

1. Introduction

As Dietz & Henrich (2014) identified in their research, the increase in student phone usage in classrooms has led to **decreasing academic performances**. This poster discusses this subject and offers a selection of views. Junco's (2012) research identified that **53% of university students admitted to texting during class**. This, along with searching the internet for non-related course content, using Facebook and/or emailing while in class were all identified as **negatively affecting engagement** and the capacity for cognitive processing of information and consequently deeper understanding and learning. My observations of the lectures that I give supports these academics in that this behaviour affects learning of not only these students, but also their colleagues around them plus it distracts the lecturer when delivering content.

2. Aims and objectives

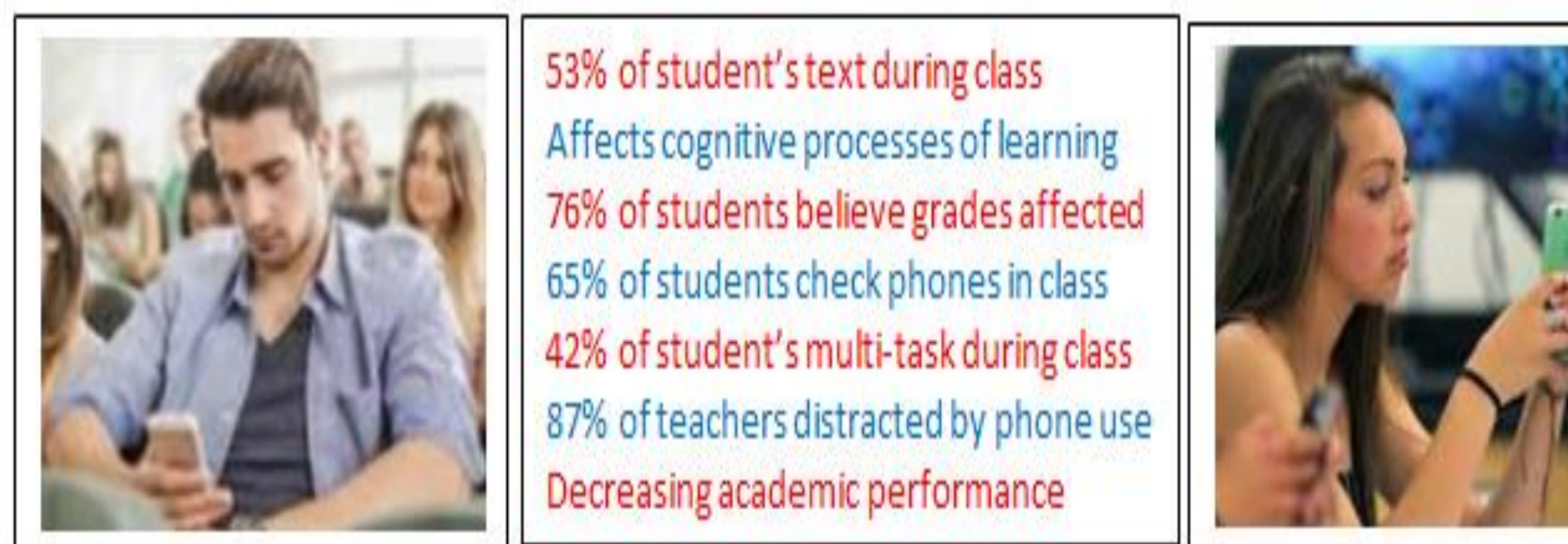
Examine the impact of students using phones for non-academic use in lectures on students' education and the retention of information

3. Literature review

Throughout education, the use of technology within classrooms via tablets, smartphones and laptops has been encouraged to enhance students' performance (Dietz & Henrich, 2014) and this allows for learning through students' desire to use technology. A study by Glass (2018) on students using phones during classes found that they did not experience a reduced understanding of content within class tests. However, he did conclude that these students **suffered poor longer-term retention** of information and consequently, this impacted on final exam performances.

Pulliam (2017) revealed that teachers believe more than students that phones should not be used during class (63% v 37%). Furthermore, this research identified **87% of teachers reported they were distracted** by students using their phones, thus affecting the quality of teaching. Research by Dietz and Henrich (2014) identified **a lower recall and comprehension of information** due to phone usage and consequently, dissatisfaction with teaching due to less engagement. Also, they identified that many students believe that they **can multi-task during lessons** e.g. listen to the lecture content and use their phones which was not the case in my research. Furthermore, Sana, Weston and Cepada (2013) found that **students multi-tasked 42% of the time during class**, mainly using their phones. Furthermore, Fischer and Plessow (2015) discovered that processing numerous pieces of information simultaneously is practically impossible and suggest students are actually serial tasking e.g. the process of

repeatedly focusing from one task to another. These actions can lead to educational consequences as Wood et al. (2012) identified, in that students using phones to access Facebook during lectures had **significantly lower scores on tests** compared to students who took notes while in class. Also, these various studies have identified that these distractions can **affect the cognitive processes** of learning in terms of gaining an understanding of and the reasoning behind content which aids the ability to gain better marks.



4. Methodology

Walliman (2018) indicates secondary sources can be less reliable than primary research due to authenticity and bias of statistical reports. Nevertheless, the secondary sources used provided positive and negative research and the author used quantitative research to gather information via questionnaires assisting numerical analysis (Pajo, 2018). Questionnaires are widely used by researchers as an efficient method of collecting a range of responses (Saunders, Lewis & Thornhill, 2016). Thirty questionnaires were completed within a period of a week by the Hospitality and Tourism students and also were slightly altered before being sent to the school lecturers to gauge their views on the topics asked which included; how often phones are used in class, can students multi-task and have academic performances been affected.

Further research is recommended as the reliability of this research may be considered as low as a wider range and number of students may produce differing results. Qualitative research using focus groups is also advisable to include personal views and additional resources and time should be allocated to overcome these research limitations.

5. Findings and analysis

Lecturers are more concerned about phones in classes than students (69% v 47%) and students are **checking their phones twice as much as what lecturers believe** (65% v 31%). This suggests a perception gap. Especially as 77% of lecturers believe student's **ability to learn is impacted** versus 65% of students who are impartial. However, both

groups believe multi-tasking during lectures is challenging and **a student's ability to retain information** is affected (85%), and **students believe assignments are affected** more than lecturers (76% v 54%) but less so for exams (53% v 69%).

Students are concerned about their academic performance and feel that they cannot multi-task in class and also **believe it distracts the lecturer** (76% and 85% of lecturers). Students don't believe lecturers should ignore students (65%), tell them to leave (53%) or take the phone (53%) but do suggest that lecturers should **ask students not to use their phones (62%)**, tell students off (54%) and discuss concerns after class (47%) plus provide evidence (47%) and videos (54%) **highlighting the impacts of usage**. They, along with lecturers, do believe that technology does have a place in lectures (59% and 69%) with suggestions include; Polleverywhere, quizzes and looking up information in group work tasks all being identified.

The research identified students and lecturers wanted more information on the impacts of using phones within lectures. For example, the author now includes a video by Simon Sinek, an author and speaker, who discuss addiction to phones. This, and regular reminders of my behavioural expectations within classes seems to have improved students' behaviour and engagement.

6. Conclusions

In today's busy and connected world, multitasking has become part of everyday life, be it text messaging, looking at social media or simply writing lists and we generally believe these actions will improve our lives efficiency. However, as Broadbent (1958) identified, undertaking multiple tasks, and especially when information is relayed, can **place strains on our cognitive resources** and subsequently reduces our ability to complete each of the tasks well. Subsequently, can lecturers manage the students who are multitasking and how can universities support lecturers increasing concerns that educational content may not be able to be delivered and understood by all students due to phone usage?

7. References

Broadbent, D., (1958) Effect of Noise on an "Intellectual" Task The Journal of the Acoustical Society of America 30 p. 824
Dietz, S., Henrich, S. (2014) Texting as a distraction to learning in college students Computers in Human Behavior Science Direct 36 p.163-167
Fisher, R. Plessow, F (2015) Examining the impact of off-task multi-tasking with technology on real-time classroom learning Frontiers in Psychology 58 (1) p.365-374
Glass, A. Kang, A (2018) Dividing attention in the classroom reduces exam
Pajo, J., (2018) Quantitative falsification for qualitative findings (online). Available at: <https://journals.sagepub.com/doi/full/10.1177/0894439318767956> (accessed 24 May 2019)
Pulliam, D., (2017) Effect of Student Classroom Cell Phone Usage on Teachers (online). Available at: <https://digitalcommons.wku.edu/cgi/viewcontent.cgi?article=2921&context=theses> (accessed 24 May 2019)
Sana, F. Weston, T. Cepada, N. (2013) Laptop multitasking hinders classroom learning for both users and nearby peers Computers & Education Vol 6 1336
Saunders, Lewis & Thornhill, (2016) Research methods for business students, 7th edition, Pearson.
Sinek, S., (2018) How cell phones are destroying the Relationships (online). Available at: <https://www.youtube.com/watch?v=la1IRcq2-LU> (accessed 24 May 2019)
Walliman, N. (2018) Research Methods, the basics, first edition, Routledge
Wood, E. et al (2012) Examining the impact of off-task multi-tasking with technology on real-time classroom learning Computers & Education 58 (1) p.365