Development, 85*(2), 610-625. doi:10.1111/cdev.12153

Watts-Taffe, S., Laster, B., Broach, L., Marinak, B., McDonald Connor, C., & Walker-Dalhouse, D. (2012). Differentiated instruction: Making informed teacher decisions. *Reading Teacher, 66*(4), 303-314. doi:10.1002/TRTR.01126

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**OPINION PAPER**

## Personal Philosophy of Leadership

## Sherine Salmon

The range of leadership can be quite broad, but one must find one's niche and then narrow that scope to be effective. Situations often dictate the type of leader you ought to be in the moment, but I have found that my overall tendencies are skewed toward servant and social justice leadership, because I value equity along with serving others. However, to be the leader at any educational institution, I acknowledge that if I want to rally the masses, I must be charismatic in my approach; if I want to challenge social structures, I must take a critical and social justice approach; if I want to exercise morality, I must wear the hat of an ethical leader. The enhancement of my school pushes me to take on the role of a teacher and instructional leader, while making big changes would see me acting the part of a transformative leader.

Defining myself as a leader was an arduous process that took me to places inside myself that I was reluctant to explore. It was a process of looking at my own weaknesses and inhibitions, realizing how they affect my leadership and knowing that these parts of me must evolve to be at the high standard that I hold for myself. Digging deeper enabled me to create customized plans that have lessened my fears and make sense for the organization and my goals; these plans focus on personal, purposeful, practice-focused and people-oriented leadership. The activity of constantly writing, reviewing with peers, and reflecting on these plans provided much clarity and revealed blind spots associated with accomplishing my goals as a leader; this activity was quite rewarding in pushing my thoughts to inconceivable limits and helping me to arrive at feasible solutions, even though there were periods of great frustration. These periods of frustration and self-assessment brought me to the realization that I am a social justice-servant leader.

From my personal assessment, as a social justice-servant leader I can identify problems, dialogue well with groups, carry out focused inquiries, look at the perspectives of others, manage conflict productively, engage others in planning for change, and encourage others to "walk the talk" while I do the same. Social justice leadership re-centers and enhances staff capacity, and strengthens school culture and community (Z. Abuduwaili, personal communication, March 14, 2017), which defies the traditionalist view of leadership. By demonstrating the quality of the greatest being the least, constructively, social justice leaders empower their followers, thereby elevating them to become participants and leaders themselves (Lambert, Zimmerman, & Gardner, 2016). In this type of leadership, the power I hold is not as important as the impact, participation, and mobilization of my followers; I see this leadership as serving, and the giving of self, rather than a status.

In adapting this constructivist approach, I understand the complexity and dynamicity of democratic systems that is needed for organizations that want to blossom under the practices of higher order systems: systems that promote diversity and sustainability (Lambert et al., 2016). Further to that, I realise the benefits of having a system that promotes constructivist learning (evoking beliefs, inquiring into practice, constructing meaning from tensions, acting collectively in a community), participantship (equitable relationships, balance of power and mutual regard), leadership capacity (organization working together to solve problems that awaken innate abilities in participants), and democratization (Lambert et al., 2016). I am a constructivist.

In being a social justice-servant leader and constructivist, the assumption is that one transforms one's followers from followership to participantship. This can be achieved only through purposeful actions. To gain higher level functions of persons coming along on the

journey instead of just following ("wanting to" versus "being told to"), credence must be given to relationship building. Donaldson (2006) articulated this well with one of his metaphorical streams of leadership: open, trusting, affirmative relationships. From his written tutelage, I have learnt that the fluid flow of information, interdependence and direct interaction fosters the development of these types of relationships.

Interacting directly outside the constraints of time, space, or location positively affects the growth of the relationship (Donaldson, 2006). The constant interactions, and the sharing of ideas and concerns, builds trustworthiness among colleagues and the information they share. In addition, working together to achieve success through interdependence propels persons to seek out each other thereby building stronger bonds (Donaldson, 2006). Recognizing that relational leadership is not possible without reciprocation, I find it essential to value people's feelings, help them to identify and clarify their roles and responsibilities, coalesce in problem solving, and be the change I want to see (Donaldson, 2006). These attributes will aid my staff in becoming more open and trusting in an attempt to mobilize them to practice.

Being a practice-focused manager of an educational institution draws my attention to activities that highlight student achievement, the content that teachers are taught, the application of theory to practice, and professional inquiry, while creating opportunities for teachers to learn and apply information and be responsive to learning, with the time to process new learning with others (Timplerly, 2008). Crossing the chasm from teacher to leader in order to achieve improvement in teacher practice means that I will be viewed differently by my peers. I am comfortable in the switch from "us" to "them" because being different actually gives me the leverage to "attend to interpersonal issues, clarify authority in roles and responsibilities, maximize personal contact and demonstrate trustworthiness, openness and affirmation" (Donaldson, 2006, pp. 76-77). My differentness creates access because I am not bound by timetables, so I can maximize my contact time individually or in small groups through the rich medium of face-to-face communication that has the potential to foster mature, genuine conversations. Acquiring that confidence, and learning through Brill (2008) the importance of metacognitive processes, I am now better equipped to handle conflicts that may arise.

Engaging in reflective practice brought me to moments when I was not proud of the way that I handled conflicts. Being provided with a set of tools such as understanding of the problem or challenge, and being clear about my decision making process and the desired outcome, has equipped me for future conflicts (Brill, 2008). Though these tools will not eliminate the intense emotions that I may encounter in conflict, they have provided a means of controlling my behaviour and possibly mitigating the uncomfortable and strong feelings associated with tough decisions. The revelation of emotional awareness, metacognitive processes, and building relationships makes me relational in my leadership.

Accepting that I am a social justice-servant leader with a constructivist and relational approach, takes me to the thought that I am only as strong as the weakest link. I believe that effective leadership is heavily reliant on the connections we make, and on seeing ourselves only as successful as our fellow man, travelling together while supplying and differentiating resources based on individual needs-to succeed. This resonates with the Ubuntu philosophy of leadership, which means "I am, because of you" (Professor C. Smith, personal communication, March 14, 2017).

As a future manager, I identify with the social justice and servant leadership styles because of my experiences in life. There were some servant leaders who ensured that I developed as a student and as a leader; there were some social justice leaders who gave me access to opportunities that would not be mine based on my social background. Being grateful with the gifts given me, and the power they have had over my life, I can not help but emulate such leadership styles. Most importantly, I have very servant-oriented parents who never thought themselves too highly to help another human being; I especially have a mother who championed the cause of the poor and needy in my community, ensuring that they were fed and

had access to health care, and that their children attended school. This backdrop provides firm footing for being a manager in institutions with highly marginalized populations. Therefore, I understand where these students are coming from, and as a social justice-servant leader it behooves me to ensure that my staff understand the awesome duty and responsibility we have toward these students. This will be no easy feat, but the following steps should help me along.

There are five steps I would take to begin the process of implementing a social justice-servant leadership in my institution. First, I would model the attributes of a social justice or servant leader: I have to model the change that I want to see in treating all persons equitably regardless of age, gender, sexual orientation, or social status. Second, I would build relationships to foster openness and mutual regard for each other. Third, I would educate staff on the origins of students, using students' demographic data to foster awareness and knowledge acquisition on the types of students the institution houses. This will affect teaching styles and curriculum modification to make subjects relatable for optimal learning. Following this step, I would seek to engage staff in difficult conversations to provoke examination of their worldview, privileges, and biases. Finally, I would engage the staff in service-oriented projects that deal with the marginalized population, in order to build sensitivity and a sense of duty to this population.

In concluding, feeling this sense of duty to my brothers and sisters is nothing short of what I experienced and what I was taught. As an aspiring manager, I see the need of being a social justice-servant leader to the massive marginalized population of public education systems. This type of leadership calls on every aspect of one's humanness, to be purposeful in defying the social structures set up to perpetuate the cycle of poverty and to challenge the stately view of a leader. This type of leadership calls for one to be purposeful in relationships, in order to build a sustained community of leaders who will constantly reflect and focus on practices that will impact students and, in turn, their society. Finally, it calls for one who is people oriented – who will never be satisfied until all are standing on an equal plain, with access to the same opportunities and resources. Truly, I have been groomed for such a race. Ubuntu! I am, because you are, and I am ready to take the reins!

## References

Brill, F. S. (2008). *Leading and learning: Effective school leadership through reflective storytelling and inquiry*. Stenhouse Publishers.

Donaldson, G. (2006). *Cultivating leadership in schools: Connecting people, purpose, and practice*. New York, NY: Teachers College Press.

Lambert, L., Zimmerman, D., & Gardner, M. (2016). *Liberating leadership Capacity: Pathways to educational wisdom*. New York, NY: Teachers College Press.

Timplerly, H. (2008). *Teacher professional learning and development* (Educational Practices Series-18). Paris, France: UNESCO. Retrieved from http://www.ibe.unesco.org/fileadmin/user_upload/Publications/Educational_Practices/Ed Practices_18.pdf

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**SPOTLIGHT ON UNDERGRADUATE SCHOLARSHIP**

**Women and Computer Science**

**Eleni Galatsanou**

*Abstract*

*A plethora of jobs for information and communication technology professionals is predicted for the future, and female students outnumber male students in tertiary education. Nevertheless, women are significantly underrepresented in the computer science field. Stereotyping and lack of interest, encouragement, exposure, confidence, and role models are some of the factors contributing to this gender gap issue. However, most factors are actionable and these actions need to be taken to ensure the 21st century's advanced technological world does not miss out, for our society's benefit, on women's perspectives and innovative technological contributions.*

In recent years, there has been increasing advocacy regarding the importance of computer science (CS) and coding in our society. Due to the prevalence of computers and their application in our daily lives, and also the high demand for Information Communication and Technology (ICT) professionals – over 180,000 by 2019 in Canada (ICTC, 2016) and 1.4 million by 2020 in the U.S.A. (https://girlswhocode.com/) – more people, children included, have been encouraged to get involved in the CS field. At the same time, another current movement is shedding light on a deeper issue: the CS field is male dominated. The Women in Computer Science movement advocates the importance of closing the gender gap in technology. Examples of organizations helping in this direction are https://girlswhocode.com, http://ladieslearningcode.com/, http://sheplusplus.org/, http://code.likeagirl.io/, and http://railsgirls.com/.

Female university participation has increased significantly, even in areas previously dominated by man, such as law and medicine. However, they still remain underrepresented in science, technology, engineering, and mathematical (STEM) degrees (Hango, 2013). Even among the STEM graduates in Canada, Statistics Canada found that women accounted for about 30% of the mathematics and computer science graduates (Hango, 2013). In 2010, in the age group of 25 to 34 years, two-thirds of young women versus half of young men had attained a tertiary degree (OECD, 2012). By 2025, providing that the same trend continues, there will be a ratio of two to one, female to male students, in tertiary education in Canada (OECD, 2012). However, this is not occurring in the technology field despite the anticipated plethora of jobs in the future. These trends are not occurring just in Canada; the National Science Board's "Science and Engineering Indicators for 2012" are reporting similar women representation numbers for the US (Google, 2014). OECD (2015a) reported that in 2012 only 20% of CS graduates were female, a decrease from 23% in 2000. CS is the only subject area decreasing in female participation since then.

At the high school level, according to the College Board (2016), 13,506 (23.3%) female students compared to 44,431 (76.7%) male students took the Advanced Placement (AP) Computer Science exam in 2016. This participation rate is significantly low, especially when the overall participation rate for all AP courses (56.3% female versus 43.7% male) is considered. Although the percentage of female students taking the AP computer science exam is increasing (18.7% in 2013 to 23.3% in 2016), there is still a long way to fully close the gender gap. Locally, at Brandon University, through the years 2011-2016 only three female students graduated with a major in computer science, representing 10.7% of all computer science graduates. Over the

same years, no females graduated with a minor in computer science (Brandon University, 2017).

Clearly, women are significantly underrepresented in the CS field (Diekman, Brown, Johnston, & Clark, 2010). But why does this really matter? Women's underrepresentation has implications in many areas. First is the labour supply shortage problem (Google, 2014), which is exacerbated with the lack of female participation. By disproportionately excluding women from the CS workforce in a time where "the overall need for computing professionals has severely outstripped the number of graduates entering the workforce" (Wang, Hong, Ravitz, & Ivory, 2015, p. 1), the result is that a significant number of CS professional positions in many fields will remain unfilled. Additionally, jobs in CS provide, on average, better labour market outcomes (Saujani, 2015), labour market conditions (Hango, 2013), lucrative and high-status careers (Master, Cheryan, & Meltzoff, 2016), and pay equity since there is no gender pay-gap among CS engineers (Saujani, 2015).

Labour outcome is not the only factor. Technology sparks innovation (Saujani, 2015), and women's underrepresentation in technology means the perspectives of women that could lead to better innovations are missed (Blankenship, 2015). Therefore, the field of CS "might not be generating the technological innovations that align with the needs of society's demographics" (Google & Gallup, 2016, p. 4). Having workforce diversity in the tech field will result in creating better products for diverse users (Google, 2014). In the opposite scenario, the female talent pool is under-utilized (OECD, 2012) in contributing to technological innovations for the greater good of the society. By implication, this can potentially result in talent loss. Workforce diversity "contributes to a richer mix of ideas, inventions, innovations, and problem solutions" (Hill & Rogers, 2012, p. 23;). OECD (2015a) highlighted recent research findings that "gender diverse business teams have greater success in terms of sales and profits than male dominated teams" and "having more women on a team contributes to better problem solving" (p. 9).

Despite the emphasis on diversity and innovation, as well as the promising number of future job opportunities for people with CS skills, women do not seem to buy into this trend. Female high school students are less interested in learning CS than male students (Google & Gallup, 2016). Additionally, women are significantly less likely than men to earn a degree in CS. Similar findings are shared in the Hango (2013) report: Women are less likely to choose a STEM education, regardless of mathematical ability and especially in the field of engineering, mathematics and computer science. Even young women with high level of mathematical ability are significantly less likely to pursue STEM studies, when compared to their male peers, even when compared to young men with a lower level of mathematical ability (Hango, 2013). Moreover, OECD (2015a) reported that "women who graduate in STEM subjects are significantly less likely than men to pursue a career in those fields," with a percent of 43% versus 71% for their male peers (p. 8). The question remains: Why? Is it due to women's choice and lack of interest for the field or are there other underlying factors?

Encouragement and exposure were identified by Wang et al. (2015) as leading factors influencing women's pursuit of CS and related fields; in particular, family plays a critical role. Female students are less likely than male students to be told by a parent (27% vs 46%) or a teacher (26% vs 39%) that they would be good in CS (Google & Gallup, 2016). Stereotypes may also influence parents and teachers, and cause unconscious bias toward female students (Google & Gallup, 2016). Master et al. (2015) concluded, "By the time they are adolescents, girls are aware of the negative stereotypes about their ability in math and science . . . They also know that STEM fields are dominated by males" (p. 12). The Programme for International Student Assessment (PISA) found that parents of 15-year-old boys and girls with the same level in mathematics are more likely to believe their sons, rather their daughters, will follow a career in the STEM fields (OECDb, 2015).

Klawe (2013) explained how computers became a "boys" thing almost overnight. In the 80s, she noted, when personal computers entered homes and schools, they were mainly used by

children to play games. Those computers, however, had very low computational power and graphics capabilities, and almost all games were either ping-pong style or involved shooting items or persons. These games were not appealing to young women who gradually disengaged. On the other hand, young men were learning how to program the computers to create more of those games. This early exposure and frequent computer usage relates to the current interest in computer science. Female and male students may have similar exposure to computers at school and at home, but they tend to use computers for different purposes. Male students might use computers mainly for playing games, which exposes them more to the idea of creating. They are also more likely to join computer clubs and to consider computers a very important part of their lives (Ogan, 2004). Female students, on the other hand, are less likely to share the same excitement. They tend to see computers as a tool or use them mainly as a social device, which is considered a passive consumption form of computer usage (Alexander & Carey, 2009).

Hence, female students come to a CS course with less exposure and experience in computers than their male peers, and with less confidence in their ability to complete the course (Ogan, 2004). "Along with student interest, confidence in their ability to learn computer science may influence who pursues it" (Google & Gallup, 2016, p. 15). Fewer than half of female students feel very confident they can learn computer science, compared to two-thirds of male students: "Students who are very confident they could learn CS are three times more likely to be very interesting in learning CS" (p. 16). Female students can be intimidated by their male peers and lose confidence in their abilities when entering a CS course; "the only people at the end are the people who have been in computer camp since they were five" (Kaufman, 2013, para.10).

Female students do not feel confident enough to try CS, and they feel that they do not belong in a computer science course (Blankenship, 2015). Master et al. (2015) added that female students' lower sense of belonging in a CS class could be attributed to their not fitting in with CS stereotypes. A welcoming educational environment plays an important role. The Master et al. (2015) research findings show that "providing [female students] with an educational environment that does not fit current CS stereotypes increases their interest in CS courses and could provide grounds for interventions to help reduce gender disparities in CS enrollment" (p. 1). Examples of stereotypes in classrooms are science fiction posters, stray electronic parts, video game posters, and an overall feeling of "geek" room or Boy's club, which make the educational environment unappealing to women (Klawe, 2013).

The computer science stereotypes are present not only inside the educational environment but also in the broader society. Cheryan, Master, and Meltzoff (2015) provided a very good summary of what these computer scientist stereotypes can look like: they are often "geeky" guys, socially awkward with technology being the main part of their lives; they play video games; they must be brilliant or genius; they have particular physical traits such as glasses or pale skin; they work in isolation (pp. 3-5). Similarly, popular movies and television shows (e.g. *Silicon Valley, The Big Bang Theory*) portray computer scientists as all male, obsessed with technology and "geeky." Only 7% of computer science characters in films or TV are women (Blankenship, 2015). Cheryan et al. (2015) argued that these stereotypes "act as educational gatekeepers, constraining who enters these fields" (p. 2). In this technological world, the inventors of Google and Facebook are all male and very few women are represented at the highest levels, for example, the Fields Medal or Nobel Prizes (Hill & Rogers, 2012, pp. 21, 23). Saujuni (2015) described it as follows: "Women cannot be what they cannot see." Having female role models in CS and sharing the stories of successful female computer scientists can enable young women to visualize themselves as computer scientists and can help to attract more women into the field (Cheryan et al., 2015).

Women need to see a meaningful value in the STEM careers, because just having positive female role models will not necessarily attract more women to the STEM fields. "If women perceive STEM as antithetical to highly valued goals, it is not surprising that even women talented in these areas might choose alternative career paths" (Diekman, Brown, Johnston, &

Clark, 2010, p. 1056). Women prefer working with people over things, and this preference affects their choices of career paths. Individuals in STEM careers are often perceived as working in isolation, or with technology and machinery, which is perceived as a misalignment with fulfilling communal goals (e.g., working in collaboration and helping other people). "Women tend to endorse communal goals more than men" (Diekman et al., 2010, p. 1052), and these perceptions may influence women's decisions to pursue a career in STEM. In computer science, for example, women may have difficulty visualizing the broader CS applications and the good they contribute to our society (e.g., medical breakthroughs). An incomplete or wrong perception about the STEM field can discourage women from entering it (Wang et al., 2015). Diekman et al. (2010) argued that interventions to increase awareness could deal with misconceptions and could result in more women considering careers in those fields.

Lastly, Hill and Rogers (2012) provided an alternative rationale to assist in understanding some of the reasons for women's underrepresentation in CS and related fields: The Creativity Factor. They argued that since high-performance mathematics (important in all STEM fields) require "highly creative thinking" (p. 21), the gender difference in creative achievement should be examined in order to understand the gender gap in those fields. Creative achievement is seen to be enhanced by factors such as play, curiosity, and the willingness to take risks and to accept failure and rejection. Men are viewed as doing better in those areas because they tend to be more playful (play has been recognized as an important catalyst for the creative mind), risk-takers, and better able to accept rejection. Hill and Rogers (2012) wondered, is this difference in creative achievement among women and man due to nature or nurture? Saujani (TED, 2016) believed it is the latter:

> Most girls are taught to avoid risk and failure. We're taught to smile pretty, play it safe, get all A's. Boys, on the other hand, are taught to play rough, swing high, crawl to the top of the monkey bars and then just jump off headfirst. And by the time they're adults . . . they're habituated to take risk after risk. (2:20)

Many factors contribute to women's underrepresentation in the CS and related fields, but acknowledging them is a start. What can be done, though? How can we encourage more women to get involved in the field? Klawe (2013) shared the Harvey Mudd College success story: how the college managed to increase the number of women majoring in computer science from 10% to 42% in five years. First, the college made it mandatory for all students to take a CS course in their first semester. The introductory course title changed from "Learning to program in Java" to "Creative problem solving in science and engineering through computational approaches using Python." This made the course more appealing and approachable to women, who liked the idea of taking a course on creative problem solving. Second, the CS faculty (it is worth noting that 42% of faculty were female) worked to eliminate students' macho behaviour, whereby a few more experienced students (usually male) intimidated the students with no prior coding experience. The students were put into groups based on their prior knowledge of computer science, and the emphasis was placed on team work, making the problems more fun, creating real-world connections, and providing a variety of options on assignments.

In addition, every year, the school organizes a trip to The Grace Hopper Celebration of Women in Computing, which is the world's largest gathering of women technologists (http://ghc.anitaborg.org/). Female students are given the opportunity to hear and meet in person some of the most successful women in the technology field. Partnership with the tech industry creates opportunities for the students to work in tech companies through summer internships. The implementation of the above changes resulted in a very popular CS introductory course, more graduates with majors in CS, and more non-major graduates taking higher level CS courses. A similar package of changes had a similar effect in the case of the School of Computer Science at Carnegie Mellon University (Ogan, 2004).

Blankenship's (2015) identified six action points for high school teachers to encourage more female students to take CS: recognize the tech gender gap problem and encourage

discussions; create safe, welcoming classroom environments (young female students are three times more likely to take a CS class if it is in a non-geek room); connect assignments to students' interests and to the real world (e.g., cross-curriculum, computing for poetry and art, simulation of the spread of viruses); practise inclusive pedagogical practices such as peer instruction and group work; and lastly value all levels of skills in class, ensure that no student dominates in class, and focus on constantly encourage the students when they are struggling.

There is no question that women are underrepresented in the CS and related fields, and this tech gender gap becomes more significant when compared to the gender gap in other formerly male-dominated fields of study (e.g., law and medicine). My anecdotal evidence obtained through informal discussions with Manitoba CS educators (Crocus Plains High School, Vincent Massey High School, Hapnot Collegiate, and Brandon University) confirm this trend: There are a few girls taking CS courses, and this number decreases in the more advanced levels of CS courses. What is worth highlighting, though, is that in all of my discussions a common theme emerged: "We might not get many female students, but the ones we get are normally the top students in class," as one educator put it.

Many studies have tried to answer the question of why this gender gap issue exists in CS and STEM-related fields. Despite the lack of consensus on the reasons causing the gender gap, it can be agreed that the answer is rather complicated and depends on many factors. These factors span from women's personal interests and perceptions of the CS field, to deeper social and cultural factors and gender stereotyping. "Factors most related to female participation in CS though are actionable" (Google, 2014, p. 3), and this is the positive message coming out of this story. There are best practice examples that have dealt with the issue successfully (e.g., Harvey Mudd College, Carnegie Mellon University), and the first step toward a solution is to acknowledge the issue and to care enough to enact the solution. Taking into account the promising technological advances of the 21st century and the innovation they are going to spark, we ought to ensure that women are not left behind but become active participants of this innovation. This is not only due to addressing the gender parity issue and future labour shortages, but most significantly because allowing women's talent and female perspectives to be part of this innovation will result in better outcomes for our 21st century society.

## References

Alexander, M. S., & Carey, S. (2009). *Gender gap in computer science*. Retrieved from https://www.scribd.com/document/73035206/ETEC-500-Final-Assignment-1

Blankenship, L. (2015, December 11). *Disrupting the tech gender gap: Computer science in a girls' school* [Video file]. Retrieved from https://youtu.be/0-fb6w6VpxI

Brandon University. (2017). *Fact book: Degrees and graduates* [Data file]. Retrieved from http://tableau.brandonu.ca/gradprograminfo

Cheryan, S., Master, A., & Meltzoff, A. N. (2015). Cultural stereotypes as gatekeepers: Increasing girls' interest in computer science and engineering by diversifying stereotypes. *Frontiers in Psychology, 6*(49), 1-8. doi:10.3389/fpsyg.2015.00049 Retrieved from https://www.cl.cam.ac.uk/athena-swan/Culturalstereotypes.pdf

College Board. (2016). *AP data – Archived data* [Data file]. Retrieved from https://research.collegeboard.org/programs/ap/data/archived

Diekman, A., Brown, E., Johnston, A., & Clark, E. (2010). Seeking congruity between goals and roles: A new look at why women opt out of science, technology, engineering, and mathematics careers. *Psychological Science, 21*(8), 1051-1057. Retrieved from http://www.jstor.org/stable/41062332

Google & Gallup. (2016). *Diversity gaps in computer science: Exploring the underrepresentation of girls, Blacks and Hispanics*. Retrieved from http://services.google.com/fh/files/misc/diversity-gaps-in-computer-science-report.pdf

Google. (2014, May 26). *Women who choose computer science – What really matters*. Retrieved from http://static.googleusercontent.com/media/g.wxbit.com/en/us/edu/pdf/women-who-choose-what-really.pdf

Hango, D. (2013, December). Gender differences in science, technology, engineering, mathematics and computer science (STEM) programs at university. *Statistics Canada. Catalogue no. 75-006-X.* Retrieved from http://www.statcan.gc.ca/pub/75-006-x/2013001/article/11874-eng.pdf

Hill, T. P., & Rogers, E. (2012). Gender gaps in science: The creativity factor. *The Mathematical Intelligencer, 34*(2), 19-26. doi:10.1007/s00283-012-9297-9

Information and Communication Technology Council (ICTC). (2016). *Digital talent: Road to 2020 and beyond.* Retrieved from http://www.ictc-ctic.ca/wp-content/uploads/2016/03/ICTC_DigitalTalent2020_ENGLISH_FINAL_March2016.pdf

Kaufman, W. (2013, May 1). How one college is closing the computer science gender gap. *New York Public Radio*. Retrieved from http://www.wnyc.org/story/290190-how-one-college-is-closing-the-computer-science-gender-gap/

Klawe, M. (2013, November 15). *From 10% to 40% female CS majors: The Harvey Mudd College story* [Video file]. Retrieved from https://youtu.be/8TvYUjgaEQU

Master, A., Cheryan, S., & Meltzoff, A. N. (2016). Computing whether she belongs: Stereotypes undermine girls' interest and sense of belonging in computer science. *Journal of Educational Psychology*, *108*(3), 424-437. http://dx.doi.org/10.1037/edu0000061

OECD. (2012). *Closing the gender gap act now: Canada*. Retrieved from http://www.oecd.org/gender/Closing%20The%20Gender%20Gap%20-%20Canada%20FINAL.pdf

OECD. (2015a). *Trends shaping education 2015 spotlight 7*. Retrieved from http://www.oecd.org/edu/ceri/Spotlight7-GenderEquality.pdf

OECD. (2015b). "What lies behind gender inequality in education?" *PISA in Focus, 49.* http://dx.doi.org/10.1787/5js4xffhhc30-en

Ogan, C. L. (2004). Unlocking the clubhouse: Women in computing [Review of the book *Unlocking the clubhouse: Women in computing*, by Margolis, J., & Fisher, A.]. *The Information Society, 20*(1), 75-76. doi:10.1080/01972240490270094

Saujani, R. (2015, October 14). *Girls who code. CEO Reshma Saujani seeks to empower women in tech* [Video file]. Retrieved from https://youtu.be/SngGyakvmJ0

Statistics Canada. (2017). *Table 477-0020 – Postsecondary graduates by institution type, sex and field of study* [Data file]. Retrieved from http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/educ70a-eng.htm

TED. (2016, February). *Reshma Saujani: Teach girls bravery, not perfection* [Video file]. Retrieved from http://www.ted.com/talks/reshma_saujani_teach_girls_bravery_not_perfection/transcript?language=en#t-181440

Wang, J., Hong, H., Ravitz, J., & Ivory, M. (2015). Gender differences in factors influencing pursuit of computer science and related fields. In *Proceedings of the 2015 ACM Conference on Innovation and Technology in Computer Science Education* (pp. 117-122). http://dx.doi.org/10.1145/2729094.2742611

## About the Author

*Eleni Galatsanou completed her undergraduate degree in mathematics and computer science and a master's degree in financial mathematics in Europe. With a goal to become a math and computer science teacher, she is currently working on her Bachelor of Education (AD) at BU.*

## CELEBRATION OF GRADUATE SCHOLARSHIP

We are honoured to recognize the following students who defended M.Ed. theses in 2016.

**Paulette Rheault**          December 7, 2016          Thesis Adviser: Dr. Heather Duncan

*The Effects of Incorporating In-School Gardening on the Mental Well-Being and Sense of School Belonging of Students*

This mixed-methods study explored the use of in-school outdoor gardening as a means of addressing the mental health needs of grade 5 students. Students in a grade 5 classroom in a rural Manitoba school participated in outdoor gardening activities for two months of the school year. The study measured the impact of participation in the gardening activities on students' self-perceived mental well-being and sense of school belonging.

The study's findings demonstrated overall improvement in students' self-perceived sense of well-being following participation in the gardening activity, with students reporting a reduction in emotional difficulties at the end of the study. There was also an improvement in students' sense of school belonging through improved peer relationships.

**Vanda Mitri**          December 19, 2016          Thesis Adviser: Dr. Karen Rempel

*Teachers' Interactive Language Use as an Instructional Approach for Small-Group Guided Reading*

Small-group guided reading is a teaching method currently used in many classrooms to foster literacy growth through differentiated instruction. Exemplary teachers who use this method have many students making great gains in literacy. Sociocultural Theory of learning maintains that assistive language interactions with a teacher are necessary for increased cognition in all areas, including literacy. Successful teaching raises questions about the types of interactive language these exemplary teachers use.

The purpose of this research was to investigate the language used by exemplary, experienced teachers during small-group reading lessons with their students that reflect principles of Sociocultural Theory of learning. This study used a qualitative research methodology comprised of pre- and post-interviews, observations of small-group guided reading lessons, and extensive field notes, complemented by a small psychometric scale. Four exemplary, early years teachers participated in this study.

The analysis of the data revealed four emergent themes in the exemplary teachers' language interactions. These included the frequency of use of the word "You" versus the word "I," multiple examples of a priori concepts of interactive scaffolding, language that appeared to build student self-efficacy, and language that contributed to a safe and productive learning environment.

Based on the findings from this research, it is recommended teacher professional development and research be considered in the areas of: in-depth study of language and learning theories; self-reflection on language interaction scaffolding in their practice, and work with a More Knowledgeable Other to deepen understanding and strengthen practice; and further research around effective teacher language interactions with students.

# Call for Papers

We invite current and past BU Faculty of Education graduate students to submit the following types of manuscripts.

- Research Reports
    - reports of educational research completed or in progress
    - in the range of 2500 to 5000 words

- Refereed Articles
    - scholarly papers dealing with specific issues in education
    - in the range of 2500 to 5000 words, including the title, abstract, and list of references

- Special Interest Papers
    - papers of useful, practical interest (such as proposals for services and programs), including a literature base
    - in the range of 1500 to 3000 words, including the title and list of references

- Opinion Papers
    - focus on current issues in education
    - maximum 1000 words

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We also invite Faculty of Education professors from Brandon University and University College of the North to submit research reports.

- Focus on Faculty Research
    - reports of educational research
    - in the range of 2500 to 5000 words

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In addition, we invite Bachelor of Education professors from BU to recommend outstanding papers written by their undergraduate students.

- Spotlight on Undergraduate Scholarship
    - topics of interest to pre-service teachers
    - in the range of 2000 to 3000 words

**Note to authors:**

Prepare your manuscript according to the 6th edition of the *Publication Manual of the American Psychological Association*. Use double-line spacing, one-inch margins, and Times New Roman 12-point font. Include the title of your manuscript, the type of submission (refereed article, etc.), your name, email address, and a 50-word biography on the title page. For a refereed article written by a graduate student or a research report written by a professor, insert a 100-word abstract below the title on page 2.

Send your manuscript electronically to Dr. Marion Terry, Editor (terry@brandonu.ca), as an email attachment in Microsoft Word. All manuscripts that adhere to the content and style requirements will be reviewed.