

Pedagogical Integration Today for Language Teachers of Tomorrow

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Abstract: Digital tools and learning management systems have been incorporated at all educational levels. These tools allow teachers to transform their instructional activities, while giving learners the opportunity to engage with virtual communities. In the field of English language education, the use of technology-enhanced learning and diverse pedagogical practices continues to grow. Research has shown that integrating multimodality and technology can improve students' engagement and participation in their English language learning. However, some students can experience anxiety, disorientation, or misunderstanding when engaging with computer-assisted or digital-mediated learning. Language teachers have to consider the advantages as well as the disadvantages of using technology-integrated pedagogical practices. This paper discusses the growing presence of technology and multimodality in language classrooms and their impact on teachers' pedagogy in the Australian education context. How can ESL/EFL courses be designed to make effective use of these new ways of learning? The study sheds light on how pedagogical integration today may offer a way forward for language teachers of tomorrow.

Keywords: Critical media analysis, Teaching critical thinking, Language and digital world, Language teacher education and technology, Multiliteracies pedagogy

1. Introduction

The use of educational technologies first appeared as early as the 1960s, with drill-based exercises used mostly in a small number of universities. Later on, as computer laboratories became more widespread and common, Computer Assisted Language Learning (CALL) was introduced in educational institutions. CALL is now also used on a larger scale, moving in sync with today's society where almost all facets of life have become increasingly driven by technology. As a relatively new teaching trend used in Australian schools, digital-mediated pedagogical approaches and practices enable early-career modern language teachers to discover new potential and possible ways to teach English as a Second or Foreign Language (ESL/EFL) or as an Additional Language (EAL) at all educational levels.

While the shift to digitalised learning continues to increase, teachers too are transitioning from traditional teaching practices to multimodal pedagogical approaches that incorporate a wide variety of technology and mediums of learning into their lessons. As language educators, encouraging novice teachers to involve multimodal literacy instruction through a wide range of educational technologies in second language education should be embedded in course design, development, implementation, and evaluation. This paper describes how the author set out to design a language and technology unit as well as syllabus features for the Master of Education program in her home institution. It explores how

pedagogical principles and strategies using an adopted theoretical framework were integrated to scaffold learner engagement. It then continues with a discussion of the benefits and challenges that have arisen throughout the module evaluation process.

2. Study Context

This paper is situated in a postgraduate course on language and technology for domestic and international master's students of TESOL teacher education at the University of Newcastle (UON), Australia. The Master of Education program in TESOL was established in the School of Education at UON about twenty years ago. It has been innovated periodically during this time and continues to be delivered to this day. The program is designed for students who wish to become teachers of English as an international language. The current program consists of eight courses, covering four major areas: linguistic structure of English, second language acquisition, language curriculum and innovative teaching methods, and socio-cultural context of teaching and learning. To align with the ever-changing landscape of education and teacher education, the course underwent a re-design and was updated by the author, who has also been the course coordinator of this within the TESOL program since 2018.

In the field of second language education, the use of technology-enhanced learning and teaching continues to emerge. Research provides evidence that early intervention in multimodal learning and technology within classrooms can improve students' engagement in learning both literacy and technology (e.g., Hobbs, 2010; Sit & Guo, 2019; Tso, 2020). This shift has existing potential; however, the conceptual linkages between language and technology has to date drawn limited attention, particularly in the area of literacy pedagogical approaches and scaffolding strategies within contemporary English language teaching and learning. The nature of pedagogical work has become complicated further by teachers' personal values, beliefs, and the ways in which these interplay and compete with school goals and demands. Yet, the integration of digital literacies in language classrooms and the possibilities they offer in enhancing learners' learning outcomes remain overlooked. Whilst technology and multimodal learning is certainly the way of the future for education, ESL/EFL/EAL teachers are often faced with the predicament as to whether implementing these newer ways of learning is in fact beneficial or disadvantageous to their learners. This course was therefore designed with a particular focus on transformative learning and innovative teaching.

3. The Importance of Multimodality in Course Design

Course development goals are typically set up in order to address the pressing trends in the literature futures report for Australian local schools. The conceptual linkages between literacy and technology within the field of literacy education (Finger et al., 2007, p. 168) are summarised below in Table 1.

Table 1. Conceptualised Literacy Transformation

Linkages between Literacy & Technology	Attributes and Practices
Literacy as communication technology	Writing, the alphabet, typographic print and the "book" are actual communications technologies, dominant and with long traditions and practices. Literacy education itself is actual mentoring, in Vygotskian terms, in social practices with the technologies of writing
Literacy teaching via communication technology	New communication technologies, more specifically, computer-assisted, digital-mediated instructions, apps and weblearns, are being used to teach people print literacy and how to be literate
Multiliteracies with new communications technology	Life and work in contemporary cultures require one's ability to utilise a range of multimodal texts that engage simultaneous and blended uses of traditional print literacies and other kinds of representations.

This overview of conceptualised literacy transformation signals the importance of multimodality in course design and development. From literacy to multiliteracies, traditional print practices are no longer merely associated with how well a person reads and writes. Rather, modern messages are carried through multiple forms of meaning-making such as written language, visual presentations, sound and music effect, and other modes of transmedia resources (The New London Group, 2000). Siegel (2012) also defines multimodality as “the social practice of making meaning by combining multiple semiotic resources” (p. 671). Being literate today has evolved to include understanding how the different modes of literacy and communication intertwine to convey meaning and carry ideas to the masses, which is a contributing factor to the promotion of multimodality in the 21st century classroom (Sit & Guo, 2019; Tso, 2020). For instance, the new language syllabus for public schools in New South Wales (NSW), the most populous state in Australia, has mandated that each year, students must study examples of media, multimedia, and digital texts that are appropriate to their needs, interests, and abilities (NSW Department of Education and Communities, 2012). Language teachers and educational policy makers are encouraged to embrace multimodal instruction to prepare students for the workforce qualifications needed to thrive in this ever-changing world so as to keep up with the demands of an increasingly growing global community. In spite of this, there are no clear instructional guidelines on how multimodal pedagogy can be implemented effectively so that students may benefit from its use.

Today’s young students are assumed to be digital natives. They have been raised in and with technology to the extent that they are familiar with it from a very early age. The National Association for the Education of Young Children (NAEYC) report states that the best classroom practices with “effective technology tools connect on-screen and off-screen activities with an emphasis on co-viewing and co-participation between adults and children and children and their peers” (p. 7). It further recommends that teachers build digital portfolios to record, document, and share a child’s accomplishments and developmental progression with families through communication and social media tools and digital platforms. In NSW, mandatory curriculum requirements in relation to learning technologies also outlines those areas “where computational thinking can be applied within the existing NSW K–8 syllabuses... with suggested activities and links to online resources” (NESA, 2014, p. 1).

This language and technology course was thus designed to develop students’ understanding of educational technology, its theoretical underpinnings, and its application/integration in ESL/EFL/EAL classrooms. Topics include: theoretical foundations for information communication technology (ICT) related practices, the existing multimodal approaches used in language teaching both within Australia and overseas, as well as current research findings and new trends in the use of information technology in language teaching and learning. The changing roles of ESL/EFL/EAL teachers in the technological environment of education are also discussed within the course.

4. Course Syllabus and Theoretical Framework

Students enrolled in the language and technology course are expected to integrate educational technologies into their learning and teaching contexts in their home countries. As the first official set of technology standards in ESL/EFL teaching and learning (Hubbard, 2009), the TESOL technology standards framework was adopted to help guide the design of the course syllabus whilst serving the following purposes for both teachers and students of English (see Table 2). The TESOL technology standards focus on how English language teachers and teacher educators can and should use technology in and out of the classroom and, as such, it is highly relevant for ESL/EFL/EAL settings and for those who are involved in on-campus, online, or blended teaching modes (TESOL International Association, 2008).

Table 2: TESOL Technology Standards (TESOL International Association, 2008, pp. 4–5)

For Teachers	For Students
<ul style="list-style-type: none">• to know what is expected of them in terms of knowledge, skills, and curriculum implementation;• to prepare students in the effective use of technology for language learning and for	<ul style="list-style-type: none">• to know what is expected of them in terms of technological knowledge and skills• to know what is expected in terms of appropriate patterns of technology use to assess students’ technological knowledge and

<ul style="list-style-type: none"> digital literacy; • to assess students’ technological knowledge and skills; • to provide activities and tasks that appropriately integrate the students’ progress in meeting the standards while pursuing language learning objectives; • to serve as a springboard for ideas about creatively and effectively integrating technology into teaching. 	<ul style="list-style-type: none"> skills; • to evaluate course options, when feasible, to decide which one’s best support standards development.
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In a nutshell, these standards provide the English language teaching community with an opportunity to clarify expectations regarding the integration of technology in the teaching and learning of English as a second language. As Hubbard (2009) suggests, the standard framework can:

- lead teachers to learn to use digital technology appropriately and effectively for language learning and ensure their students can do likewise;
- lay out a clear set of targets for judging technology competencies for language learning; and,
- motivate teacher educators and teacher education programs to integrate technology training and use it in their curricula (p. 7).

Student teachers are encouraged to familiarise themselves with the TESOL technology standards, which are utilised to navigate target setting throughout this course and beyond, as demonstrated in the below course syllabus.

Table 3. Course Syllabus

Key Themes	Key Contents	Success Criteria
Introduction to multiliteracy, CALL/ICT & new trends, and pressing issues	<ul style="list-style-type: none"> • Fundamental concepts of CALL/ICT, multiliteracies and multimodality; • The impact of involving multiliteracies and multimodal learning in school language curriculum; 	Assignment 1: Literature review
Technologies, new literacies and skills	<ul style="list-style-type: none"> • TESOL technology standards and normalization; • A principled integration of technologies into the course design and development; 	AT2: Case study
Implementation, application and evaluation	<ul style="list-style-type: none"> • Blended approaches and multiliteracies; • Design CALL lesson plans and programs and implement digital-mediated materials and activities. 	AT3: ICT program demonstration

The 13-week course schedule entails weekly topics that cover the three key themes shown in Table 3, such as technological change and the future of CALL, multimodality in second language education, TESOL technology standards and normalizations, implementing transmedia in language education programs, integrating strategies for second language teacher education, assessing theories of evaluation for L2 learning media, lesson design, and ICT program demonstration. In particular, the assessment tasks are aligned with Hobbs’s (2010, p.18) pedagogical digital and media literacy, which emphasizes five-part communication competencies involving a process of Access, Analyse and Evaluate, Create, Reflect and Act.

As the Common Core State Standards Initiative (2010) states, to prepare students for their college studies, future workforce training, and life in a technology-advanced society, students are encouraged to develop “the ability to gather, comprehend, evaluate, synthesize, report on, and create a high volume and extensive range of multimodal texts...The need to research and to consume and produce media is embedded into every element of today’s curriculum” (p. 1). Highlighting the need to innovate teacher education programs, Hobbs (2010) notes “the importance of preparing future teachers to be skilled in digital and media literacy” (p. 18). This five-part process is considered fundamental to how we learn and communicate in the digital era and, for teacher educators, how we integrate strategies to support students’ literacy development. These literacy practices are now part of learning across all key learning areas including second language as a subject area. To achieve the intended learning outcomes, the assessment task design also needs to be aligned with the pedagogical framework. Table 4 below shows the detailed descriptions and adaptations of this process model.

Table 4. Pedagogical framework adaptation for the course

Dimension of digital and media literacy	Essential competencies (p. 19)	Integration scaffolding strategies
Access	Finding and using media and technology tools skilfully and sharing appropriate and relevant information with others	Demonstrate and scaffold how to find, comprehend and use symbolic resources
Analyse & Evaluate	Comprehending messages and using critical thinking to analyse message quality, veracity, credibility, and point of view, while considering potential effects or consequences of messages	Develop capacity to analyse messages and evaluate how they are effective for use
Assessment task 1 (AT1) Literature review		
Create	Composing or generating content using creativity and confidence in self-expression, with awareness of purpose, audience, and composition techniques	Develop capacity to create content in various forms with new digital tools and educational technologies; to express/communicate new literacies in multiple modes
Reflect	Applying social responsibility and ethical principles to one’s own identity and lived experience, communication behavior and conduct	Encourage to reflect on one’s own conduct/practice; interpret multi-perspective thinking and consider about helpful strategies to support students’ new ways of literacy development
Assessment task 2 (AT2) Case study		
Act	Working individually and collaboratively to share knowledge and solve problems in the family, the workplace, and the community, and participating as a member of a community at local, regional, national, and international levels	Encourage to connect the culture and classroom to the actual teaching and learning environments
Assessment task 3 (AT3) ICT program demonstration		

Curriculum guidelines, including those developed for the Australian context (Australian Curriculum, Assessment and Reporting Authority [ACARA], 2009-10), specify that teachers must support their students’ interpretation and creation of multimodal texts. However, English subject curriculum guidelines are yet to provide a detailed metalanguage that supports teacher and student discussion of the meaning-making dimensions of multimodal texts. Theoretical work on the development of multimodal metalanguage is in its early stages, lacking ready application for use in diverse classroom contexts. An

appropriate framework can help teachers add depth and breadth to teaching and learning about multimodal meanings through development of a metalanguage.

5. Course Assessment

As shown above in Table 4, this course consists of three assessment tasks (AT) which were developed using Hobbs's (2010) pedagogical framework for digital and media literacies. Assessment task 1 (a 1,500-word literature review) is aligned with the Access, Analyse, and Evaluate dimensions of the framework. It serves the dual purpose: (1) to assess students' ability to access literature/resources that demonstrate their understanding of the development of CALL and the impact of involving multimodal learning in school language curriculum; and (2) to assess students' critical literacy and synthesis skills. To do so, students are required to: (1) choose one of the teaching areas of ESL/EFL/EAL such as listening, speaking, reading, and writing to review; (2) choose at least five references to summarise how CALL/ICT is used in the chosen teaching area; (3) analyse and discuss the main ideas of those references; and (4) provide a critical commentary on the use of CALL/ICT in teaching ESL/EFL/EAL and evaluate the impact that multimodality has had on English literacy development. The assessment criteria cover the following competencies: (1) ability to identify and access CALL/ICT-related resources associated with the instruction of one macro-skill; (2) ability to research widely and critically; (3) ability to analyse and evaluate key issues related to the implementation of CALL/ICT to ESL/EFL teaching; and (4) academic literacy requirements. Below is an example which provides a visual representation of the scaffolding design (Figure 1).

The example shown in Figure 1 demonstrates how "reading" now requires a different set of literacy skills in the context of technology and digital media. Walsh (2012), who examined digital and multimodal learning in an English language classroom, has discussed how the requirements of traditional reading are different to those involving digital and multimodal texts. Below is a clickable Behind the News (BTN) website image (Figure 2), which provides an interactive example of the types of digital texts that can be used to challenge students' digital literacy skills. This is a popular ESL/EAL resource recommended by language educators in the Australian educational context. Browsing the web page, students shall discover and analyse how the visuals work with the text to create meaning for the viewer.



Figure 2. BTN Interactive Example of the Types of Digital Texts (NSW Department of Education and Communities, 2012, p. 10)

Students can then consider how their skills and understandings might be applied to reading or how digital literacy texts use different conventions. Visual literacy, for instance, requires “more than the ability to decode images (what images mean)” as well as the “ability to analyse the power of the image and how of its meaning in its particular context” (Johnson, 2000, p. 13). For example, the reviewed four resources model, which was originally developed by Freebody and Luke (1990) and has been incorporated into the literacy teaching toolkit in Australia (Victoria State Government Education and Training, 2018), enables students to become a text decoder (break the code of texts), text participant (participate in the meaning of text), text user (use texts functionally), and text analyst (critically analyse and transform texts). Another theoretical model discussed by Serafini (2012) is also used to support students’ literacy development. She encourages teachers today to play four important roles to guide their students. These are navigator (how readers interact with multimedia texts), interpreter (how readers understand what is written by the author or depicted by the artist), designer (how meanings are constructed from what is depicted or represented; how readers design the way the text is read and construct a unique experience), and interrogator (how readers interrogate what is read and viewed in relation to historical and cultural contexts to comprehend its meaning). By doing this task, teacher trainees have the opportunity to: understand that every day we encounter multimodal texts in many forms; analyse the teaching of multimodal texts, which is a different process from the reading of traditional print-based texts; and appropriately evaluate responses to the text.

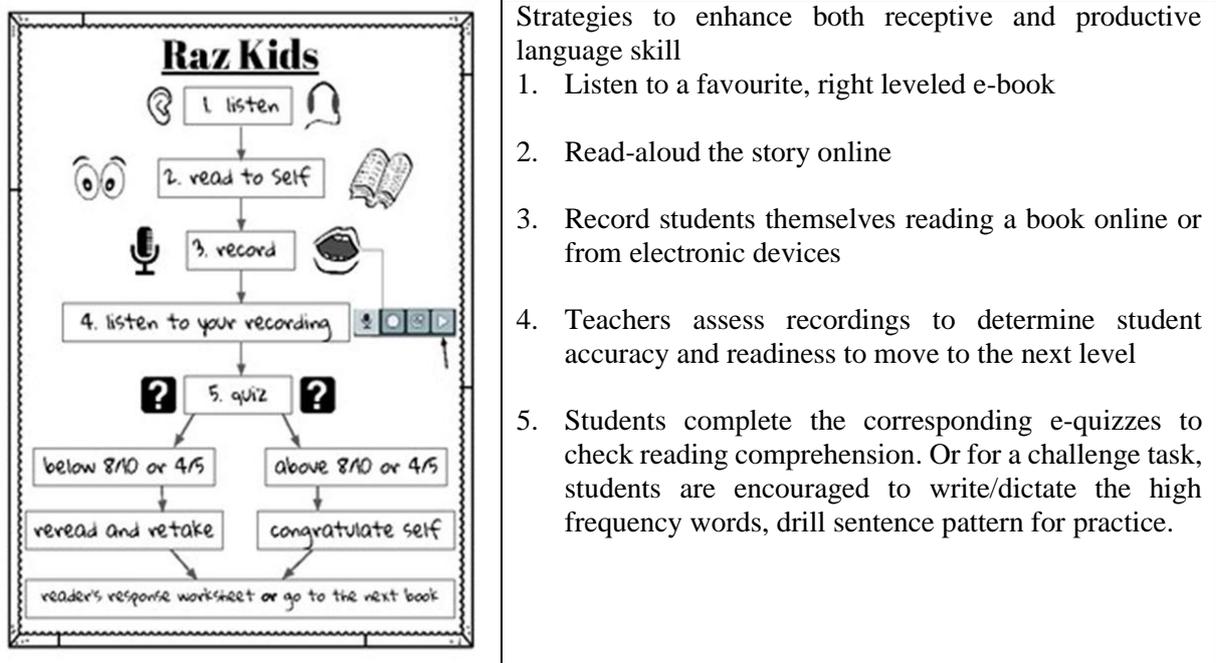
Assessment task 2 (a 2000-word case study/problem-based learning report) is concerned with the Create and Reflect dimensions of digital and media literacies. It serves the following purpose: (1) to assess students’ knowledge and skills using CALL/ICT-related practices; (2) to assess students’ critical and creative thinking skills of how to promote the application of CALL/ICT in second language teaching and learning; and (3) academic literacy requirements. This assignment consists of two parts. The first part is to develop a case study on a school or university in their home country. The second part is to write a proposal for promoting CALL/ICT in that school or institution.

To do so, students need to choose a school or an institution in Australia or overseas. This school or institution can be a place where they have learned or taught ESL/EFL/EAL (if not, another second language can be opted). The case study or scenario analysis report should include: (1) background information about the selected school or institution; (2) the school or institution’s current usage of CALL/ICT in language teaching; and (3) any major issues that currently impact on the promotion and use of CALL/ICT (e.g., educational technologies, technology support, teachers’ computer literacy, students’ ICT competence, etc.). Based on the report, students are encouraged to write a proposal to the school or institution, making a suggestion of CALL/ICT use to support and improve current ESL/EFL/LOTE (Language Other Than English) teaching. They need to use the learned theory and rationale to justify their proposals and support their arguments in a clear and convincing way. The proposal should include a plan of how to use some CALL/ICT programs they already know or have been using and wish to recommend to the school or institution for their consideration. The assessment criteria are as follows: (1) ability to source useful CALL/ICT resources and discuss the critical application of these resources to teaching; (2) ability to research widely and critically, presenting strengths and weaknesses of these resources and possible modifications; and (3) demonstrate academic literacy requirements. Figure 2 is a representative scaffolding example.



Figure 2. Interactive E-library Raz-Kids Program for Online Teaching and Learning

Raz-Kids, a comprehensive leveled reading resource for primary students, is an awarding-winning teaching product with hundreds of eBooks offered at 29 different levels of reading difficulty. Kids are motivated to engage with their leveled text and have access to an interactive learning portal in online and mobile formats. This teaching resource can be used either in the class or at home with a pack of scaffolding strategies to encourage students to access/listen to books, to read at their own pace, to record themselves reading, and to send the recording to teachers for assessment. Students then complete a corresponding e-quiz to test their reading comprehension and determine future instruction needs. Once students have read ten or more of the leveled eBooks and passed the assigned corresponding e-quizzes, they advance onto the next reading level where they have access to lengthier and more difficult texts (Learning A-Z, 2020). Here are proposed suggestions from teachers to help integrate Raz-Plus into the English language classroom:



- Strategies to enhance both receptive and productive language skill
1. Listen to a favourite, right leveled e-book
 2. Read-aloud the story online
 3. Record students themselves reading a book online or from electronic devices
 4. Teachers assess recordings to determine student accuracy and readiness to move to the next level
 5. Students complete the corresponding e-quizzes to check reading comprehension. Or for a challenge task, students are encouraged to write/dictate the high frequency words, drill sentence pattern for practice.

Figure 3. Strategies to Enhance Both Receptive and Productive Language Skills

Assessment task 3 (a 2,000-word ICT program demonstration/presentation) reflects the final Act dimension of the pedagogical integration framework. It serves the following purposes: (1) to encourage students to look more closely at the existing CALL/ICT for second language teaching and learning; (2) to assess students' ability in analysing and evaluating CALL/ICT application; and (3) to assess students' oral and written ability to show how to use ICT applications. This assignment consists of two parts. The first part is to examine students' skills to establish a CALL/ICT resource profile. The second part is to check their ability to demonstrate the use of a CALL/ICT program. The assessment criteria are as follows: (1) apply key theories regarding CALL to the chosen context; (2) describe the challenges and benefits of CALL implementation in the chosen context; and (3) demonstrate academic fluency.

For the first part of the assessment task, students need to identify five resources that can be used for computer-assisted language learning. These can be, for example, websites, learning software, or online language courses. Students are required to describe each item and justify why these resources are useful for ESL/ EFL/EAL teaching and learning. Using a variety of literature, this essay covers the advantages and disadvantages of multimodal teaching and technology use in the ESL/EFL/EAL classroom and explains how they impact on pedagogical practice and the learning process for students. Figure 4 provides a representative scaffolding example.

Name of the Digital Lesson Resources	Advantages of using this resource	Limitations of using this resource	How it works to support student literacy development/competencies
Kahoot	<ul style="list-style-type: none"> user-friendly and promotes engagement/motivation This website provides an online platform for teachers to create quizzes, surveys and discussions in any subject areas (Mu & Paparas, 2015). It also engages students to learn in a more flexible mode. Students can answer questions through a variety of devices (i.e. mobile phones and laptops). There are differentiated colours, shapes and music for students' enjoyment when responding to answers (Afreeen, 2014). This web program is one of the successful forms of incorporating multimodal texts to engage learners to learn. Effective feedback and positive competition It can encourage participants to compete against each other in a pleasant manner. Top responders for each question are revealed and the overall winner(s) will be displayed at the end of the Kahoot session without revealing students' identities. This advantage is consistent with the finding by Burguillo (2010) that the majority of students can be motivated by competition. "The suspenseful music also adds to the competitive mood of the game, which is preferred by most students" (Mu & Paparas, 2015, p.6). Therefore, the use of online games and completion can be considered to successfully stimulate students' motivation. 	<ul style="list-style-type: none"> Internet-based or wifi access A successful game-based online activity is greatly dependent on internet or access (Alacena Matthews & Matthews, 2015). Students cannot join the Kahoot session without internet. Competitiveness Since Kahoot is competitive, students may be put off. The major concern about using Kahoot as formative assessment tool is that it could not simplify complex subjects (Ismail & Mohammad, 2017). Therefore, those who find the subject challenging might not be interested to participate. 	<p>Research shows that Kahoot is one of the emerging game-based learning platforms frequently used in education institutions. It is a real-time, freely available web program that has gained great popularity and wide acceptance with more than 30 million global users (e.g., Afreeen, 2014; Mu & Paparas, 2015; Ismail & Mohammad, 2017).</p> <p>As a customizable web-program that integrates various visuals like video and photography, Kahoot can be used as an alternative to textbook-based reading or listening activities. For example, teachers can encourage students to read/listen to a portion of a text and ask them a question in Kahoot, get students to support the correct answer with a passage from the text, and then ask them why incorrect answers are incorrect.</p>
2 nd resource	•	•	

Figure 4. Media and Digital Teaching and Learning Resource Portfolio

The second part requires students to write about how they would use a selected CALL/ICT program. Students choose one item from their resource profile for a 15-minute demonstration/presentation, in which they are required to evaluate the advantages and disadvantages of using this item in teaching, specifically in an ESL/EFL/EAL context.

Part 2 Demonstration

As a digital resource, Kahoot is selected to be adapted to English as an Additional Language or Dialect (EAL/D) for designing new literacy teaching and learning activities and two activities are designed through this resource.

The activities are linked to EAL/D Stage 6 syllabus outcome: Reading and Responding. Level 2 Language and Cultural Understandings: 2.6 shows understandings of differences between narrative and expository texts which relate to own knowledge of experiences; and Level 2 Language Structure and Features: 2.7 Reads texts using knowledge of basic convention of print, a developing sight and oral vocabulary and a developing knowledge of structures of English (BOSTES, 2016). The activities will involve students to read a text "Sailing around the world" first and then get students to join Kahoot quizzes. The aim of the lesson is to teach students past tense as a grammatical feature and vocabulary relevant to the type of text when responding to and composing texts. The expected learning outcome will include: 1) Explore differences in words that represent happenings and state – verbs; and 2) forms of past tense verbs.

Activity One is created via Kahoot. For more details, please visit the Kahoot link [insert the link for quizzes]

Activity two, please visit the [kahoot](#) link [insert the link].

Figure 5. Sample Demonstration Guide

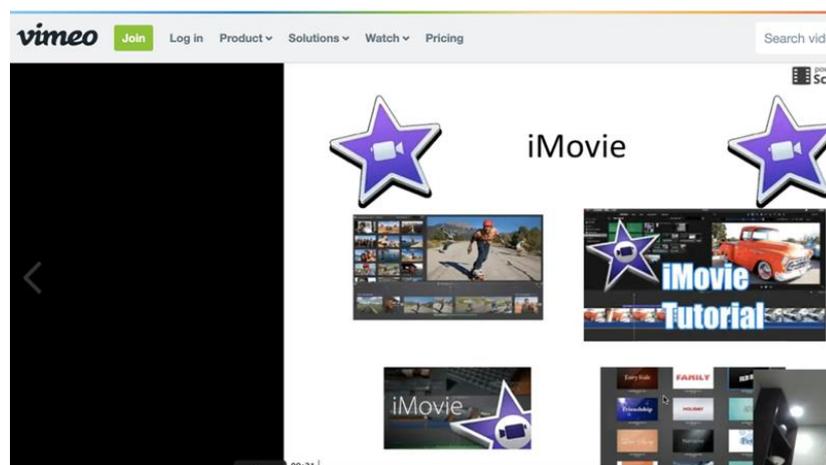


Figure 6. A Screencastify Presentation Describing the Use of iMovie in an ESL Context

Figure 6 provides an example of an excellent screencastify presentation (with the presenter’s ESL students who volunteered to participate in this film) that uses a range of multimodal texts, such as visual, audio, gestural and spatial modes. The presenter used the iMovie editing suite to create a movie of Advanced General English classes focusing on a unit topic, ‘Celebrity and Advertising.’ Collaborating with the presenter, they created a learning environment with three Stations during which students were filmed:

- Station 1 – Hollywood Red Carpet. Students dressed as Hollywood superstars and walked the red carpet. Students reacted to media questions and photographs.
- Station 2 – Rock Star interviews. Students dressed as rock stars and were interviewed by media.
- Station 3 – Imaginatising. Students were given an unrelated piece of equipment and imagined it to be a product they had to advertise. They wrote a script and acted out a television commercial while being filmed.

The students’ peers enjoyed watching the iMovie video example, which was uploaded onto the Vimeo website. These digital resources provide students with the opportunity to gain an understanding of appropriate technologically mediated resource design. They also allow students to explore classroom opportunities for collaboration and problem solving. This example successfully demonstrates an innovative way of using a resource with highly engaging examples.

6. Module Evaluation

End-of-course evaluation is conducted routinely. By 2020, of the total number of teacher students enrolled in the Master’s degree offered by the School of Education, 32 had selected this language and technology unit as part of their TESOL program. In this section, two sets of course evaluations are presented through student feedback on courses (SFC) from 2018 to 2019 and Course Evaluation Survey (CES) in 2020.

On the one hand, two SFC questionnaires were organised for around 22 students (11 weblearn and 11 on-campus participants) enrolled in this language and technology course at postgraduate level from 2018-2019. 14 students returned the survey, giving a response rate of 63.6%. The survey items covered a range of topics including students’ expectations about the course, teacher support, learning and teaching activity favourability, course structure, resource organisation, learning outcomes, challenges, assessment task and assessment criteria, feedback and relevance to the course content, as well as general satisfaction and evaluation regarding the course (see Table 4 for details).

Table 4. Student Feedback Survey Items

Question	Detail
Expectations	I was clearly informed about the learning objectives of this course.
Support	The teaching staff were available to assist me with my learning.
Learning Activities	The activities of this course motivated me to learn.
Teaching	The quality of teaching in this course helped me achieve the learning objectives.
Structure	The various components of this course were linked in ways that supported my learning.
Organisation	Overall, this course was well organized.
Resources	The resources for this course helped me achieve the learning objectives.
Outcomes	My knowledge and skills have developed as a result of studying this course.
Challenge	This course challenged me in ways that extended my learning.
Assessment	The assessment items were clearly related to the learning objectives.
Criteria	The criteria for all assessment items were made clear.
Feedback	I received feedback that was helpful to my learning.
Relevance	I am able to apply my learning from this course to my wider goals.
Satisfaction	Overall, I am satisfied with the quality of this course.
Self Evaluation	I made a consistent effort to succeed in this course.

Students were encouraged to respond to the questionnaire by rating their level of disagreement or agreement on a five-point scale. The possible responses are: 1 = strongly disagree, 2 = disagree, 3 =

uncertain, 4 = agree, 5 = strongly agree. The mean scores range from 1 to 5. A higher score represents a more positive outcome. Below are the SFC results (see Tables 5 and 6 and Figures 7 and 8):

Table 5. SFC Weblearn Results by Term

Question	Mean		Variation
	Semester 2, 2019	Semester 2, 2017	
Expectations	5.00	5.00	→ 0.00
Support	5.00	5.00	→ 0.00
Learning Activities	5.00	4.00	↑ 1.00
Teaching	5.00	4.50	↑ 0.50
Structure	5.00	5.00	→ 0.00
Organisation	5.00	5.00	→ 0.00
Resources	5.00	3.50	↑ 1.50
Outcomes	5.00	4.50	↑ 0.50
Challenge	5.00	4.50	↑ 0.50
Assessment	5.00	5.00	→ 0.00
Criteria	5.00	5.00	→ 0.00
Feedback	5.00	5.00	→ 0.00
Relevance	5.00	4.50	↑ 0.50
Satisfaction	5.00	4.50	↑ 0.50
Self Evaluation	5.00	5.00	→ 0.00

Note. Variation indicators:

↑ Mean (Semester 2, 2019) minus Mean (Semester 2, 2017) > 0

→ Mean (Semester 2, 2019) minus Mean (Semester 2, 2017) = 0

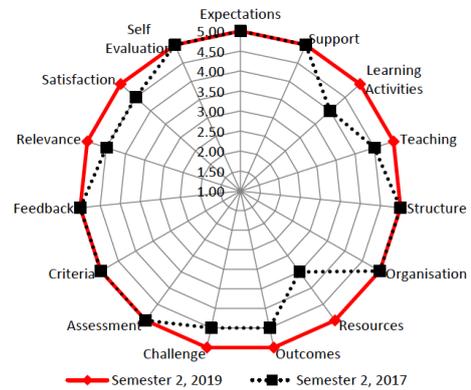


Figure 7. SFC Weblearn Results (Mean) by Term

Table 6. SFC On-campus Results by Term

Question	Mean		Variation
	Semester 2, 2019	Semester 2, 2017	
Expectations	5.00	5.00	→ 0.00
Support	5.00	5.00	→ 0.00
Learning Activities	5.00	4.86	↑ 0.14
Teaching	5.00	4.86	↑ 0.14
Structure	5.00	4.57	↑ 0.43
Organisation	5.00	4.71	↑ 0.29
Resources	5.00	4.57	↑ 0.43
Outcomes	5.00	4.71	↑ 0.29
Challenge	5.00	4.29	↑ 0.71
Assessment	5.00	5.00	→ 0.00
Criteria	5.00	5.00	→ 0.00
Feedback	5.00	5.00	→ 0.00
Relevance	5.00	4.86	↑ 0.14
Satisfaction	5.00	4.71	↑ 0.29
Self Evaluation	5.00	4.86	↑ 0.14

Note. Variation indicators:

↑ Mean (Semester 2, 2019) minus Mean (Semester 2, 2017) > 0

→ Mean (Semester 2, 2019) minus Mean (Semester 2, 2017) = 0

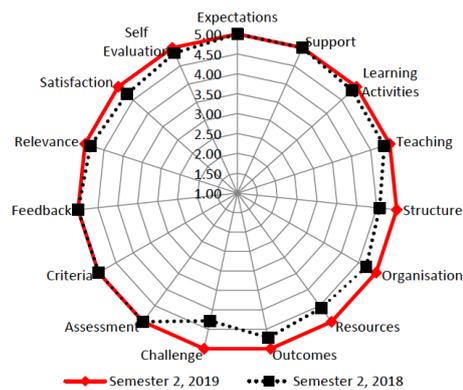


Figure 8. SFC On-campus Results (Mean) by Term

Qualitative feedback in the SFC was requested under ‘Course Comments’ as a separate category. If no comments were provided, no feedback will appear in this SFC report. Here are a few representative comments to the question, “Do you have any further comments about the teaching practice of this teacher?” which were given by three students who were enrolled in the course in 2018 and 2019:

- I believe that teachers like [the course coordinator] are like a blessing for international students. (2018)
- YES, She is a very cooperative teacher and always teaches with interesting methods, which is very helpful for me. She is a very helpful teacher. She explains everything very clearly to students. (2018)
- This teacher is very upfront. Make the lesson interesting and also very interactive. It can be completed online but you do gain more understanding face to face. It can be

completed online as she makes things very easy to understand. Doesn't take it for granted that people have knowledge over the subject so it helps greatly to achieve the outcome that everyone wants. I would highly recommend this teacher for a acknowledge of their helpful ability to other students. I have had 2 subjects with this teacher and I am at ease with my learning as I know I don't have to worry about not having enough information. I receive the information I need to understand the topic and it adds me in my study and gives me inspiration to follow more in this area to know more and become better in this topic so I can relate it to my field." (2019)

On the other hand, due to the global pandemic in 2020, students enrolled both on-campus and online in 2020 were grouped to attend real-time lectures and tutorials via Zoom or Blackboard Collaborate. The course experience survey (CES) was firstly used to replace SFC in the official module evaluation. The five point likert scale including 1 = strongly disagree, 2 = disagree, 3 = uncertain, 4 = agree, 5 = strongly agree are used to provide the mean scores range from 1 to 5. A higher score represents a more positive outcome. In total 7 students answered the survey and the response rate was 70%. Below are the CFS results (see Figures 9 and 10):

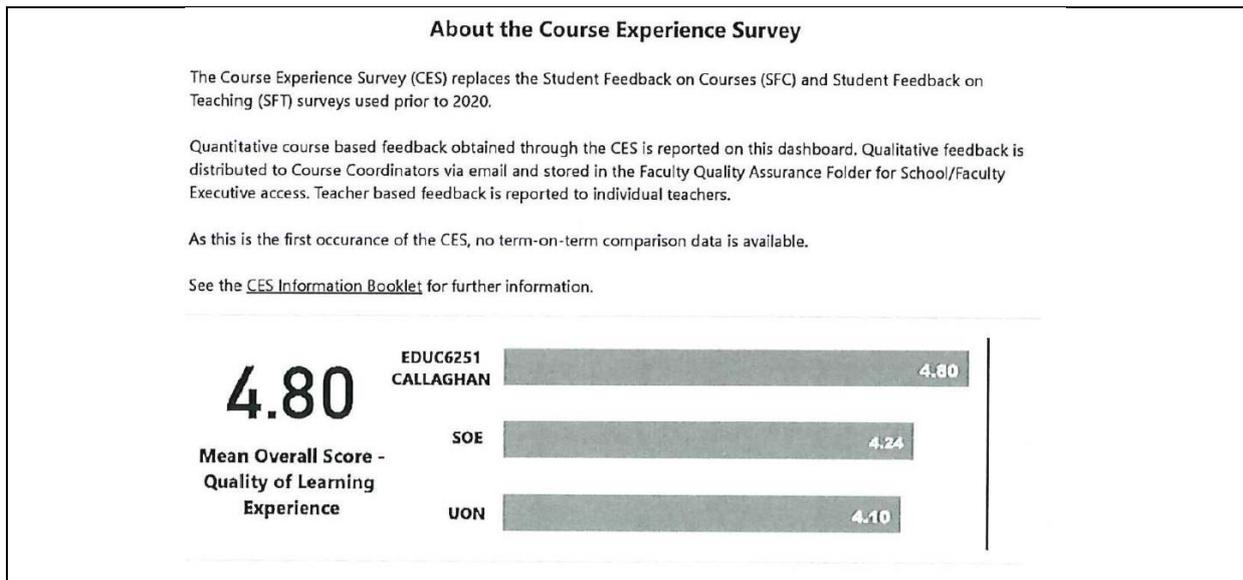


Figure 9. CFS On-campus Results (Mean) by Term

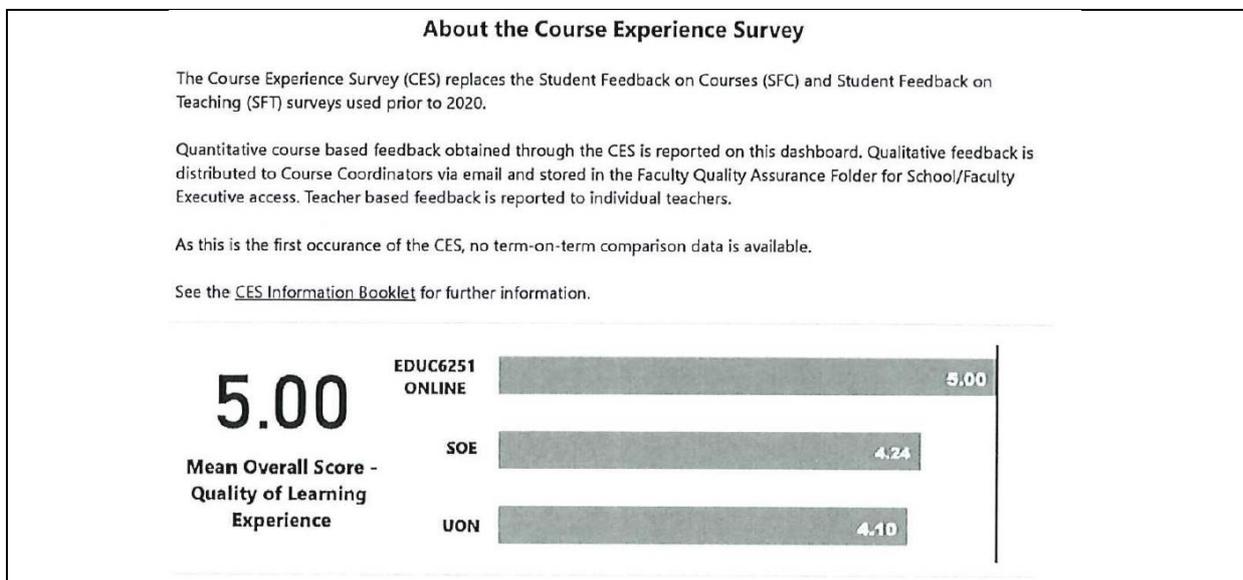


Figure 10. CES Online Results (Mean) by Term

In addition to the CES quantitative results, the qualitative course evaluation was also carried out through online student feedback via Survey Monkey. Ten students enrolled in this course volunteered to complete the additional online short-answer questions: (1) What is your general feeling about the ever-changing educational change in terms of multimodal learning modes used to enhance ESL/EFL/EAL literacies? (2) What kinds of benefits and/or challenges do you see for today's students in English language education, given such educational change? (3) What are some take-away messages regarding the use of media literacy and educational technologies in English language education, e.g., the five-part process model for digital and media literacy that emphasizes five communication competencies through Access, Analyse & Evaluate, Create, Reflect, and Act (Hobbs, 2010), that you have learnt from this course? A selection of typical comments from the 2020 cohort is provided below.

- 1) General feelings about multimodal learning mode in the changing education context:
More than half of the students expressed they had a great learning experience when adapting to a new changing teaching environment. It supports diverse learning styles by stimulating the functions of learners' both left and right brain with audio and visual aids. In this way it engages learners and captures their attention and critical thinking. For example:
 - Multimodal learning mode is the popular phenomenon in ESL/EFL literacies nowadays which I think should be researched and integrated widely in classroom.
 - I think introducing multi-media texts, and computer-assisted resources reflects what is happening in the real-life contexts of our students, so it's vital to experience
 - I like this course because it is very necessary to adapt to a new changing teaching environment.
- 2) Benefits and/or challenges in such an educational change for today's ESL/EFL/EAL students:

Students stated that benefits included (but were not limited to) students' active learning and more open access to global educational, especially with Massive Open Online Courses (MOOCs) and even Small Private Online Course (SPOCS). Multimodal learning together with the appropriate use of educational technologies can enhance students' language literacy. More student autonomy is enhanced and the role of an active shaper is formed. Here are some of the views most commonly expressed by the students:

- I am generally excited about multimodal learning and the use of technology in language education because there are so many resources that can enhance ESL literacy learning. The use of technology has really engaged a lot of students and given them more ways to demonstrate their understanding and assist their comprehension...
- ...the students are given the opportunity to become "active shapers" of their own knowledge which allows them to have more freedom within a class...the incorporation of technology also allows for more student autonomy as teachers and students both become learners, allowing for students to have more of an input in what and how they learn.

However, challenges were also identified. One of these is that of teachers' roles, which students felt needed to change in order to adapt to emerging technology. The transformation from pedagogy to technology may challenge teachers who are not very tech-savvy. Questions such as how to stay up to date with new technologies, development of critical literacy skills, and how to address educational inequality were mentioned as follows:

- The perils of students using inappropriate or inauthentic resources, I believe that facilitating the expansion of students' critical literacy is key here.
- Within the classroom, the challenge is having one-to-one device access for students when teachers would like to use technology (as they have to share the resources around the school and they aren't always available). At home, there have been issues with students not even having devices to use or there are siblings also needing to share technology (the family may just have a smartphone or one computer, or their internet can only handle one device on a video conference). Another challenge has been getting

EAL/D students up to speed in regards to digital literacy in a short period of time just to access resources or simply participate in online learning.

- 3) Take-away messages from the integrated pedagogical model:
The feedback was positive as students indicated that they are willing/have adapted to the pedagogical integration strategies shared in the course; this in itself can be considered as one of the most valuable parts of the course. The integrated model empowers students to process printed materials and other symbolic codes of images and sounds. Based on student feedback, it can be seen as a guide for teachers of 'tomorrow.' Typical comments from the students included:
- My take-away message for media literacy in English language education is the tool to support evaluation of multimedia learning resources of Mhouti et al. (2013) which focuses on 4 main dimensions academic, pedagogical, didactic, and technical quality.
 - It aligns with the UNESCO ICT Competency Framework for Teachers (<https://www.oercommons.org/hubs/UNESCO>). By applying Hobbs' model, teachers can control their quality of their teaching process in the cycle of preparation-delivery-reflection. Reflection is believed to empower more critical thinking. Thank you very much for your sharing with us that model.
 - I learn how to access information, analyse it during the group discussion, create my own, as well as reflect it by having feedback from the lecturer and friends. I also learn how to act what I have learnt in my future class.
 - I think the most valuable part of the course was the introduction of a range of resources that we will be able to take to the classroom.
 - Very effective and I love using this model as a good guide to my work.

7. Discussion and Future Directions

Having gauged the course module design, syllabus features, assessment tasks, pedagogical integration approaches and strategies, and module evaluation, it is necessary to consider these emerging points: (1) the impact that growing educational technologies have had on TESOL syllabus design and materials development; (2) the effect of the multimodal/digital revolution on the processes of second language learning; and (3) the identification of good pedagogical practices of integrating CALL/ICT into ESL/EFL/EAL teaching and learning activities.

Whilst technology and multimodal learning is certainly the way of the future for education, language teachers now face the predicament as to whether implementing these newer ways of learning is in fact beneficial or disadvantageous to learners. For successful incorporation of educational technologies within multimodal classrooms, a multidisciplinary approach is vital to gain an understanding of the social, cognitive, neurological, cultural, and linguistic variables required for successful multimodal discourse (Farías et al., 2007). With the advent of technology, the internet has allowed students to become more in control of their learning. As a result, there has been a dramatic shift in teacher-student roles within the teaching and learning space. The shift from students as passive recipients of knowledge to active creators of knowledge is a significant factor that has the potential to make teachers who use more traditional pedagogies nervous. In this contemporary context, teachers must act as facilitators of learning and guide their students on the most effective paths of learning, rather than seeing themselves as front of all knowledge.

Teachers need to ensure they stay up to date with new technologies as this assists students in developing critical skills that allow them to use ICT to its maximum potential, and in order for this to be successful, teachers need to train their students to do this. Echoed by Nguyen (2008), blended teaching and/or purely online course delivery has dramatically influenced foreign languages and the dynamics of the syllabus; it has the potential to change the role of the teacher and that of students. The use of multimodal technology within a language classroom allows for a small amount of power and authority to be transferred over to the learner. Whilst this is a very effective way of teaching, it is only effective when the students have a strong grasp on how to use the proposed technology. Therefore, teachers are encouraged to assist interaction among students through an 'access and motivation' stage where

guidance and navigation of the specific technical tool are provided in course syllabus design and material development (Paxon, 2003).

Second, language teachers and educators should realise that while most students would have a language teacher education background due to their TESOL specialisation, there is still a need to consider those who have had no exposure to the TESOL field and who have no prior language background other than English. These teacher trainees unfamiliar with the field of TESOL, prior to enrolment, managed to learn new terminologies and the contexts behind them. For example, key words and theories such as literacies in multimodal discourse, ICT-related teaching principles and design, and the ways they are implemented into the curriculum and methods would be new for them. However, due to the impact of the multimodal/digital revolution on the processes of second language learning, students would gather that there have been great advances of technology infused into the teaching practice of ESL/EFL/EAL. When engaging with CALL/ICT, multimodal learning should be understood as not only using technology itself, but as encouraging students to be more active shapers of social change and designers of futurists (Levy & Moore, 2017). As Salmon (2000) suggests, teachers should be encouraged to facilitate students to learn through ‘socialization and information exchange’ to enhance their participation and engagement. Online discussion forums or breakout room discussions can be organised with defined topics or unstructured procedures allowing students to freely express their issues and ideas. However, “discussions whether they are structured or unstructured will not automatically happen. Students unfamiliar with their classmates and new to the online environment will need some assistance before being able to contribute in a meaningful way” (Macquarie University, 2013, p. 16). After all, literacy education itself is actual mentoring in social practices with the technologies of listening, reading, speaking, and writing.

In relation to the perils of students using inappropriate or inauthentic resources, it is key for teachers to consider facilitating the expansion of students’ critical literacy. Most contemporary definitions of literacy include multiple literacies and involve dynamic processes. One of the key skills students can develop in Australian schools is that of critical literacy, so that they are themselves able to assess the appropriateness and authenticity of a source. This is where the socio-cultural pillar of language teaching also becomes essential. Students must understand the lenses through which they see resources and also the lenses through which resources were created. Whilst the internet provides us with endless realia, it also therefore provides us with endless opportunities to be critical in our assessment of each new resource. As teachers of language, we can embrace such opportunities to develop critical literacy in our students.

Third, ever-evolving technological advances have impacted school communities dramatically, and the modes of delivering content now include altered versions of cognitive and social interactions through digital online communication (Fariás et al., 2007). In every area of schooling, the growing presence of technology and multimodal learning is having a large impact on pedagogy, as well as on how classes operate in order to implement these new ways of learning. Using ICT is not merely for the sake of fun, it should be used for promoting all the possible ways of engaging students to learn in this digital era. The ICT world has most definitely redefined and innovated the way in which language is taught and communicated. An initial/on-going information technology teacher and student training ensures the required level of computer literacy. One issue that will arise is the level of computer literacy of both teachers and students alike. This is particularly important to TESOL because many English learners will be coming from education backgrounds that do not emphasise computer literacy to the degree that we take for granted in Australia.

The students’ ICT program demonstrations show that they have achieved a great deal with the use of learned/shared apps, websites, online language educational resources, and so on, which allow them to learn and achieve at their own pace under no pressure whatsoever. For instance, resources such as Kahoot!, Raz-Kids, Duolingo, Busuu, and Babbel also provide instantaneous results, corrections, and explanations from native speakers, allowing for self-teaching and constructivism. This incorporated into their current or future TESOL syllabus greatly modifies the teacher-student dynamic. Salmon (2000) also suggests that teachers act more like a guiding mentor, rather than an authority figure when supporting students’ ‘knowledge construction’ and ‘development’ stage. This liberates the student and

allows them to perceive and nurture their own knowledge acquisition and, in turn, creates critical thinking. Being mentored through the learning process rather than being told how one must progress will appeal to many language learners.

8. Conclusion

This paper discusses the growing presence of educational technology and multimodality in language classrooms and their impact on teachers' pedagogy, and explores scaffolding strategies to help design effective English language courses in an ESL/EFL/EAL environment. Educational technology in a multimodality discourse can offer the potential to greatly enhance the student learning engagement in an ESL setting. By reviewing the language and technology module, it can be concluded that there are many benefits for students and teachers when incorporating multimodal and technological practices into pedagogy. Though technology and multimodal learning certainly have their benefits, implementing these into pedagogical practice is not without its challenges. Nevertheless, with carefully designed scaffolding resources and strategies to facilitate student learning, teachers will be able to achieve the expected learning outcomes in a variety of areas. Information technology application cannot be ignored and neither can computer literacy. This study has shed light on how pedagogical integration today may offer a way forward for language teachers of tomorrow.

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