From the Editor

JTE Research Dissemination Trends: Cause for Concern?

When first published in 1989, the original intent of the JTE was to publish research related directly to technology education and to provide the means for open access to that research on a global scale. The journal has not wavered in this intent, and actually, with the relatively recent expansion of the field to be technology and engineering education (TEE), became more inclusive. As a result, the scope of the journal was broadened to embrace research related directly to TEE, and given the strong national and international attention to technological/engineering design based learning (T/E DBL), to be inclusive of research focused on design and technology (D&T). However, in spite of a scope broadened to increase the breadth of research related directly to technology, engineering, and design education, during the past several years the journal has not experienced a parallel increase in the volume of acceptable manuscript submissions. Why is this the case?

In the first 31 years of the JTE, between 1989 and 2019, there were roughly 100 articles published each decade, which averages out to roughly 10 articles published each year. As we complete the fourth year of the next decade, a total of 20 articles have been published, resulting in an average of 5 published each year. And in the past three years alone, the number of articles published was only 12 – an average of 4 articles per year. The downward trend of JTE publications thus far this decade is a conundrum. And especially so given the many national and international sources (master's and doctoral studies, conference presentations/proceedings, funded research reports, etc.) generating formal and informal research results annually. These sources reflect the exceedingly large number of studies that are conducted each and every year. Clearly there is no lack of new and ongoing research. This being the case, what is lacking then, are researchers selecting the JTE as their outlet for dissemination of scholarship. Reversing this trend is critical to the longevity of the journal and calls for aggressive efforts to identify and reach out directly to those conducting research appropriate for publication in the JTE. Where then, should we direct these efforts?

Scholarship Lost

Beginning in 1997, literally every master's thesis and doctoral dissertation at Virginia Tech has been published electronically and made available globally via the open-access Electronic Theses and Dissertations (ETD) database. Since that time a great many of the universities throughout the US have done likewise. Similarly, there has been a steady increase internationally of such databases, the

following of which is just a small sample: The University of Manchester (https://subjects.library.manchester.ac.uk/c.php?g=539861&p=3700426); Queen's University Library (https://guides.library.queensu.ca/finding-theses-dissertations/international); Central European University (https://library.ceu.edu/ceu-library/electronic-theses-and-dissertations-etds/); Zendy (https://zendy.io/); Open Access Theses and Dissertations (https:oatd.org); EBSCO Open Dissertations (https://opendissertations.org/). These represent rich repositories of primarily unpublished scholarship being lost from the public record every year.

In spite of such global electronic availability, this body of research goes largely unread, no less shared through conference presentations. Adding to the issue is the paucity of TEE conference venues available in the U.S. for presenting on any of these research efforts. For example, traditionally, the annual ITEEA conference earmarked only 8 to 10 CTETE presentation slots for delivering research papers, most of which were submitted by faculty in higher education. Unfortunately, as of 2024, this tradition has ended and such opportunities will no longer be earmarked specifically for the presentation of research papers. One other U.S. conference opportunity for dissemination of TEE research is the annual 1909 Conference (formerly the co-located MVTTEC and STEC conference) where 15 to 20 presentations are delivered over two days on a mix of funded research, graduate student research, and occasionally practitioner action research. Of equal concern, not only are there few opportunities for conference presentations of research, there are virtually no avenues for disseminating that research given the absence of published proceedings by these conferences. This is in stark contrast to what occurs at education conferences in the U.S. held annually by related disciplines such as science, mathematics, and engineering education.

The lack of TEE research conference venues in the U.S. results in a huge loss within the field regarding our awareness of the promising research conducted by university faculty, graduate students, and K-12 educators, many of whom have earned advanced degrees but chose to remain in the classroom, using action research to explore the impact of novel T/E DBL practices. More troublesome still is that this research is not being made available to others outside our profession who are currently tasked with promoting the integration of design based learning, technological and/or engineering, into their curricula and practices. These sources represent a vast body of scholarship that each and every year is simply lost from the public record. This need not be the case. Such scholarship is appropriate for submission to the JTE, and with the careful attention of an editor and journal reviewers, will result in published manuscripts.

International Research Venues

Although opportunities to present TEE research have been trending downward in the US, internationally there is a marked increase. For example, conferences focused on research in Technology Education, Design and

Technology, and Technology and Engineering Education have steadily increased over the past few years in the European and Asia-Pacific regions. Conferences such as the Pupils Attitudes Toward Technology (PATT), the International Conference on Technology Education (ICTE), Design and Technology Teacher Association (DATTA), Technology Education New Zealand (TENZ), and the international Technology Education Research Conference (TERC) provide researchers from around the world opportunities to present and share their research. Specifically, over the past decade there has been a steady increase in the number of researchers from the United Kingdom, Finland, Sweden, Taiwan, Republic of China, Thailand, Republic of Korea, Australia, New Zealand, to name just a few, being drawn to these conferences because of the international exposure they offer. As a journal editor keen to capitalize on this gathering of researchers, I recently attended the 40th meeting of the PATT conference held in Liverpool, United Kingdom. *Diverse Experiences of Design, Technology, and Engineering Education for a Contemporary and Pluralist Society* was the main conference theme and intentionally chosen to appeal to university and classroom educators alike. As a result, the conference was attended by hundreds of educators from 19 different countries across 5 different continents. Over the course of 4 days a total of 78 research papers and 13 research posters were delivered by nearly 150 delegates coming from as far east and west as Japan and the US, and as far north and south as Norway and New Zealand. All papers presented at the PATT40 were included in the conference proceedings and published in both hard copy and electronically (https://openjournals.ljmu.ac.uk/PATT40/issue/view/87). And just as every other journal editor in attendance was doing, throughout the conference I met with nearly every presenter to encourage their submission of manuscripts to the JTE.

The PATT conference is just one example of how every year our international counterparts regularly expose educators to the research being conducted by both burgeoning and well-established researchers through conference presentations, as well as published electronic proceedings of the papers delivered. This rich body of research addresses novel topics, methods, and important findings which broadens and enriches our understandings of theory, practice, and diverse perspectives posited by colleagues from all corners of the globe. Moreover, these conferences are increasingly embracing the full spectrum of research foci in our profession, from Design, Technology, and Engineering Education to STEM, STEAM, and Maker Education, and from cognitive demands imposed on learners engaged in design based learning, to pedagogies intent on promoting creativity and innovation among learners at all levels of K-16 education. On the flight home from the conference, I found myself reflecting back on this very point. What struck me most was the realization of how often during the course of our professional activities we are regularly confronted with alternative perspectives, conflicting insights, cultural

influences, diverse beliefs, philosophical and epistemological differences, and a sundry of conceptual conundrums that collectively inflict varying degrees of cognitive dissonance within us. These exchanges embody the richness of diversity that comes with membership in a global community of educators, researchers, and scholars all of whom are dedicated to advancing Technology, Engineering, and Design Education through their research. We must not be lax in our efforts to ensure that the results of such research will make their way into published manuscripts to be read not only by those in our profession, but perhaps more importantly, by those outside of it as well. For it is those outside of our profession who must still be convinced of the major role design, technology, and engineering education plays in the development of designerly members of society possessing the design abilities needed to address pending global issues. In short, our programs are preparing those students who will design their tomorrows.

Our Way Forward

Returning to the question at hand, given the current downward trend in the volume of research disseminated through the JTE, is there a cause for concern? By all measures, the answer is a resounding no. To the contrary, the conduct of research nationally and internationally continues to be robust. There is no lack of research! As a profession, we have much to offer through our presentations of research on the content and practices of technology, engineering, and design education. However, what we need here in the U.S. are opportunities similar to our international counterparts for regularly sharing research from the field. Furthermore, the mindset today is on digital publications and capitalizing on the ease of open-access publication avenues for disseminating scholarship. Within this context, the challenge facing the JTE today is one of maintaining its global recognition as a major publication outlet scholars will turn to for dissemination of their research.

Mindful of the original intent of this journal, as editor, my intent is to ensure continuance of the JTE as a global leader in the dissemination of research directly related to the field of technology, engineering, and design education. Our way forward will depend on increased opportunities to present research, coupled with a concerted effort by members of our profession to promote submissions of appropriate manuscripts to the JTE. To this latter point, I would call on graduate advisors to encourage and actively help students conducting thesis or dissertation research in submitting manuscripts to the JTE on their investigations. To those responsible for facilitating conference presentations of research, I would ask that you reach out directly to all of these potential authors and encourage them to submit their papers to the JTE. It is without question that our concerted efforts will lead to a resurgence of appropriate manuscripts submitted, which in turn will result in an increased annual volume of quality articles published through the JTE.

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