Teachers Perception and Evaluation of the Success of Microsoft Teams Learning Management System at Orange Walk Technical High School

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Abstract

Throughout the last decades, technology has become more advanced globally. It is being used in mostly all level of educations and recently adopted by many educational institutions which had the need to transition from a traditional learning environment to an online setting as a result of the COVID-19 Pandemic. This study aims to evaluate the success of the learning management systems (LMS) presently used at Orange Walk Technical High School by determining the task technology fit, Expected Consequences of LMS use, Perceived impact on teaching, and Consumerization attitude. A LMSs process, store and distribute educational material and support administration and communication involved with teaching and learning. Unfortunately, technology can have a positive performance impact only if it fits the task that is being supported. Teachers from education institutions have implemented the use of learning management systems to deliver courses to students whether it being fully online or blended courses. In other words, face-to-face teaching and self-managed learning in the virtual learning and education environment (VLE). A quantitative (survey) method was applied in this paper. Teachers from Orange Walk Technical High School were asked to complete a survey about task technology fit and LMS being used at their institution. The data obtained by the surveys of 26 teachers were analysed to evaluate the LMS utilized. Task Technology Fit (TTF) has a direct influence on instructors' perceptions of the impacts of the LMS on their performance along with students and their impacts on learning effectiveness and productivity. A discussion of limitations, conclusion and recommendation is included at the end of this study.

Keywords: Learning management systems, technology, virtual learning environment, task technology fit, learning effectiveness and productivity.

Introduction

Learning management system (LMS) have become a useful and important means of communication with students for many instructors. Whether courses are taught entirely online or a blended approach is used, most university instructors must design and develop online materials and create and maintain course web sites (Zastrocky, Harris, & Lowendahl, 2007). LMSs are implemented on a large-scale across an entire university, faculty, or school, and then adopted by instructors, utilizes them in a variety of ways to support course management and student learning. Task technology fit is the degree to which a technology assists an individual in performing his/her tasks (McGill, Klobas, & Renzi, 2008). Universities have begun to investigate the advantages of investing in information and communication technology.
Virtual learning system (VLS) has been implemented for instructors to deliver courses to students being face-to-face and self-managed (Lin, 2012). This is also referred to a blended learning instruction. There has been little research on how instructors' use of LMS impact learning and teaching including its effectiveness and productivity. Areas such as LMSs effectiveness and productivity are overlooked and should be taken into consideration. Better understanding this issue will benefit not only educational institutions, but also instructors, academics and professionals interested in the relationship between LMS use, effectiveness and teacher performance (McGill, Klobas, & Renzi, 2008). More research is required to investigate performance impact of LMS and its effectiveness. This paper considers the impact of task technology fit in LMS success and whether it is effective for instructors.

Goal of the research:

To evaluate the success of Microsoft teams utilized by teachers at Orange Walk Technical High School

Objectives of the research:

I. To evaluate the task technology fit of Microsoft teams used by teachers at Orange Walk Technical High School.
II. To determine the expected consequence of Microsoft teams, use by teachers at Orange Walk Technical High School.
III. To determine the perceived impacts Microsoft teams have on teaching by teachers Orange walk technical school
IV. To explore the consumerization attitude of Microsoft teams used by teachers at Orange walk technical school.

Literature Review

Goodhue and Thompson (1995) theory hold that Task-Technology Fit (TTF) in IT is presumably to have a positive impact on individual performance and used if the capabilities of the IT match the tasks that the user must perform. A measurement of task-technology fit of 8 factors is developed; quality, locatable, authorization, compatibility, ease of use/training, production timeless, system reliability and relationship with users. With all these factors Goodhue and Thompson (1995) found the TTF measures to be significantly predictable and effective of users reports in improvement of job performance with the use of the system under investigation.

Google Classroom (GC) and Microsoft Teams(MS) are learning management systems designed to facilitate video meetings, create materials, distribution and grading of assignments electronically. Google Classroom made its debut in 2014 (Google Classroom 2016). Microsoft introduced the Teams, which works on the same principle's platforms, with the one big difference, they integrated the Teams in the Office365 into unified user experience. Educators quickly saw its potential to integrate it into their educational process, while MS began to roll out its suite of education apps from the middle of 2016, including MS Classroom via desktop app, web browser and mobile app it is still supported across all major operating systems such as Windows, macOS, iOS and Android which was succeeded by MS Teams midyear (Mathew, 2020). Both of these Learning Management System represents an extension of a preliminary technical report, Microsoft

Teams can serve as an alternative or even replace email communication and is use broadly to connect workers and their apps for remote workers. With the Google Classrooms application teachers can manage several classes and invite collaborators, even adding the API for administrators and developers to integrate classroom with outside applications. In mid-2016, Google added a guardian summary feature for parents to receive updates on their children's progress, missing assignments and teacher's announcements (Siu, 2016). The value of online technologies such as Microsoft Teams and Google Class Room tools resides in the increased opportunities for use of interaction and communication teachers offer to online learners, widening the pool of possible communication worldwide. GC was created to focus less time on tech and more time on teaching, it streamlines the classroom workflow and creates a central home for class activities. It can be expected that the rapid, unexpected and forced transition, entailed a number of challenges and constraints changing from face to face to remote teaching, but with GC teachers create, collect and grade assignments and provides feedback to students (Sui, 2016).

Bozkurt and Sharma (2020) stated that Teachers are instrumental in shaping learners' perceptions, so the way in which teachers present and use the different components and tools of a course will greatly influence learners' perceptions of how important and useful these components and tools are. A strong claim for the use of Google Class Room and Microsoft Team Technologies in online learning is that it enables learners to interact with their teachers and other learners. There is no doubt that new technologies, including synchronous and asynchronous conferencing tools, provides invaluable opportunities for various online technologies practices, but the key challenge is how to enable teachers to make the most use of these tools, and support them as they acquire the necessary knowledge and skills (Bozkurt and Sharma 2020). Google Classroom app can be downloaded anywhere once there is access to the internet, desktop Computers, laptops and mobile phone are all issuing a wide array of concepts in the existing online teaching even though most of the storage and organization is handled in the Google system, the administrator cannot monitor student, student users have too much control over their own accounts, so it is sometimes not clear which particular students are supposed to be in the class or not. For schools and internal training programs in which the identity of participants is known beforehand, almost any other learning management system would be a better choice. For simple sharing of documents, primitive tests, and collecting information from and distributing information to students, Google Classroom is adequate (Bozkurt and Sharma 2020). Once the system is used to its full potential the return on investments is that it takes less effort to maintain than a real learning management system, unless strict controls of numbers of submissions are imposed, homework management becomes difficult for groups of more than 4 or 5, and the integrated mailing system is primitive. Some key factors alternatives that can be considered determining the success use of google classroom is it is well suited for secondary and tertiary school levels, giving Student's users full control over their own accounts (limited information and resources to all students).

Hampel and Stickler proposed this skills pyramid, an illustration of the skills that teachers should undertake to become effective online teachers. Alongside the process of skills development, and enabling it, there needs to be substantial work on developing instructive understanding of the affordances of the online medium and acceptance of the transformation required in how teachers perform their role. Another consideration might be that, whereas in the past online teachers might have voluntarily opted for this medium on the basis of their interest in technology and willingness to develop online teaching skills (Hampel & Stickler, 2005), due to the pandemic, teachers were required to teach online as increasing numbers of institutions move towards blended learning models. For those who undertake this reluctantly and without having much experience in online learning, it is crucial that an effective training system is in place to prepare them for their new role. Ideally, the introduction of changes and innovations (such as online teaching and learning) should be gradual, well supported and well-integrated with the rest of the course to allow teachers and learners to make effective use of the new technologies and tools without feeling overwhelmed. Teachers need to be trained to become confident users and effective supporters of the technology they are using, and both teachers and learners alike need to know not only how to use new technologies but also why they should use them (Kirkwood & Price, 2005). The analysis of teachers, the online technology the institution uses; their investment in terms of time, effort and commitment it provides to online e-learners, will ensure a high level of competence, instructive understanding and teaching effectiveness is being given. A good model is described in Ernest and Hopkins (2006), who acknowledge that delivering online teaching courses is extremely labor intensive and that they spend more time on teacher support and development than on any other area. It is therefore, important to find out how if the online platform the institution is using is working for the teachers, and if their IT training model is

comprehensive which includes: referencing documents; face to face meetings; 'just-in-time' support via emails copied to a distribution list of new teachers; classroom observations and feedback from coordinators, based on a checklist of appropriate teaching behaviors that are expected from teachers; discussions of pedagogical issues in the online staff room, also used for peer support, news, tips, etc.; and an open door policy to facilitate online peer observation amongst teachers which is what we seek to determine by using the Task-technology fit model.

Methodology

The data was collected to gather the teachers' insight on the Learning Management System presently utilized to teach and deliver lessons to their students at Orange Walk Technical High School (OWTHS). An online questionnaire was developed using google forms and was submitted and filled out online as a result of then COVID 19 pandemic restrictions. The questionnaire was delivered to teachers presently teaching at the high school through a WhatsApp group chat. The questionnaire was setup in seven section, for each section the responses from every respondent for each determinant was scored on a seven-point scale which scales from strongly disagree (one) to strongly agree (seven) and neutral would be four. The initial targeted participants were 40, however, a total of 27 responses was obtained. Only fully completed questionnaires were used in the research. As a result of this, one response was discarded and a total of 26 responses were used. A task technology fit model was used to evaluate four major constructs designed to collect data on task technology fit, expected consequence of the LMS used, perceived impact on teaching and consumerization attitude.

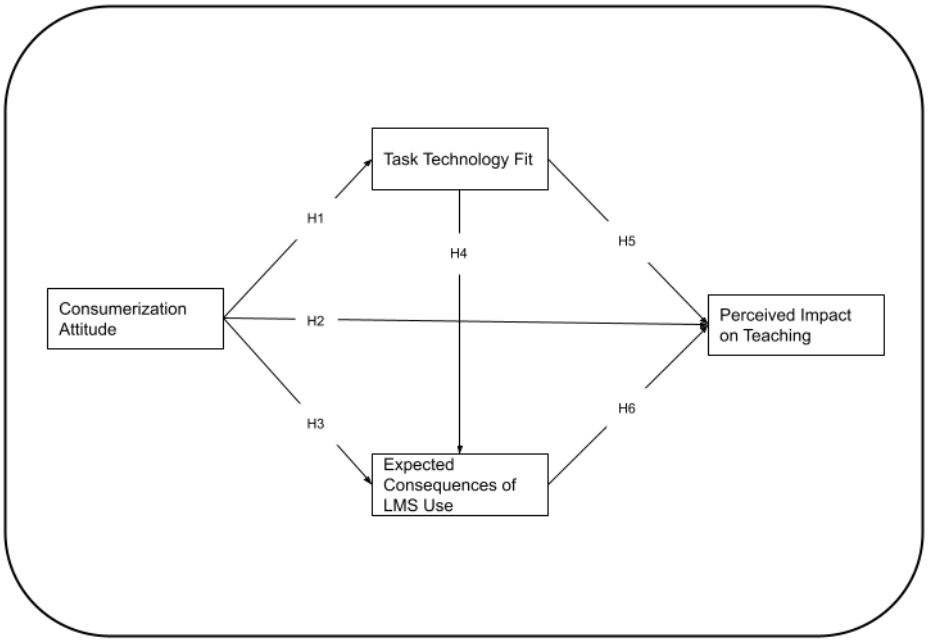

Figure 1: Model establishing Hypothesis on the relationship of the four constructs

The first three chapters of this paper were set up as basic research (academic research). However, this chapter focuses on applied research because of the limited time to test the hypothesis.
The hypothesis relationship is represented in Figure 1 in relation to Orange Walk technical High school, however they will not be tested in this research

Hypothesis

H1: Consumerization attitude will negatively influence perceived task-technology fit.

H2: Consumerization attitude will positively influence perceived impact on teaching.

H3: Consumerization attitude will negatively influence expected consequences of LMS use.

H4: Task–technology fit will have a positive influence on expected consequences of organizational LMS use.

H5: Task–technology fit will have a positive influence on perceived impact on teaching.
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H6: Expected consequences of LMS use will positively influence perceived impact on teaching.

Construction Measurement

In order to complete this research, a questionnaire was prepared to collect data from the teachers presently teaching at Orange Walk Technical High School. The structured questions were created based on the task technology fit model used to evaluate the information system presently used at the high school. The effective measurement items include four major constructs which are perceived impact, consumerization attitude, Task technology fit, and expected consequences. For this research, we adopted from basic to an applied research.

Table 1: Measurement Items for questionnaire

Construct	Survey Questions
Task Technology Fit	**TTFQ1:** Microsoft teams fits well with the way I like to teach online **TTFQ2:** Microsoft teams is compatible with all aspects of my online teaching **TTFQ3:** Microsoft teams is easy to use **TTFQ4:** Microsoft teams is user friendly **TTFQ5:** It is easy to get Microsoft teams to do what I want it to do **TTFQ6:** Microsoft teams is easy to learn **TTFQ7:** It is easy for me to become more skilful at using Microsoft teams **TTFQ8:** New features of Microsoft teams are easy to learn **TTFQ9:** Do you think the output from Microsoft teams to the students is presented in a useful format? **TTFQ10:** Can you provide accurate information to your students with Microsoft teams? **TTFQ11:** Can you provide up-to-date information to your students with Microsoft teams? **TTFQ12:** Can you provide information students need in time using Microsoft teams? **TTFQ13:** Can you provide information that seems to be just about exactly what your students need with Microsoft teams?
Expected Consequences of LMS use	**ECQ1:** Using Microsoft teams will help me to accomplish my online teaching more quickly **ECQ2:** Using Microsoft teams will help me to accomplish my online teaching more quickly **ECQ3:** Using Microsoft teams will improve my online teaching performance **ECQ4:** Using Microsoft teams will increase my online teaching productivity **ECQ5:** Using Microsoft teams will enhance my effectiveness as a teacher while teaching online **ECQ6:** Using Microsoft teams will make it easier to complete my teaching tasks while teaching online

	ECQ7: Using Microsoft teams will give me greater control over my teaching tasks while teaching online **ECQ8:** Overall, I think that Microsoft teams will be useful in my ability to teach online **ECQ9:** Using Microsoft teams will improve the quality of my online teaching
Perceived Impact on Teaching	**PITQ1:** Microsoft teams has a large positive impact on my effectiveness and productivity as an online teacher. **PITQ2:** Microsoft teams is an important and valuable aid to me in my online teaching **PITQ3:** I teach better online with Microsoft teams than without it.
Consumerization Attitude	**CAQ1:** If I could choose my own Learning Managements System it would fit well with teaching online. **CAQ2:** If I could choose my own Learning Managements System it would fit well with helping me to be efficient in teaching online. **CAQ3:** If I could choose my own Learning Managements System it would be compatible with my online teaching. **CAQ4:** If I could choose my own Learning Managements System my online teaching performance would improve. **CAQ5:** If I could choose my own Learning Managements System I would work faster while teaching online

Table 1 presents the measurement items and its corresponding survey questions based on the four constructs in the Task Technology Fit model

Sampling and Data Collection

For this research, data was collected from teachers presently teaching at Orange walk Technical High School using a non-probability sampling design. The type of non-probability sampling design used was a convenience sampling as it is cost effective and the data is readily available and is the most effective way to collect the data considering that the high school has transitioned to a fully online setting as a result of the COVID 19 pandemic. Questionnaires were distributed online via a WhatsApp group established at the school comprised of teachers only. A total of 26 questionnaires out of 40 teachers presently teaching at the high school were completely answered giving a total of 65% response rate from the high school.

Characteristics of respondents are depicted in Table 2. The prevalent gender in this sample was males comprising of 57.6 percent of the overall sample. The age range in which most teachers fall into is between 31-40 which makes 34.6 percent of the sample size. The prevalent education level of the sample comprised of the Bachelor's Degree with 61.5 percent. Thereafter, 38.4 percent of the sample stated science as their teaching field.

Table 2: Characteristics of the Respondents

Characteristics	Number	Percentages
Gender		
Male	15	57.6%
Female	11	42.4.%
Age		
<20	0	0%
20-30	4	15.3%
31-40	9	34.6%
41-50	8	30.7%
51-60	5	19.2%

>60	0	0%
Education Level		
Associates Degree	1	3.8%
Bachelor's Degree	16	61.5%
Master's Degree	8	30.7%
Doctorate Degree	1	3.8%
Teaching Field		
Belizean Studies	1	3.8%
Business	6	23%
English	1	3.8%
Information Technology	1	3.8%
Mathematics	1	3.8%
Science	10	38.4%
Single language interpreter	1	3.8%
Spanish	1	3.8%
Vocational	4	15.3%

Table 2 presents the number and percentage base on the Characteristics of Respondents.

Data Analysis and Discussion

We will now move from basic research to applied research since there was no hypothesis testing. The results of the data will be visually represented using histograms.

After receiving the responses from the teachers presently working at Orange Walk Technical High School, the responses were coded and analyzed using google sheets. A 7-point Likert Scale was utilized in the questionnaire which had questions structured with a scale system ranging from strongly disagree to strongly agree. 12 Histograms will be provided below on table 3 demonstrating and comparing the results obtained from the four major constructs under three different scenarios.

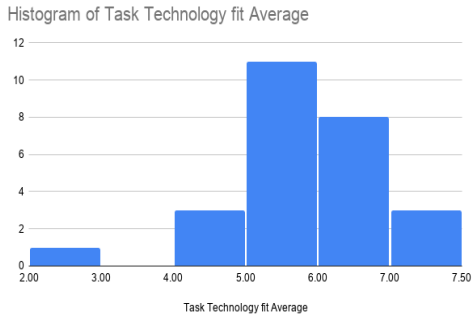
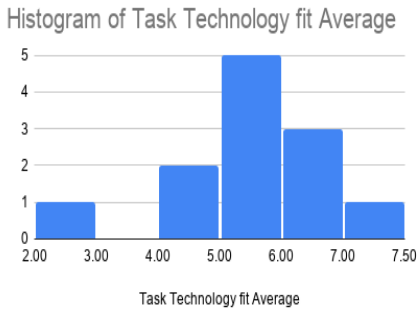
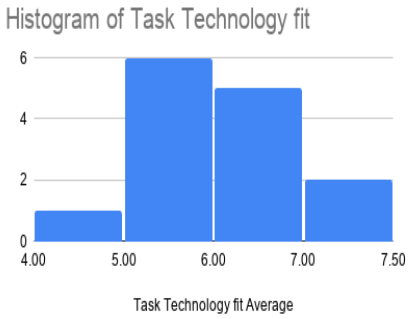
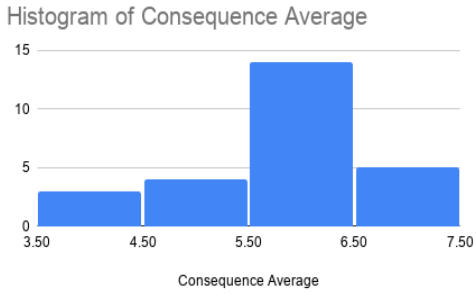
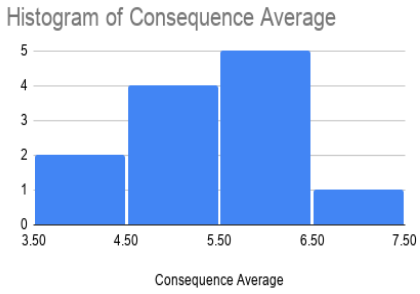
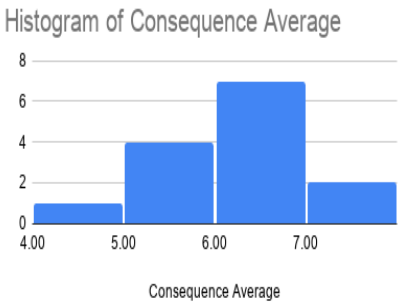
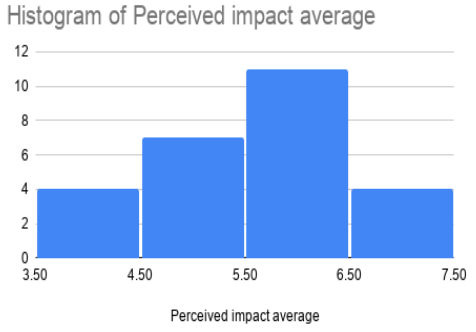
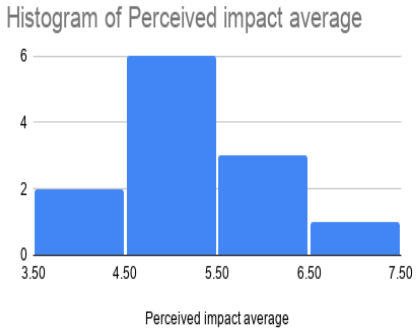
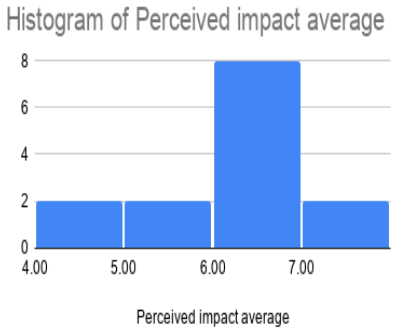
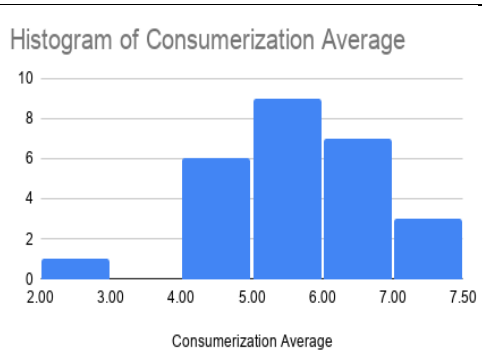
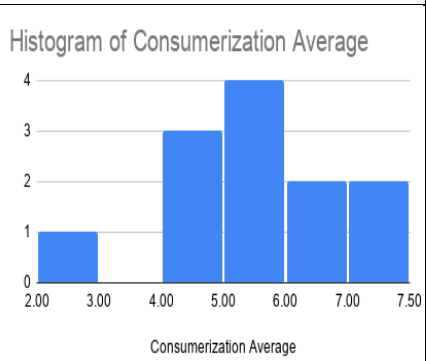
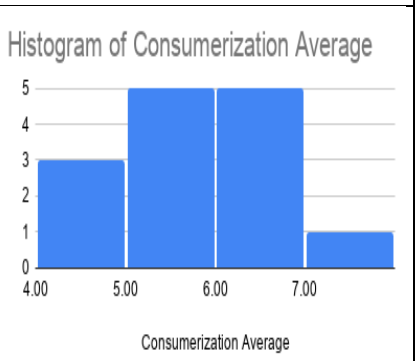
	All Responses	Microsoft teams Only (NO)	Microsoft teams + (YES)
TTF			
Consequence			
Impact			
Consumerization			

Table 3. presents the results of the responses of the four major constructs

Construct 1: Task Technology Fit (TTF)

Construct number1: task technology fit focuses on the first row of table 3 only. The first histogram located in the first row depicts the responses of all the participants, the second chart on the first row depicts the responses of the teachers that have not used any other LMS other than Microsoft teams and lastly the third chart on the first row shows the responses of the participants that have used another LMS other than Microsoft teams.

The first histogram state that 23 of the 26 participants agree that Microsoft teams fits well for them to deliver lessons by giving an average of 5 and up in the Likert scale. On the other hand, only 1 teacher disagreed with the task technology fit of Microsoft teams with an average of less than 4 in the Likert scale and the other 2 participants were uncertain. On average the majority of the teachers agreed with the task technology fit of Microsoft teams.

The second histogram reveals that 12 teachers out of the 26 participants have not used an LMS other than Microsoft teams. 9 teachers out of the 12 participants agreed with the task technology fit of the LMS presently used at the school (Microsoft teams). On the other hand, 1 participant disagreed and 2 participants were uncertain.

The third histogram revealed that 14 out of the 26 participants have used an LMS other than Microsoft teams. 13 out of the 14 participants agreed with the task technology of Microsoft teams and only one was uncertain.

Construct 2: Expected Consequence of LMS Used

Construct number 2: Expected Consequence of LMS used focuses on the second row of table 3 only. The first histogram located in the second row depicts the responses of all the participants, the second chart on the second row depicts the responses of the participants that have not used any other LMS other than Microsoft teams and lastly the third chart on the second row shows the responses of the participants that have used another LMS other than Microsoft teams.

The first histogram state that 19 of the 26 participants agree with the positive consequences of the use of Microsoft teams by giving an average of over 5 in the Likert scale and 4 participants were uncertain of the positive consequences of the use of Microsoft teams and 3 disagreed. On average the majority of the teachers agreed with the positive consequences of the use of Microsoft teams.

The second histogram reveals that 12 teachers out of the 26 participants have not used an LMS other than Microsoft teams. 6 out of the 12 participants agreed with positive consequences of the use of Microsoft teams, 4 were uncertain and 2 participant disagreed.

The third histogram revealed that 14 out of the 26 participants have used an LMS other than Microsoft teams. 13 out of the 14 participants agreed with the positive consequences of the use of Microsoft teams, 1 participant was uncertain and no one disagreed. On average the majority of the participants agreed with the positive consequences of the use of Microsoft teams.

Construct 3: Perceived Impact on Teaching

Construct number3: perceived impact on teaching focuses on the third row of table 3 only. The first histogram located in the third row depicts the responses of all the participants, the second histogram on the third row depicts the responses of the teachers that have not used any other LMS other than Microsoft teams and lastly the third chart on the third row shows the responses of the participants that have used another LMS other than Microsoft teams.

The first histogram state that 15 of the 26 participants agreed with the positive impacts Microsoft teams has on teaching by giving an average of 5 and over in the Likert scale. On the other hand, only 4 participants disagreed with the positive impacts of Microsoft teams on teaching and 7 participants were uncertain. On average the majority of the participants agreed with the positive impacts Microsoft teams has on teaching

The second histogram reveals that 12 teachers out of the 26 participants have not used an LMS other than Microsoft teams. 4 out of the 12 participants agreed with the positive impacts Microsoft teams has on teaching, however, 6 participants were uncertain and 2 participants disagreed. On average the 50% were uncertain.

The third histogram revealed that 14 out of the 26 participants have used an LMS other than Microsoft teams. 12 out of the 14 participants agreed with the positive impacts Microsoft teams has on teaching, 2 participants were uncertain, however, no one disagreed.

Construct 4: Consumerization Attitude

Construct number 4: Consumerization attitude focuses on the fourth row of table 3 only. The first histogram located in the fourth row depicts the responses of all the participants, the second histogram on the fourth row depicts the responses of the participants that have not used any other LMS other than Microsoft teams and lastly the third histogram on the fourth row shows the responses of the participants that have used another LMS other than Microsoft teams.

The first histogram state that 19 of the 26 participants agreed that consumerization attitude would highly enhance their online teaching rather than only using Microsoft teams as their only option at the school. 6 participants were uncertain and 1 participant disagreed. On average the majority of the participants supported consumerization.

The second histogram reveals that 12 teachers out of the 26 participants have not used an LMS other than Microsoft teams. 8 out of these 12 participants supported consumerization, 3 participants were uncertain and 1 participant disagreed. On average the majority of the participants supported consumerization.

The third histogram revealed that 14 out of the 26 participants have used an LMS other than Microsoft teams. 11 out of these 14 participants agreed that consumerization attitude would highly enhance their online teaching rather than only using Microsoft teams as their only option at the school, 3 participants was uncertain, however, no one disagreed. On average the majority of the participants supported consumerization.

Discussion

The analysis of the data showed that there was a high level of teacher's responses that agreed with the task technology fitness of Microsoft teams utilized as the learning management system at the high school. This indicates that Microsoft teams is effective for teachers when measuring the task technology fitness regardless if the teacher has used another leaning management system other than Microsoft teams. Teachers that had used another learning management system showed an even higher percentage level of satisfaction with the task technology fitness of Microsoft teams.

In regards to the expected consequence of using Microsoft teams the response of the teachers indicated that positive consequences will result from using Microsoft teams. however, the teachers that have not used any other LMS other than Microsoft teams displayed a lower level of positive consequence than the teachers that have used another LMS other than Microsoft teams. However, on average 73% of the total participants agreed with the positive consequences linked to the use of Microsoft teams.

When relating the perceived impacts of Microsoft teams on teaching, the teacher's responses revealed that out of the total sample 57% agreed on the positive impacts of using Microsoft teams on teaching. However out of the remaining teachers, 27% were uncertain and 16% disagreed. When comparing the teachers that

have not used any other LMS other than Microsoft teams with the teachers that have used another LMS, a significant low percentage of 33% was observed on teachers that have only used Microsoft teams. On the other hand, a significant higher percentage of 86% was indicated by the teachers that have used another LMS other than Microsoft teams with a 0% of teachers disagreeing.

Consumerization attitude was also analyzed and the results revealed that 73% of the total sample size agreed that consumerization attitude would highly enhance their online teaching rather than only using Microsoft teams as their only option at the school. However, when comparing teachers that have only used Microsoft teams with the teachers that have used another LMS before, it was observed that both had a high percent supporting consumerization however, teachers that have used a different LMS other than Microsoft teams had a higher percentage being 78% compared to a high percentage of 66% of the teachers that have only used Microsoft teams. This indicated that regardless if the teacher had used another LMS other than Microsoft teams or not, the participants had a high level of consumerization attitude.

Conclusion

Orange Walk technical High School uses Microsoft teams to continue delivering lessons to students online despite the closure of educational institutions as a result of the COVID 19 pandemic. The purpose of this study is to determine whether the use of Microsoft teams has been successful in assisting the teachers of the school to deliver their lessons and interact with students virtually. The analysis of the data collected indicated that the teachers highly rely on a learning management system in order to get their tasks done. This indicated that the learning management system presently used, does contribute to the successful delivery of classes to students after transitioning from a traditional learning setting (classroom) to a fully online modality. The analysis also indicated that Microsoft teams task technology fitness is effective. The teachers were satisfied with the user experience, compatibility, ease of use and delivery of their lessons. The analysis also indicated that positive consequences was linked to the use of Microsoft teams. Teachers were able to link positive consequences such as boosting performance and productivity, making work easier, improving the quality of online teaching and enhancing effectiveness as a teacher. Another finding of the data analysis was the perceived impacts on teaching. Positive perceived impacts on teaching were significantly higher on the response of the teachers that have used an LMS other than Microsoft teams. This indicates that after experiencing the use of other LMS, the are highly satisfied with the used of Microsoft teams. on the other hand, the low percentage on teachers that have only used Microsoft teams indicate that they may want to try another LMS platform. Similarly, the results of consumerization attitude confirmed that the majority of teachers may want to try other platforms or used more than one platform interchangeably in order to better deliver their lessons to students. A high percentage of consumerization attitude was observed on both teachers that have used another LMS other than Microsoft teams and on teachers that have only used Microsoft teams. The high percentage of consumerization attitude on teachers that have used more than one LMS indicates that they may want to used more than on platform to suit their teaching styles in order for leaning to be more effective. Overall, it can be concluded that the learning management system used by teachers at Orange Walk Technical High School is successful and does contribute to the delivery of lessons and online interaction with students, however, there are still areas that can be worked on in order for the delivery of lessons to students by teachers to become fully effective.

Limitation

There were several limitations that were encountered when conducting this research. The first limitation that was encountered was restriction of conducting face to face interviews with teachers at the high school due to the COVID pandemic restrictions. Another limitation encountered in this study is the small sample size obtained from the high school as a result of the school presently operating fully online which made it difficult to reach all the teaching staff. The sample obtained was 26 out of 40 teachers presently working at the school which took the time to respond to the questionnaire.

Further Research

This research aims to evaluate the success of the LMS presently used at the high school. Therefore, the teacher's responses were a key factor for this analysis. The research paper had detailed analysis utilizing four major constructs, however, additional research on the satisfaction of the LMS used from both teachers and students side can be considered in future research. This research can be used as a foundation for future research and other researchers can build upon this research looking at other factors to determine the success of the LMS presently used with a larger sample size in order to have a more accurate representation of the target population.

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