



A Message from the Editorial Team

Welcome to the sixth year of RiaN's mobilizing research by our Faculty of Education researchers. We invite you to explore this issue to learn about current research on combining music and math, as well as queer and trans teacher education and finally, using technology for classroom assessment. If you have research that you would be willing to share in a future issue, please reach out to one of us.

Sincerely, Susan Overvelde and Paisley Worthington

Can mathematics be combined with music to improve the mathematics learning experience of students?

John Francom, MEd

Why is this topic important?

- To continue improving the way we teach mathematics. It is important to explore new ways to deliver mathematical content and to motivate students to learn said content. Interdisciplinary education is a possible avenue to achieve this.

What did the findings uncover?

- This research concluded that placing mathematical concepts within a musical framework that involves the design and construction of musical instruments was beneficial to participants' feelings of motivation, competence, and confidence for mathematics.

Why does this matter?

- Although these findings are not generalizable due to the small sample size of the study, it does lend some support to the potential for improving the mathematics learning experience of some students through interdisciplinary approaches.

Francom, J. (2021). Can mathematics be combined with music to improve the mathematics learning experience of students? [Unpublished master's thesis]. Queen's University.

Martin, K. (2021). Rainbow beard and the unicorn knight: Queer and trans thrival and queering professionalism in teacher education. [Unpublished master's thesis]. Queen's University. <https://qspace.library.queensu.ca/>

What does queer and trans thrival look like in a teacher education program?

Kel Martin, MEd Candidate

Why is this topic important?

- Queer and transgender teacher candidates (QT TC's) are increasingly entering the teaching profession and are encountering rigid and binary expectations of gender norms, and professionalism discourse are expressed by many people and institutions. Research involving QT people is often damage centered and positions participants in damaging and dehumanizing ways. This research seeks to use thrival to frame and present the QT researcher and participants in complex and humanizing ways.

What did the research uncover?

- QT TC's have deeply unique experiences and identities as queer/trans and professional educators.
- QT TC's find support and engage in their queer community in varied ways.
- Throughout their program QT TC's navigate barriers and negotiate their gender expression.
- Using a/r/tography (combined autoethnographic art journals and focus group) has provided space for participants to process and express their experiences and allowed for participant wellbeing and solidarity.

How can teachers apply this conceptual framework in their teaching?

- Exploring the experiences of QT TC's is important for participants' wellbeing. These findings may inform positive changes at faculties of education that address and eliminate existing barriers and improve upon supports.

How do teachers use technology to support classroom assessment practices?

Contributing Researchers

Katrina Carbone, MEd Candidate

Why is this important?

- The COVID-19 pandemic bolstered the widespread use of technology in education.
- Teachers are continuously learning and many are experimenting with integrating technology into their classroom assessment practices.
- Many educators report longstanding impressions of feeling unprepared or uncomfortable using technology in the classroom for teaching and assessing.

What did the findings uncover?

- Using a secondary case study analysis, the findings revealed that classroom assessment practices can be enhanced through technology to further support student and teacher learning.
- Technology was used to expand classroom assessment practices (e.g., student choice, differentiated instruction), seek out professional development opportunities, and enable students to develop core competencies for 21st century learners.
- Teachers expressed the desire to continue collaborative professional learning about using technology to improve classroom assessment practices.

Why does this matter?

- Even without the present pandemic context, technology has influenced many aspects of our lives; it is not surprising that technology is increasingly integrated into teaching, learning and assessment experiences.
- Classroom assessment practices that utilize technology have the power to influence student learning and alter the way teachers think about assessment practice.
- Teachers have the capacity to act as change agents for the increased demand to integrate technology in the classroom, but it is crucial to provide collaborative learning opportunities for educators to explore, take risks, and build their confidence.

Carbone, K. M. (2021). Exploring the evolution of assessment identity when infusing technology into educational contexts. [Unpublished master's thesis]. Queen's University. <https://qspace.library.queensu.ca/>



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