In this second editorial for the Pacific Journal of Technology Enhanced Learning, PJTEL, the lead editors reflect upon the first five years of the journal leading to indexing in EBSCO and explore the impact statistics of the journal to date. We also explore future directions and themes for the journal particularly considering the impact of Generative AI on education.

**Keywords:** Altmetrics, Impact, Technology Enhanced Learning

**Introduction**

PJTEL is one of the few fully open access, double blind peer-reviewed journals in TEL (https://ioshuaweidlich.wordpress.com/2019/06/05/open-access-journals-in-educational-technology/; updated 2022). Australasia in particular is underrepresented in fully open access educational research publication compared to global uptake. According to 2022 PKP data Australasia has only 5.74% of the global total of journals using the Open Journal System (OJS), https://rpubs.com/saurabh90/ojs-stats-2022, and only 0.28% across Australia and New Zealand. The first editorial for the Pacific Journal of Technology Enhanced Learning, PJTEL, reflected on the beginnings of the journal and the impact of COVID19 (Cochrane et al., 2022). This second editorial explores the growth of PJTEL since 2021.

The first issue of PJTEL featured two full papers (Blaschke & Hase, 2019; Cowie & Sakui, 2019b), while the second and following issues of PJTEL have featured both full papers and SoTEL Symposium double-blind peer-reviewed abstracts (https://sotel.nz) providing a pathway for mentoring academics new to the intersection of SOTL (Scholarship of Teaching and Learning) and TEL (Technology Enhanced Learning) – the Scholarship of Technology Enhanced Learning (SoTEL). Similar to numbers of published articles and abstracts between 2019-2021 a total of 6 full papers and 52 SoTEL Symposium abstracts were published between 2022 and May 2024. PJTEL was indexed in the EBSCO database in 2024 creating a significant milestone for the journal.

The impact of COVID19, Climate Change and Generative AI. Education has been impacted heavily by the COVID pandemic necessitating rapid changes in response to COVID19 remote learning during 2020-2021, hybrid delivery and a move back to campus 2022, and the impact of Generative AI throughout 2023-2024. Throughout these changes, the world has also been grappling with the impact of climate change. This was evidenced by extreme weather conditions in New Zealand 2022-2023 forcing a move to remote and virtual presentations. Participation in the SoTEL Symposium in Auckland in February 2023 was disrupted by massive flooding and cyclones. Following these events, the annual SoTEL Symposium was reimagined as a fully virtual event incorporating submission of abstracts of pre-recorded Pecha Kucha presentations and a six-episode invited Trendsetter webinar series to build an on-going community, with double-blind peer reviewed presentation abstracts published in PJTEL. In 2022, academic focus was on bringing teaching and learning back to campuses, while in 2023, it was the response to developments in Generative AI and the impact on teaching and learning. In 2024, education institutions are looking to action strategies that reposition the on-going importance of TEL in the future of education globally.
Statistical Analysis of Submissions

While the main mission of PJTEL is to provide a developmental pathway for TEL, full papers and Trendsetter presentation abstracts featuring leaders in the field have also been published in PJTEL. As a new and emerging journal, its impact measures are primarily through altmetrics.

In this section we explore the statistics and implications of impact of submissions to PJTEL to date.

Summary statistics

Summary trends were generated by the OJS report generator for 2019 to the end of April 2024 (Table 1). Altmetrics impact for full articles and top 20 reported articles and abstracts were generated by the OJS PlumX altmetrics plugin.

Table 1: PJTEL OJS Editorial Report Summary

<table>
<thead>
<tr>
<th>Trend</th>
<th>Total</th>
<th>Full Papers</th>
<th>SoTEL Abstracts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submissions Received</td>
<td>163</td>
<td>20</td>
<td>143</td>
</tr>
<tr>
<td>Submissions Accepted</td>
<td>133</td>
<td>11</td>
<td>122</td>
</tr>
<tr>
<td>Submissions Declined</td>
<td>24</td>
<td>9</td>
<td>21</td>
</tr>
<tr>
<td>Submissions Declined (Desk Reject)</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Submissions Declined (Post-Review)</td>
<td>13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Submissions Declined (Other)</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Submissions Published</td>
<td>135</td>
<td>12</td>
<td>123</td>
</tr>
<tr>
<td>Average Days to First Editorial Decision</td>
<td>3</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Average # Days to Accept</td>
<td>37</td>
<td>166</td>
<td>25</td>
</tr>
<tr>
<td>Average # Days to Reject</td>
<td>69</td>
<td>51</td>
<td>77</td>
</tr>
<tr>
<td>Acceptance Rate</td>
<td>81.60%</td>
<td>55%</td>
<td>85.31%</td>
</tr>
<tr>
<td>Rejection Rate</td>
<td>14.72%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Desk Reject Rate</td>
<td>6.13%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-Review Reject Rate</td>
<td>7.98%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Reject Rate</td>
<td>0.61%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1 indicates a significantly higher acceptance rate for SoTEL Symposium abstracts (85%) compared to full articles (55%) and is in keeping with the developmental focus of both the SoTEL Symposium and PJTEL.

Table 2 shows the Top 20 articles by views, downloads and PlumX metrics (Full articles highlighted). 5 of the Top 20 by views and downloads are full articles.

Table 2: Top 20 PJTEL articles OJS Report

<table>
<thead>
<tr>
<th>Author and Title</th>
<th>Abstract views</th>
<th>PDF downloads</th>
<th>Total</th>
<th>PlumX</th>
<th>Crossref</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Blaschke &amp; Hase, 2019) Heutagogy and digital media networks: Setting students on</td>
<td>4088</td>
<td>3224</td>
<td>7312</td>
<td>107</td>
<td>36</td>
</tr>
<tr>
<td>the path to lifelong learning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Singleton &amp; Charlton, 2019) Creating H5P content for active learning</td>
<td>3975</td>
<td>2887</td>
<td>6862</td>
<td>84</td>
<td>12</td>
</tr>
<tr>
<td>(Pham et al., 2020) Natural language processing for analysis of student online</td>
<td>1271</td>
<td>604</td>
<td>1875</td>
<td>28</td>
<td>5</td>
</tr>
<tr>
<td>sentiment in a postgraduate program</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Cochrane &amp; Munn, 2020) Integrating Educational Design Research and Design</td>
<td>959</td>
<td>644</td>
<td>1603</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>Thinking to Enable Creative Pedagogies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 1 shows that there are 6 articles (3 full papers and 3 abstracts) with over 1000 total views and downloads.

Total Impact Statistics for all 12 full articles 2019-2024 (Downloads, Reads, PlumX Metrics, Crossref Citations) are curated in Table 3.
<table>
<thead>
<tr>
<th>Articles by date and Section</th>
<th>Views</th>
<th>Downloads</th>
<th>Total</th>
<th>PlumX cites</th>
<th>GS</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Blaschke &amp; Hase, 2019) Heutagogy and digital media networks: Setting students on the path to lifelong learning</td>
<td>4088</td>
<td>3224</td>
<td>7312</td>
<td>107</td>
<td>36</td>
</tr>
<tr>
<td>(Pham et al., 2020) Natural language processing for analysis of student online sentiment in a postgraduate program</td>
<td>1271</td>
<td>604</td>
<td>1875</td>
<td>28</td>
<td>5</td>
</tr>
<tr>
<td>(Cochrane &amp; Munn, 2020) Integrating Educational Design Research and Design Thinking to Enable Creative Pedagogies</td>
<td>959</td>
<td>644</td>
<td>1603</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>(Sinfield &amp; Cochrane, 2020) A framework for rethinking the pedagogy of studio-based design classrooms</td>
<td>484</td>
<td>503</td>
<td>987</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>(Cowie &amp; Sakui, 2019b) Enhancing student retention rates on open non-formal online language learning courses</td>
<td>443</td>
<td>344</td>
<td>787</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>(Pingo et al., 2024) Co-designing the first online pharmacy course with the technology-enhanced learning accreditation standards (TELAS) as a reflective tool</td>
<td>429</td>
<td>176</td>
<td>605</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>(Cochrane et al., 2022) PJTEL Editorial 2019-2021</td>
<td>230</td>
<td>227</td>
<td>457</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>(Perry &amp; Probine, 2021) Reconceptualising the Role of the Visiting Lecturer: Using Educational Technology to Enable Practicum Placements in the ‘New Normal’</td>
<td>257</td>
<td>145</td>
<td>402</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>(Barber, 2022) Blended Synchronous Learning Case Study: Veterinary Science</td>
<td>171</td>
<td>135</td>
<td>306</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(French et al., 2023) Understanding students’ views on the efficacy of video technology to promote engagement in higher education</td>
<td>144</td>
<td>122</td>
<td>266</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>(Tadi et al., 2023) Understanding students’ views on the efficacy of video technology to promote engagement in higher education</td>
<td>91</td>
<td>83</td>
<td>174</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>(Fitzgerald, 2023) BSL Case Study: Criminology - Drugs and Justice</td>
<td>62</td>
<td>57</td>
<td>119</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>8629</td>
<td>6264</td>
<td>14893</td>
<td>189</td>
<td>49</td>
</tr>
</tbody>
</table>

Four out of the twelve full articles are yet to receive a citation. With 6 full articles receiving more than 5 citations each gives PJTEL an (informal) h-index of 5.

OJS recorded a peak of just over 1500 abstract views per month between 2019 and 2024 with the peaks coinciding with the SoTEL Symposium (Figure 1).
Thematic Analysis

The most popular topics explored in PJTEL submissions 2019-2021 included:

- Online Learning (21)
- Mobile learning (16 articles)
- Pedagogy and Learner Agency (13 articles)
- Immersive reality (8 articles)
- Design-Based Research (6)
- Heutagogy (5 articles)

A thematic analysis of the 2019-2024 articles reveals several key themes emerging related to education, technology, and pedagogical strategies:

1. Digital Learning and Technology in Education:
Many articles focus on the use of digital tools and technology in education, such as "Heutagogy and digital media networks: Setting students on the path to lifelong learning", "Teacher and student experiences in learning: Google Education Apps", and "The need to provide students and educators with the tools to cross the digital divide".

2. Innovative Pedagogical Strategies:
Several articles discuss innovative teaching and learning strategies, such as "Integrating educational design research and design thinking to enable creative pedagogies", "A framework for rethinking the pedagogy of studio-based design classrooms", and "Do we need to rethink… …critical thinking? Consideration of Mobile Learning in healthcare education".

3. Immersive and Mixed Reality in Education:
Some articles explore the use of immersive and mixed reality in education, such as "Introducing immersive reality into the journalism curriculum", "Mixed reality (XR) research and practice: Exploring a new paradigm in education", and "Supporting STEAM learning through student-developed Mixed Reality (MR) experiences".

4. Online Learning and Student Engagement:
There are articles that focus on online learning and strategies to engage students, such as "Natural language processing for analysis of student online sentiment in a postgraduate program", "Enhancing student retention rates on open non-formal online language learning courses", and "Exploring teachers’ perception of online engagement in higher education in New Zealand".
5. Professional Development and Teacher Training:
Some articles discuss professional development and teacher training, such as "Creating blended learning experiences requires more than digital skills: Developing staff skills in the effective use of technology to enhance student learning", and "When industry meets academia: case studies of innovative learning practices enhanced by digital technologies".

6. Use of AI and Data in Education:
A few articles discuss the use of AI and data in education, such as "Generative AI and education ecologies", "Automated analysis of cognitive presence in MOOC discussions", and "AI in the wild: How students are using generative AI in their learning".

7. Assessment and Feedback in Learning:
Some articles focus on assessment and feedback in learning, such as "Future ready? Engaging learners and building transferable skills through authentic assessment and digital literacy", "Practitioner review and personalised feedback", and "Implementing technology in science teaching – what are the gains?".

8. Health and Medical Education:
Several articles discuss the application of technology and innovative pedagogies in health and medical education, such as "Enhancing health care education and practice post COVID", "Developing meaningful authentic critical care simulation", and "Implementing augmented reality and virtual reality for authentic healthcare education: Technology enhanced healthcare education for low resource settings with a focus on Australasia".

New themes for 2022-2024 are unsurprisingly the use of AI and data in education, assessment and feedback and a focus on immersive reality in health and medical education.

**Research methodologies**

As reported in the 2019-2021 editorial articles and abstracts published in PJTEL include quantitative and qualitative research methodologies as well as position papers. SoTEL Symposium abstracts feature a dialogue between research and practice in education. Design-based research continues to be a central theme across many of the research methods in PJTEL articles.

**Discussion**

The 6 full papers 2022-2024 were:

- (Cochrane et al., 2022) PJTEL Editorial 2019-2021
- (Barber, 2022) Blended Synchronous Learning Case Study: Veterinary Science
- (Fitzgerald, 2023) BSL Case Study: Criminology - Drugs and Justice
- (French et al., 2023) Understanding students’ views on the efficacy of video technology to promote engagement in higher education
- (Tadi et al., 2023) Understanding students’ views on the efficacy of video technology to promote engagement in higher education
- (Pingo et al., 2024) Understanding students’ views on the efficacy of video technology to promote engagement in higher education

In 2022, there was a clear correlation between the top five articles published in PJTEL and the pandemic. These articles reflected a shift towards innovative educational practices that addressed the unique challenges posed by the global crisis. Our ability to chart this shift was outlined in The PJTEL Editorial 2019-2021, (Cochrane et al., 2022) which highlighted how the journal, established in 2019, had been instrumental in filling a crucial gap in accessible educational technology journals in the Asia-Pacific. Since its inception, PJTEL has played a significant role in enhancing educational technology discourse.
Among the articles addressing the challenges of the lock downs were Barber (2022), which showcased the adaptation of a veterinary science program at the University of Melbourne to a Blended Synchronous Learning (BSL) model due to the pandemic. Initially face-to-face, the program transitioned to a fully online format before adopting BSL, which amalgamates online and in-person instruction. The implementation involved the use of digital tools like Canvas and Zoom, emphasizing the model’s effectiveness in maintaining educational continuity and fostering student interaction across different geographical locations.

Moving into 2023, and the articles continued to demonstrate diverse approaches to enhancing learning and teaching through technology-enhanced methods. Each study provided insights into the resilience and creativity shown within the educational sector, while illustrating the ongoing need for adaptable teaching strategies that can withstand future disruptions.

Also exploring the application of BSL was Fitzgerald (2023), this time in a Master of Criminology course at the University of Melbourne where half the students were on campus and half online. The course faced significant technological challenges but demonstrated the resilience of both students and educators in adapting to new learning environments. This case highlighted the importance of having fallback strategies for technology-dependent teaching methods and showcased a shift towards a more student-centred educational approach in response to unexpected challenges.

Taking a different focus, that of the professional growth of educators, Tadi et al. (2023) examined the adaptation to online teaching during the pandemic through the CRASP model and Fuller’s Concerns Based Model of Teacher Development. The research highlighted the critical role of professional development in preparing educators for effective online teaching, emphasizing a student-centred and caring approach.

While educator preparedness plays an integral role in delivering high quality courses, so too does structured course design that meets established standards. Pingo et al.’s (2024) study focussed on the development of an online pharmacy course at Charles Darwin University using the Technology Enhanced Learning Accreditation Standards (TELAS) aiming to ensure pedagogical quality and standards in online education. This approach serves to address the professional shortages in the healthcare sector by providing education tailored to the needs of students in remote areas.

Finally, French et al. (2023) investigated the impact of video technology on student engagement in higher education. The findings indicated that while video technology significantly enhanced cognitive engagement by making course concepts more accessible, its effect on behavioural engagement varied among students. This underscores the necessity of careful integration of video content into curricula to maximize educational outcomes.

The emphasis on student-centred approaches seen in these studies indicates a broader shift in educational paradigms prompted by the necessity of remote learning environments. The shift stresses the importance of technological fluency as an integral component of modern education. The success stories of blended synchronous learning and the strategic use of video technologies showcase practical models that can be replicated and adapted in various educational contexts globally. Furthermore, these articles underline the critical importance of supporting educators through continuous professional development.

Gen AI and education

As alluded to in the earlier section, Gen AI and its use in learning and teaching has caused significant disruption to established processes, policies and procedures. The unrelenting magnitude and pace at which Gen AI is evolving and its affordances have ignited a new multifaceted and complex research agenda. While the early discourse on academic integrity, policies and procedures continues, assessment and assessment design (Bearman et al., 2024) (Ajjawi et al., 2023) (Matheis & John, 2024) (Plata et al., 2023) have now taken centre stage. Parallel to this, there are several border issues and opportunities that are also emerging. For example, ethics and equity (Dieterle et al., 2024), the lack of AI literacy (Pinski & Benlian, 2024), the environmental impact (Berthelot et al., 2024), quality of Gen AI response, trustworthiness, validity and correctness (Bearman et al., 2024) and the unforeseen opportunities and affordances for learning, teaching and research (Nikolopoulou, 2024) (Sharples, 2023).
In a recent systematic review of the use of Gen AI in higher education consisting of 138 articles, Crompton and Burke (2023) outline six key gaps in the literature. Amongst them they emphasise that:

…much of the research investigated in this systematic review revealed the use of AIEd (AI in Education) in traditional ways that enhance or make more efficient current practices. More research needs to focus on the unexplored affordances of AIEd. As AI becomes more advanced and sophisticated, new opportunities will arise for AIEd. (p. 19)

For a journal like PJTEL, research focusing on the pedagogical design and use of learning technologies that explore the known and unforeseen affordances of new and emerging tools is of significant importance. Along with receiving submissions from other domains of technology enhanced learning, the editors of the journal are looking forward to receiving manuscripts on Gen AI and its use in education. As a suggestion, the editors encourage researchers exploring Gen AI to focus on addressing the theory and application gap (cf. Crompton & Burke, 2023). As a framework, aiming at achieving the higher levels of the SAMR model (Puentedura, 2006) using a design based research approach (Reeves et al., 2005) could help develop new theoretical and practice knowledge to understand and design for ‘unexplored affordances’ of Gen AI in education, which are still emergent.

Future Directions

The editorial team aims to keep the focus of PJTEL as a primarily developmental pathway to academic publishing in the Scholarship of technology Enhanced Learning rather than chasing an impact factor rating.

Conclusion

Contributions to PJTEL have remained at a consistent rate for full paper and SoTEL Symposium abstracts since its launch in 2019 until the time of writing in May 2024. As PJTEL has reached its fifth anniversary it is good to see recognition through indexing in EBSCO. We look forward to continuing to serve the TEL community and the growth of PJTEL in the future.

Statement on open data, ethics and conflict of interest

The journal provides open access to all of its content on the principle that making research freely available to the public supports a greater global exchange of knowledge (Weller, 2014). Such access is associated with increased readership and increased citation of an author's work (Niyazov et al., 2016). All articles are made available using a Creative Commons (CC-BY-NC 4.0) internationally shareable licence, meaning that content may be shared worldwide but the source must be acknowledged appropriately. However, the licence excludes the right to create derivatives (for more details please see https://creativecommons.org/licenses/by-nc/4.0/). PJTEL does not charge any fees for submission, publication or access to articles. PJTEL follows AUT’s ethical content procedures (https://www.aut.ac.nz/research/researchethics).

References


