

**The Quest Journal, Volume 8**  
**The Quest for Increased Student Achievement and Well-Being:**  
**Inspiring Learning: Mobilizing Sustainable Improvement**

**Education and Communication in the 21<sup>st</sup> Century**

Daniella C. Di Lucia

**Abstract**

With the introduction of new technologies in the 21<sup>st</sup> century, the ways in which communication occurs have changed drastically. These changes have percolated into the classroom, modifying the way both students and teachers communicate by promoting critical thinking skills and bilateral discourse. Research has posited that, through appropriate modelling, teachers can effectively demonstrate the appropriate use of various technological tools while communicating and enhancing curricular knowledge.

**Keywords:** Unidirectional, bidirectional, communication tools, critical thinking, 21<sup>st</sup> century learning, situational experiences

**Introduction**

It is impossible to ignore the influence of technology in modern Western society; from downloading music to streaming TV shows, technology has become a staple in daily Western life (Moreira, 2010). This era of technology has led to the introduction of the 21<sup>st</sup> century learner. These learners have grown up with an exponential influx of technology, and as such have learned to multi-task in order to communicate, using a combination of images, sounds, and other forms of media to convey a message (Rodgers, Runyon, Starrett, & Von Holzen, 2006). Understanding and nurturing this ability is fundamental to learn effectively in the 21<sup>st</sup> century classroom. It has been globally understood that an investment in the integration of 21<sup>st</sup> century skills in the classroom

provides advantages on many levels, and effective communication skills is key to that success (Bolstad, Gilbert, McDowall, Bull, Boyd, & Hipkins, 2012). This paper takes a closer look at the development of communication as a 21<sup>st</sup> century skill in project- and inquiry-based learning environments with the goal of helping students become global citizens.

A staple in every social and educational situation is the process of communication. Communication has been viewed as “an unavoidably social operation and at the same time an operation that necessarily comes into play whenever social situations arise” (Luhmann, 1992, p. 252). It can take a unidirectional form, where a message is sent from one party and received by another, or a bidirectional form, where the receiving party has the opportunity to respond to the initial message with one of their own (Moreau, 2003). For example, when giving orders, one engages in unidirectional communication; when dealing with discourse, one engages in bidirectional communication.

Teaching inevitably involves an extensive amount of communication, not only of knowledge but of life skills needed to perform effectively in the 21<sup>st</sup> century (Partnership for 21st Century Skills, 2002). “It is difficult to be true communicators in the 21<sup>st</sup> Century without acknowledging that the base of all communication is knowledge” (Cheewa, 2003, p. 3). In the Ontario Elementary School Curriculum, every subject and all four curricular strands (Knowledge and Understanding, Thinking and Investigation, Communication, and Application) require effective communication skills in order to transfer knowledge and information from one party to another. As new technological and communication tools become available, the ways in which teachers and students

correspond evolve into a matrix of communication where every individual becomes a hub of knowledge (Rotvold & Braathen, 2010).

### **A Framework for 21<sup>st</sup> Century Skills**

The move into our current century brought with it an understanding of technology as a means to access any and all information on any subject (Vockley, 2007). With this shift, the world became a very different place, a smaller place, and the amount of interactions between individuals increased exponentially. This changed education, as teachers are now faced with the task of preparing students for a new world bombarded with technological advancements that affect the ways in which the global community functions (Otero, et al., 2005). The term 21<sup>st</sup> century skills is an umbrella term that includes eleven skill sets organized within three major groups: (a) Learning and Innovation Skills; (b) Information, Media and Technology Skills; and (c) Life and Career Skills (Partnership for 21st Century Skills, 2011). The skills in this list cannot be examined individually, as they are all fundamentally intertwined. For the purposes of this investigation, I am looking at the learning and innovation skills highlighted by the Partnership for 21<sup>st</sup> Century Skills (P21) (2011) and delve into the domains of communication and collaboration. These are the skills that, from an educational perspective, help students not only learn information but develop the drive to keep learning throughout their life endeavours (Dede, 2009). In an effort to narrow the scope of this article, I will focus on communication as this is an area essential for the social and instructional processes of education (Pennycook, 1985; Allen, 1983).

Communication occurs in stages of first selecting information or the message; expressing that information/message; and interpreting the information/message

(Luhmann, 1992). It should be noted that, during the third stage, the interpretation could also manifest as a misinterpretation. The act of communicating must encompass all three stages, and can occur in many forms. As Miller (1996) noted, the end of the 20<sup>th</sup> century brought with it the 'paperless office' that has only become more prominent in the 21<sup>st</sup> century. She continues to identify issues that present themselves as barriers to communication in the current century, namely: communication becomes more complicated with an increase in diversity and change; new technologies introduce different and sometimes inappropriate manifestations of communication; and common conceptions of communications are no longer valid when communicating on a global scale. It is through this lens that one learns to critically analyze and evaluate communication as it develops in the 21<sup>st</sup> century.

### **The Evolution of Educational Communication**

From ancient civilizations, rhetoric has been seen as a form of communication where, through debate, decision making and intellectual inquiry occurred (Miller, 1996). In the field of education, teachers once attempted to share their knowledge with students through pragmatic rhetoric; this involves presenting the students with facts as incontestable truth (Schwab, 1959). This teaching paradigm depended on students' automatic assumption that teachers are knowledgeable, trustworthy, and overall positive people who contribute productively to society (Straub, 1997). Through pragmatic rhetoric, communication is unidirectional and does not encourage students to further investigate classroom facts through discourse (Schwab, 1959; Moreau, 2003).

Modern teaching paradigms have shifted from the perspective of pragmatic rhetoric to encourage inquiry-based, experiential learning that is explicitly linked to the

promotion of critical thinking skills (Friedman, Crews, Caicedo, Besley, Weinberg, & Freedman, 2010). As teachers encourage critical thinking, they accept that their facts and ideas will be challenged as opposed to accepted at face value, and that those concepts will eventually have different meanings for each student (Britzman, 2011). It is in these situations where communication evolves into a bidirectional communication pattern which is shown to produce better communication and acquisition of knowledge through literary discourse (Moreau, 2003).

According to Roberts & Foehr (2005), the 21<sup>st</sup> century requires extensive literary skills, far more than were necessary a century ago. These researchers continue to argue that it is mainly through challenges that students gain the literary abilities needed to learn to think critically and contribute to modern society. By challenging students to communicate course work from a multidisciplinary perspective, teachers give students the task of identifying and integrating pertinent information from a cross-curricular viewpoint and require that students collaborate and innovate in order to communicate (Sanders, 2009). There are an extensive amount of tools available today, including but not limited to texting, blogs, microblogs (eg. Twitter), collaboration tools (eg. Google Docs), web conferencing (eg. Skype), learning management and student information systems (eg. Moodle), and social media (eg. Facebook) (Rotvold & Braathen, 2010). These 21<sup>st</sup> century tools exist in addition to communication via written documents (eg. letters) and oral discourse (eg. telephone calls). With this new variety of communication tools, it now becomes important to teach students how to effectively use all forms of communication, and help them to critically distinguish which medium is befitting for particular situations.

Communication in the 21<sup>st</sup> century is best taught through example (Cheewa, 2003). Teachers are able to model appropriate communication skills by demonstrating how to respond to a message, that is providing a response for all forms of information that have been received, whether in person, digitally, or even through observation of body language. Other research has shown that simulation experiences, such as dramatic reenactments or virtual interactive models, have been proven to help students better understand content and communicate knowledge, having an overall impact on the development of communication and other 21<sup>st</sup> century skills (O'Hare, 2008; Bell, 2010). By putting themselves in various simulations, students gain first-hand experience in a multitude of situations, giving them a broader understanding and interpretation of messages they receive (O'Hare, 2008). Through participatory examples of various communicatory situations, teachers can demonstrate critical thinking and guide students to help them see the whole picture and eventually acquire the knowledge they need to communicate.

It is vital to understand that 21<sup>st</sup> century learning, including the acquisition of communication skills, does not solely occur in the classroom. Community support from public institutions, local media and industries alike will work to support the student's communicative development by engaging them in potential partnerships and outreach programs (Roberts & Foehr, 2005). This study presented information in print, electronic, pictorial, media and manuscript forms, supporting the idea that transmitting information via multimodal media is essential for 21<sup>st</sup> century communication, and that, in order for a message to be received and interpreted, it must be transmitted in a variety of ways. Parallels can be drawn here between this concept and the Theory of Multiple

Intelligences described by Howard Gardner and their applications in the classroom (Gardner & Hatch , 1989). The various types of intelligence presented, which will not be described in detail here but will be referred to in examples, each lead to their own form of communication. Students strong in interpersonal intelligence may, for example, enjoy public speaking in order to convey a message, while students strong in intrapersonal intelligence may express themselves in written form. Nevertheless, each method of conveying a message and of interpreting that message falls under the scope of communication and has its own role in schools.

### **Going Further**

A study involving modeling of communication technology tools and observing the outcomes on student communication skills would be integral to this area of research. Also, it is worthwhile to consider the impact of not only a paperless classroom, but an educational discourse that eliminates the classroom altogether – distance education. The types of communication involved in this educational setting vary greatly from those where face-to-face communication is supplemented by modern technology, and it would be of great interest to study that setting as a case on its own. In addition, it would be valuable to investigate the benefits of new communication technologies for students with Individual Education Plans (IEPs).

### **Conclusion**

With the 21<sup>st</sup> century came a plethora of communication tools that complicate and enhance the way messages are structured, sent, and received. This presents teachers with new challenges in the classroom, as they are trusted with the task of ensuring that students know how to effectively and appropriately use the communication tools they

frequently encounter. Research has supported the idea that providing students with (a) simulation experiences, where students experience novel situations; (b) effective models of appropriate, multimodal technological communication techniques; (c) encouragement of critical thinking when receiving and transmitting ideas; and (d) linking teaching practices to multidisciplinary communication tools prevalent in the community, will all support students as they learn to communicate in the 21<sup>st</sup> century. Teachers have the ability to influence students' optimization of the technology available to them to more effectively communicate their thoughts and their knowledge both in school and in the community.

### **Bibliography**

- Bell, S. (2010, July). Project-Based Learning for the 21st Century: Skills for the Future . *The Clearing House: A Journal of Educational Strategies, Issues and Ideas* , 39-43.
- Britzman, D. P. (2011). *Freud and Education*. New York: Routledge.
- Cheewa, J. (2003, October). *Communicating for the 21st Century*. Retrieved November 18, 2014, from [http://www.cheewa.com/pdfs/communication\\_article.pdf](http://www.cheewa.com/pdfs/communication_article.pdf)
- Dede, C. (2009). *Comparing Frameworks for "21st Century Skills"*. Harvard Graduate School of Education.
- Friedman, D. B., Crews, T. B., Caicedo, J. M., Besley, J. C., Weinberg, J., & Freedman, M. L. (2010). An exploration into inquiry-based learning by a multidisciplinary group of higher education faculty . *Higher Education* , 59 (6), 765-783.
- Gardner, H., & Hatch , T. (1989). Multiple Intelligences Go to School: Educational Implications of the Theory of Multiple Intelligences. *Educational Researcher* , 18 (8), 4-10.
- Luhmann, N. (1992). What is Communication? . *Communication Theory* , 2 (3), 251-259.
- McCrossin, J. (2012). Children for Social Justice. *First Peoples Child & Family Review* , 7 (1), 40-51.
- Miller, C. R. (1996). *Communication in the 21st Century: The Original Liberal Art in an Age of Science and Technology*. North Carolina State University, Center for Communication in Science, Technology, and Management.
- Moreau, L. (2003). Leaderless coordination via bidirectional and unidirectional time-dependent communication. *Proceedings of the 42nd IEEE Conference on Decision and Control*, (pp. 3070-3075). Maui.



- O'Hare, J. M. (2008, May). Utilizing a Program Planning and Evaluation Framework to Educate General Education Eighth Grade Students About Various Disabilities: Promoting Acceptance and Tolerance from a Cultural Diversity Perspective. *Rutgers, The State University of New Jersey*. New Brunswick, New Jersey, USA: ProQuest.
- Otero, V., Peressini, D., Anderson Meymaris, K., Ford, P., Garvin, T., Harlow, D., et al. (2005). Integrating technology into teacher education: A critical framework. *Journal of Teacher Education*, 56 (1), 8-23.
- Partnership for 21st Century Skills. (2009). *21st Century Skills Map*. National Science Teachers Association.
- Partnership for 21st Century Skills. (2011). *Framework for 21st Century Learning*.
- Partnership for 21st Century Skills. (2002). *Learning for the 21st Century: A Report and MILE Guide for 21st Century Skills*. Washington.
- Roberts, D. F., & Foehr, U. (2005). Libraries, Literacy & Learning in the 21st Century. *American Libraries*, 36 (7), 1-12.
- Rodgers, M., Runyon, D., Starrett, D., & Von Holzen, R. (2006). Teaching the 21st Century Learner. *Conference on Distance Teaching and Learning*.
- Rotherham, A. J., & Willingham, D. (2009, September). 21st Century Skills: The Challenges Ahead. *Educational Leadership*, 16-21.
- Rotvold, G., & Braathen, S. (2010). Transforming the Way We Communicate in the 21st Century. *Shaping Business Education*, 25-31.
- Schwab, J. J. (1959). The "Impossible" Role of the Teacher in Progressive Education. *The School Review*, 67 (2), 139-159.
- Straub, R. (1997). Students' Reactions to Teacher Comments: An Exploratory Study. *Research in the Teaching of English*, 31 (1), 91-119.
- Vockley, M. (2007). *Maximizing the Impact: the Pivotal Role of Technology in a 21st Century Education System Task Force Members*. Retrieved November 18, 2014, from ERIC: <http://files.eric.ed.gov/fulltext/ED519463.pdf>