

## Research Space

Journal article

**Exploring the role of context and collaboration in normalising technology use in English language teaching in secondary schools in Malaysia**

**Balchin, K. and Wild, C.**

This is an Accepted Manuscript of an article published by Taylor & Francis in Computer Assisted Language Learning on 18th August 2020, available online: <https://doi.org/10.1080/09588221.2020.1803360>

# Exploring the role of context and collaboration in normalising technology use in English language teaching in secondary schools in Malaysia

## ***Abstract***

This study explores the extent to which technology use has become normalised in English classes in secondary schools across Malaysia, and the role of context and community within the normalisation process. The approach taken was qualitative, using online surveys and interviews to investigate English language teachers' experiences with using technology in their classes. The results of the study indicate that normalisation is occurring to some extent within the setting, with the degree of normalisation significantly affected by both contextual factors and the way the teaching community operates. The study also suggests that normalisation itself should be viewed as a more complex, dynamic, context-dependent and community-based concept than previously recognised. This study may therefore be of interest to policy makers, school administrators and teachers working towards incorporating and normalising technology in teaching and learning.

## ***Keywords***

normalisation, context, community, collaboration, technology, language teaching

## ***1. Introduction***

Almost two decades ago, Bax (2003) threw the 'normalisation' pebble into the ELT pond and the ripples from this - of normalising technology use in English language classrooms, what this might look like and how it might occur - have been spreading ever since. This study aims to review and build upon discussions on normalisation, and in the light of this, to explore the extent to which technology use has become normalised in English language classrooms today. It also builds upon previous studies (Balchin & Wild, 2015, 2016, 2018) relating to pre-service and in-service teachers' use of technology in English language classes in secondary schools in Malaysia, taking a snapshot overview of technology use in English language classes in twenty-two schools.

The choice of Malaysia as the setting for the study was prompted by the Malaysian Ministry of Education's own aspiration for technology to become normalised, and as such 'be a ubiquitous part of schooling life, with no urban-rural divide and with all teachers and students equipped with the skills necessary to use this technology' (Ministry of Education Malaysia, 2013, p. E-20). Within the setting, the study focuses on the way technology is used within the physical classroom environment in secondary schools, which can include both non-subject specific classrooms and rooms equipped with technological resources.

The study is intended to give the reader a sense of the extent to which normalisation is happening in a particular context. In the light of the increasing emphasis placed on context and community, both within the field of education generally and in discussions around the normalisation of technology use, as discussed in sections 2.2 and 2.3, greater emphasis is placed on the role of context and community in the normalisation process than in comparable studies. Within the study, context is viewed, as described by Tudor (2001), as a complex phenomenon combining pragmatic and mental components. The pragmatic component

includes more objectively observable features such as class size, availability of resources and level of training and status of teachers, while the mental component relates to the attitudes and beliefs that teachers and learners bring with them into the teaching situation. Alongside this, the concept of community is used in a broad and dynamic sense as a network of people with shared concerns who interact on a regular basis, where “the configuration and behaviour of this community is heavily dependent on the way the environment in which they operate has been designed” (Peeters & Pretorius, 2020, p.13).

## **2. Literature Review**

### 2.1 Normalisation: theory and practice

Bax (2003a) established the use of the term *normalisation* as a means of describing the state where technology used in English language classrooms “becomes invisible, serving the needs of the learners and integrated into every teachers’ everyday practice” (p.27). In this seminal paper, Bax identified three stages in the normalisation process, “restricted, open and integrated”, exhorting that as language teachers “our aim should be to attain a state of ‘normalisation’ in which the technology is invisible and truly integrated” (p.13). A memorable analogy Bax employed was that of the pen, a commonplace tool used in the classroom without thought by teachers and learners, noting that “we do not speak of PALL (Pen Assisted Language Learning)” (p.23) to highlight that the use of pens in teaching is unconscious and so fully normalised, and that this should likewise be the goal in terms of the use of technology.

Chambers and Bax (2006) sought to give teachers practical guidelines for how normalisation might be realised, suggesting four key areas pertinent to the normalisation process, namely logistics; stakeholders’ conceptions, knowledge and abilities; syllabus and software integration; and training, development and support. Eleven related practical issues, such as the location of and ease of access to technology tools, the importance of teachers’ computer self-efficacy, and the availability of training and support for teachers, were also identified. These were put forward as a potential checklist for achieving the state of normalisation.

In his paper ‘Normalisation revisited’, Bax (2011) further refined his thinking of how normalisation might be achieved to take into account social, cultural and historical factors that reflect the ecological complexity of English language environments. He used the lens of a neo-Vygotskian perspective “to understand and interpret the normalisation process” (p.1). He emphasised that teachers involved in this process were not acting in isolation, but taking part in an activity that was “culturally based”, “a social process”, “developed through communication”, “understood through culturally formed settings” and “developed through assistance or instructions” (p.7-8). That is, in pursuit of “a more sound and nuanced theory” (p.11) for the effective implementation of technology in classes, Bax framed the normalisation process around cultural context and community. The methodology for the present study is built around these.

More recently Bax’s ideas have been further developed. Thomas, Reinders and Warschauer (2012) identified a fourth stage in the normalisation process, ‘Social CALL’, which focuses on the use of social and mobile technology to promote communicative ability and collaborative interaction, and which incorporates how technology is used in our everyday lives into the process. A further perspective, emphasising local pedagogical needs within the normalisation

process, was offered by Gimeno-Sanz (2016) who suggested the concept of 'Atomised CALL', which places a focus on individual technological resources, the 'atoms', with the teacher identifying the appropriate mix of these resources for their learning context.

In terms of classroom practice, the difficulties in integrating technology have been well-documented. A distinction is often made between internal and external barriers to teachers' use of technology in the classroom. Concerning internal barriers, Ertmer, Ottenbreit-Leftwich and York (2006) identified the importance of teachers' internal beliefs such as personal beliefs, inner drive and computer self-efficacy in influencing teachers' use of technology. Similarly, Cárdenas-Claros and Oyanedel (2016) highlight teachers' confidence and perceived competence as significant determiners of technology use. With regard to external barriers, Ghavifekr, Kunjappen, Ramasamy and Anthony (2016, p.38) identified challenges such as, "limited accessibility and network connection, limited technical support, lack of effective training, [and] limited time" as inhibitors to teachers' technology use.

To overcome these barriers and integrating technology into classroom practice, the Technological, Pedagogical and Content Knowledge (TPACK) framework (Mishra & Koehler, 2006) provides a useful reference point. Saudelli and Ciampa (2016, p.228) suggested that this framework effectively represents "the dynamic and reciprocal relationships between the three types of knowledge required for teachers to integrate technology into teaching and learning in meaningful ways: content, pedagogy and technology", while Rohaan, Taconis, and Jochems (2010) noted that, in developing teachers' TPACK, their computer self-efficacy and therefore use of technology in the classroom is likely to increase. This in turn suggests a strong connection between the development of teachers' TPACK and the process of normalisation of technology use.

With specific reference to the concept of normalisation, Rahmany, Sadeghi, and Chegini (2014), in their study of 16 teachers in a well-resourced language centre in Iran, painted a mixed picture with regard to the normalisation of technology in classrooms. They highlighted that the teachers in their study did use technology in their classes, but at the same time challenges related to preparation, cultural sensitivities and technical issues lessened the extent to which teachers were able to use it effectively in their practice. They also noted that while some of the elements necessary for normalisation, such as sufficient resources, were present, the overall situation within the centre was "far from the ideal situation of CALL classrooms which is depicted in Bax (2003a)" (Rahmany, Sadeghi & Chegini, 2014, p.898). He, Puakpong, and Lian's (2015) study of the factors affecting the normalisation of technology use in Chinese senior high schools suggested that, while teachers saw the benefits of integrating technology into their classes, some logistical issues remained, such as having technical support staff available and a sufficient number of well-resourced classrooms. Teachers in this study also highlighted the need for specific training in using technology in pedagogically appropriate ways in their teaching if normalisation is to be achieved. Considering the Malaysian context, Razak, Ab Jalil and Ismail (2019) emphasised the importance of school leaders and other stakeholders working together to overcome the challenges surrounding the integration of technology into classes.

Taking the above theory and practice as a starting point, this study explores the extent to which technology use has become normalised.

## 2.2 Context and normalisation

In considering the normalisation process, the role of context has been viewed as significant. Bax (2003b) championed the importance of context in the teaching and learning process. This was in part a response to what he felt had been an overemphasis on methodology, and in particular Communicative Language Teaching, in language classrooms, at the expense of the learning context and local learner variables. In response to this imbalance, he stressed the importance of context analysis and localisation of teaching materials. Here, Bax's thinking reflected an "ecological perspective" on teaching, which considers "language teaching and learning within the totality of the lives of the various participants involved" (Tudor 2003, p.4). Tudor (2003) highlighted factors which contribute to this perspective, such as the importance of a learner-centred focus in language classrooms and the role of sociocultural factors in learners' interaction with language learning. Tudor held the view that the socioculturally-based traditions of learning that students had been exposed to during their school life, as well as learners' attitudes towards the target language and target culture, exerted a tangible influence on how they perceived the teaching and learning process, and how they interacted with methodological choices. He also believed that attention should be given to teachers' attitudes and perceptions. Thus Tudor, like Bax, sought to focus attention on human and contextual factors and the importance of 'local meaningfulness' for effective teaching and learning, maintaining that adopting an ecological perspective could lead to the development of an approach to teaching which was "locally relevant and meaningful by virtue of it being rooted in local realities" (Tudor, 2003, p.10).

Kennedy and Levy (2009) also acknowledged the role of context. In their review of use of CALL over a 15-year period on an Italian language learning programme, they noted that for use of technology to be sustainable, it must be tailored specifically to the context "serving a specific function for our students in a specific course" (p.457). It must also be firmly embedded within the course rather than an occasional extra, and must be subject to "an iterative process of experimentation, evaluation and enhancement" (p.458). Meeting these conditions could contribute to the process of normalisation of technology within a given context. Richards and Rodgers (2014) also advocated a need to foreground context in developing language teaching pedagogy, noting that "language teaching today is a much more localized activity, subject to the constraints and needs of particular contexts and cultures of learning, and the use of global and generic solutions to local problems is increasingly seen as problematic" (p.107). In a similar vein, Hockly (2014, p.83) notes that technological choices, as well as approaches and materials, 'must be aligned to the reality of the local cultural and educational contexts'. In some cases, other factors may counteract this to some extent. For example, the perceived usefulness in the real world of particular technologies may encourage teachers and students to work around contextual barriers, such as poor connectivity. As Do Thi Ha & Freiermuth (2020, p.484) note, "The chance for students to engage in 'real' communication was the impetus for increased motivation despite the problems that occurred online".

These responses can be seen as part of the general shift in focus towards localisation, with pedagogical practices evolving in response to local contexts and needs. Therefore, the role of context in affecting the normalisation process was seen as pertinent to the present study.

### 2.3 Communities and normalisation

Alongside context, the role of community has also increasingly been seen as significant within the normalisation process. Bax's (2011) framework is in line with a view of teacher learning as a process of acquiring knowledge and putting theories into practice, placing more emphasis on the 'situated' and social nature of learning (Lave & Wenger 1991), with learning taking place through interaction and participation in a particular context. That is, teacher learning is viewed from a more sociocultural perspective, seen by Burns and Richards (2009, p.2) "as a form of socialization into the professional thinking and practices of a community of practice" and by Johnson (2009, p.21) as "a dialogic process of co-constructing knowledge that is situated in and emerges out of participation in particular sociocultural practices and contexts". This suggests that teachers learn through collaborating within a supportive professional community, as opposed to a more traditional view of individual teacher learning.

Alongside this, Fullan (2015, p.107) highlighted the importance of collaboration in the process of educational change. He viewed success in implementing a change as "strongly related to the extent to which teachers *interact* with one another and to others providing technical help and peer support" (p.107), highlighting the central role of collegiality among teachers in the process. Further, Huberman and Miles (1984) noted that the extent to which a change becomes embedded into institutional practice in turn depends on the establishment of a critical mass of teachers committed to the change as well as the level of continuing support they receive.

Relating both to this and to earlier discussion of the TPACK, Balchin and Wild (2016) highlighted that collaborative environments can develop teachers' TPACK, while Saudelli and Ciampa (2016, p.241) were more emphatic, suggesting that collaborative sharing opportunities, though not specifically emphasised in the TPACK framework, "may represent a crucial missing element to improvements to technologically enhanced pedagogy". They therefore recommended that, in order to help develop teachers' TPACK, "pre-service and in-service professional development emphasise the creation of in-house professional learning communities" (Saudelli & Ciampa, 2016, p.241), which, as Kruse, Louis, and Bryk (1995) outlined, can include reflective dialogue, sharing of practice, collective focus on student learning, opportunities for collaboration and reinforcing of shared values and norms. McLaughlin and Talbert (2001, p.22) viewed such communities as "essential to their [teachers'] persistence and success in innovating classroom practice".

Further, Becuwe et al. (2017, p.169), looking at how teams of teachers can work together to aid technology integration, concluded that for such teams to work effectively, there needs to be "an atmosphere of trust, responsible participants with a shared TPACK goal over the long term, an involved institutional leadership ... and hands-on support by a flexible coach". The suggestion then is that TPACK can be developed more effectively, and the normalisation process aided, in contexts where there is more collaboration between teachers.

Discussing the Malaysian context, Balchin and Wild (2016, p.7) observed that "there has been a growing emphasis on developing collaborative environments ... in Malaysian secondary schools. This is in keeping with the Malaysian Education Blueprint 2013-2025 Wave 3 goal of establishing a peer-led culture of professional excellence". Balchin and Wild (2018) similarly

recognised the value of collaborative practice and a supportive environment in developing technology use in language classrooms, noting that “sharing ideas and learning from each other emerged as a significant factor not just in sparking but also in helping sustain technology use” (p.213). Within Malaysia, these collaborative environments often take the form of Professional Learning Communities.

The above studies emphasised the importance of the community in fostering educational change. Therefore, the role of community in facilitating the normalisation process was considered of relevance in the present study.

In summary, this section has focused on investigating the normalisation process and the factors contributing to its realisation. It establishes normalisation as a multifaceted process that involves overcoming barriers, understanding the pedagogy surrounding technology use, and developing an awareness of the roles of context and collaboration in the process.

### **3. Research Methods**

The present study attempted to build upon the discussions above and to cast light on what normalisation might mean in practice in language classrooms. More specifically, it investigated what was happening in terms of the use of technology in English classes in Malaysian secondary schools and the factors that might be affecting the normalisation process by considering the following questions:

- To what extent has technology become normalised in secondary school English language classes in Malaysia?
- What role do context and community play in the normalisation process?

#### **3.1. Participants**

There were twenty-two participants in the study, drawn from twenty-two secondary schools in a range of teaching contexts across Malaysia. Participants came from a cohort of ninety-three teachers who had studied together on a teacher education programme for pre-service English teachers and had subsequently been working for three to five years in schools across Malaysia. All ninety-three teachers were invited via email to participate in the study, with twenty-two responding. The role of the participants was to provide insights into what was happening in terms of technology use among the community of English teachers within their school.

#### **3.2. Instruments and procedures**

The research methodology used was qualitative with data collected via online surveys and online interviews. In the light of the earlier discussion on context and community, the survey questions focused on developing understanding of the normalisation of technology use within the participants’ contexts, with the interviews directed towards the community aspects of this normalisation process.

In creating and administering the survey, we followed guidelines for constructing surveys suggested by Coombe and Davidson (2015) and Hewson, Vogel, and Laurent (2016). For this study, the Online Surveys service, designed for academic research, was utilised. The survey itself is given in Appendix A.

The survey was followed up by conducting online interviews to provide further insights into themes emerging from the survey data. All participants in the study were invited to be interviewed, with seven putting themselves forward. In carrying out these online interviews, we followed the guidelines in Hewson, Vogel, and Laurent (2016) and O'Connor and Madge (2017).

The interviews themselves were semi-structured, using three broad initial prompts:

- Describe a time when you sought to use a specific technology with your students.
- Which technological tools do you feel are suitable/unsuitable for your teaching context?
- To what extent do you work individually on integrating technology into your teaching activities, as opposed to working collaboratively with colleagues?

Interviewees were then invited to elaborate on their responses to these prompts, for example pinpointing specific examples of their working practices and those of their colleagues. The interviews were asynchronous principally due to interviewees being in a different time zone, but also because of the unreliability of online connections in some of the schools involved. The advantage of this was that it allowed interviewees some thinking time before responding to the prompts and to requests for follow-up information.

The survey was written and the interviews carried out in English, which was not seen as problematic as all participants were English language teachers. In addition, the asynchronous nature of both the surveys and interviews provided time for them to construct their responses.

### 3.3 Data analysis

The approach to data analysis was guided by Richards and Morse (2012), who distinguished between three types of coding - descriptive, topic and analytic. Descriptive coding was used to store basic factual knowledge, such as describing participant teacher 1 as T1. Following this, topic coding was carried out, labelling "passages within the text which express a particular idea or refer to an event" (Murray, 2009, p.51). At this stage different parts of the data were highlighted as themes based around context and community. This process was carried out independently by each researcher and cross-referenced afterwards.

As the data analysis process developed, subthemes such as "location and access" and "individual versus collaborative TPACK development" began to emerge. This process was iterative, based on the ongoing interpretation of the activities taking place in the setting, akin to what Richards and Morse (2012) called analytic coding. Having completed the coding process, each participant was invited to comment on whether the subthemes reflected the reality of their situation and experiences. These comments were taken into account in articulating and discussing the results of the study.

## 4. Results

This study, involving a small number of secondary school teachers, gives a snapshot of what is happening in terms of the normalisation process in English language classrooms in a range



of secondary schools across Malaysia. The results of the study are considered in relation to the areas of context and community.

#### 4.1 Context and normalisation

There was a strong recognition by participants involved in the study that context was an important determiner of technology use in the language classroom. Key context-related factors were the types and availability of learning spaces, the identification of appropriate technological tools and stakeholders' expectations in terms of technology use.

*Learning Spaces.* The teachers' classroom, as opposed to a designated computer room, was the primary location where activities involving technology took place, with many teachers saying they brought their own laptops and speakers into their classrooms. Reasons given for this included "Limited hardware/software" (T9), "It's very difficult to book the ICT room because I have to compete with other teachers" (T15), and "[I'm] put off by ... the time it takes for students to go to computer room; English lessons are 1 hour only each time in my school" (T20).

Teachers described using technology in their classrooms for learning activities such as: providing input via video clips (T1, T2, T5, T6, T11, T13, T16, T20, T22), PowerPoint (T1, T6, T14, T16) and the online bulletin board Padlet (T7, T14); developing specific receptive and productive language skills via audio clips (T2, T3, T4, T5, T8, T9, T12, T14, T15, T19, T22), songs (T1, T5) and email (T9, T12, T13); and revising and recycling via online quizzes and games (T1, T4, T6, T7, T11, T12, T16, T18, T19, T21, T22). However, whilst this made it easy to move relatively seamlessly from technology-based to non-technology-based activities, teachers encountered some difficulties when using technology within their classrooms, such as internet connectivity, limited availability of technical support, noise, and student behaviour problems. For example, as T17 stated, "if it [technology use] is to be conducted in normal classrooms, the problem is the noisy environment which is not conducive for listening activities".

*Identifying appropriate technological tools.* Technology was being used in a variety of ways in different teaching contexts. Commonly-used tools were the use of quizzes, audio, and video. There were also some examples of more innovative uses of technological tools such as the use of collaborative writing tools including Googledocs (T12) and Powtoon (T19) to develop writing skills, the use of discussion groups for out-of-class activities such as WhatsApp (T1, T4, T6), and the use of tablets (T7, T10, T11, T22) for a range of learning activities. In more remote schools, technology was used in a more basic sense, such as CDs being used to enhance listening opportunities (T3).

Context played a key role in determining the appropriacy of particular tools. An illustration of this was evident in the teachers' assessment of the usability of the authoring software tool Kahoot. While a number of teachers saw Kahoot in a positive light (T1, T11, T12, T16, T18, T22), a number of others (T2, T4, T6) were less convinced of its suitability in their context. T2, for example, described unsuccessfully trying to use Kahoot:

I tried to use Kahoot with my students but it didn't go as planned because the internet connection was way too slow, so it took a very long time to load the questions and to

lock the students' answers. I didn't enjoy the lesson, neither did the students. I didn't try Kahoot again with the students.

In this case, the slowness of the internet connection prevented a successful lesson. However, T2 reported greater success with other forms of technology, for example, commenting:

I enjoy using YouTube clips in my teaching because it helps the students to understand the topic better. They will be able to relate the text they are reading, listening or writing to what they have just watched.

Here, the use of YouTube video clips was shown to be a regular feature of her teaching, and to be relevant and meaningful for both teachers and students in her context.

*Stakeholders' expectations.* Twenty of the twenty-two participants involved in the study reported at least being broadly encouraged, and in many cases expected to, both incorporate technology within their teaching and attend training programmes related to its use. As T8 noted, referring to technology use in classes, "it is a must by the gov". The textbooks being used also encouraged technology use through recommending links to teachers and students.

The teachers participating in the study identified the value of using technology in their teaching context, citing reasons such as "easy to adapt to different levels of students" (T9), "easy to manage/edit" (T12), the "ease in preparing for the lesson" (T2), the "paper and money savings" (T19), and that it "helps to reduce some unnecessary burden in [the] teaching and learning process" (T16). Indeed, as T15 noted, "I find myself too boring [sic] if I don't use any technology in my teaching".

The teachers also noted the benefits of technology for their students, such as "fun - kids love everything online" (T11), technology being "more interactive and up-to-date than textbooks" (T5) and "giving easy access [to activities] for students beyond schooling time" (T19). Teachers reported that the learners seemed to be more engaged (T1, T17, T18, T19), participative (T2, T7, T14, T17), and attentive (T5, T6, T12) during classes involving technology, with T18 commenting that she enjoyed "the students' engagement every time I use technology in my teaching". T6 made the further point that social media tools such as WhatsApp "are suitable for my teaching context since most students are on these social media these days".

#### 4.2 Community and Normalisation

In terms of developing their TPACK, there was evidence that teachers were doing this on an individual basis. There was also some evidence of collaboration among teachers within their communities, though this appeared inconsistent and limited in its scope. This tension between individual and collaborative TPACK development is illustrated below, and is followed by a focus on the nature of the collaborative activity taking place.

*Individual versus collaborative TPACK development.* In the interview data in particular, it was apparent that teachers viewed the development of their competency in using technology to be a primarily individual process, with an element of collaboration present in some cases. As T1 noted:

For activities carried out using technology in my lessons, I usually work individually ... However, some activities are designed based on ideas from other teachers in different online communities. There are also occasions such as workshops or seminars that my colleagues and I work together.

T6 agreed, commenting that:

Most of the efforts made to integrate technology in my teaching activities are self-initiated as there doesn't seem to be a pressure made by the school for it to be done. There is also no monitoring of use of technology in classes ... As far as working collaboratively with colleagues in the integration of technology is concerned, I remember casually sharing how I use Kahoot and Quizziz in classrooms during our meeting session.

However, even this limited sense of community in relation to incorporating technology into classes was not always present in the schools involved in the study. As T5 commented:

Last year I tried using ClassDojo [a tool designed to engage students and develop a sense of community among students, teachers and parents] and introducing the app to my colleagues so that we could synchronise our behaviour feedback habits and building students' virtual portfolios across different subjects within the same class. However, only two teachers caught on and it did not achieve the desired effect.

*Nature of collaborative activity.* The typical situation in terms of the extent of collaboration seemed to be this "casually sharing" of ideas and materials mentioned by T6. More broadly, the emphasis, when collaboration did occur, appeared to be focused on the preparation of classes involving technology rather than on working together as a community to embed technology use into classes in a broader, more systematic sense. As T2 noted, with respect to collaboration with colleagues:

the planning and resources (choice of lessons, media, presentation, movie) is compiled by working collaboratively with colleagues so that all of us are teaching the same topic and lesson, at the same pace.

Some broader and more systematic collaboration was taking place. As T5 described:

As a panel of English teachers, we sometimes collaborate and set tasks or quizzes for students. In my school, we assign different teachers to set tasks for different forms, and we would agree on an aspect/topic to focus on. Then the teacher-in-charge will share the site/quiz with other teachers who will then use it with their own students.

However, this was an exception to the main thrust of the data.

## **5. Discussion**

This study investigated the extent to which technology has become normalised in secondary school English language classes in Malaysia and the factors affecting the normalisation process. The findings emphasise the importance of context and community in this process.

### 5.1 Context and normalisation

*Learning Spaces.* The teachers' normal classroom appeared to be the most common location for technology-based activities, compelling teachers to move away from the more traditional practices of the Restricted and Open CALL phases (Bax, 2003a) in which separate computer rooms are used and whole lessons are focused on technology use. Despite the documented difficulties teachers encountered, through remaining in their classrooms, technology performance becomes more naturally integrated into those stages of a lesson where it can be helpful to promote learning, rather than becoming the focus of the lesson. Teachers are thus propelled into the Integrated CALL phase (Bax, 2003a), with technology incorporated within the normal teaching space and learning activities of a class, which Chambers and Bax (2006) viewed as necessary for normalisation to occur. Thus, the need for teachers to use their own classrooms can be seen as furthering the normalisation process. However, the fact that teachers were having to use their own resources, bringing in personal laptops and speakers, to achieve this, could be a significant impediment to the continuing normalisation of technology use within teachers' normal learning spaces. Not all teachers may have the financial means or inclination to use personal resources in their classes and should not be expected to do so.

*Identifying appropriate technological tools.* Context seemed to play a key role in the teachers' decisions about which tools to use on an ongoing basis. This aligns with the concept of 'Atomised CALL' (Gimeno-Sanz, 2012) whereby teachers identify and adopt specific resources, appropriate for their context. Further, the regular use of particular tools such as YouTube and quiz makers for teaching and learning purposes suggested quite a high degree of normalisation of specific context-appropriate tools among participants in this study.

More widely, whilst it can be argued that normalisation is aided by the development and ubiquitous presence of technology, the importance of contextual factors in its implementation in the classroom and the choice of which technology to use cannot be ignored. This supports the idea that normalisation will mean different things in different contexts as different tools are more suitable depending on the environment in which they are used, reflecting Bax's (2011, p.7-8) view of the normalisation process as "culturally based" and "understood through culturally formed settings". In turn, rather than having a generic measure of normalisation, such as every learner having a tablet, there seems to be a need for a more flexible context-dependent interpretation of normalisation. Other indications of the normalisation process occurring can be seen in the emerging use of social technological tools used in everyday life by both teachers and students, such as WhatsApp, an indication of the presence of 'Social CALL', identified by Thomas, Reinders and Warschauer (2012) as a fourth stage in the normalisation process.

*Stakeholders' expectations.* The teachers participating in the study felt encouraged, and in some cases expected, to use technology in classes. This reflects the goals of the Malaysian Education Blueprint 2013-2025 (Ministry of Education Malaysia, 2013), though not always what might be achievable in particular contexts. Teachers also recognised the pedagogic value of technology as well as the other benefits of technology, such as increasing student

engagement. There was no indication in the data that the teachers felt that a lack of technological knowledge might prevent them from using it in their classrooms. Rather, they outlined a range of strategies for continuing to develop their technological knowledge (or TPACK) via, for example, reference books, online sources, and training courses. This apparent willingness to use technology in the classroom suggests that the impact of fear as a barrier to change of practice, as discussed for example in Burkhalter (2013), is becoming less influential in terms of determining technology use. As a caveat here, it should be noted that participants in the study were relatively new to the profession and arguably more open to adapting their teaching to incorporate technological innovations and associated educational policies. Indeed, as the findings suggested, the adoption of new technological tools was not always embraced by all teachers within the participants' schools.

Students' level of computer self-efficacy, expectations and perceptions towards the use of technology for language learning may also play a significant role in the normalisation of technology use in the classroom. Whilst the teachers' comments noted positive outcomes of increased student attention and engagement with technology in their teaching, this should not be assumed. This aligns with Olivier's (2020) study which found that students displayed low computer self-efficacy, in part stemming from their technological experiences and access to technological resources. He also noted that 'access to technologies is not enough ... students need to be trained and supported in the use of technologies as well' (p.424).

## 5.2 Community and normalisation

*Individual versus collaborative TPACK development.* Although there was some collaboration taking place within the teaching communities involved in this study, for example informally sharing materials, where this occurred it tended to be in an ad hoc manner rather than through teachers engaging in the more deliberate dialogic process of knowledge construction advocated by Johnson (2009). Participants in the study appeared to view the responsibility for incorporating technology and developing TPACK as lying with individual teachers, with the role of collaboration recognised but less valued. This view of the centrality of individual teachers developing their TPACK contrasts with the conclusions of other recent studies (Saudelli & Ciampa, 2016; Becuwe et al., 2017) which emphasise the role of the teaching community in developing teachers' TPACK and suggests a change in mindset may be necessary in order to further the process of normalisation within the teaching context.

Teacher resistance to using technology in their teaching may also impede collaborative TPACK development. Internal and external barriers to technology use, such as low computer self-efficacy and lack of training, have been well-documented (Raman & Yamat, 2014, Balchin & Wild, 2016, Cheok, Wong, Ayub & Mahmud, 2017). Such barriers could inhibit teachers' engagement, particularly in less-developed communities or communities that lack an atmosphere of trust (Becuwe et al, 2017). Equally, teachers' personal pedagogical beliefs may impact engagement in collaborative TPACK development. Not all teachers recognise the value of collaborative working in developing their technical expertise, as is evident from this study. As Balchin and Wild (2018, p.213) identified, there is a need for "an effective collaborative environment with strong leadership ... for stimulating and maintaining the development of technology use". Furthermore, an emphasis on the individual TPACK development, alongside an apparent broader resistance to developing TPACK among teachers, also hinders the

establishment of the critical mass of teachers engaged in technology use needed to facilitate the process of normalisation.

*Nature of collaborative activity.* Collaboration seemed to be focused on the preparation of classes and the introduction of new technological tools, as opposed to more structured or planned collaboration, or collaboration which followed on from the lesson planning stage through to reflecting on what happened in practice. Bax (2011) advocates a more planned approach to normalising technology use, starting with “a careful Needs Audit ... to assess the possible value of the technology ... [then] to devise a structured Learning Plan through which to prepare for the implementation of the technology” (p.11). He also recommends a research programme alongside this to make clear “the main elements impeding or promoting normalisation, and ways of proceeding most effectively towards that stage” (Bax, 2011, p.13), suggesting that teachers can benefit from a greater emphasis on more coordinated and targeted collaboration within their teaching communities, which in turn can support the normalisation process.

## **6. Conclusion**

This study has explored the extent to which normalisation is happening in English Language classes in secondary schools across Malaysia and the factors affecting this. It took as a starting point the view expressed by Bax (2003a) that normalisation can be considered to have taken place when we use technology in a class in the same way as we use a pen, seamlessly, without noticing we are even using it. In this sense, normalisation does seem to have occurred to some degree in the setting, with a number of contextually-appropriate technological tools now commonplace in the classroom. However, we would suggest this remains heavily dependent on the goodwill of teachers to use their personal devices to facilitate this and is an area where potential further investment by the Ministry of Education is needed in order to facilitate the normalisation process.

Bax’s pen analogy has been a powerful one in terms of understanding what a normalised *state* might look like. However, in terms of the *process* of reaching a normalised state, this study highlights the importance of a context-dependent view of normalisation, recognising the ecological complexity of English language environments and the importance of developing an approach to teaching with technology that is grounded in local realities (Tudor, 2003). Context thus both facilitates normalisation and shapes its interpretation, and so needs to be taken into account whenever the introduction of new technology is being considered if this introduction is to be successful. As illustrated by this study, focusing on English language teachers working across Malaysia, country-wide training sessions or calls to adopt particular technological tools without considering their suitability for specific contexts are often ineffective and could in fact impede the normalisation process. This can be seen, for example, in the mixed success of the use of the authoring software tool Kahoot. Teachers should be encouraged to conduct needs analyses in relation to their own specific context, requesting training in particular tools. This would help ensure appropriate and ecologically sustainable tools are adopted, thereby facilitating normalisation.

The study also suggests a need for a higher level of targeted collaboration within teaching communities in Malaysian secondary schools than is currently occurring. To encourage this,

awareness of the value of collaboration in developing TPACK needs to be raised. This could be fostered by placing greater focus on teachers working together to produce lesson plans and develop materials, which would enable teachers, through systematic group reflection, to integrate contextually-appropriate tools that *they* identify for use in *their* schools. This in turn might create the collegial investment and critical mass necessary to move the normalisation process forward.

In terms of limitations of the study, given its small scale, care should naturally be exercised in generalising the findings beyond this setting. With this in mind, further research exploring the importance of context and community in the normalisation process, across a wider range of settings, is recommended.

In summary, it is clear that, in terms of achieving a normalised state of technology use in language classrooms whereby technology is used seamlessly in the same way as a pen might be used, technological shortcomings and other barriers still remain. However, in terms of moving discussions around normalisation forward, instead of considering it as a single context-free final *state* and predominantly focusing on these shortcomings and barriers, it needs to be viewed it as a complex, dynamic, context-dependent and community-based *process*. This in turn may result in more realistic context-appropriate goals being set in terms of technology use and also provide a viable strategy, through encouraging a more collaboration-focused approach, for achieving those goals.

## References

Balchin, K. & Wild, C. (2015). Expanding the vision: A study of trainee teachers' beliefs about using technology in the English language classroom. *Asian EFL Journal*, 17(4), 37-67. Available at:

<http://asian-efl-journal.com/9208/quarterly-journal/2015/12/volume-17-issue-4-december-2015-quarterly-journal>

Balchin, K. & Wild, C. (2016). Exploring the role of recently-qualified English teachers in developing technology use in language classrooms through communities of practice, in *British Council ELT Research Papers 16-05*. London: British Council. Available at:

<https://www.teachingenglish.org.uk/article/exploring-role-recently-qualified-english-teachers-developing-technology-use-language>

Balchin, K. & Wild, C. (2018). It's all in the numbers: enhancing technology in urban and rural environments. In Tafazoli, D., Gomez Parra, M.E. & Huertas-Abril, C. (eds.) *Cross-cultural perspectives on technology-enhanced language learning* (pp. 203-221). Hershey (PA), USA: IGI Global.

Bax, S. (2003a). CALL - past, present and future. *System*, 31, 13-28.

Bax, S. (2003b). The end of CLT: A context approach to language teaching. *ELT Journal*, 57(3), 278-296.

Bax, S. (2011). Normalisation revisited: The effective use of technology in language education. *International Journal of Computer-Assisted Language Learning and Teaching*, 1(2), 1-15.

Becuwe, H., Roblin, N., Tondeur, J., Thys, J., Castelein, E. & Voogt, J. (2017). Conditions for the successful implementation of teacher educator design teams for ICT integration: A Delphi study. *Australasian Journal of Educational Technology*, 33(2), 159-172.

Burkhalter, N. (2013). Overcoming resistance in post-soviet teacher trainees in Kazakhstan, *Asian EFL Journal*, 15(2), 248-279.

Burns, A. & Richards, J.C. (eds.) (2009). *The Cambridge guide to second language teacher education*. Cambridge: Cambridge University Press.

Cardenas-Claros, M. & Oyanedel, M. (2016). Teachers' implicit theories and use of ICTs in the language classroom. *Technology, Pedagogy and Education*, 25(2), 207-225.

Chambers, A. & Bax, S. (2006). Making CALL work: Towards normalization. *System*, 34, 465-479.

Cheok, M., Wing, S., Ayub, A. & Mahmud, R. (2017). Teachers' perceptions of e-learning in Malaysian secondary schools. *Malaysian Online Journal of Educational Technology*, 5(2), 20-33.

Coombe, C. & Davidson, P. (2015). Constructing questionnaires. In Brown, J. & Coombe, C. (eds.), *The Cambridge guide to research in English language teaching* (pp. 217-223). Cambridge: CUP.

Cutrim Schmid, E. (2008). Interactive whiteboards and the normalisation of CALL. In de Cassia, R., Morriott, V., Torres, P. L. (eds.), *Handbook of research on e-learning methodologies for language acquisition* (pp. 69-83). IGI Global: USA.

Do Thi Ha & Freiermuth, Mark R. (2020). A need to communicate: an intercultural story of motivation generated in disrupted text-based electronic chat. In Freiermuth, M. & Zarrinabadi, N. (eds.), *Technology and the psychology of second language learners and users* (pp. 467-490). Cham: Palgrave Macmillan.

Ertmer, P.A., Ottenbreit-Leftwich, A., & York, C.S. (2006). Exemplary technology-using teachers: perception of factors influencing success. *Journal of Computing in Teacher Education*, 23(2), 55-61.

Fullan, M. (2015). *The new meaning of educational change*. (5th ed.). New York: Teachers College Press.

Ghavifekr, S., Kunjappen, T., Ramasamy, L. & Anthony, A. (2016) Teaching and learning with ICT tools: issues and challenges from teachers' perceptions. *Malaysian Online Journal of Educational Technology*, 4(2), 38-57.

Gimeno-Sanz, A. (2016). Moving a step further from "integrative CALL". What's to come? *Computer Assisted Language Learning*, 29(6), 1102-1115.

He, B., Puakpong, N. & Lian, A. (2015). Factors affecting the normalization of CALL in Chinese senior high schools. *Computer Assisted Language Learning*, 28(3), 189-201.

Hewson, C., Vogel, C. & Laurent, D. (2016). *Internet research methods* (2nd ed.). London: Sage.

Hockly, N. (2014). Digital technologies in low-resource contexts. *ELT Journal* 68(1), 79-84.



- Huberman, M. & Miles, M. (1984). *Innovation up close*. New York: Plenum.
- Johnson, K. (2009). Trends in second language teacher education. In Burns, A. & Richards, J.C. (eds.), *The Cambridge guide to second language teacher education* (pp. 20-29). Cambridge: Cambridge University Press.
- Kennedy, C. & Levy, M. (2009). Sustainability and computer-assisted language learning: factors for success in a context of change. *Computer Assisted Language Learning*, 22(5), 445-463.
- Kruse, S., Louis, K. & Bryk, A. (1995). *Building professional learning in schools*. Madison, WI: Center on Organization and Restructuring of Schools.
- Lave, J. & Wenger, E. (1991). *Situated learning: legitimate peripheral participation*. Cambridge: Cambridge University Press.
- Mahdi, H. (2013). Issues of computer assisted language learning normalization in EFL contexts. *International Journal of Linguistics*, 5(1), 191-203.
- McLaughlin, M. & Talbert, J. (2001). *Professional communities and the work of high school teaching*. Chicago: University of Chicago Press.
- Ministry of Education Malaysia (2013). *Malaysian Education Blueprint 2013-2025*. Putrajaya Malaysia: KPM.
- Mishra, P. & Koehler, M. (2006). Technological pedagogical content knowledge: a new framework for teacher knowledge. *Teachers College Record*, 108, 1017-1054.
- Murray, G. (2009). Narrative inquiry. In Heigham, J. & Croker, R. (eds.) *Qualitative research in applied linguistics: a practical introduction*. (pp. 45-65). Basingstoke: Palgrave Macmillan.
- O'Connor, H. & Madge, C. (2017). Online interviewing. In Fielding, N., Lee, R., & Blank, G. (eds.), *The SAGE handbook of online research methods* (2nd ed., pp. 416-434). London: Sage.
- Olivier, J. (2020). Gliding across the digital divide with high anxiety electronic resource selection toward self-directed writing practice in a South African EAP context. In Freiermuth, M. & Zarrinabadi, N. (eds.), *Technology and the psychology of second language learners and users* (pp. 403-431). Cham: Palgrave Macmillan.
- Peeters, W. & Pretorius, M. (2020). Facebook or Fail-book: exploring "community" in a virtual community of practice. *RECALL*, 16(2), 377-395.
- Rahmany, R., Sadeghi, B. & Chegini, A. (2014). Normalization of CALL and TPACK: discovering teachers' opportunities and challenges. *Journal of Language Teaching and Research*, 5(4), 891-900.
- Razak, N.A., Ab Jalil, H. & Ismail, I.A. (2019). Challenges in ICT integration among Malaysian public primary education teachers: the roles of leaders and stakeholders. *International Journal of Emerging Technologies in Learning*, 14(24), 184-205.
- Richards, J. C. & Rodgers, T. S. (2014). *Approaches and methods in language teaching* (3rd ed.). Cambridge: Cambridge University Press.

Richards, L. & Morse, J. (2012). *Readme first for a user's guide to qualitative methods* (2nd ed.). London: Sage.

Rohaan, E., Taconis, R. & Jochems, W. (2010). Analysing teacher knowledge for technology education in primary schools. *International Journal of Technology and Design Education*, 22, 271-280.

Saudelli, M. & Ciampa, K. (2016). Exploring the role of TPACK and teacher self-efficacy: an ethnographic case study of three iPad language arts classes. *Technology, Pedagogy and Education*, 25(2), 227-247.

Thomas, M., Reinders, H., & Warschauer, M. (2012). Contemporary computer-assisted language learning: the role of digital media and incremental change. In Thomas, M., Reinders, H. & Warschauer, M. (eds.), *Contemporary computer-assisted language learning* (pp. 1–12). London: Bloomsbury Publishing.

Tudor, I. (2001). *The dynamics of the language classroom*. Cambridge: Cambridge University Press.

Tudor, I. (2003). Learning to live with complexity: towards an ecological perspective on language teaching. *System*, 31, 1-12.

## **Appendix A: Survey Questions**

1. What type of school are you teaching in (urban, rural, remote rural)?
2. Which hardware/software is available for you to use?
3. Are you expected to use activities involving technology in your teaching?
4. What, if any, activities involving technological tools do you currently use in your classroom teaching?
5. Where do you find your activities?
6. Where do these activities involving technology take place?
7. What has encouraged you to use these activities?
8. What prevents/hinders you from using activities involving technology?