

- Research Report

Student Name: Robert Bogdan

Student Number: 2123635

Lecturer Name: Abdi Rahman

Digital Skills and Research Methods.

Abstract

The aim of this research was to explore the usage of technology and different communication methods for collaboration at the University of Wales Trinity Saint David (UWTSD). The research method employed to conduct the research was the quantitative research method and the data were collected from 17 participants with the help of online questionnaires. The research report concluded that MS teams are the most common digital tool among educational institutions due to their advanced and diverse features. Furthermore, substantial work improvement arises as a result of using technology for collaboration. It helps students and teachers to stay updated on the deadlines and provides platforms to carry out effective communication.

On the other hand, the report also established that the use of technology in collaboration with peers adds to the confidence of students and teachers due to effective communication and face-to-face interactions. Nevertheless, the report contended that despite the several benefits, technology also holds various disadvantages as it presents security for the violation and stealing of data and personal information. It can also increase distraction and may reduce the interest of students in education, thus affecting their grades. In light of this, it is recommended for educational institutes to offer technical training and courses to both students and teachers to further improve their knowledge and awareness about technology and communication methods for collaboration, thus improving the overall efficiency of the work.

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Chapter 1: Introduction

The aim of this research is to explore the usage of technology and different communication methods for collaboration at the University of Wales Trinity Saint David (UWTSD). Raja and Nagasubramani (2018) highlighted that various advancements had been made in the modern world with the help of technology. Technology has increased the efficiency of manufacturing techniques and has provided the ability to develop new innovative approaches. In the same way, communication is impacted by technology as it is made simpler, faster, and more effective. Teachers and benefits within an educational environment reap the most benefits of technology and its advancement during communication and collaboration (Silic and Back, 2016).

Kreiss and McGregor (2018) analysed that technology serves as huge assistance when it comes to collaborating, while communication is an essential part of teamwork. In light of this, there are several ways in which technology may help with this, such as by creating forums for individuals to share their thoughts and ideas or through different communication methods such as MS Teams, Outlook and Office 365.

In relation to this, Martin and Tapp (2019) stated that Microsoft Teams makes it simple to interact and work securely with students and staff regardless of the location for the use of Office 365 services, such as SharePoint, Planner, or Stream. On the other hand, Office 365 Education, which includes Word, Excel, PowerPoint, OneNote, and Microsoft Teams, as well as extra teaching tools, is available for free to students and instructors at qualified institutions.

In contrast, Hubbard et al. (2021) identified that as part of the Microsoft Office suite, Microsoft Outlook is a personalised information management system. While Outlook is

essentially an e-mail client, it also has different features such as calendaring, task management, contact management and note-taking. At UWTSD, Microsoft teams are used a common technology and communication method for collaboration. For example, meetings, video and audio calls, chat, notes, and files are all included in Teams. For this purpose, the current research aims to identify the different forms of technology and communication methods used by students and teachers for collaboration at UWTSD.

Chapter 2: Research design

Research Question

The following research question has been formulated to address the aim of the current study:

- *How is the technology used for collaboration at UWTSD?*

Method

The research method employed to conduct the research was the quantitative research method. s

According to Nardi (2018), data acquired through polls, surveys, and questionnaires or by modifying pre-existing statistical information using computer techniques are the focus of quantitative research methodologies. The rationale for selecting a quantitative research method is that it allows the researcher to use real-time situations to collect data for quantitative research. Hence a quantitative research method was adopted to analyse the use of technology for collaboration at UWTSD by asking them about its usage and effectiveness through questionnaires. The data was collected from 17 participants with the help of online questionnaires. Krosnick (2018) identified that questionnaires comprise a set of questions aimed at a certain audience or demographic. Questionnaires are considered beneficial as they offer rapidity and uniformity and are deemed an economical method of gathering data. They also help gather data from a wide range of individuals, thus conducting research with larger sample size.

Ethical Considerations

Arifin (2018) stated that it is necessary to consider the ethical aspects while carrying out primary research. In the current research, the researcher employed the four ethical

principles of justice, autonomy, beneficence and non-maleficence. Prior to the beginning of the research, the participants were provided sufficient information regarding the aims and questions of the research to assist them in making an informed decision. The participants were informed that their participation is voluntary and they can withdraw at any time upon feeling uncomfortable. Furthermore, the participants were informed that their names would be kept anonymous during the research, and their personal details and responses would not be shared with anyone. Furthermore, the participants were informed that all their information would be kept hidden in a password-protected laptop, stored in a locked drawer that could only be accessed by the researcher.

Chapter 3: Results

Demographics

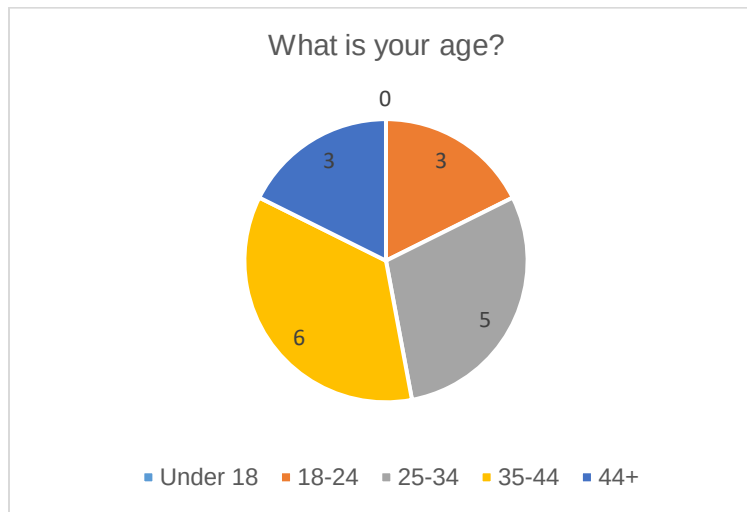


Figure 1: Age

The first question asked from the participants was regarding their age. Figure 1 depicts that among the 17 participants, the majority (6) of them resided in the 35-44 age range. Next, around 5 participants were found in the 25-34 age range, and an equal number of participants, i.e. 3, were found to be under 18 and 44+, respectively.

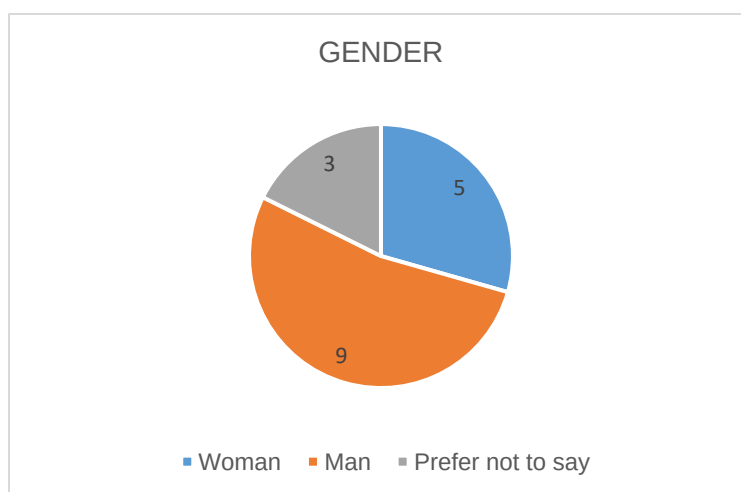


Figure 2: Gender

Figure 2 depicts that among the 17 participants, there were 8 males and 5 females participated in the research. However, 3 participants did not prefer to disclose their gender.

Digital Tools

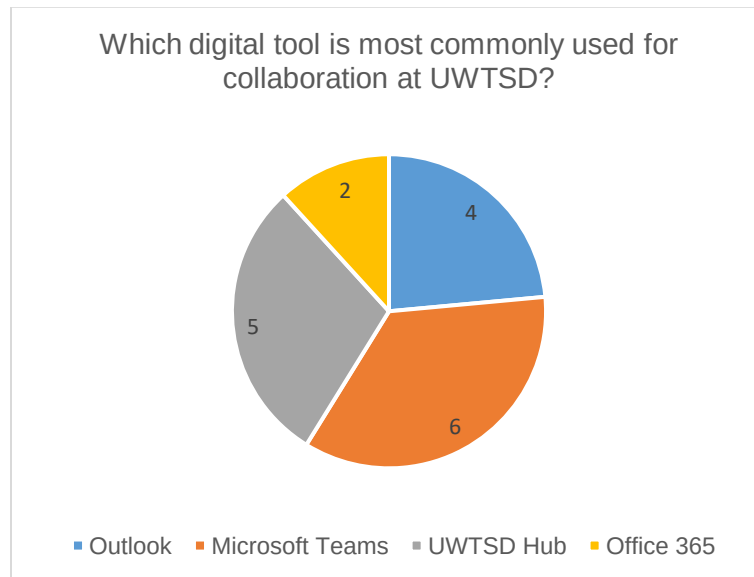


Figure 3: Commonly used Collaborative Digital tool at UWTSD

The third question inquired from the participants was regarding the most common digital tool used at UWTSD for collaboration. As per the responses, figure 3 shows that Microsoft Teams was reported by 6 participants while Office 365 was reported by only 2 participants. On the other hand, the number of participants using UWTSD was found to be 5, while 4 participants reported using Outlook. In light of this, the results reveal that MS teams are used as the most common digital tool among educational institutions due to their advanced and diverse features.

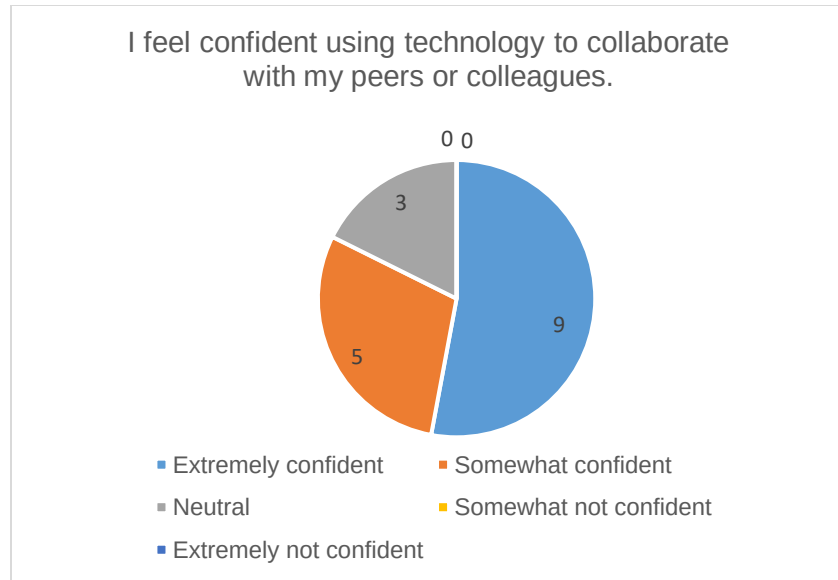


Figure 4: Confidence in using technology for collaboration

The participants were asked whether they felt confident in using technology to collaborate with colleagues and peers. From the analysis, it can be observed that around 9 participants felt extremely confident while 5 participants felt somewhat confident in using technology for collaboration. In contrast, a neutral response was reported by 3 participants. Therefore, the results show that the use of technology in collaboration with peers adds to the confidence of students and teachers due to effective communication and face-to-face interactions.

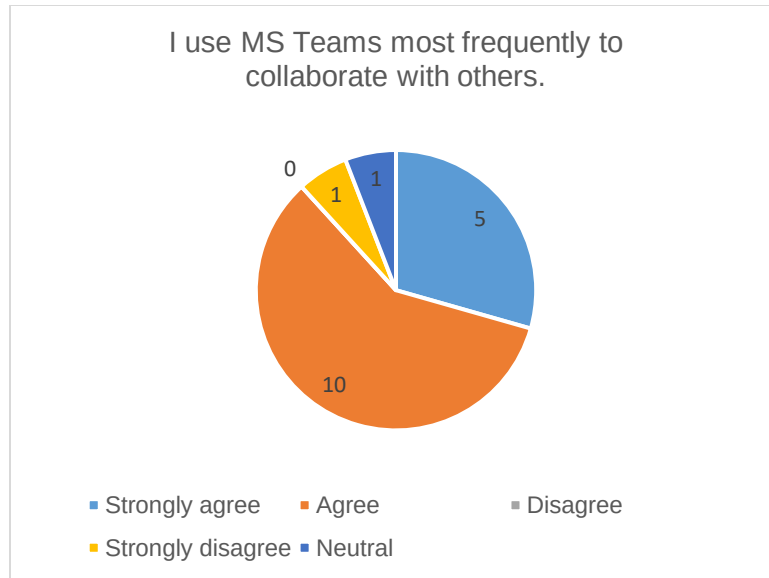


Figure 5: Frequent use of MS Team for Collaboration

The participants were inquired whether MS teams are used frequently by them for collaboration. As revealed in figure 5, the majority of the participants (10) agreed with the statement, while five participants displayed a strong agreement with the statement. In comparison, a strong disagreement was shown by one participant, and one participant provided a neutral response regarding the frequent use of MS teams for collaboration.

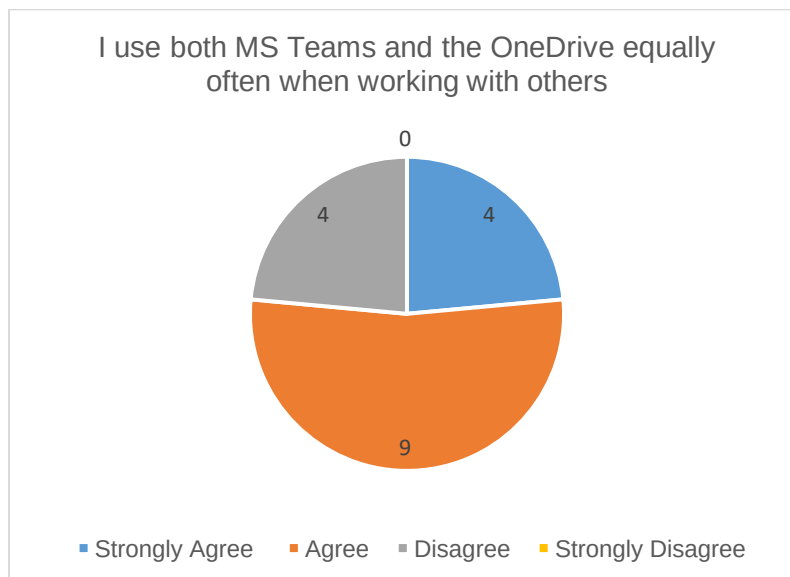


Figure 6: Equal Usage of OneDrive and MS Teams during Collaboration

The participants were inquired whether OneDrive and MS teams are used equally during collaboration. In response, 4 participants strongly agreed, and 9 agreed with the statement. Whereas, a disagreement regarding the equal usage of both OneDrive and MS Teams was displayed by 4 participants.

Use of Technology

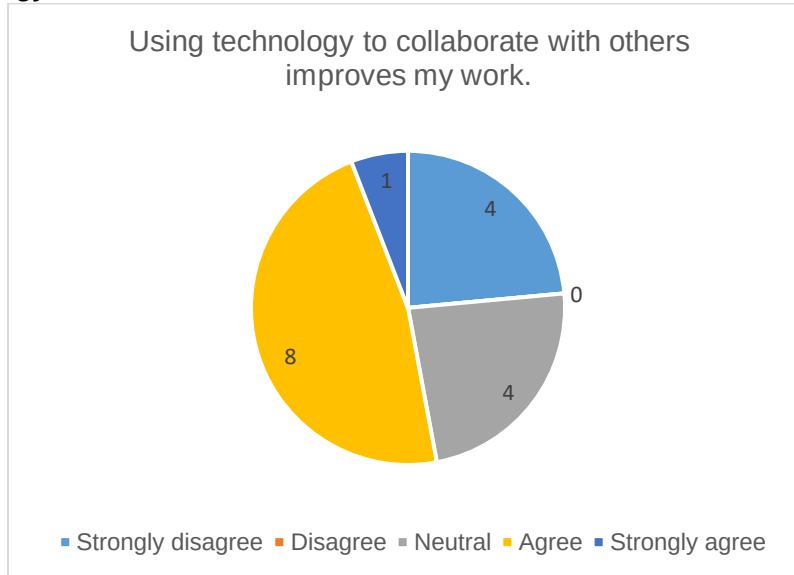


Figure 7: Work Improvement due to Technology Usage

In the seventh question, the participants were inquired whether the use of technology for collaboration improves their work. Figure 7 reveals that 8 participants showed agreement while one displayed strong agreement with the statement. 4 participants provided a neutral response; however, 4 participants also displayed strong disagreement with work improvement due to technology usage. Hence, the responses indicate that technology plays a vital role in improving the working aspects of both students and teachers.

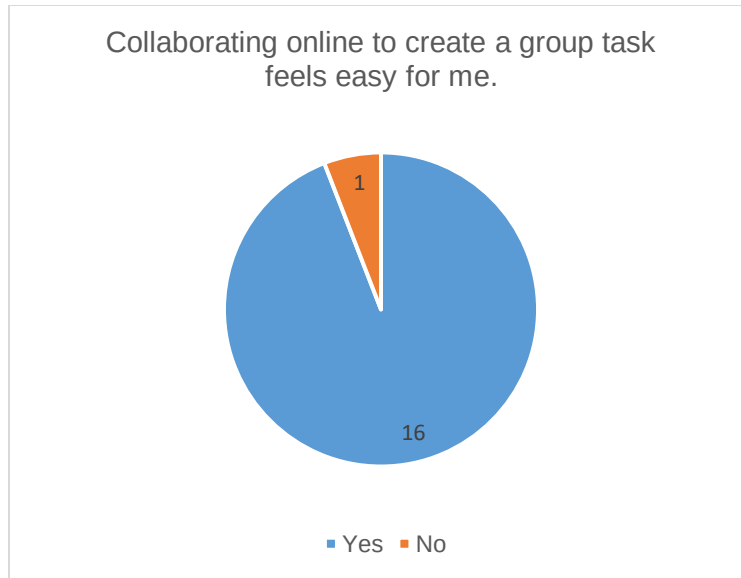


Figure 8: Ease in Group Task Due To Online Collaboration

The participants were inquired whether creating a group task felt easier through online collaboration. As depicted in figure 8, around 16 participants agreed with the statement, while one participant displayed disagreement. These responses direct that technology assists students in collaboration and carrying out group and teamwork.

Training and Technology

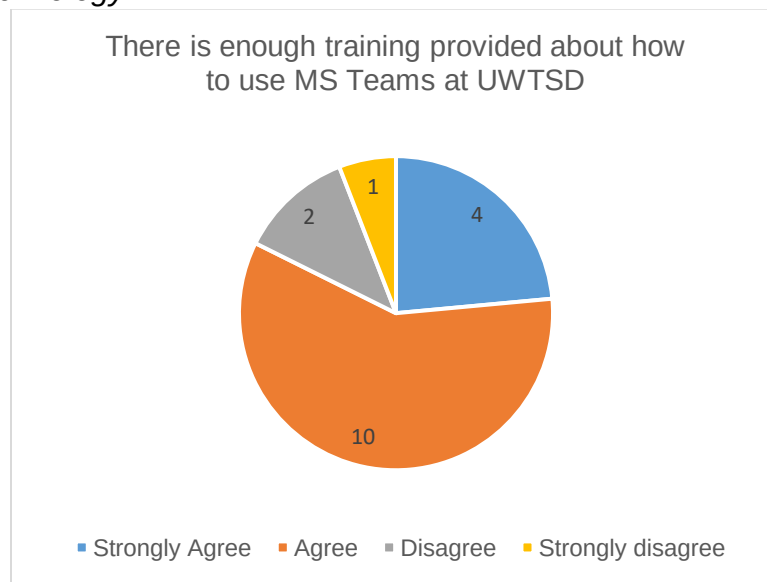


Figure 9: Sufficient Training for Using MS Team

The participants were inquired whether they are provided with sufficient training to use MS teams at UWTSD. Figure 9 shows that around 10 participants agreed with the statement, and 4 showed strong agreement. However, 2 of the participants did not agree, and 1 displayed strong disagreement regarding receiving training to use MS teams at UWTSD.

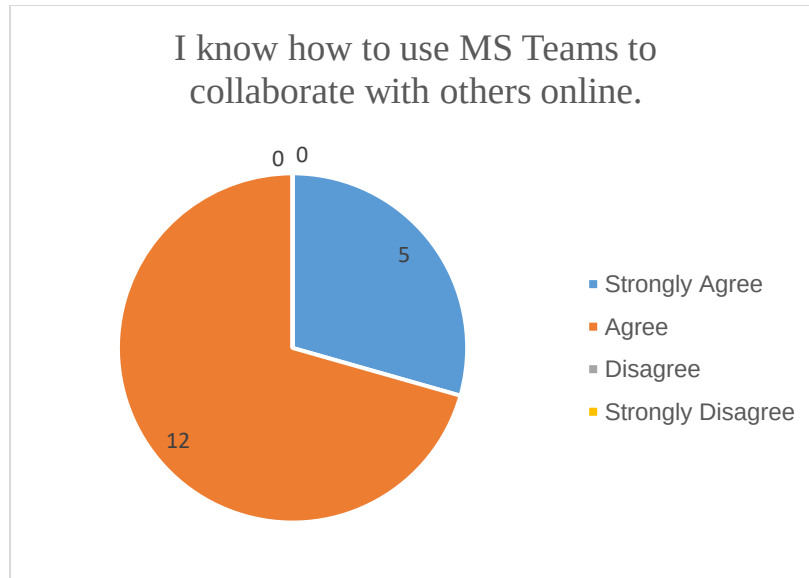


Figure 10: Knowledge about Using MS Teams for Online Collaboration

The last question inquired regarding participants' knowledge of using MS teams for online collaboration. From the results, it has been observed that 12 participants agreed with the statement, while 5 of them strongly agreed.

Chapter 4: Discussion

The research findings revealed that the most common digital tool used for collaboration at UWTSD is Microsoft teams. Teachers utilise class teams to establish collaborative classrooms, provide virtual meeting platforms, assist learning with tasks and feedback, and lead live phone conversations with students. Microsoft Teams is a cloud-based digital centre for Microsoft Office 365 channels, discussions, meetings, files, and apps. This is supported by Raja and Nagasubramani's (2018) study, which stated that Microsoft Teams for education is a powerful platform for students and instructors to communicate and collaborate. Collaborative classes, professional learning groups, and networking with peers may all be done from the same platform. Whereas it also provides an opportunity to schedule Video meetings in advance on a channel's calendar, or the teachers can set up a meeting on the go.

On the other hand, the study's findings also articulated that the use of technology increased the confidence of the students and teachers during collaboration with their peers. Supporting this, a study by Sobaih et al. (2021) mentioned that the use of video or online methods of communication that enables face-to-face interaction greatly enhances the confidence of teachers during online tutoring and instruction also supported by Raja and Nagasubramani's (2018).

Contrariwise, from the analysis, it can be articulated that MS Teams and OneDrive are used equally during a collaboration at UWTSD. In addition, Microsoft Teams integrates directly with all Office 365 applications such as SharePoint, Planner and Stream, providing one easy to reach location, making it easy for teachers to communicate and collaborate securely with students and staff. However, this was contradicted by the study

of Hubbard et al. (2021), which stated that although MS teams serve an excellent purpose of internal collaboration during working. Nonetheless, Zoom is preferred by the majority of the teachers and students for working in an external environment.

The research findings indicated that substantial work improvement arises as a result of using technology for collaboration. It helps students and teachers to stay updated on the deadlines and provides platforms to carry out effective communication, also supported by Hubbard et al. (2021).

In relation to this, Scalise (2016) underlined that technology serves as a significant online communication tool, thus improving the achievement of tasks. Furthermore, students utilise project management tools to seek assistance in carrying out their tasks, whereas video conferencing is also used for remote workers, specifically during the current ongoing pandemic, COVID-19.

Nevertheless, Sidpra et al. (2020) critically analysed that despite the several benefits, technology also holds various disadvantages as it presents security for the violation and stealing of data. Furthermore, it increases distraction and may reduce the interest of students in education, thus affecting their grades.

Contrary to this, the findings of the research highlighted that the use of technology during online collaboration helped the students in creating and carrying out group tasks in an easier, rapid and effective manner. Supporting this, Martin and Tapp (2019) also mentioned that technology increases collaboration among members and provides a way for students to carry out in-person meetings to generate ideas and solutions for the project, thus producing better results.

From the analysis, it has been established that students are provided with sufficient support and training to use MS as a communication method in institutions. Furthermore, MS Outlook and Office tend to encourage a growth mindset among students whilst emphasising the development of modern skills that can assist in jobs in the future. In light of this, Jacques, Ouahabi and Lequeu (2021) critically assessed that educational institutions are obligated to enhance the experience of their students by providing them training to enhance their technical, professional and interpersonal skills. The provision of training, in turn, increases the knowledge of students to utilise MS teams and other communication methods effectively for the purpose of improving their learning and task achievement. This has also been articulated by the findings of the current research, which highlighted that sufficient knowledge was displayed by the participants in terms of using MS teams for online collaboration. A study by Martin and Tapp (2019) further added that students and teachers both benefit from MS teams and Microsoft Office 365's modern learning methodologies and a variety of ways to study the curriculum.

Chapter 5: Conclusion

The aim of this research was to explore the usage of technology and different communication methods for collaboration at the University of Wales Trinity Saint David (UWTSD).

The research method employed to conduct the research was the quantitative research method and the data were collected from 17 participants with the help of online questionnaires. The research report concluded that MS teams are the most common digital tool among educational institutions due to their advanced and diverse features. Furthermore, substantial work improvement arises as a result of using technology for collaboration. It helps students and teachers to stay updated on the deadlines and provides platforms to carry out effective communication. On the other hand, the report also established that the use of technology in collaboration with peers adds to the confidence of students and teachers due to effective communication and face-to-face interactions.

Nevertheless, the report contended that despite the several benefits, technology also holds various disadvantages as it presents security for the violation and stealing of data and personal information. It can also increase distraction and may reduce the interest of students in education, thus affecting their grades. In light of this, it is recommended for educational institutes to offer technical training and courses to both students and teachers to further improve their knowledge and awareness about technology and communication methods for collaboration, thus improving the overall efficiency of the work.

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Appendix A – A blank copy questionnaire.

1. What is your gender?
2. What is your age?
3. Which digital tool is most commonly used for collaboration at UWTSD?
4. I feel confident using technology to collaborate with my peers or colleagues.
5. I use MS Teams most frequently to collaborate with others.
6. I use both MS Teams and the OneDrive equally often when working with others
7. Using technology to collaborate with others improves my work.
8. Collaborating online to create a group task feels easy for me.
9. There is enough training provided about how to use MS Teams at UWTSD.
10. I know how to use MS Teams to collaborate with others online.