

Component 2 - Research Report

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Digital Skills and Research Methods.

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1. Introduction

On global scale, universities find technology to have numerous benefits once implemented in their working, assisting students to excel their performance and their collaboration with their colleagues in the classroom and lecturers, too (Yun- Jo and Williams, 2010). They justify these believes by suggesting that the benefits could be seen in immersive learning, accessible long-distance learning or blended learning environment, gamification, personalised education experience, improved engagement (Fard, 2014), better preparation for the future (Bouargane, 2020), connecting lecturers with students (Walden University, 2022), helping to gain/ excel their cognitive and learning skills (Cavanaugh, Giapponi and Golden, 2015) etc. As an example, UWTSD finds developing digital skills for their students and lecturers a forefront strategy, underpinning many of university's activities towards blended learning by implementing digital strategy (UWTSD, 2022).

According to some researchers, gaining digital skills by the students is crucial for the technology- based academic and professional world, and in many instances entering criteria in any of those settings (Digital Marketing Institute, 2021). This has been recognised by students who develop many tech/ digital skills, getting creative in the classroom and finding different ways of collaborating and performing by their employment (PytlikZilling, Bodvarsson and Bruning, 2015).

The purpose of this research is to explore these ideas and confirm if students find technology essential, by becoming confident using it. The research would be conducted by inviting level-4 UWTSD's students to participate, analysing their views of the topic and exploring the potential skills they might have using digital platforms such as Moodle, Microsoft Teams, Microsoft Word, One Drive and WhatsApp.

2. Research design

This academic research was designed based on the quantitative research method's practices, implementing e-mail surveys as one of its instruments for data collection.

2.1. Research Question

This report has a goal to answer the question whether students recognise technology as important for collaboration with their peers and overall performance during their studies and if they felt confident themselves using technology for the same purposes. The other questions investigated were if students not only recognised the benefits of the technology applied in the classroom, but also had digital skills using the platforms Microsoft Team, One Drive, Moodle, Microsoft Word, and WhatsApp.

2.2. Method

This research was endorsed by the quantitative research method's practices. The reason why this approach was chosen, was because it usually allows the researcher to collect statistical data, for a shorted period (Balnaves and Caputi, 2001), on as large representative example as chosen, while being cost- friendly (University of Copenhagen, 2022). This imposes the question of what quantitative research method does mean. While there is not a united definition in the literature, many academics would agree that quantitative research is a type of research which is based on collection of numbers, with an intention to later turn them into facts. Creswell (2003) defined the quantitative research method as a process of offering the gained data a statistical approach by subjecting and quantifying it. Alan Bryman (2012) defined it as a principle of emphasizing objective measurements, as well as the numerical/ statistical/ mathematical gathered data by the assistance of surveys, polls, questionnaires or by managing already- existing data with computational techniques. For this research, this was done by collecting data through the assistance of a previously- created survey, which was e-mailed of level- 4 students at UWTSD studying the module `Digital skills and Research methods` and invited to answer the 5- question- long- questionnaire.

Surveys as an instrument to the quantitative research, are a quick, prompt method of data collection, during which the respondents are asked to provide answers to already chosen, structured and defined questions, inaugurating direct relation between the researcher and the respondent (Toepoel, 2015). While the advantages of using a survey as a mean of data collection could be recognised by its definition, this approach also has its disadvantages with its biggest disadvantage being accuracy and validity of the collected data on long- run (McCombes, 2022), as normally it is constructed from closed- type questions which does not always fit the entire opinion of the participant.

The question chosen for the creation of this project were a team- decision. The questionnaire was created through the help of Microsoft forms. The link with the created survey was then e-mailed to the students at level- 4, who were invited to join the research. The questions which constructed the survey were shown in the Figure 1 bellow:

- I. I consent to take part voluntarily.
- II. Are students confident in using technology to collaborate?
- III. Are you confident in using MS Teams to work with your peers?
- IV. I feel confident using technology to collaborate with my peers.
- V. Rank these applications in order of how confident you feel using them: MS Teams, OneDrive, MS Word, WhatsApp, Moodle.

Figure 1 Representation of the questions asked in the survey

2.3. Ethical Considerations

For the research purposes there were few ethical considerations taken on account. As the survey was e-mailed to the invited participants, there was a message attached with it disclaiming that the invitation for the survey was for an academic research purpose, and the gained data would remain confidential being used for this research only. The participants were also asked for their consent to voluntarily participate in the survey and were informed that if they will so, they could withdraw from the researching process at any point, without the necessity to elaborate their choice of withdrawing.

3. Results

On the research invitation, only 14 students answered and decided to participate in it, providing their opinions.

Figure 2 demonstrates the results gained after data was collection for the first question. This question asked for students` consent to participate in the survey, as one of the ethical considerations taken on board when the research was created. The consent was provided by 100% of the students (see Figure 2 below).

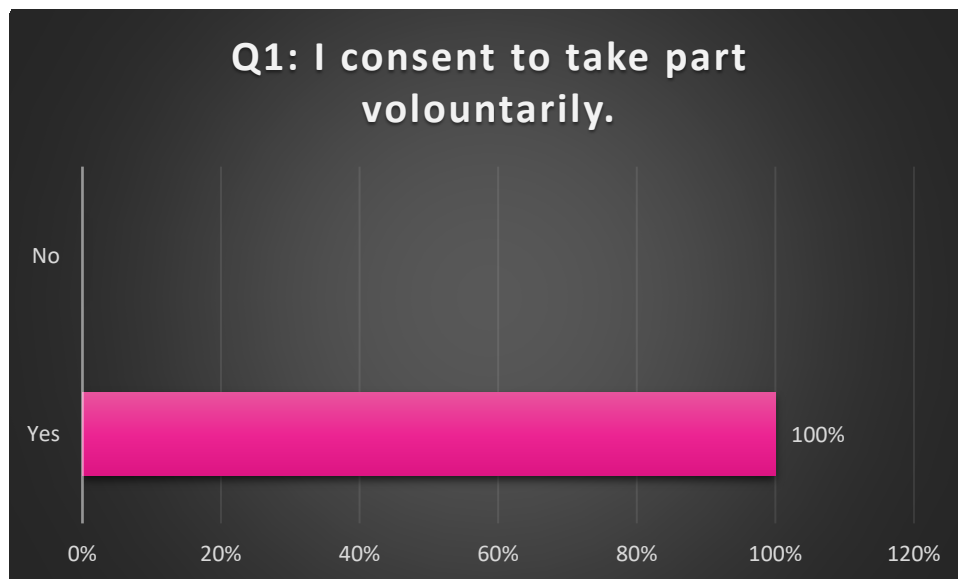


Figure 2 Results gained for the first question from the survey

Figure 3 presents the results on the second question, which aimed to find out if the participants believed that students in general have confidence applying technology to collaborate. According to the gathered data, 64% agreed that to be the case. 29% of the participants were undecided, while 7% did not believe students were confident (see Figure 3 below).

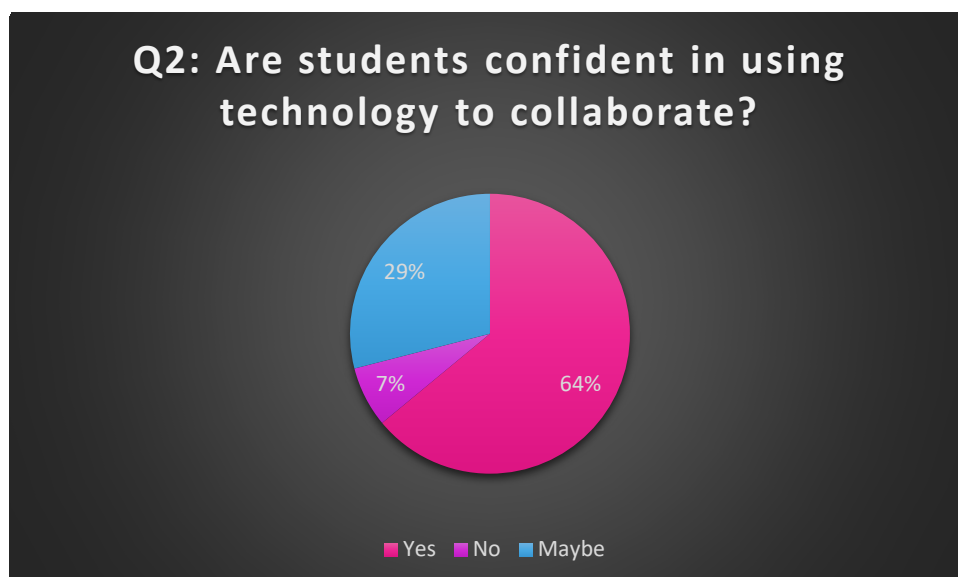


Figure 3 Results gained for the second question from the survey

Figure 4 shows the data received by answering the third question. The third question referred to MS teams and exploring students' confidence using it as a mean to collaborate with their

peers. The data showed that 64% of the participants said they were confident. 22% of the participants were indecisive while 14% declared that they were not confident indeed (see Figure 4 below).

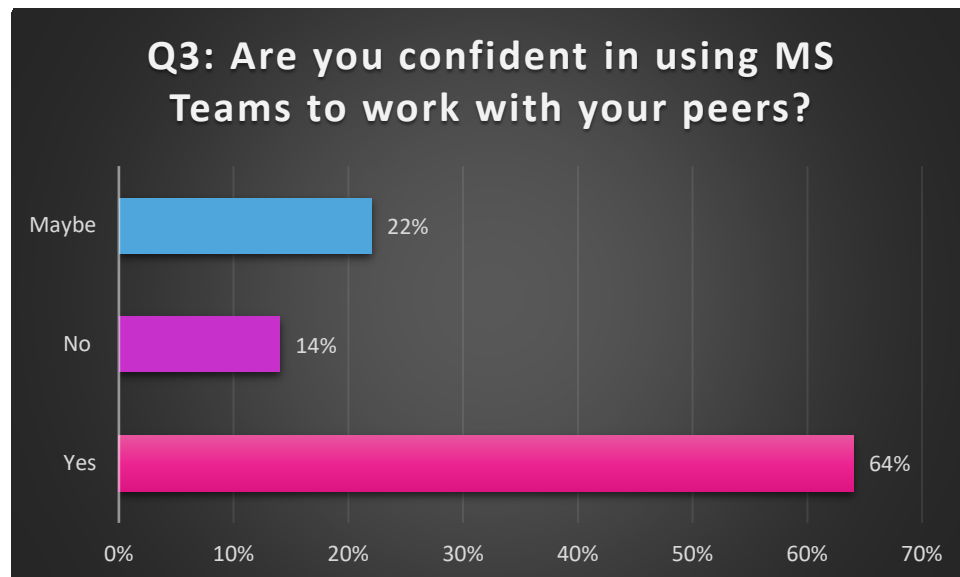


Figure 4 Results gained for the third question from the survey

Figure 5 displays the data gathered for the fourth question. Unlike the second question which asked for participants' general opinion, question four sought for participants' own confidence using technology to collaborate in educational settings. The results suggested that 43% strongly agreed with the statement expressing confidence, and 57% of them agreed with it (see figure 5 below).

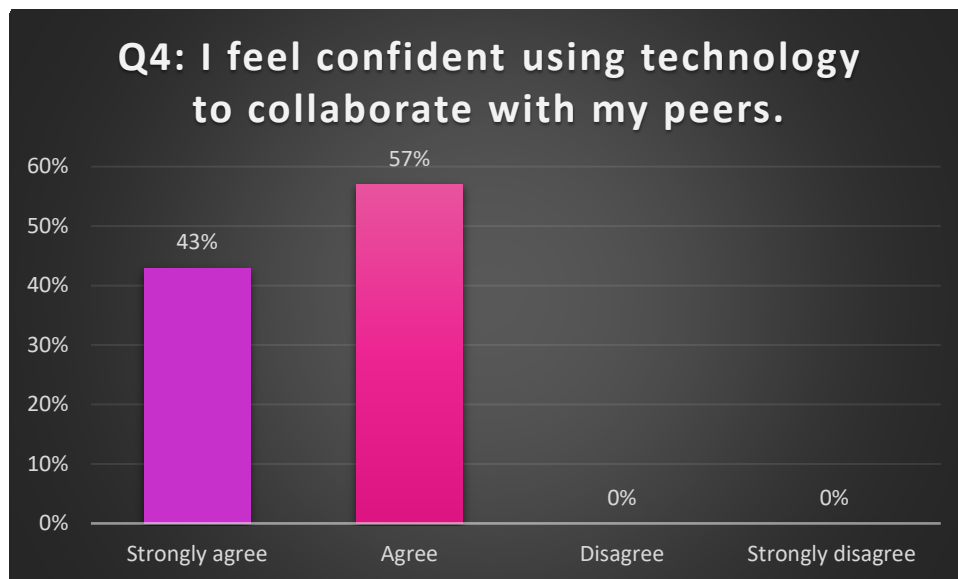


Figure 5 Results gained for the fourth question from the survey

Figure 6 exposes the gained results for the fifth question. The idea of this question was to understand if students have other digital skills than the once taught at the university and could be creative employing them for academic collaboration purposes. It asked the participants to rank different platforms. 33% of the participants ranked MS Word first. 17% of them places WhatsApp on the second place, while 8% put their choice on OneDrive (see figure 6 below).

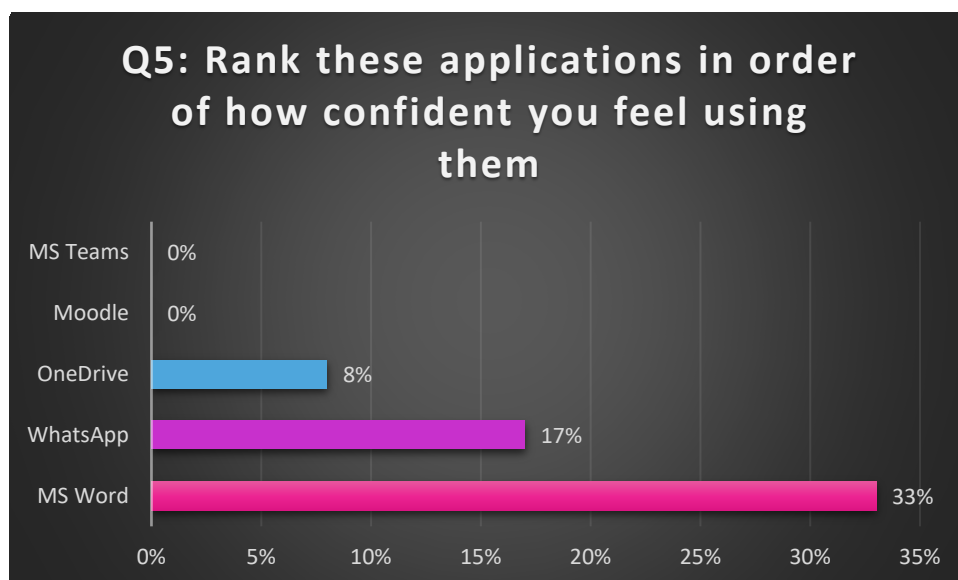


Figure 6 Results gained for the fifth question from the survey

4. Discussion

This research was based on a theory finding implying that technology plays vital act in the academic settings. According to Yun- Jo and Williams (2010), universities world- wide recognise plentiful benefits of technology being implemented in their teaching- learning environment to encourage students to collaborate with their lecturers and peers. The suggested benefits could be seen in offering access to long- distance or blended learning, providing personalised education experience, enhanced engagement (Fard, 2014), future preparation for what follows after graduation (Bouargane, 2020), establishing connected between lecturers and students (Walden University, 2022), aiding students to gain learning and cognitive skills (Cavanaugh, Giapponi and Golden, 2015) etc. Those findings inspired the main question of this research, which had a goal to determinate whether students at UWTSD recognise the role of technology in academic settings and confirm or deny if based on that student felt confident using it to collaborate with their peers, by also placing accent on platforms which are popular among students or advised by the university as Moodle, Microsoft Teams, OneDrive, Microsoft Word, and WhatsApp. For the purposes of then answering these questions, the quantitative method was adopted, and a survey was created and shared with students at UWTSD with invitation to participate in the research.

Once analysed the collected data, it can be concluded that it confirmed the researched theories. This was justified by 64% of the participants firmly believing that students generally feel confident to use technology to collaborate, and 29% participants believing it could be the case. Although the results showed high percentage of students believing their peers and students in general were confident using technology was high, there was still part of them 7% who disagreed with it. Perhaps, their answers were outcome of taking in consideration the different age brackets of the students, their computer literacy, their experience of already collaborating with their peers etc. However, it is something that imposes a question to be investigated in the future. On the other hand, once the participating students confirmed were asked if they themselves felt confident using technology to collaborate with their peers, 100% of them did not hesitate to affirm their confidence in it, which justify the ideas that while answering the previous question they could take those factors relevant. The collected data from these questions confirms the starting hypothesis that students do recognise the benefits of technology and do work towards gaining tech/ digital skills.

The next step of the research was to establish if students felt confidence using Microsoft Teams. The reason why Microsoft Teams was emphasized as a researched platform is because this digital tool is required to be used by students in instances when lecturers must

be moved online, as well for students' collaboration. Based on the collected data, 64% of the students declared that they felt confident using the platform, and 22% of them being indecisive. While the gained data shows majority of students possessing this digital tool skill, considering that every student should benefit from the technology- based- studying- teaching- environment, it arises certain concerns and unlocks potential for lecturers to provide students with further guidance and assistance around this matter.

Besides Microsoft teams, in the focus of the research were other platforms broadly used by students for their collaboration such as Moodle, One Drive, WhatsApp and Microsoft Word. To be concluded what were students' standing points for using these platforms, they were asked to rank first the one which they felt most confident using it. The findings demonstrated that 33% of the students felt most confident employing Microsoft Word. On the second rank was WhatsApp with 17% of the students expressing that they felt most confident using this platform. On the third place of the rank came up OneDrive with 8% of the participants selecting it as a platform they felt most confident using. This not only once more confirmed students' confidence in different digital tools, but also confirmed that students do possess those skills and get creative collaborating with them.

To finalise, the research findings answered the research question and accepted the starting hypothesis. However, they also raised other questions which should be explored with future research, assisting students' usage of technology with which they would be granted with more confidence collaborating with their peers by using digital platforms.

5. Conclusion

This research report was based on ideas gained, suggesting the benefits of the technology in the classroom, and its application by undergraduate and graduate students to assist their collaboration. The theory suggested that both sides- higher educational institutions and students recognised the assistance of digital tools implemented in the teaching- learning processes and turned towards teaching/ gaining/ excelling numerous digital skills to interact and collaborate with their peers. These allegations inspired the idea of this research, aiming to understand if that could be confirmed, by conducting research on a representative example consisted of UWTSD`s students. Further, for the sample there were chosen level- 4 students, who studied `Digital skills and Research methods`.

By adopting a quantitative research method, a survey was created with MS Forms and then shared with the students studying the module through their student e-mails.

The analysed, gathered data confirmed the starting thesis that students perceive technology as key- component in the educational environment, with higher percentage from the survey participants confiding to feel confident using technology and proving to have digital skills to enable them collaboration for academic purposes with their peers.

6. Reference List

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7. **Appendix A** – A blank copy questionnaire.

Digital Skills 2022- Question Bank for the Research questions	
1. I consent to take part voluntarily	
☐	Yes
☐	No
2. Are students confident in using technology to collaborate?	
☐	Yes
☐	No
3. Are you confident in using MS Teams to work with your peers?	
☐	Yes
☐	No
☐	Maybe
4. I feel confident using technology to collaborate with my peers	
☐	Strongly Agree
☐	Agree
☐	Disagree
☐	Strongly Disagree
5. Rank these applications in order of how confident you feel using them	
	MS Teams
	One Drive
	MS Word
	WhatsApp
	Moodle
Submit!	