The Role of Interactive Technology in Inclusive Education: A Case Study

Sri Rahayu*

Universitas Asahan, Indonesia

Corresponding Author: srir99774@gmail.com

Article history: received November 07, 2023; revised November 28, 2023; accepted December 13, 2023

This article is licensed under a <u>Creative Commons Attribution 4.0 International License</u>



Abstract: It can be difficult for many teachers to get pupils interested in or motivated to participate in class. The danger of disengagement is higher for international students in particular because of their conflicting priorities and social constraints. Utilizing interactive technology can improve student inclusion and experience while encouraging active learning. The purpose of this case study is to investigate how one of the most widely used interactive technologies affects international students' educational experiences in real-world settings. According to the study, integrating interactive technology into lectures clearly improved student learning, helped them meet learning objectives, and increased their enthusiasm. It made it easier for pupils to participate fully in the assessment activities and to speak up without feeling intimidated or under pressure from peers or teachers. The lead time needed for professors and students to receive training on better technology use was one of the problems that the study also noted. By presenting evidence-based implications of adopting interactive technology in higher education, the study adds to the body of information already in existence.

Keywords: Education, Interactive, Technology

I. INTRODUCTION

In the digital era, the availability of innovative technology provides a great opportunity for educators to shift from learning that is centered on teaching staff or teachers according to McGarr, 2009. Teacher-centered learning is likely not able to help students, especially international students who are reluctant to get involved. in class activities. This is due to cultural and language barriers. Students usually have their own priorities which means they may not have motivation in every activity in their studies. Apart from that, peer pressure at school also plays an important role in preventing students from returning to class. Therefore, their involvement is quite limited and not optimal according to Zhou et al., (2008).

Meanwhile, according to Rashid & Ashgar (2016), the use of appropriate technology can help and also make it easier to overcome the lack of student engagement. Many online interactive tools are now available that can serve this purpose. Such as Socrative, Mentimeter, GoSoapBox, and also Poll Everywhere which adopt a different approach in the practice of developing interactive content in terms of advancing education which turns out to be effective in the aspect of involving pupils or students.

Many studies have conducted studies on the impact of using various types of interactive technology on student education in different contexts. However, only a little research has been carried out in the aspect of thoroughly understanding the practical implications of using interactive technology on the learning experience of students, especially international students who come to other countries. Therefore, this research aims to understand the practical implications of using the Mentimeter application. This technology is an interactive technology that can provide learning experiences for students.

According to thoughts and research from Introna et al (2003), students, especially international students, face a number of challenges in the aspect of continuing their studies, especially in foreign countries. The major adjustments made by these students usually occur in cross-cultural aspects, language and academic challenges that come simultaneously into their lives.

Language barriers are a fairly common and dominant aspect when they come to a foreign country. This is also shown by a lack of self-confidence in communicating with peers due to the



inability to understand peers' accents and also other aspects such as English which are not mastered and understood easily. This results in subject analysis being less comprehensive and can also reduce efficiency in reading according to Phakiti & Li (2011). This makes students feel uncomfortable participating in class discussions due to language barriers based on the narrative of Hellsten & Prescott (2004).

Differences in learning and teaching styles can present major challenges for international students. The main concern, of course, is the limited thinking of students and also learning that is too centered on the teaching staff or teachers. According to Wang & Shah (2017), in Australia students are at the center of education with a foundation and basis for practical knowledge that is greater than theoretical knowledge.

Unknown and uncertain pedagogy is one of the important challenges experienced by students, especially in the aspect of organizing their assessments. Although assessments in most Asian countries focus more on final exams and rote learning, there are also some schools that prioritize assessments from oral presentations to class participation and also exams which are an important package.

The same thing also happens with financial problems that have an impact on students. Financial problems are an important issue that significantly influences students' academic life. This is due to the absence of family and relatives who can cover living and education costs for international students. This is due to the large tuition fees and also limited access to loans and also other aspects according to Poyrazli & Grahames (2007).

Measuring aspects of students' understanding of the material being taught is quite a difficult task for teachers according to Funnell (2017). There are times when students feel reluctant to raise their hands and ask their teachers questions which are still considered negative and also bad for involvement in the learning process in the classroom. To overcome this problem, the Audio Response System or ARS began to be used in 1985 to encourage interaction between students and teachers in small and large classrooms.

ARS has a role as a response system from students, a direct response system and also an electronic feedback system to classroom communication systems. ARS has the potential to provide pedagogical change in a learning environment that was previously teacher-centered to become student-centered and can encourage active learning. Apart from that, ARS can provide various benefits in the learning aspect.

In recent years, online ARS has begun to be used with the emergence of several applications such as Poll Everywhere, Mentimeter, and also Socrative. Unlike clickers, cloud-based online ARS makes it easier for students to bring their devices so they can participate in the teaching and learning process. This tool has a role and function as an "intermediary" to receive, tabulate and also present the data obtained. In this research, the author used a case study using Mentimeter. This tool is easy to use and does not require setup or installation which can reduce various complications in the installation process.

Mentimeter provides facilities in the aspect of developing interactive learning so that it can be used in the classroom. Students can connect directly using various devices connected to the internet. Students can answer questions and also ask questions on the screen in presenting comments anonymously according to Mayhew (2019).

Educators can design presentations via the Mentimeter platform according to their needs. The quiz function is one of the Mentimeter features which is very popular among students for competition and entertainment which can make the teaching and learning process more interesting. Another feature of Mentimeter is the use of word clouds which are quite fun to engage students and understand their perceptions in the teaching and learning process.



II. RESEARCH METHODS

This research uses a qualitative descriptive method which can help explore phenomena with the aim of investigating the practical implications of using Mentimeter on students' learning experiences. Data was collected in this research from 2 main sources consisting of direct observation and secondary data analysis from research subjects.

In qualitative research, data validation is the process of determining accurate results from the perspective of researchers and respondents. One way to increase the credibility of qualitative case studies is by using triangulation according to Yin (2014). Triangulation can involve the use of various sources in terms of obtaining data in order to increase the suitability of the results of the research conducted. In this research, data triangulation is used which involves collecting data from various subjects including individuals, groups, families and communities, in order to obtain various perspectives and data validation.

In this research, various data sources were used to support these research activities. Direct observation was used to triangulate the data collected with 2 surveys consisting of a series of questions to triangulate the observation results. In this research, various data sources were used to support these research activities. Direct observation was used to triangulate the data collected with 2 surveys consisting of a series of questions to triangulate the observation results.

III. RESULTS AND DISCUSSION

Based on observations, several teachers were using interactive technology for the first time in the teaching and learning process. Therefore, it took several days to provide education, training and explore the tool's features as a way to develop interactive slides for the teaching and learning process. Some teachers or other teaching staff still don't want to use the Mentimeter application and prefer to use traditional methods in their learning.

There is also a gap among teaching staff regarding their involvement in using the Mentrimeter tool. Apart from that, students also need time to be able to use the application while carrying out a *semi-flipped* classroom approach which is easier to apply in the teaching and learning process with the use of Mentimeter. It can be seen that students ask questions which are included in teaching materials and also quiz competitions which can motivate students to make extra efforts and also play an active role in the teaching and learning process. Apart from that, interactive slides can provide facilities to make it easier to understand the teaching and learning process.

Interactive slides help students actively participate in learning in class. The classroom environment also becomes more dynamic and interesting with various fun moments resulting from the contributions and interactions of the students. Students appreciated the anonymity gained in the process. The number of questions asked by the teaching and learning process using interactive technology has increased drastically compared to traditional methods where students are reluctant to ask questions orally during the teaching and learning process. However, some students still choose not to be involved in the teaching and learning process. There are still some anonymous questions asked in lectures that are not directly related to the content or ongoing learning.



Table 1.	Survey	results on	a 5	point Likert scal	e
Table 1.	Durvey	TOSUITS OF	u	DOING LINCIL SCA	

Table 1. Survey results on a 5 point Likert scale													
Indicator		1		2		3		4		5		Mea	elementa
2220220002		_		_				-			n	1.200	ry school
											n		
Mentimet		4		2		16		57		76		4.28	0.84
er enhances the													
learning													
experience													
		3		1		10		37		49			
	%		%		%		%		%				
Increase		5		1		6		75		68		4.29	0.79
		5		1		U		13		00		T.27	0.77
learn													
		3		1		4%		48		44			
	%		%				%		%				
The	70	1	70	0		5	70	50	70	0.4		1.50	0.02
		4		0		3		52		94		4.50	0.83
teachers help in													
learning													
		3		0		3%		34		61			
	%	3	%	O		570	%	51	%	01			
4 7 10	70	_	70	_		4.5	70	0.4	70	40		4.40	0.00
Adopting		4		2		17		84		48		4.10	0.89
a semi-flipped													
class model													
helps in terms													
_													
of learning													
		3		1		11		54		31			
	%		%		%		%		%				
Satisfied		4		0		8		87		56		4.23	0.77
with the quality				Ŭ		Ü		0.				3	
of this													
technology													
		3		0		5%		56		36			
	%		%				%		%				
	70		70				70		70				

This interactive technology is able to have a positive impact on student academic achievement. This can be seen in the student success rate which increased from 93 percent to 98 percent after using this technology. Likewise, the overall average score of the students increased significantly from 56% to 70%. Complete elimination of academic violations was able to achieve quite good results compared to the previous period. There were 30 cases reported. In addition, the average attendance rate increased significantly to 80%. Meanwhile in the previous period it was 25%.

In this research, a survey was conducted to obtain results regarding the students' learning experiences. This survey has a role in identifying areas related to the use and role of interactive technology. This survey contains 5-point Likert scale questions to assess their level of agreement. In this survey there are also several open questions which have a role in collecting data from 155 students with a response rate of around 64 percent. Table 1 presents the results of the survey and questionnaire.

By analyzing numerical data, the average student response is calculated for each question to obtain valid data. Every question that is above 4 shows that students are satisfied with the quality of teaching and also the implementation of the semi-flipped class model in the learning methods implemented.



The standard deviation for each aspect shows that individual responses that are below 1 point indicate that the majority of respondents are satisfied with each aspect asked about. This satisfaction was 4.23 out of a total score of 5. Students were also asked to rate the extent to which they agreed that Mentimeter was able to improve their learning experience. It was recorded that 49% of students strongly agreed with 37% agreeing that Mentimeter was able to improve their learning experience with an average calculated value of 4.28. Then 95% of respondents felt satisfied because the teaching staff also helped them learn with a score of around 4.5 out of 5. This is one of the data that is the most satisfying aspect that occurred in the research. Note that around 92% of students are satisfied that this can increase their learning motivation.

Table 2. Themes and associated codes from open-ended questions

Table 2. Themes and associated codes from operations of the codes from the code from the codes from the code	•
Theme & Code	Frequency
Increased learning outcomes	17
- Improved learning ability	4
- Knowledge is getting better	4
- Dynamic environment	4
- Increased learning experience	5
Enjoyable Learning Experience	23
- Fun class atmosphere	5
- Fun environment	9
- Innovative and attractive	5
- Integrated classroom environment	4
Increased motivation in learning	15
- Increased learning process	2
- Increased participation in class	9
- Increased motivation	4
Active in learning by using quizzes	14
- Active and spontaneous in lessons	7
- Learn through quizzes	2
- Very helpful quiz	1
 Quizzes that really increase student interest 	2
- Recap content with quizzes	1
- Interesting quiz	1
Two-way communication that works well	14
- Immediate feedback	2
- Two-way communication	3
- Active discussion in class	2
- Increased interest in learning	2
- Active in asking questions	5
Reduce fraud	4
- Mentimeter prevents cheating	3
- Increase motivation	1

In table 2, students provide responses regarding Mentimeter by saying "The use of Mentimeter encourages each student to actively participate in teaching and learning activities in class". And students also think that Mentimeter is effective in maintaining their academic integrity. The students also admitted that innovative teaching methods and instant *feedback could prevent cheating in the teaching and learning process as stated in the themes and codes in Table 2*.



The conclusion from Table 2 is that 6 different themes are presented which are taken from the analysis of the main practical implications of using this technology which are listed below:

- 1. Increased achievement of unit learning outcomes.
- 2. Enjoyable learning experience.
- 3. Increased learning motivation.
- 4. Active in learning by using quizzes.
- 5. Facilitate two-way teacher-student communication and instant feedback.
- 6. Prevent cheating.

Regarding students' responses to the second question, namely aspects of the technology that require improvement", the majority of students stated that they were happy enough with the delivery of the learning method that no further improvements were needed. However, it is hoped that Mentimeter can be used much more effectively and efficiently so that it can be used in interactive presentations.



Figure 1. Word cloud of the best aspects of the unit based on the final evaluation

Near the end of the semester, students are asked to participate in an evaluation survey regarding the unit's standards. It was recorded that 146 students attended the survey with a response rate of 61%. The results showed that students were satisfied and experienced an increase to 4.6 out of 5 when compared to 4.23 out of 5 in the evaluation. Next, the students were asked open questions about what are the best aspects that can be obtained from Mentimeter or this technology? This survey featured approximately 95 responses to this question. There were around 44 responses recorded stating that Mentimeter was the best aspect of the technology and learning method. Experienced an increase from 24% response in the previous evaluation.

The responses from the students are illustrated in the Word Cloud in Figure 1. The results show that students, at the beginning of the semester, did not seem familiar with the use of technological methods in the learning process and it took time for them to get used to the technology and delivery. Interactive lectures and tutorials with Mentimeter are of course very enriching and can also be the main attraction in the teaching and learning process.

This method is the best method and many students present the same views and opinions, confirming that a pleasant learning environment can be obtained and also achieved with interactive technology methods. Then an analysis was carried out regarding the responses from the students with these 6 themes

This research aims to carry out a test process regarding the practical implications of using Mentimeter on students' learning experiences. In discussing the identified practical implications for



these main areas, it is necessary to improve them to get maximum results. This research presents data that the introduction of Mentimeter as an interactive technology has had a positive impact on students' achievement of unit learning outcomes. This method is able to substantially increase the level of student success compared to the level of success in the previous semester where there is significant data.

The results of this research also show that this method is able to help teaching staff to be more effective in explaining complex concepts with technological facilities and also students' willingness to learn and participate actively in discussions in the classroom. This of course has benefits in preparing students for assessments and also conducting regular formative assessments to measure consistent student learning. This is in line with research from Kuritza et al. (2020).

In the final evaluation, the students had an opinion that Mentimeter was the best software system that could be used to study and also understand the aspects and requirements of the unit. Mentimeter is a good tool to use to encourage students to focus on their learning. These implications have quite an important role for students who are undergoing several adjustments to face the education system.

The use of visual representation with word clouds, which is one of the facilities in this method, is able to attract positive reactions from students who benefit during the teaching and learning process. This finding is in line with research conducted by Funnell (2017). As well as Khawaja & Stallman (2011) where academic transitions can create anxiety for students which can hinder their learning experience. And the method obtained in this research is able to show that students are able to enjoy learning experiences using interactive technology.

The Mentimeter quiz function is able to provide an increase in learning for students and also provides a learning method platform that attracts students' attention. By presenting several questions in the form of a quiz, educators can make a monotonous classroom environment much more dynamic and active. According to Funmell (2011), the Mentimeter quiz function itself is able to provide opportunities for students to get real-time *feedback* regarding the teaching and learning process they receive. This is in accordance with research conducted by Kuritza et al., (2020).

This real-time quiz is a means of recapping the content learned and can also strengthen statements from the learning process. The use of the quiz feature in each lesson is able to make the learning process easier and also provides active participation for students in class activities.

Meanwhile, anonymity is a well-known and frequently used feature of Mentimeter. Students use this feature because it covers their identity when participating in the teaching and learning process which is not revealed to friends or teaching staff. Mentimeter is able to create an easy-to-use platform for students to ask questions directly without needing to reveal their identity.

There are several benefits of the anonymity feature, such as research conducted by Funnell, (2017); Gokbulut (2020); Khalili & Ostafichuk (2018); Skoyles & Bloxsidge (2017) stated that with this feature, students who lack self-confidence and are anxious in class can feel much more comfortable and can also participate without having to reveal their identity. This is because students feel pressured if they have to ask or answer questions directly in class. This feature can make it easier for them to be active in class.

In addition, students really appreciate the feedback given by their teachers to questions and answers to questions asked. The education system in Asian countries is more teacher-centered in most countries. With this interactive technology, the patterns and methods used can change to be student-centered.

And the application of this interactive tool is able to ensure that students feel comfortable in asking questions to their teachers. And the anonymity feature also helps them ask questions without having to provide information about their identity so they can build a relationship between teacher and student. Mentimeter is able to provide this two-way communication facility



IV. CONCLUSION

This research shows how interactive technology introduced in teaching methods for students is able to provide practical implications for learning methods in the classroom. This research recommends the embedding of interactive technology in contemporary education to stimulate students and also improve the learning experience and also the achievement of learning outcomes. In this research, it was stated that the introduction of interactive technology had a significant positive impact on students' perceptions of the students' learning experience. This technology can help encourage students to attend class and stimulate them to actively participate in class discussions. This research shows that technology is able to facilitate a pedagogical transition that changes teacher-centered learning to a more student-centered environment.

REFERENCES

- Abrahamson, A.L. (2006). A brief history of networked classrooms: Effects, cases, pedagogy and implications. In DA Banks (Ed.), *Audience response systems in higher education: Applications and cases* (pp. 1-25). Information Science. https://doi.org/10.4018/978-1-59140-947-2.ch001
- Andrade, M. (2006). International students in English-speaking universities: Adjustment factors. *Journal of Research in International Education*, 5 (2), 131-154. https://doi.org/10.1177/1475240906065589
- Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The Qualitative Report*, 13 (4), 544-559. https://doi.org/10.46743/2160-3715/2008.1573
- Blasco-Arcas, L., Buil, I., Hernández-Ortega, B., & Sese, F. J. (2013). Using clickers in class. The role of interactivity, active collaborative learning and engagement in learning performance. *Computers & Education*, 62, 102-110. https://doi.org/10.1016/j.compedu.2012.10.019
- Brady, M., Seli, H., & Rosenthal, J. (2013). "Clickers" and metacognition: A quasi-experimental comparative study about metacognitive self-regulation and use of electronic feedback devices. *Computers & Education*, 65, 56-63. https://doi.org/10.1016/j.compedu.2013.02.001
- Bretag, T., Mahmud, S., Wallace, M., Walker, R., McGowan, U., East, J., Green, M., Partridge, L., & James, C. (2014). 'Teach us how to do it properly!' An Australian academic student integrity survey. *Studies in Higher Education*, *39* (7), 1150-1169. https://doi.org/10.1080/03075079.2013.777406
- Briguglio, C., & Smith, R. (2012). Perceptions of Chinese students in an Australian university: Are we meeting their needs?. *Asia Pacific Journal of Education*, 32 (1), 17-33. https://doi.org/10.1080/02188791.2012.655237
- Brimble, M. (2016). Why students cheat. An exploration of the motivators of student academic dishonesty in higher education. In: Bretag T. (Ed.), *Handbook of Academic Integrity* (pp. 1-14). Springer. https://doi.org/10.1007/978-981-287-079-7_58-1
- Cain, J., Black, E. P., & Rohr, J. (2009). An audience response system strategy to improve student motivation, attention, and feedback. *American Journal of Pharmaceutical Education*, 73 (2), 21. https://doi.org/10.5688/aj730221
- Cowley, P., & Hyams-Ssekasi, D. (2018). Motivation, induction, and challenge: Examining the initial phase of international students' educational journey. *Journal of International Students*, 8 (1), 109-130. https://doi.org/10.32674/jis.v8i1.154
- DeBourgh, G. A. (2008). Use of classroom "clickers" to promote acquisition of advanced reasoning skills. *Nurse Education in Practice*, 8 (2), 76-87. https://doi.org/10.1016/j.nepr.2007.02.002
- Duggan, P. M., Palmer, E., & Devitt, P. (2007). Electronic voting to encourage interactive lectures: A randomized trial. *BMC Medical Education*, 7 (1), 1-9. https://doi.org/10.1186/1472-6920-7-25
- Fies, C., & Marshall, J. (2006). Classroom response systems: A review of the literature. *Journal of Science Education and Technology*, 15 (1), 101-109. https://doi.org/10.1007/s10956-006-0360-1
- Funnell, P. (2017). Using audience response systems to enhance student engagement and learning in information literacy teaching. *Journal of Information Literacy*, 11 (2), 28-50. https://doi.org/10.11645/11.2.2238



- Gautam, C., Lowery, C.L., Mays, C., & Durant, D. (2016). Challenges for global learners: A qualitative study of the concerns and difficulties of international students. *Journal of International Students*, 6 (2), 501-526. https://doi.org/10.32674/jis.v6i2.368
- Gokbulut, B. (2020). The effect of Mentimeter and Kahoot applications on university students' e-learning. World Journal on Educational Technology: Current Issues, 12 (2), 107-116. https://doi.org/10.18844/wjet.v12i2.4814
- Gomes, C., Berry, M., Alzougool, B., & Chang, S. (2014). Home away from home: International students and their identity-based social networks in Australia. *Journal of International Students*, 4 (1), 2-15. https://doi.org/10.32674/jis.v4i1.493
- Heaslip, G., Donovan, P., & Cullen, J. G. (2014). Student response systems and learner engagement in large classes. *Active Learning in Higher Education*, 15 (1), 11-24. https://doi.org/10.1177/1469787413514648
- Hellsten, M., & Prescott, A. (2004). Learning at university: The international student experience. *International Education Journal*, 5 (3), 344-351.
- Heng, T. T. (2018). Different is not deficient: Contradicting stereotypes of Chinese international students in US higher education. *Studies in Higher Education*, 43 (1), 22-36. https://doi.org/10.1080/03075079.2016.1152466
- Hof, Y.T. (2020). Managing a teaching technologies assimilation program at nursing school in Israel. *Journal of US-China Public Administration*, 17 (2), 63-70. https://doi.org/10.17265/1548-6591/2020.02.003
- Hosny, M., & Fatima, S. (2014). Attitude of students towards cheating and plagiarism: University case study. *Journal of Applied Sciences*, 14 (8), 748-757. https://doi.org/10.3923/jas.2014.748.757
- Huang, Q., Davison, R. M., & Gu, J. (2008). Impact of personal and cultural factors on knowledge sharing in China. *Asia Pacific Journal of Management*, 25 (3), 451-471. https://doi.org/10.1007/s10490-008-9095-2.
- Hunsu, N.J., Adesope, O., & Bayly, D.J. (2016). A meta-analysis of the effects of audience response systems (clicker-based technologies) on cognition and affect. *Computers & Education*, 94, 102-119. https://doi.org/10.1016/j.compedu.2015.11.013
- Introna, L., Hayes, N., Blair, L., & Wood, E. (2003). Cultural attitudes towards plagiarism: Developing a better understanding of the needs of students from diverse cultural backgrounds relating to issues of plagiarism. Lancaster University.
- Kambouropoulos, A. (2014). An examination of the adjustment journey of international students studying in Australia. *The Australian Educational Researcher*, 41 (3), 349-363. https://doi.org/10.1007/s13384-013-0130-z
- Khalili, M., & Ostafichuk, P. M. (2018). Improving class participation by using an online interactive platform. *Proceedings of the Canadian Engineering Education Association (CEEA)*, *Vancouver*, 1-5. https://doi.org/10.24908/pceea.v0i0.13095
- Khawaja, N.G., & Stallman, H.M. (2011). Understanding the coping strategies of international students: A qualitative approach. *Journal of Psychologists and Counselors in Schools*, 21 (2), 203-224. https://doi.org/10.1375/ajgc.21.2.203
- Kulatunga, U., & Rameezdeen, R. (2014). Use of clickers to improve student engagement in learning: Observations from the built environment discipline. *International Journal of Construction Education and Research*, 10 (1), 3-18. https://doi.org/10.1080/15578771.2013.826754
- Kuritza, VC, Cibich, DP, & Ahmad, KA (2020). Interactive presentation digital tool Mentimeter is perceived as accessible and beneficial for exam preparation by medical students. *Advances in Educational Research and Evaluation*, 1 (2), 63-67. https://doi.org/10.25082/AERE.2020.02.002
- Lin, X., & Lin, C. (2020). Communication theories applied in Mentimeter to improve educational communication and teaching effectiveness. *Proceedings of the 4th International Conference on Culture, Education and Economic Development of Modern Society. Russia, 416.* https://doi.org/10.2991/assehr.k.200316.191
- Lincoln, Y., & Guba, E. G. (1985). *Naturalistic inquiry*. SAGE. https://doi.org/10.1016/0147-1767(85)90062-8
- Little, C. (2016). Mentimeter smartphone student response system: A class above clickers. *Compass: Journal of Learning and Teaching*, 9 (13), 1-3. https://doi.org/10.21100/compass.v9i13.328
- Mayer, R.E., Stull, A., DeLeeuw, K., Almeroth, K., Bimber, B., Chun, D., & Zhang, H. (2009). Clickers in college classrooms: Fostering learning with questioning methods in large lecture classes.



Contemporary Educational Psychology, 34 (1), 51-57. https://doi.org/10.1016/j.cedpsych.2008.04.002

- Mayer, R.E., Stull, A., DeLeeuw, K., Almeroth, K., Bimber, B., Chun, D., & Zhang, H. (2009). Clickers in college classrooms: Fostering learning with questioning methods in large lecture classes. *Contemporary Educational Psychology*, 34 (1), 51-57. https://doi.org/10.1016/j.cedpsych.2008.04.002
- Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, 16 (1), 1-13. https://doi.org/10.1177/1609406917733847
- ONF, (2014). The use of triangulation in qualitative research. *Oncology Nursing Forum*, 41 (5), 545-547. https://doi.org/10.1188/14.ONF.545-547
- Paschal, C. B. (2002). Formative assessment in physiology teaching using a wireless classroom communication system. *Advances in Physiology Education*, 26 (4), 299-308. https://doi.org/10.1152/advan.00030.2002
- Petersohn, B. (2008). Classroom performance systems, library instruction, and instructional design: A pilot study. *Portal: Libraries and the Academy*, 8 (3), 313-324. https://doi.org/10.1353/pla.0.0007
- Phakiti, A., & Li, L. (2011). General academic difficulties and reading and writing difficulties among Asian ESL postgraduate students in TESOL at an Australian university. *RELC Journal*, 42 (3), 227-264. https://doi.org/10.1177/0033688211421417
- Rashid, T., & Asghar, H.M. (2016). Technology use, self-directed learning, student engagement and academic performance: Examining the interrelations. *Computers in Human Behavior*, 63, 604-612. https://doi.org/10.1016/j.chb.2016.05.084
- Reay, N. W., Bao, L., Li, P., Warnakulasooriya, R., & Baugh, G. (2005). Toward the effective use of voting machines in physics lectures. *American Journal of Physics*, 73 (6), 554-558. https://doi.org/10.1119/1.1862638
- Regmi, K. (2014). *Triangulation in healthcare research: What does it achieve?* SAGE. https://doi.org/10.4135/978144627305014534931
- Robertson, M., Line, M., Jones, S., & Thomas, S. (2000). International students, learning environments and perceptions: A case study using the Delphi technique. *Higher Education Research and Development*, 19 (1), 89-102. https://doi.org/10.1080/07294360050020499
- Rudolph, J. (2018). A brief review of Mentimeter—A student response system. *Journal of Applied Learning & Teaching*, *I* (1), 35-37. https://doi.org/10.37074/jalt.2018.1.1.5
- Sanner, S., & Wilson, A. (2008). The experiences of students with English as a second language in a baccalaureate nursing program. *Nurse Education Today*, 28 (7), 807-813. https://doi.org/10.1016/j.nedt.2008.03.004
- Sawir, E. (2005). Language difficulties of international students in Australia: The effects of prior learning experience. *International Education Journal*, 6 (5), 567-580.
- Sawir, E., Marginson, S., Forbes-Mewett, H., Nyland, C., & Ramia, G. (2012). International student security and English language proficiency. *Journal of Studies in International Education*, *16* (5), 434-454. https://doi.org/10.1177/1028315311435418
- Schulte, S., & Choudaha, R., 2014. Improving the experiences of international students. *Change: The Magazine of Higher Learning*, 46 (6), 52-58. https://doi.org/10.1080/00091383.2014.969184
- Sillaots, M. (2014). Achieving flow through gamification: A study on re-designing research methods courses. European Conference on Games Based Learning, 2, 538-545. https://search.proquest.com/docview/1674245409?pqorigsite=gscholar&fromopenview=true
- Skoyles, A., & Bloxsidge, E. (2017). Have you voted? Teaching OSCOLA with Mentimeter. *Legal Information Management*, 17 (4), 232-238. https://doi.org/10.1017/S1472669617000457
- Sovic, S. (2008). Coping with stress: The perspective of international students. *Art, Design & Communication in Higher Education*, 6 (3), 145-158. https://doi.org/10.1386/adch.6.3.145/1
- Van Daele, T., Frijns, C., & Lievens, J. (2017). How do students and lecturers experience the interactive use of handheld technology in large enrollment courses? *British Journal of Educational Technology*, 48 (6), 1318-1329. https://doi.org/10.1111/bjet.12500
- Wang, C. C., Andre, K., & Greenwood, K. M. (2015). Chinese students studying at Australian universities with specific reference to nursing students: A narrative literature review. *Nurse Education Today*, *35* (4), 609-619. https://doi.org/10.1016/j.nedt.2014.12.005



- Winn, S. (1995). Learning by doing: Teaching research methods through student participation in a commissioned research project. *Studies in Higher Education*, 20 (2), 203-214. https://doi.org/10.1080/03075079512331381703
- Wood, A. (2020). Utilizing technology-enhanced learning in geography: Testing student response systems in large lectures. *Journal of Geography in Higher Education*, 44 (1), 160-170. https://doi.org/10.1080/03098265.2019.1697653
- Yanagi, M., & Baker, A. A. (2016). Challenges experienced by Japanese students with oral communication skills in Australian universities. *TESOL Journal*, 7 (3), 621-644. https://doi.org/10.1002/tesj.229 Yazan, B. (2015). Three approaches to case study methods in education: Yin, Merriam, and Stake. *The Qualitative Report*, 20 (2), 134-152. https://doi.org/10.46743/2160-3715/2015.2102
- Yourstone, S. A., Kraye, H. S., & Albaum, G. (2008). Classroom questioning with immediate electronic response: Do clickers improve learning?. *Decision Sciences Journal of Innovative Education*, 6 (1), 75-88. https://doi.org/10.1111/j.1540-4609.2007.00166.x
- Yu, B., & Wright, E. (2016). Socio-cultural adaptation, academic adaptation and satisfaction of international higher degree research students in Australia. *Tertiary Education and Management*, 22 (1), 49-64. https://doi.org/10.1080/13583883.2015.1127405
- Zhang, Y., & Mi, Y. (2010). Another look at the language difficulties of international students. *Journal of Studies in International Education*, 14 (4), 371-388. https://doi.org/10.1177/1028315309336031
- Zhou, Y., Jindal-Snape, D., Topping, K., & Todman, J. (2008). Theoretical models of culture shock and adaptation in international students in higher education. *Studies in Higher Education*, *33* (1), 63-75. https://doi.org/10.1080/03075070701794833

