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COMMENTARY

The use of *GoSoapBox* for teaching and learning

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Abstract: The complexity of relationships between teaching and learning practices is increasing as we rethink higher education in the age of Information and Communication Technologies (ICT). The availabilities and capabilities of ICT tools enable us to explore the process of teaching and learning in a more unconventional manner. This paper seeks to share an online ICT tool, *GoSoapBox*, that comprises three key pedagogical ideas in teaching and learning: student interaction (via Discussion), student engagement (via Quiz), and student evaluation (via Poll). While the emphasis is not on advocating the ICT product, the recognition of the affordances of this suggested tool is significant in ensuring the pedagogical ideas could be achieved. Apart from the fundamental benefits that *GoSoapBox* could offer, the paper also outlines innovative ideas that could advance the process of teaching and learning by adopting the proposed tool in the classroom, including the positive sharing from the academics who had used this tool before, as well as the limitations of the tool which need to be aware of when using it for academic purposes. The paper concludes that constant analysis of practices drives the improvement of teaching and learning processes, with the possibility of incorporating a suitable ICT tool to make this process more efficient and effective.

Keywords: *GoSoapBox*, active learning, higher education, teaching and learning

1 Background/Context

As an academic developer in higher education and a lecturer in e-learning, the author has had the privilege of engaging in research and academic activities in the area of educational technology. The author is referring to the academic activities of teaching and learning that takes place within the university context whether by academics, postgraduates, or undergraduates, especially in the use of Information and Communication Technologies (ICT).

This paper explores opportunities for active learning that are emerging from the use of a user friendly web based platform (*GoSoapBox*) which can be operated on any internet connectable device. It resembles the similar use of the traditional clickers in the classrooms. Through the active interactive space, openness is achieved through the transparency gained from *GoSoapBox* in different activities (*e.g.*, participating in a discussion forum, a poll, or a quiz as detailed in the sections below). Along with the flexibility and focus on the learners that open practices offer, the use of *GoSoapBox* also incorporates the following pedagogical ideas:

(1) enhancing learners' experiences through personalised pathways;
(2) ensuring learning quality and student engagement;
(3) encouraging open and public participation.

Simultaneously, students and teachers are expected to have good social and communications skills, and be proficient in digital and information literacies through the use of *GoSoapBox*. This involves teaching and learning practices for the digital age, including as follows:

(1) digitally-enhanced teaching and learning practices;
(2) pedagogy for a digital age;
(3) competency in using ICT.

2 Rationales for adopting the tool

This paper aims to serve as a practice sharing piece for the *audience* who are interested in using an interactive tool in the process of teaching and learning in order to engage with the students more proficiently using *GoSoapBox*. Adopting TPACK (Technological Pedagogical Content Knowledge) proposed by Mishra and Koehler (2006) [1], the rationale of adopting ICT in the process of teaching and learning in general is to enhance technological knowledge

(TK), pedagogical knowledge (PK), and content knowledge (CK) in the classrooms. The use of *GoSoapBox* in the teaching and learning process seems to be able to fulfil all three aspects, especially when the tool creates a transparent space between teachers and students in and outside of the classroom. Such transparency could be gained through three suggested activities: knowledge testing exercises, teacher and students' discussions on various relevant topics, and students' feedback. Coincidentally, *GoSoapBox*, a real time web-based clicker tool, appears to be able to provide all these opportunities in a direct manner with its Quizzes, Polls, and Discussions functionalities (see Figure 1).

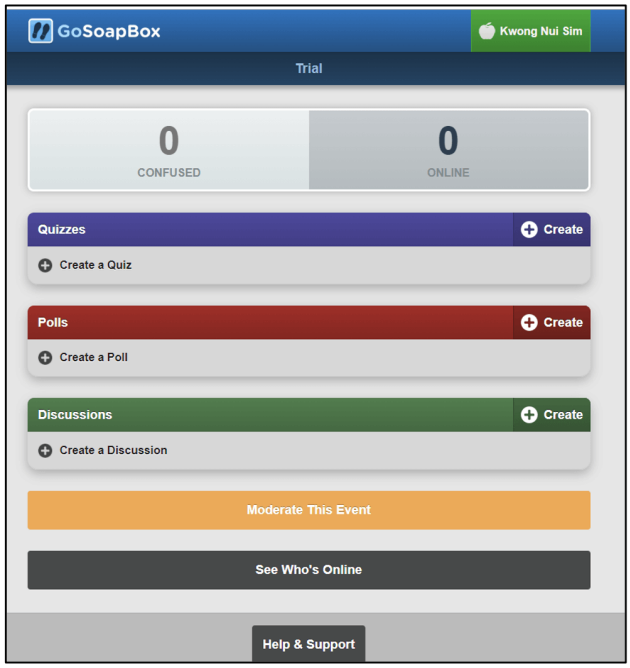


Figure 1 The interface of *GoSoapBox*

Further, the transparent space is warranted when the students do not need to create an account on *GoSoapBox* and they can log in as an anonymous participant with a customised code provided by the teacher as presented in the Figure 2.

Figure 2 The participants' login on *GoSoapBox*

Lastly, the teacher can always integrate the use of *GoSoapBox* on the dedicated learning management system (see Figure 3) for the ease of students' navigation in different activities, as mentioned previously with the teacher's control on locking or unlocking the designed activities (see Figure 4).

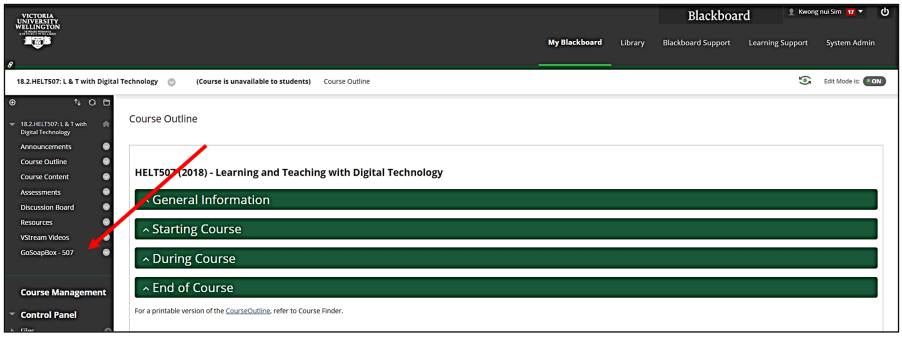


Figure 3 A *GoSoapBox* tab with the customised code for one of the author's courses on the learning management system

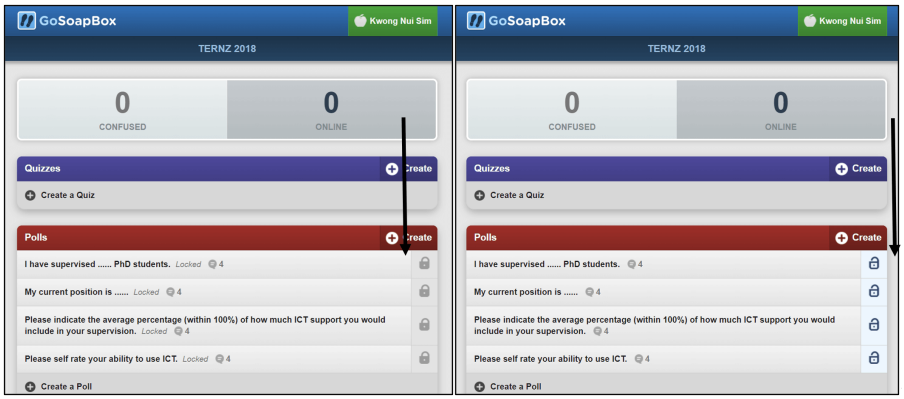


Figure 4 Locking and unlocking the Polls activities by clicking on the icon

3 Knowledge exchanges via *GoSoapBox*

One of the key learning outcomes for our students is to develop their abilities to communicate and apply what they have learned in the course. A common way of such communication is through active interaction in the classroom and recent studies show its importance in today's higher education (*e.g.*, Cheng et al., 2014 [2]). Students learn a great deal by explaining their ideas to others and by participating in activities in which they can learn from their peers [3]. For example, Hwang, Chang, Chen, and Chen's (2018) [4] study revealed that active interaction "not only improved the students' learning achievements as well as their learning motivation and local culture identity, but the students who learned with [such] approach also demonstrated more active behavioral patterns than those who learned without the active learning-promoting mechanism" (p. 1). Moreover, research has proved that students learn better by communicating their ideas to others and by learning from their peers (*e.g.*, Boud et al., 2014 [3]). Learning occurs when there is a constructive interaction with other peers, which is in line with Piaget's and Vygotsky's theories of learning. Both Piaget and Vygotsky underlined peers as mediators of learning. The former pointed at the importance of cooperative social exchange between equal partners [5, 6], and the latter pointed at the importance of peers who have more ability than the apprentice [7]. An example of a discussion on a topic is illustrated in Figure 5, using *GoSoapBox* as a communication tool in this case.

In addition, cooperative learning (*e.g.*, Tsay and Brady, 2010 [8]) has also increasingly become a popular form of active learning pedagogy in postgraduate courses. Such learning will lead to a more open approach to research, especially for postgraduates. A current study demonstrated that cooperative learning has "significant higher learning motivation" among the postgraduate students as "students can actively acquire and implement the learnt knowledge" with their peers [9]. Figure 6 offers an example of a discussion topic among a group of PhD students.

It is worth noting that the anonymity option on *GoSoapBox*, as previously highlighted, has not only granted a more transparent communication channel but also has created a safe space for both teachers and students to discuss on sensitive topics as presented in Figure 6. Given the nature of PhD study in some parts of the world, where the entire doctoral research process is bound to the teamwork between supervisors and doctoral students, some students might not be comfortable discussing topics related to their supervision. However, the unidentifiable

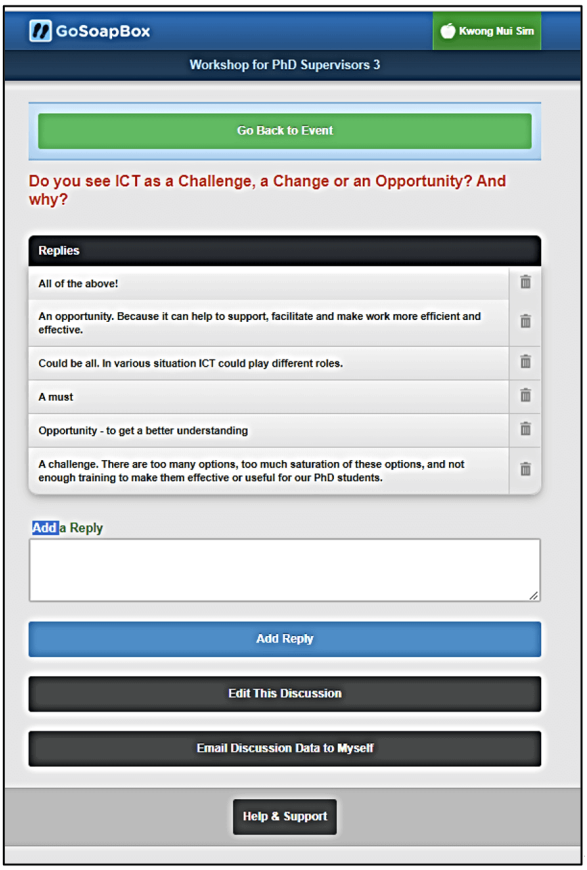


Figure 5 A screenshot of a discussed topic on *GoSoapBox*

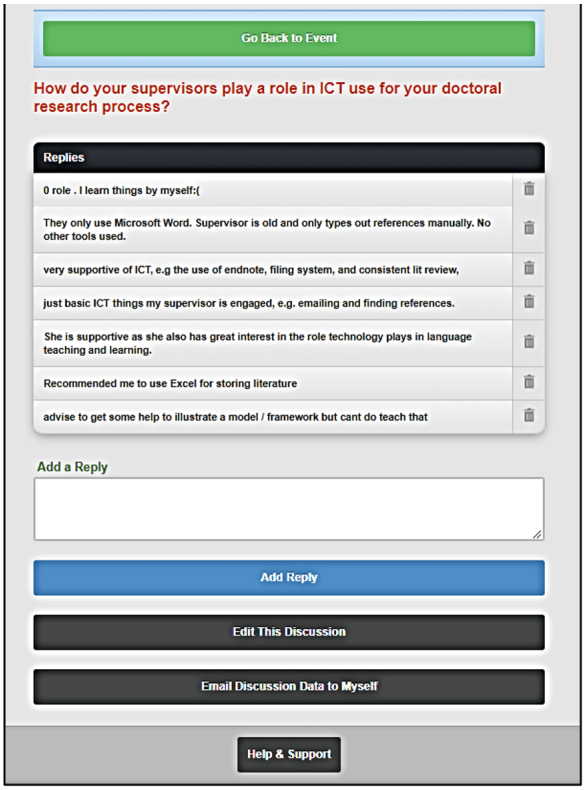


Figure 6 A discussion session with a group of PhD students

feature on the discussion forum allows this topic to be communicated openly as noted in Figure 6. Alternatively, PhD supervisors could establish an online discussion space like this within a research group between doctoral students and supervisors in order to cultivate a more open approach to research ideas exchange sessions [10]. Additionally, this functionality could be adopted when there are international students in the classrooms as it is found that Asian and Māori, as well as Pacifica, students could be quieter when it comes to verbal discussion sessions [11].

In short, by using an ICT tool such as *GoSoapBox* to enhance interactivity in the classroom, the transparency of the communication could be achieved through the increased interaction between students and students as well as between students and teachers. This in a way demystifies the possible passive learning process and/or the teacher centric classroom setting.

4 "Testing the Water" via *GoSoapBox*

Among all the challenges in the teaching and learning process, one of them is to understand to what extent our students have grasped the knowledge they have learned at different stages in a course. Quiz seems to be an option in this context. While Quiz could be used as a form of formal assessment, it could also be used as an online ungraded educational game when a web-based environment seems to be able to create a more conducive learning platform [12]. Depending on the pedagogical purposes, the students could participate in the quiz in or outside the classroom prior, during, or after the class as the teachers have the full control (i.e., locking and unlocking the participation) on the quiz functionality as depicted in Figure 4. Besides, there are two types of quiz questions that could be created on *GoSoapBox*: multiple choices and short answers (see Figure 7).

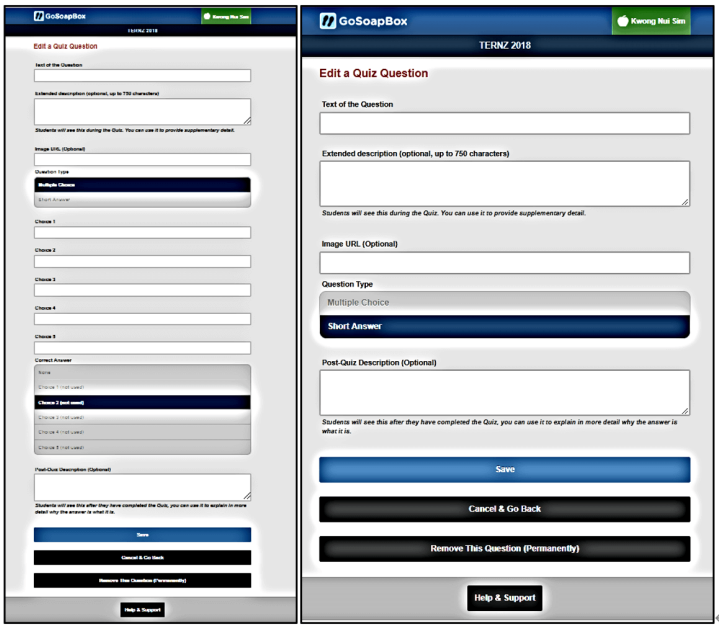


Figure 7 Two types of quiz questions settings on *GoSoapBox*

Most importantly, the teacher can preset the correct answers for all the multiple choices questions as well as the feedback for the incorrect answers so that students can receive the feedback as soon as they complete the quiz. An example of quiz completion by a cohort of students is displayed in Figure 8.

When the cohort of students have completed the quiz, the teacher can downloaded the responses in a spreadsheet format (see Figure 9).

As shown in Figure 9, the incorrect responses would be highlighted in red and the teacher could see individual students' performances in Column F (subject to the multiple choices only). This would seem appropriate in terms of supporting the process of knowledge building in this online setting [13], and a study which examined the use of a quiz activity in the process of teaching and learning disclosed that it can improve student learning [14].

In short, by using an ICT tool such as *GoSoapBox* to enhance students' learning in the classroom, the engagement between the teaching and learning could be strengthened through an informal online activity (i.e., quiz). This, in a way, supports the student-centered classroom

setting as well as determining to what extent the students have learned at different stages of the course.

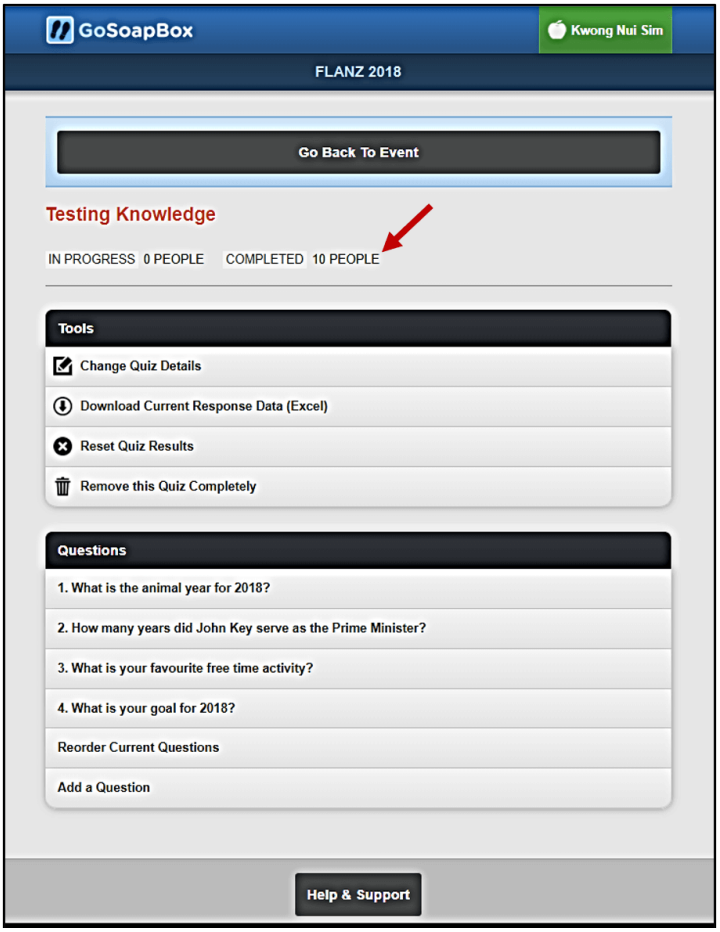
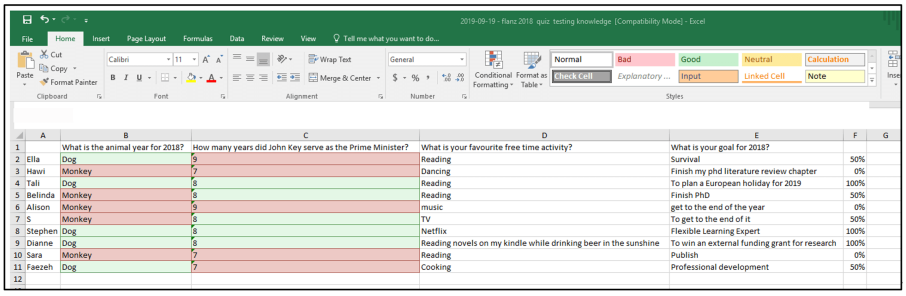


Figure 8 The teacher can check if everyone in the cohort has completed the quiz



	A	B	C	D	E	F	G
1		What is the animal year for 2018?	How many years did John Key serve as the Prime Minister?	What is your favourite free time activity?	What is your goal for 2018?		
2	Ella	Dog	9	Reading	Survival	50%	
3	Hawi	Monkey	7	Dancing	Finish my phd literature review chapter	0%	
4	Tali	Dog	8	Reading	To plan a European holiday for 2019	100%	
5	Belinda	Monkey	8	Reading	Finish PhD	50%	
6	Alison	Monkey	9	music	get to the end of the year	0%	
7	S	Monkey	8	TV	To get to the end of it	50%	
8	Stephen	Dog	8	Netflix	Flexible Learning Expert	100%	
9	Dianne	Dog	8	Reading novels on my kindle while drinking beer in the sunshine	To win an external funding grant for research	100%	
10	Sara	Monkey	7	Reading	Publish	0%	
11	Faezeh	Dog	7	Cooking	Professional development	50%	
12							

Figure 9 A sample of downloaded responses for a quiz

5 Teaching development via *GoSoapBox*

Student evaluation of teaching is a common part of higher education for many years [15]. Nevertheless, the constantly evolved yet unsolved issues are the low student response rates and that evaluation only takes place after the course ends. While the latter serves the purpose of improving the upcoming course, the current cohorts' needs are overlooked. Therefore, the possibility of having an informal student evaluation at an early stage of a course, such as before the mid-term break, could provide an opportunity for the teacher to address the existing students' learning needs by adjusting the teaching and learning process in the second half of the course. Similar to the discussion tool, the Poll function on *GoSoapBox* is also anonymous (see an example in Figure 10).

Not only has the use of student evaluation been proposed as a means to benefit teacher professional development [16], it appears to lead to changes in the classroom as well [17]. Using

the example in *Figure 10*, it is a clear indication that the majority of students were satisfied with the workshop experience. Student satisfaction reflects student learning involvements as a recent study exposed that student satisfaction is closely associated with students' overall university experiences, especially for the international students [18]. This method of gaining student evaluation is current, instant, punchy. Afterall, "until those who typically assess teaching are force-fed the old fashioned, dry, and boring psychometric facts of life, [the formal] teaching assessment will continue to be invalid" [19].

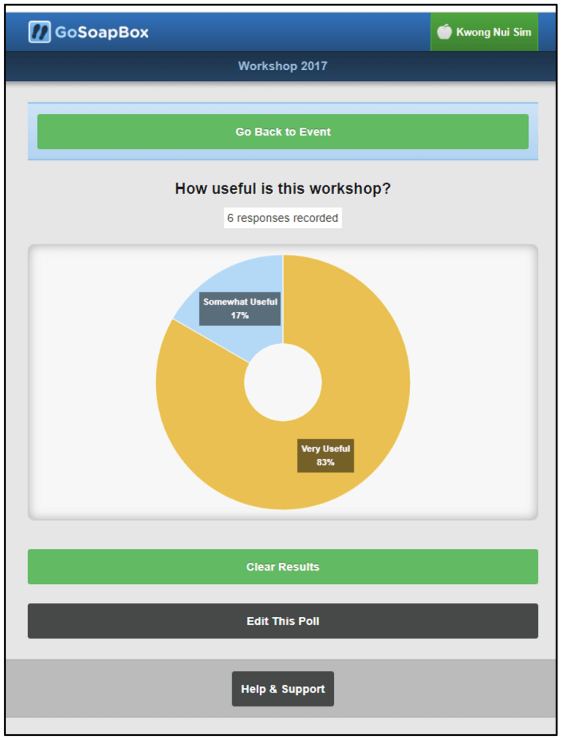


Figure 10 An example of the workshop evaluation collection

Apart from receiving student evaluation of the course for teaching development, the poll tool could also be used to gain students' voices in various matters. For example, this online platform could run a democratic election for a class representative (see Figure 11).

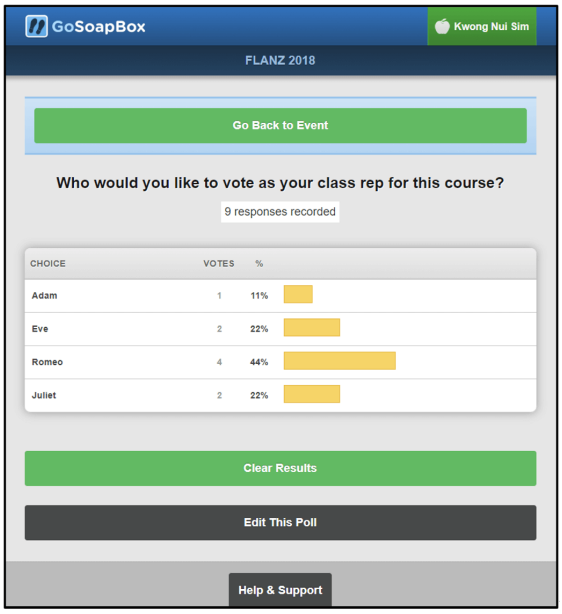


Figure 11 An example of an instant selection of a class representative

Such student voice is significant in the process of teaching and learning. As highlighted by Pearce & Wood (2018) [20]:

"*Broadly speaking, student voice initiatives involve the consultation of, feedback from and engagement of students in their education [21]. Such goals emphasise ideals of freedom, autonomy and self-determination through the democratic participation of young people, offering broad appeal in Western countries.* (p. 113)"

In short, by using an ICT tool such as *GoSoapBox* to enrich student interaction in the classroom, the relevant activities could be developed and run through an online platform with visual effects (i.e., pie or bar chart). This in a way helps to establish the community of learners [22] where the members learn from each other and have the opportunity to develop both personally and professionally through the process of sharing information and lived experiences [23]. Based on the current literature, it is clear that ICT is a powerful tool to inclusively support a more diverse student population (i.e., different ethnic backgrounds including indigenous people). The sense of belonging among students is one of the key factors to drive peer learning. With the current interest in ensuring retention and success of students, there is a need to improve community practice and, within that, advance understandings and practices about how to support students in their use of ICT for academic practices.

6 Feedback thus far

Given the author's role at the university as mentioned earlier in this article, the author has managed to run a workshop on the pedagogical use of this online tool for the past few years. The goal of the workshop is to share a simple yet a suitable technological interactive space which could allow a teacher to have better engagement, communication, and rapport with students as well as among students. The feedback that the author has received thus far is generally positive and some of the selected short answer ones are represented as below for reference:

"Useful for working with students." [Trimester 2, 2019]

"Especially interested to see the discussions ... so that students can give anonymous live feedback." [Trimester 3, 2018]

"The potential use of the application outside of the classroom environment." [Trimester 1, 2018]

"We are planning to try GoSoapBox to collect student feedback part way through a course, following a particular module." [Trimester 3, 2017]

Unexpectedly, there is an academic who sent the author an email after incorporating *GoSoapBox* in her course for a trimester as the experience as well as the student evaluation were positive and encouraging:

"I just looked at my course evaluations and there is overwhelming approval of the tool from my students." [Associate Professor, Faculty of Law, 2018]

All in all, the experience of using *GoSoapBox* among the academics at the author's institution has been reassuring and there are even more innovative uses emerged from those experiences. Again, using the lens of TPACK, the feedback from the students as well as the academics demonstrated the boost of TK (i.e., the adoption of the tool for different purposes in the teaching and learning process), CK (i.e., the better understanding of students' learning outcomes through the activity participations on the tool) and PK (i.e., the teacher-student engagement/interaction via the use of the tool especially outside of the classroom) for enhanced teaching and learning experiences. Such enhancement aligns with Rabardel and Bourmaud's idea about "the continuation of design in usage" (2003) [24] of an ICT tool. An ICT tool is only meaningful in the teaching and learning process when we improve the use pedagogically and this improvement comes from ongoing work of planning, designing and even thinking outside the box. This echoes well with Beǵuin and Rabardel's argument on "the design of technical objects deliberately draws from and is geared to the user's activity" (2000) [25].

7 Limitations

As with any other ICT tool, there are limitations of *GoSoapBox* on the user experience. Firstly, the free trial version only allows a limited number of participants on the platform. The only way to work around this is to create the same activity multiple times for different groups of students in order to accommodate all the students in the class. Alternatively, the institution might need to consider purchasing a license so that either big classes or small classes are able to use the tool at ease. Secondly, there is only limited space for one to contribute on the discussion forum. Different from other discussion tools on other platforms, the one on *GoSoapBox* limits each input based on the character count. In other words, the discussion tool on *GoSoapBox* is not suitable for a lengthy discussion but works more towards a quick answer or a brainstorming idea response (see Figure 5 and 6). Lastly, *GoSoapBox* only permits text inputs so there is no

way one can insert any multimedia inputs (*e.g.*, pictures, audio clips, video clips, etc.). Even when a link is inserted, it will appear as plain text instead of a hyperlink that can lead to the site. Understanding these limitations is important for a teacher when designing activities for the course as well as determining to what extent the tool could be adopted in the teaching and learning process.

In terms of the presentation of this paper, instead of being empirical, an autoethnography approach is adopted. This approach goes beyond narrating personal stories; it invites the author to generate data from their own lives and to ground this data in the interaction of academic life [26]. And in line with the broad interpretive approach that framed and governed the author's approach to this investigation, thematic analysis [27] is adopted and the capture of major and common ideas [28] expressed by the author's workshop participants about their individual *GoSoapBox* experiences. This approach helped the author to articulate understanding of the perspectives held by the participants that matched the participants' expressed perceptions. This understanding is then merged with the autoethnographic sharing in order to generate assertions about the extent of an ICT tool, such as *GoSoapBox*, does the justice of enhancing teaching and learning experiences.

8 What is next

As noted earlier, the daily academic activities that the author engages take place within the university context and involve participants that are academics, postgraduates, and undergraduates who want to learn about the use of ICT for teaching and learning practices. This emerging area is significant in today's higher education domain when the complexity of relationships between teaching and learning practices is increasing as we rethink higher education in the digital age, especially in the context of post global COVID-19 pandemic. The growing availability and capability of digital tools enable us to explore the process of teaching and learning in new ways, and can even change the way we teach and learn. This has led the author to reflect on and explore various teaching, learning, and research ideas that could advance the author's understanding of how students and academics go about acquiring the skills and knowledge needed to advance the process of teaching and learning in relation to the use of ICT. Nevertheless, the author is very aware of the reality that the use of any ICT tool indicates a learning curve for teachers as well as for students as it is an understanding of the interactions among technology (TK), pedagogy (PK), and content (CK) during teaching and learning process, in addition to eliminate "the essential discriminating characteristic of CSCL (Computer Supported Collaborative Learning) systems" [29].

9 In summary

The real-world application of educational research outcomes is to improve the process of teaching and learning that is informed by an analysis of its practice. Such improvement involves insights into what, where, why, and how a method can make a difference to both teaching and learning experiences. While *GoSoapBox* is not a perfect ICT tool, and there might be other similar tools on the market to be adopted, the key message behind this sharing piece is to generate awareness of lifting the teaching and learning quality by making use of the affordances of an easily accessed ICT tool. After all, the focus is never on the ICT tool itself but the ways to make the process of teaching and learning more efficient and effective for the benefits of both teachers and students.

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