Western Governors University Teachers College

Capstone Template

The following pages provide a template for planning and writing the capstone written project. Please adhere to this template to ensure the successful submission of the capstone paper. Capstone tasks 3–5 must align with this template precisely. You are encouraged to copy this document and type your project directly in the template to ensure alignment with capstone requirements.

In addition to populating the template, please provide the appropriate information where text is bracketed and highlighted in yellow.

Training and Teachers' Confidence with Microsoft Applications

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A Capstone Presented to the Teachers College Faculty

of Western Governors University

in Partial Fulfillment of the Requirements for the Degree

Master of Education, Learning and Technology

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Abstract

(This section, which is developed after the written capstone project is completed, consists of one double-spaced paragraph [use 150–200 words] and presents a succinct summary of the project. Include the topic, research questions, participants, methods, results, data analysis, and conclusions. Avoid using indentation.)

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Chapter 1 - Topic and Problem

Topic

The research topic is in regard to educators who are lacking the confidence to use Microsoft Apps to create engaging assignments for virtual learning due to a lack of training. As a middle school teacher who is currently teaching virtually, I have found myself having to figure out most of my technology issues on my own. I am relatively tech savvy and from my conversations with coworkers they are struggling to integrate technology effectively. My long-term professional goal is to move into a technology coach role within my district, making this research topic very relevant. Looking at the greater field of education it is important to investigate the effect of training as we see increasing technology use in K-12 classrooms.

One of the most common assumptions of new teachers is that they are more tech savvy because they have been exposed to technology their entire life. As these digital natives entire the classroom, schools and mentor teachers expect them to have a greater understanding of how to use technology. Swapna Kumar and Katya Vigil surveyed 21 undergrad preservice teachers about their technology use. Their survey findings confirmed that although these students have experience using social media and educational technologies such as blogs, podcasts, videos, and wikis, they lack the practice of creating these online resources (Kumar 2011).

In Northern Cyprus, Begum Cubukcuoglu conducted a case study to identify factors that encouraged teachers to use ICT resources while teaching their content. He interviewed seven teachers over a period of two semesters. One of the main teacher factors he identified was teacher confidence (Cubukcuoglu 2013)".

Research shows that most preservice teachers are not prepared for the type of technology use that is expected of them as a teacher. They know how to use some of it as the

student but lack the training and practice to create using technology as the teacher. Once these preservice teachers begin teaching any training, they receive is either from their school or individual training they have sought out on their own. This lack of exposure to the necessary technology leads to avoidance and a lack of confidence.

Problem Statement

Public K-12 teachers in the researcher's social circle lack the confidence and training to effectively use an information and communications technology (ITC), such as Microsoft's Educational Apps, within their virtual classroom. This is a significant problem because it impacts their ability to design assignments and activities that will increase their students' engagement.

Problem Background and Causes

Before successfully implementing any new initiative or strategy in a classroom, teachers need training on the topic. Technology is a quickly changing field and varies from school district to district. When new programs, learning management systems, and technology devices are introduced to schools there is limited training on how to use them prior to implementation in individual classrooms. Most school districts assume that their educators have a thorough understanding of Microsoft Applications because they have used them previously as a student or for casual use. The uses of the applications greatly change when you are developing educational resources in a virtual setting. Too many school districts have not provided the necessary training on these ICTs.

When Dr. Serhat Kurt and Dr. Muhammaed Ciftci completed a mixed methods study attempting to identify the perceived barriers to teachers using technology in elementary schools

in Turkey, they found lack of training to be one of the six major barriers. From their study, 24

out of the 26 teachers acknowledged their own lack of training as a barrier (Kurt 2012).

Trent Grundmeyer and Randal Peters set out to see how effective high school 1 to 1 laptop

initiatives were for preparing students to use them in college. As they completed their qualitative

study of interviewing college students a common theme was identified. The researchers found

that there was an "implementation dip" for most of the programs due to increased availability of

technology without increased professional development for teachers on how to use it. The

participants shared that they dealt with a lot of trial and error in the first year of implementation

which impacted their ability to be successful academically. As the program continued the

students commented on how the teachers were able to use the laptops more effectively which in

term help them be successful. The researchers also acknowledged that when training is provided

it needs to be provided continuously so that new teachers can benefit from the training every year

(Grundmeyer 2016).

Katherine Fulgence conducted a qualitative study to try to discover how Tanzania's teacher

educators at the university level developed their own digital skills so they can help their students

relate to the contemporary world. What she found was that of the 90 participants 60% of them

identified that they developed their digital skills by completed individual trainings and that only

31% felt they received training through their job. The researcher concluded that the government

needs to invest in instructional designers, content developers and educational technologists who

can provide educators the quality training they need to develop their digital fluency as technology continues to change (Fulgence 2020).

Research Questions

How will educating teachers on Microsoft's Educational Apps affect their confidence in using them to create assignments for their virtual classroom? This question will be approached through action research by administering a pre/post survey identify initial confidence levels prior to providing provide training on Microsoft's Educational Apps and after providing training.

Topic and Problem Conclusion

The purpose of this research is to determine if providing training to educators on how to use Microsoft's Educational Apps (Word, Excel, Forms, PowerPoint, Sway and OneNote) will affect their confidence with creating assignments in a virtual setting. Participants will gain an understanding of Microsoft Educational Apps with the intent to improve teacher confidence. Schools have provided teachers with access to these resources will providing limited or no training on how to effectively use them for their classroom.

Chapter 2 - Review of the Literature

Overview of the Literature

The use of computers and online resources in public k-12 has been increasing consistently but the COVID 19 Pandemic has accelerated the rate at which school districts embraced one to one device for their students. As a student, I was exposed to technology in elementary school and have continued my interest as a teacher. Unfortunately, not all new teachers are as tech savvy, teachers have a lack of training, confidence, and time. That coupled with the need for individualized training have led to teachers struggling to make their teaching engaging in this virtual setting.

When school districts went fully virtual in the Spring of 2020 the focus was on student wellness. Returning in the Fall of 2020, the focus once again returned to academics. Most school districts implemented a learning management system (LMS) and spent their time training their teachers how to manage their chosen site. In my school district most of our training was on how to use Canvas but we received no training on how to use Microsoft Educational Apps, one of our ICTs. The Apps can provide teachers with a variety of ways to create engaging higher-level assignments for students. Research shows that teachers currently are not prepared to use these resources because of the following factors: technology levels of preservice teachers, lack of time, lack of training, a need for individualized training and a lack of confidence.

Technology Levels of Preservice Teachers

One of the most common assumptions of new teachers is that they are more tech savvy because they have been exposed to technology their entire life. As these digital natives entire the classroom, schools and mentor teachers expect them to have a greater understanding of how to use technology. While this may be true for a small portion research shows that most preservice

teachers are not prepared for the type of technology use that is expected of them as a teacher. They know how to use some of it as the student but lack the training and practice to create as the teacher.

Through Swapna Kumar and Katya Vigil research with preservice teachers the found that they lacked the training to create digital consent for their future students. Their findings confirmed prior studies' findings that preservice teachers have little experience using technology in the role of a teacher. Their exposure to social media and educational technologies such as blogs, podcasts, videos, and wikis, as a student or casual user does not prepare them to use it in their future teaching position. One factor that was identified was that their instructors, do not have the training themselves on how to create these resources, so therefore cannot provide training for preservice teachers on creating digital resources (Kumar 2011).

Hicham Zyad wanted to see the impact of Morocco's pre-service training program reform in 2000 when they introduced an ITC requirement into all of their middle and secondary teacher education programs. For his exploratory study he administered questionaries to 56 teachers. He found that although participants were satisfied with their program's coverage of basic computer skills the overwhelming majority, 95.65% of males and 87.87% of females, felt their preservice program did not integrate their content pedagogy with the technology. They were assessed on computer skills but were never asked to demonstrate how that technology use could be used for instructional purposes (Zyad 2016).

Stéphanie Simard and Thierry Karsenti wanted to see how preservice programs prepared preservice teachers to use ICT to help their future students develop information literacy skills. Through their sequential mixed methods study they interviewed 413 French Canadian preservice teachers from four universities in Québec. Their findings showed that the preservice teachers felt

they did not have enough training on the use of technology. When asked what their teacher

preparation program could do to better prepare them 41.7% suggested that there should be more

courses on ICT. One participant was even quoted saying, "It should go beyond just using

PowerPoint (Simard 2016)." This study showed that preservice teachers are aware that their

surface level understanding of technology is not enough to implement it in their future classroom

in a meaningful way.

Lack of Training

Before successfully implementing any new initiative or strategy in a classroom, teachers

need training on the topic. Technology is a quickly changing field and varies from school district

to district. When new programs, learning management systems, and technology devices are

introduced to schools there is limited training on how to use them prior to implementation in

individual classrooms.

Dr. Serhat Kurt and Dr. Muhammaed Ciftci's study mixed method study on teachers'

technology use in Turkish elementary schools identified perceived barrier to technology use by

teachers. The most barrier they found was that the teachers lacked the training to successfully use

the provided technology in their school. Of the studies participants 92% of them identified their

own lack of training as a barrier (Kurt 2012).

Within the United States, there has been a significant push to move to 1 to 1 device in

public k-12 schools. Researchers Trent Grundmeyer and Randal Peters studied whether high

school 1 to 1 laptop initiatives were for preparing students to use them in college through

qualitative interviews of college students. From their research a common factor to success was

identified. The researchers found that there was an "implementation dip" for most of the

programs due to increased availability of technology without correlating increased professional

development for teachers on implementation. The college students discussed how they observed

their teachers attempting trial and error methods during the first year of implementation. The

students found that this impacted their ability to be successful academically. As their 1 to 1

program progressed the students observed that their teachers were able to use the laptops more

effectively during lessons which in turn help their students be more successful. The researchers

also acknowledged that when training is provided it needs to be provided continuously so that

new teachers can benefit from the training every year (Grundmeyer 2016).

In Tanzania, researcher Katherine Fulgence conducted a qualitative study to try to

discover what methods teacher educators at the university level were using to develop their own

digital skills so they can help their students. From her findings she discovered that 60% of her

participants self-identified that they developed their digital skills by seeking out individual

trainings and that only 31% felt they received training through their university. The researcher

concluded that Tanzania's government needs to invest in instructional designers, content

developers and educational technologists who can provide educators the quality training they

need to develop their digital fluency as technology continues to change (Fulgence 2020).

Lack of Time

Time is a finite resource, and this is evident in the current expectations of teachers. As a

society we have placed increasing roles and responsibilities on teachers. With the movement to

fully virtual, teachers are now expected to also be masters of technology in addition to their

previous tasks. Even prior to the pandemic, the research shows that teachers had a lack of time to

learn the tools necessary to effectively use ICTs.

Atef Abuhmaid completed a mixed methods study attempting to analysis if teachers in

Jordan were prepared to use ICTs to support their students' learning and if they were not what

were the factors preventing them. Over a four-year period, he administered his questionaries to

115 teachers and 15 Principals. His participants all taught at schools that participated in ICT

trainings provided by the Ministry of Education in Jordan and 113 of the participants had

attended at least one training. Despite receiving training, only 42.6% felt that they had enough

time to develop and practice the strategies that they learned in their training session (Abuhmaid

2011).

Marthese Spiteri and Shu-Nu Chang Rundgren conducted a qualitative study to see how

elementary school teachers in Malta use technology in their classroom and how training could

impact this. After interviewing 26 elementary school teachers, a common theme of lack of time

to finding quality ITCs appeared. The participants had to use a significant amount of time

searching for online resources such as videos, PowerPoints, and interactive games. They knew

they needed more training and stated they were willing to invest their time in professional

development. The study reflects that schools need to provide the time and space for these

trainings to ensure time is not a barrier preventing all teachers from receiving professional

development on necessary technologies (Spiteri 2017).

During the 2013-2014 school year the Bluffton University faculty sought to engage their

students through increased technology use in their course. One of their case studies focused on a

Computers and Technology class and how the professor provided choice to students to increase

engagement. The teacher spent considerable time creating multiple units and assignments so

students could pick two assignments and a technology integration unit of their interest. The

teacher saw increased engagement in her students but what the study notes that the faculty also

voted to have a sabbatical for the majority of their normal faculty governance work for the

school year. This study demonstrated that in order to create and implement engaging digital content that teachers need unencumbered time (Nisly 2015).

Need for Individualized Training

Public education often discusses the importance of making learning individualized to make it more meaningful to the learner. This does not only apply to public school students but also to educators when they are receiving professional development. In order to more effectively, and quickly, implement new technology they need trainings to relate to their subject matter.

In 1997 Mexico implemented ICTs into their public education system and from 2013-2015 gave out various computers and tablets to 5th grade students. Without a federal initiative, changing focus each year, and limited training for educators there was limited success in the implementation of ICTS. At the beginning of the 2016 school year, the Secretary of Public Education arranged for an independent body, the General Coordination of @prene.mx, to design and administer a training and support program that would help schools use the ICT as a learning tool. Due to the wide nature of the program, 13 states, the researchers were able gain insight into a wider pool of participants. Their findings showed that participants that experienced the greatest growth in incorporating ICT where those who were designing materials for their own content matter in their trainings (Franzoni 2020).

Dr. Zeynep Ayvaz-Tuncel and Dr. Fatma Çobanoğlu created a qualitative study that examined the opinions and ideas of new educators on in-service training they participated in. The 494 first year teachers, student teachers and counselors were all new to their schools in Denizli for the 2015-2016 school year. From their questionaries, the researchers found that most of the participants found the training unenlightening because it was a repeat of what they learned college education courses. Participants also found that the training was a contradiction because

the presenters would lecture on how to embrace a constructivist type of teaching without

providing the learners with an opportunity to see it put into practice (Ayvaz-Tuncel 2018).

The University of Lisbon saw the need to encourage their professors to use online

learning resources and various technologies. To meet this need they developed an e-learning Lab

(e-Lab), whose role would be to create and offer courses to help the university's teachers to

design their own e-learning courses for students through improving their ICT skills. Researchers

surveyed the 103 professors who attended workshops from 2014 and 2017. Participants were

able to select the training that best fit their needs between Moodle (Learning management

system), E-learning pedagogy, multimedia creation, e-learning support tools. By providing

participants with the ability to attend the training they felt they needed, the e-Lab experienced

greater success. Researchers found that participants were highly satisfied with their training

because the workshops were designed to address both technical ITC skills and how to integrate

them into participants content area (Bastista 2017). This study showed that when training is

individualized for the specific needs of the learners, that the learners will be more satisfied and

find more value from the training.

Lack of Confidence

Teachers, just like their students, need exposure and practice with a topic before they can

confidently use and present it to their students. If schools and society expect teachers to embrace

new technology into their instruction, teachers need to have the confidence that they are

knowledgeable enough to use the technology devices and ICTs.

Begum Cubukcuoglu conducted a case study to pinpoint the factors that encouraged

teachers in Northern Cyprus to use ICT resources while teaching. Through his interviews with

seven teachers over a period of two semesters he discovered one of the main factors to use was

teacher confidence. Suzan, one of the participants, was interviewed saying, "The more a person is involved in technology, the more s/he will tend to use it even more and better. A person who does not know how to use technology (computers) will avoid using it... so, having technology (computer) skills is an enabler factor in integrating ICT into teaching. (Cubukcuoglu 2013)."

Charles Buabeng-Andoh, in a non-research article, identified the key factors that influenced whether teachers would use ICTs in their classroom. He discusses the importance of teacher's computer self-efficacy. Without their own confidence in the ability to use the ICTs, teachers will not be able to successfully use ICTs in their classroom (Buabeng-Andoh 2012).

Kleopatra Nikolopoulou and Vasilis Gialamas, were also interested in identifying teacher's perceived barriers to computer usage in the classroom. For their quantitative study they interviewed 119 high school teachers from various schools in Athens, Greece. Through their findings they discovered that lack of confidence with technology was higher in female teachers and teachers who did not receive the first level of ICT training. Conversely, teachers with increased exposure to computers and more time with computers expressed greater overall confidence with technology (Nikolopoulou 2016).

Summary

The research shows that these factors are preventing the successfully implementation of various ICTs across multiple levels. There has been much research completed about identifying the factors and barriers to the use but there is little research on how to begin addressing the barriers, especially at the K-12 level. As a current middle school teacher, I was most interested to see if there would be a positive correlation between teacher confidence and training in ICTs. There was no research on training teachers to use Microsoft's Educational Apps specifically despite its frequent use by school districts.

Chapter 3 - Research Methodology

Research Design

  This mixed methods action research study will consist of adult learners completing quantitative pre/post study surveys as well as lesson reflections in order for the researcher to assess their confidence level with Microsoft's Educational Apps.

  A pre study survey will be designed and analyzed to gain an understanding of the current technology and confidence levels of the participants. A post survey will be designed and analyzed to compare participants confidence level from before the training to after the training. At the end of each lesson, participants will respond to open ended qualitative reflection questions.

  Surveys will be created using Microsoft Forms and linked in the study's OneNote Class Notebook. Once the surveys are received, the data will be organized and coded for anonymity.

Research Questions

  How will educating teachers on Microsoft's Educational Apps affect their confidence in using them to create assignments for their virtual classroom? This question will be approached through action research by administering a pre/post survey identify initial confidence levels prior to providing provide training on Microsoft's Educational Apps and after providing training.

Participants

  There are four participants in this study. All four participants are teachers in the same middle school in Virginia. The Pre-Training Survey shows that the participants currently teach sixth, seventh and eighth grade in a virtual and/or hybrid setting. The participants have a range of teaching experience from one year to twenty-two years. Within the participant group one participant has an endorsement to teach English Second Language Students (ESOL) in a

language arts classroom, one is a librarian who teaches researching and supports all content

teachers, another is a math teacher, and one is a school counselor responsible for teaching career

and social emotional lessons. All of the participants are highly motivated to increase their

understanding of technology. The researcher requested volunteers and all four participants

expressed interest in the training. From the Pre-Training Survey, participants expressed a real

desire to improve their understanding so they could help their students more effectively. The

school they work for is part of Microsoft Education District and is in its second year of 1-1

devices implementation. A copy of the Pre-Training Survey can be found in Appendix B.

Data Collection Instruments and Methods

To address the research questions in this study, participants will complete surveys and

end of lesson reflections. They will answer seven Likert questions about their confidence and

the effectiveness of the training. Three open ended questions will seek to understand their

feelings and opinions about the technology, their confidence and the training. As participants

complete each lesson, they will complete a reflection of how they can use the specific

Microsoft Education App in their classroom.

Data Security and Confidentiality

The raw data gathered from this research, with any personal identifiers, will be kept

private and confidential. Participants' information will only be seen by the researcher and

individual participant names will not be used in report findings. Data will only be reported in the

aggregate. Participants emails will be collected throughout the survey to compare pre and post

responses. Once data has been analyzed it will be coded to ensure participants anonymity when

sharing results of the data.

Summary

Action research will be used to investigate the impact of training on teachers' confidence towards education. The training has been broken up into eight self-paced lessons: Microsoft forms, Microsoft word, Microsoft Sway, Microsoft Excel for organization, Microsoft Excel for student work, Microsoft PowerPoint, setting up a Microsoft OneNote Class Notebook, creating pages within Microsoft OneNote Class Notebook. Participants will work through the self-paced training lessons with support from the researcher through email and videoconferencing over a two-week period.

Once participants have agreed to voluntarily participate in this study, the researcher will email them the Informed Consent. Within the Informed Consent participants will be made aware of the types of data that will be collected and how the data will be used. After the Informed Consent is returned, the researcher will send a welcome email with information on how to join the OneNote Class Notebook where all training information will be kept. In the introduction lesson, the researcher will include the pre study survey to assess the current level of participants confidence and technology use. The participants will be informed that they may select to withdraw from participating in the study at any time by notifying the researcher without penalties.

Before the lessons participants will complete an Introduction and at the end of the course participants will complete a Wrap Up. Each App lesson should take participants approximately an hour to complete with the introduction and wrap up taking approximately thirty minutes. For each of the lessons, learners will be provided with example(s) of how the app can be used in a classroom, training videos on how to create their own and then create an assignment or activity using that app for their own classroom. At the end of each lesson, they will complete a reflection

of how they plan on using the app in their classroom. Throughout the training the instructor will be available by email and can schedule Microsoft Teams meetings to provide additional 1-1 support. All of the videos, links, and sample activities will be housed within the Microsoft One Note Classroom for participants to access at their own rate and for other instructors to use as well.

At the end of the study, learners will complete the post study survey. They will be sent a thank you email which includes information about how they can obtain results of the study and that the researcher may contact them after the data has been analyzed for additional feedback. The surveys and the data will be organized in a chart for data analysis.

The data will be coded to support maintain participant anonymity. The data will then be analyzed to identify and explore themes of participants confidence with the specific ICTs. The researcher will use this information to make conclusions about the impact of training has on teachers' confidence with technology. From the pre/post surveys, researchers will be able to see if there was an impact on teachers' confidence by looking at the Likert ratings. From the same surveys, researchers will be able to see if participants found content specific training to be more effective, less effective or no change in effectiveness as opposed to previous trainings. This qualitative data will be analyzed through descriptive statistics to look for trends in participants responses comparing pre/post survey. By comparing the pre/post survey responses, the researcher can determine if there has been group growth.

Triangulation will occur by using lesson reflection and the open-ended survey questions, to use qualitative data to provide anecdotally evidence that supports the quantitative data collected from the pre/post study survey. Participants will provide feedback at the end of survey, which provides additional validity of the findings.

Chapter 4 - Results

Results Overview

This study sought to determine the impact an instructional course covering Microsoft Education Application had on teachers' confidence. Quantitative and qualitative data was gathered for the purpose of comparing the confidence levels of participants prior to and following an 8-hour training course (Appendix A). The population sample from which data was collected included four licensed K-12 teachers currently teaching virtual or hybrid in a public school during the 2020-2021 school year. Of the four participants, two completed the entire training. The remaining two participants completed approximately half of the training. The two participants who completed the training have already implemented some of the new uses for the applications they have learned. One of them is using Microsoft Forms to create the sign up for a virtual Poetry Reading event and the other is planning on using Microsoft Class Notebook in her classroom moving forward.

Quantitative data was gained through the Pre-Training Survey and Post Training Survey Likert scale questions. Participants ranked themselves on their technology skills for each application: Word, Forms, PowerPoint, OneNote Class Notebook, Excel, and Sway. They could rank themselves as unfamiliar, learner, basic, proficient, or advanced (Appendix B). Data from the Pre/Post-test were compared to identify if participants perceived growth in their ability to use each application. Data was analyzed for each application, as well as the mean was calculated to identify average growth. Additional quantitative data was collected from the Pre-Training Survey to identify what previous training participants had participated in prior to this training.

Qualitative data was gained through the pre/post survey open ended questions and the lesson reflections. Participants were able to describe their relationship with technology, their

confidence with technology and how they felt about the training (Appendix B). This qualitative data was used to identify themes affecting participants confidence pre/post training and provide anecdotally responses of the effect the training had on participants' confidence.

From analyzing the data of this study, it shows that teachers are more confident to use Microsoft Education Applications in their classroom after participating in the training. This is seen through the mean scores of participants' survey results and their positive statements in their reflections.

Data Analysis

Quantitative data was gained through the Pre-Training Survey and Post Training Survey Likert scale questions where participants ranked themselves on their technology skills for each application: Word, Forms, PowerPoint, OneNote Class Notebook, Excel, and Sway (Appendix B). They could rank themselves as unfamiliar, learner, basic, proficient, or advanced. Participants completed the Pre-Training Survey prior to instruction and the Post Training Survey after completing the eight lessons. Data obtained through these surveys were analyzed in terms of mean score.

Overall participants' confidence towards using Microsoft Applications to create materials appeared more positive following the training as evidenced by comparison of pre- and post-instructional means scores derived from the Pre-Training and Post Training Surveys. As seen in Table 1 and Chart 1, participants identified themselves from a pretraining mean of 3.17 confidence level to a 3.92 level post training, indicating an 0.75 increase in participants confidence towards using Microsoft Applications in their classroom. When looking at specific apps the greatest increase occurred for Microsoft Sway with a mean increase of 2. Only one

application did not show an increase but also did not show a decrease with a mean of 4.5 at both

the Pre-Training and Post Training surveys.

Table 1

Likert survey responses indicating confidence level with using Microsoft Applications.

Pre-Training Survey and Post Training Survey: Participants n=2

	1=Unfamiliar 2=Learner	*3= Basic*	*4= Proficient 5=Advanced*
Microsoft Application	**Pre-Training**	**Post Training**	**Change from Pre to Post**
Word	4.5	4.5	0
Forms	3.5	4	+0.5
PowerPoint	4	4.5	+0.5
OneNote Class Notebook	2	3	+1
Excel	3	3.5	+0.5
Sway	2	4	+2
All Applications	3.17	3.92	+0.75

Chart 1 "Comparisions of Average Pre/Post Results
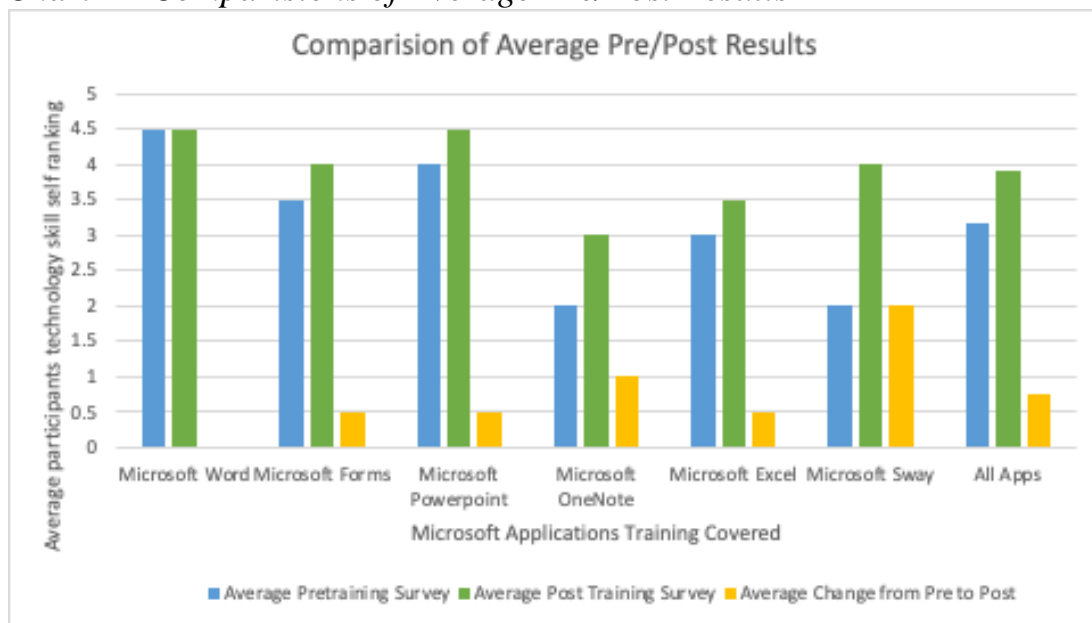
Additional quantitative data was collected in the Pre-Training Survey to identify any previous training participants had completed on the Microsoft Educational Applications. As seen in Table 2 both participants have sought out training but have not been required to complete any training through their school district. All of their training has been optional and sought out by the participants.

Table 2

Prior Training on Microsoft Applications

Training	Participant 1	Participant 2
Mandatory District Training	0	0
Optional District Training	1	0
Microsoft Educator Center Courses	0	1
YouTube Videos	1	0

Qualitative data was gained through the Pre-Training Survey and Post Training Survey open ended questions. As shown in Table 3 both participants in the Pre-Training Survey discussed themes of a lack of time and a lack of opportunities to practice but after completing the training, they only discussed the lack of time again. This showed that participants still feel that time is an issue affecting their confidence but that the training had provided them with the opportunity to practice using the applications.

Table 3

Factors affecting Confidence

Pre-Training Survey and Post Training Survey: Participants n=2

Factor	Pre-Training	Post Training
Time	2	2
Lack of opportunities to practice	2	0

Additional qualitative data was gained through the lesson reflections at the end of each lesson. From the eight lessons a total of sixteen reflections were completed between the two participants. Table 4 and Chart 2 shows the common themes that appeared throughout the different lessons. In nine of the reflections participants described that they had not thought to use the application in a way that the training had shown them. In eight of the reflections, participants shared that they had learned new features that they could use and in five of them, they specifically mentioned that they had learned time saving strategies for using the application. Furthermore, participants shared that they were excited to share the application with their students in five of the reflections. In three reflections there were small themes of participants still feeling confused and participants feeling that the training had made the application more approachable.

Table 4

Themes from Lesson Reflections

Lesson Reflections: Possible number of times identified n=16

Theme	Number of times identified
Learned new features	8
Hadn't thought to use it that way	9
Still confused	3
Training made application more approachable	3
Learned a time saving strategy	5
Excited to share with students	5

Chart 2

Number of Times Themes were Identified in Lesson Reflections
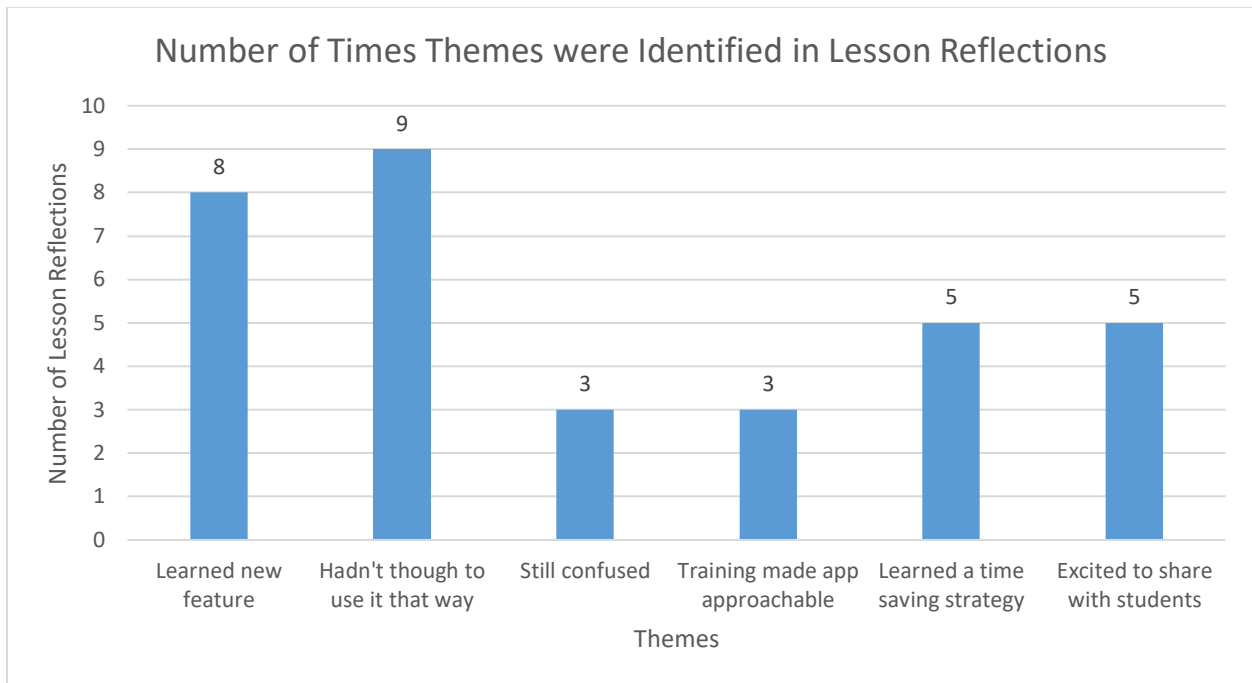
Answers to the Research Questions

This study sought to identify how educating teachers on Microsoft's Educational Applications would affect their confidence in using them to create assignments for their virtual classroom. Through action research, the researcher has concluded there is a positive correlation between providing training and teacher confidence. This is seen through the mean increase of overall confidence using the applications of 0.75 from Table 1. Additionally, the qualitative data collected support these findings due to the themes identified that show participants learned new ways to use the applications and were excited to use the applications with their students.

Chapter 5 - Discussion and Conclusion

Overview

The conclusions reached from this study are that with training on using Microsoft

Educational Applications that teachers will have increased confidence to use them in their virtual

classroom to create resources.

Problem Solutions

The solution to the problem of lack of confidence and training to use Microsoft

Educational Applications in their virtual classroom has been identified by providing effective

training on the applications. The proposed solution is to provide training in how to use Microsoft

Word, Forms, PowerPoint, Sway, OneNote Class Notebook, and Excel Applications, specifically

for use in their virtual classroom. As the data from this study shows, teachers who are provided

training on these applications have increased confidence in using them to create activities within

their classroom.

Strengths and Weaknesses

One strength of the training program was that learners were able to move at their own

pace and had access to all of the resources throughout the experience. This provided learners the

ability to rewatch the training videos as needed to review the material. If they were working on

their example and forgot how to do something, they were able to return to their training to see it.

By moving at their own pace, they were able to move quickly through the material they already

knew and spend more time practicing new concepts. They were not slowed down by other

participants questions. Another strength of the training was requiring participants to practice

using each app as they learned about them. This helped them retain the information and

increased their confidence in using it. A final strength of this study was that the training was built

into one of the applications, Microsoft OneNote Class Notebook. This gave participants firsthand

experience of what their students would see when using the application. It also gave them the

opportunity to see how the different applications could work together.

One weakness of this study was due to its asynchronous nature. Due to COVID 19

restrictions and teaching schedules, the training could not be completed in person. Although

participants could still ask questions by email, Form and video conferencing, help could not

always be provided right away. This delayed participants' progress as they worked through the

training program and left participants confused about some parts of the lessons. The second

weakness was the length of the training. Participants struggled with keeping track of their

training due to the amount of content that was covered. To help address this a checklist was

provided but participants still had to deal with learning a large quantity of new information over

a short period of time. The length of the training also affected the number of participants.

Teachers are already limited on time and have trainings required by their school or district. It

was difficult to arrange participants due to the voluntary nature of the training and the lack of

credit towards their job. Two of the participants were unable to finish the training within the two-

week time period due to responsibilities with their job.

Influential Factors

The first factor that may have influenced the findings is that all of the participants work

in the same school as the researcher. The researcher has worked in the school for one year and

two of the participants in particular are part of the researche'rs social group. Another factor that

may have skewed the findings is the fact that due to COVID-19 the training was completed fully

virtual and asynchronously.

Further Investigation

Further investigation could include comparing the effects of different training methods on

teacher confidence. It would be valuable to know if the instructional setting of virtual

asynchronous training, virtual "live" training, and/or in person training has a greater impact on

teacher confidence. All of the participants of this study were middle school teachers so it would

be interesting to continue this study with additional grade levels to see if that has an impact on

confidence as well. This training focused on Microsoft Educational Apps but could be applied to

a variety of different educational applications used by teachers, such as Canvas, Google Suite,

Schoology, etc.

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Appendix A

Introduction – 1. Welcome Letter

1. Welcome Letter
Monday, December 21, 2020   3:49 PM

Hello and Welcome to your online learning platform!

Thank you again for volunteering to be a participant in this educational research study on *Training and Teachers' Confidence with Microsoft Applications.* This is an 8-hour instructional unit delivered entirely online. You have two weeks to complete the surveys and course work. This online learning platform has been created using Microsoft OneNote Class Notebook and is available to you 24/7.

Please Note:
- The deadline to complete this course and submit your Post-Questionnaire responses is **Wednesday January 20th. , 2021, by 11:59 pm EST**
- The Pre-and-Post Surveys must be completed and submitted to complete this study.
- Your email is being collect from each survey to compare your various responses throughout the study. Prior to the research being shared, all identifying factors will be removed.
- You will work through each lessons in sequential order. If you delete a page on accident you can retrieve a copy of it from the Content Library (this is great practice for what you would tell your students to do in the same situation!).

Although this is a self-guided/independent course, I am available to answer any questions you may have. Please complete the help form located in each lesson to request help by email or Zoom/Teams call.

Please continue to Introduction Page 2 to complete the Pre-Training Survey.

Introduction – 2. Pre-Training Survey

2. Pre Training Survey
Saturday, December 12, 2020   3:07 PM

If you are having issues opening the form within OneNote you can click this link to access the form from Forms - Microsoft Forms

Pre Training Survey

This survey is part of my Capstone project for my Master's Program. Participation in this survey is optional. The data collected here is anonymous and for academic purposes, it will not be disclosed with anyone but the faculty and evaluators at Western Governors University.

Directions: Please answer the following questions to the best of your knowledge. Click 'Submit' when you are finished.

Hi Julie, when you submit this form, the owner will be able to see your name and email address.

Demographic Information

1. What grade(s) do you teach?

- Kindergarden
- 1st grade
- 2nd grade
- 3rd grade
- 4th grade
- 5th grade
- 6th grade

Please continue to Introduction Page 3 to read about the supplies you will need to complete this training.

Introduction – 3. Supplies

3. Supplies
Monday, December 21, 2020   3:56 PM

SUPPLIES & MATERIALS NEEDED FOR INSTRUCTION:

You will need a stable internet connection, and a device to login such as a computer/tablet/cell phone, etc. All materials will be housed within this Microsoft OneNote Class Notebook. The only additional items you may need is paper and pen if you prefer to take notes or write things down. You will also need access to your PWCS Microsoft Apps to practice using them.

You can complete this training using the web based versions of the Microsoft Applications but are encouraged to download the free desktop versions as well to get the most functionality of all the Applications.

You may also like to document this journey by recording entries in a journal or binder, but this is not required.

Please note that this site was created for optimal appearance on a tablet or computer. Using your phone to access this course may impact the view, and you may need to use a different device to access and fill out the forms.

Please continue to Introduction Page 4 to read about how to access the applications.
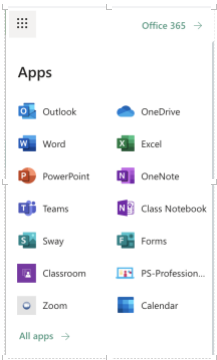
Introduction – 4. Accessing the Apps

4. Accessing the Apps
Saturday, December 12, 2020   9:27 AM

All of the Apps discussed in this training can be found in your Microsoft Waffle. The waffle can be accessed from your email or OneDrive and then clicking on the waffle. If the apps are not listed click the All apps. Once you open it once it should move up to your regular apps.

Thank you for completing the introduction. Please continue to Lesson 1 - Forms Page 1 to begin your training. There is an optional checklist in this folder to help you keep track of your progress if you would like to use it.

Introduction – Check List (Optional)

Check List (Optional)
Wednesday, January 6, 2021   12:09 PM

To help you keep track of where you are in the course! This is not required but a resource if you would like to use it.

Introduction
1. Welcome Letter
2. Pre Training Survey
3. Supplies
4. Accessing the Apps

Lesson 1 - Forms
1. What is Forms?
2. Examples of Use
3. Training
4. Practice
5. Reflection

Lesson 2 - Word
1. What is Word?
2. Examples of Use
3. Training
4. Practice
5. Reflection

Lesson 3 - Sway
1. What is Sway?
2. Examples of Use
3. Training
4. Practice
5. Reflection

Lesson 4 - Excel Part 1
1. What is Excel?

Lesson 1 – Forms – 1. What is Microsoft Forms?

1. What is Microsoft Forms?
Saturday, December 12, 2020   9:35 AM

With Microsoft Forms, you can create surveys, quizzes, and polls, invite others to respond to it using almost any web browser or mobile device, see real-time results as they're submitted, use built-in analytics to evaluate responses, and export results to Excel for additional analysis or grading.

Please continue to Lesson 1 - Forms Page 2 to see and/or manipulate examples of how to use this application in a classroom.

Lesson 1 – Forms – 2. Examples of use

2. Example of use
Saturday, December 12, 2020   9:40 AM
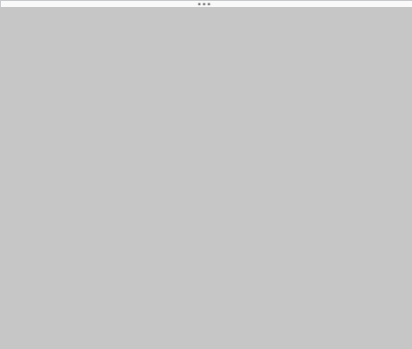
Please look over the two examples of ways to use Forms in the classroom. They have been embedded into our Notebook but if they do not open for some reason you can click the hyperlink at the top of the form.

DNA SOL Review Quiz
I teach 8th grade science in VA. Our end of the year standardized test covers material from 6th, 7th, and 8th grade science. To help me discover what topics I need to focus on during our end of the year review I give out this short review forms on 6th and 7th grade topics. I tell students that if we do well on them, we won't have to spend time reviewing that topic.

DNA SOL Review - Form Example - Microsoft Forms
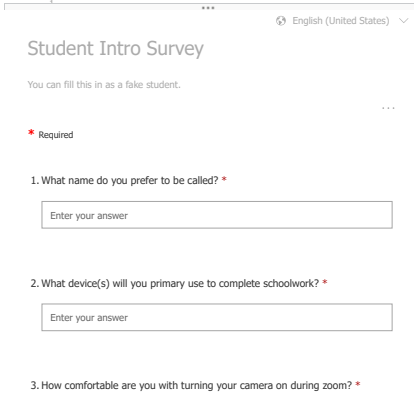
DNA SOL Review - Form Example

Student Info Survey (Offered in English & Spanish)
Moving to virtual learning this year, I knew I would need to adjust my normal beginning of the year survey. I used this to get some background information on my students technology situation. For my school we have a large enough Spanish speaking population that I wanted to provide them with a translated version in case a family member helped them fill it out.

Student Info Survey - Form Example - Microsoft Forms

English (United States)

Student Intro Survey
You can fill this in as a fake student.

* Required

1. What name do you prefer to be called? *
   [Enter your answer]

2. What device(s) will you primary use to complete schoolwork? *
   [Enter your answer]

3. How comfortable are you with turning your camera on during zoom? *

Please continue to to watch tutorial videos on how to use Forms in your classroom.

Lesson 1 – Forms – 3. Training
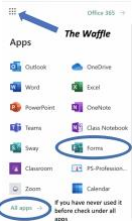
3. Training
Saturday, December 12, 2020   9:40 AM

Accessing Microsoft Forms
- You can search it in Google, Bing, etc.
- From your waffle

Selecting Form vs. Quiz
You have the choice of creating a form or a quiz. Both are useful but you want to make sure you are selecting the correct one for what you are trying to accomplish.

- A form can be used to collect feedback, conduct surveys, accept signups, peer collaboration, and lots more.
- A quiz can be used to assess student learning, provide instant results and feedback, conduct a quiz and more.

Question Types
This video breaks down the different types of questions you can include on a form or quiz.

Forms Quiz - Question Types

Lesson 1 – Forms – 4. Practice

4. Practice

Saturday, December 12, 2020 9:40 AM
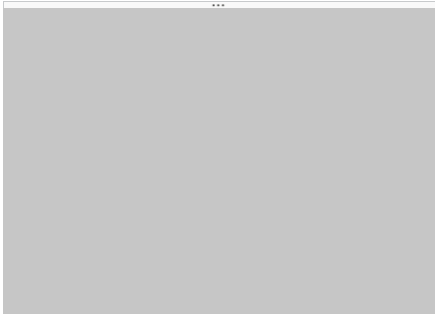
It's your turn to try out some of the features you have learned about. Create a Microsoft Form that you can actually use with your students. Once you do, share it below using the share as a template option.

Copy your Form link here:

Please continue to Lesson 1 - Forms Page 5 to complete your reflection form on this lesson.

Need help while you are working on your form? Fill out this form to request a 1-1 help session!

Help Request Form

Lesson 1 – Forms – 5. Reflection

5. Reflection

Saturday, December 12, 2020 9:40 AM

Complete the form below after completing parts 1-4 of this Lesson.

Microsoft Forms

Microsoft Forms

Fill out the form

Thank you for completing Lesson 1. Please continue to Lesson 2 - Word Page 1 to continue your training.

Lesson 1 – Forms – Extra Help/Resources

1/11/2021   Microsoft Applications Training Course

Extra Help/Resources

Saturday, December 12, 2020   9:43 AM

Frequently asked questions - https://support.microsoft.com/en-us/office/frequently-asked-questions-about-microsoft-forms-495c4242-6102-40a0-add8-df05ed6af61c

Video about question types - https://www.microsoft.com/en-us/videoplayer/embed/RE1YgJm

Microsoft's Forms help and learning site - https://support.microsoft.com/en-us/forms

https://pwcps-my.sharepoint.com/personal/phrglej_pwcs_edu/_layouts/15/Doc.aspx?sourcedoc={67b3fc01-5f29-481c-b413-2e3e5d0dc5b2}&action=edit&wd=target...   1/1

Lesson 2 – Word – 1. What is Microsoft Word?

1/11/2021   Microsoft Applications Training Course

1. What is Microsoft Word?

Saturday, December 12, 2020   9:35 AM

Most of us have used Microsoft Word before but there are some great new features that you might not be aware of:

- Embed a YouTube video
- New Collaboration Feature
- Translation Feature
- Dictation Feature
- Immersion Reader Feature
- Microsoft Editor Feature
- Transform into a website (Sway) - will be covered in Lesson 3

Please continue to Lesson 2 - Words Page 2 to see and/or manipulate examples of how to use this application in a classroom.

https://pwcps-my.sharepoint.com/personal/phrglej_pwcs_edu/_layouts/15/Doc.aspx?sourcedoc={67b3fc01-5f29-481c-b413-2e3e5d0dc5b2}&action=edit&wd=target...   1/1

Lesson 2 – Word – 2. Examples of use

2. Example of use
Saturday, December 12, 2020   9:40 AM

Please look over the three examples of ways to use Word in the classroom. They have been embedded into our Notebook for you to view but to type in them you would need to click the hyperlink at the top to open them.

Science Article Reflection Template
Last year one of my goals was to focus on increasing literacy in my science classroom. To aid this my students would select an science article and complete the attached template. The template provided them with the structure they needed to encourage them to read and reflect on their selected article. Students would complete within their Office 365 Account and submit once done.

Student Article Template Example.docx

Science Article Reflection

Article URL (website address)
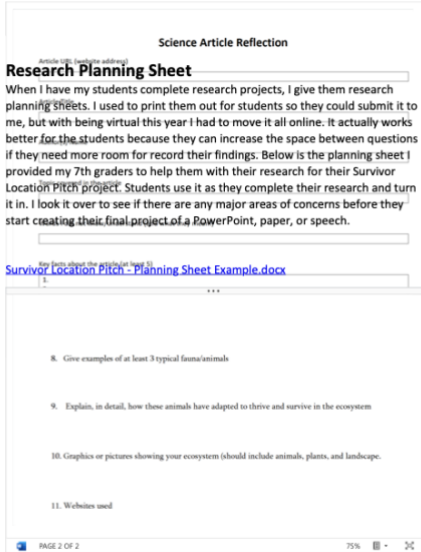
Research Planning Sheet
When I have my students complete research projects, I give them research planning sheets. I used to print them out for students so they could submit it to me, but with being virtual this year I had to move it all online. It actually works better for the students because they can increase the space between questions if they need more room for record their findings. Below is the planning sheet I provided my 7th graders to help them with their research for their Survivor Location Pitch project. Students use it as they complete their research and turn it in. I look it over to see if there are any major areas of concerns before they start creating their final project of a PowerPoint, paper, or speech.

Key facts about the ecosystem (at least 3)

Survivor Location Pitch - Planning Sheet Example.docx

1.

· · ·

8. Give examples of at least 3 typical fauna/animals

9. Explain, in detail, how these animals have adapted to thrive and survive in the ecosystem

10. Graphics or pictures showing your ecosystem (should include animals, plants, and landscape.

11. Websites used

PAGE 2 OF 2   75% ▦ ▾ ⤢

Study Guide with Videos
Students usually complete a study guide for me, using their interactive notebooks. Since we are fully virtual this year my students can use their digital class notebook to help them but I realize this is harder for some kids to go back and forth between their notebook and study guide. I also might not be

available to them while they are working on the study guide. To work around these issues I have embedded review videos at the end of the study guide for students to use as reference if needed.

The preview doesn't let you click on the videos but if you would like to see what it looks like for students click this link to see the actual document - https://pwcps-my.sharepoint.com/:w:/g/personal/pheglej_pwcs_edu/ERXA-yMiUYxNu6uB1Bb7CAQBS4rW8cxOv8xSk_SNb0Lk1A?e=PeCxbX

Biomes and Ecosystems Study Guide Example.docx

· · ·

Biomes and Ecosystems Study Guide

Directions - Work through the study guide using your notes and knowledge to complete the study guide below. Write your answers in the box to the right of the question. If you get stuck watch the linked video on the topic; videos are at the end of the assignment.

1. What type of trees lose their leaves once a year?

2. Looking at the picture what is the **abiotic** factor in the picture?

PAGE 1 OF 12   75% ▦ ▾ ⤢

Please continue to Lesson 2 - Word Page 3 to watch tutorial videos on how to use Word in your classroom.

Lesson 2 – Word – 3. Training

3. Training
Saturday, December 12, 2020   9:40 AM

Embed a YouTube Video
When you want to add a YouTube video directly into your word assignment this video shows you how. It is perfect for providing additional review, introducing a topic, video responses, etc.

Microsoft Word - Embedding a Youtube Video

Microsoft Word - Embedding a Youtube Video

Collaboration Mention Feature
If you are having students work collaboratively on a document they can use the mentions feature to let group members know there is still work that needs finished/fixed. You can also use this during peer review or when giving feedback to alert students they need to fix something in their document.

Draw attention to a comment with @mentions in Microsoft Word, Excel, and PowerPoint

Draw attention to a comment with @mentions in Microsoft Wor…

Translation Feature

If you need to provide a quick translation of your document to students or families, the translate feature is perfect. Students with limited English can also make use of this by typing in their native language before translating their document to English. As with every translation it will probably not be perfect but it gives your students, families and you a starting place.

Microsoft Word - Translate Feature

Microsoft Word - Translate Feature

Diction Feature
If you have students who struggle with typing or just prefer to talk, the diction feature will help them start to get their words down.

Microsoft Word - Diction Feature

Microsoft Word - Diction Feature

Editor Feature
English teachers, and really anyone who assigns research assignments, are going to love this feature of the online version of Microsoft Word. The Editor tool is a great tool to use when reviewing student work but also a great tool to share with students so they can start checking their work before they submit their assignments.

Microsoft Word - Editor Feature

Microsoft Word - Editor Feature

Adding a Word Document to a Canvas Assignment
You've made a great activity in a word document and now you want to make it available to them in Canvas. This video shows you how to add it to a Canvas Assignment and how to trouble shoot finding it when your students get an error message.

Microsoft Word - Embedding Document in Canvas Assignment

Microsoft Word - Embedding Document in Canvas Assignment

Please continue to Lesson 2 - Word Page 4 to begin creating a Word you can use in your real classroom.

Lesson 2 – Word – 4. Practice

4. Practice

Saturday, December 12, 2020   9:40 AM

It's your turn to try out some of the features you have learned about. Create a Microsoft Word that you can actually use with your students. Once you do, share it below using the share as a template option.

Copy your Word link here:

Please continue to Lesson 2 - Word Page 5 to complete your reflection form on this lesson.

Need help while you are working on your Word document? Fill out this form to request a 1-1 help session!

Help Request Form

Microsoft Apps Training Course - Help Request Form

If you have questions you can email me or fill out this form to schedule a 1-1 help session.

. . .

Hi Julie, when you submit this form, the owner will be able to see your name and email address.

1. I need help with the following app(s):

- [ ] Forms
- [ ] Word
- [ ] Sway
- [ ] Excel
- [ ] PowerPoint
- [ ] OneNote Class Notebook

2. I would like to schedule a 1-1 help session. Select all days of the week that work for you

Lesson 2 – Word – 5. Reflection

5. Reflection

Saturday, December 12, 2020   9:40 AM

Complete the form below after completing parts 1-4 of this Lesson.

Microsoft Forms

Microsoft Forms

Fill out the form

Thank you for completing Lesson 2. Please continue to Lesson 3 - Sway Page 1 to continue your training.

Lesson 2 – Word – Extra Help/Resources

Extra Help/Resources
Saturday, December 12, 2020   9:43 AM

Remote teaching and learning in Office 365 Education -
https://support.microsoft.com/en-us/office/remote-teaching-and-learning-in-office-
365-education-f651ccae-7b65-478b-8366-51bb884025c4

Article that describes how to use the mention function with Collaboration -
https://support.microsoft.com/en-us/office/use-mention-in-comments-to-tag-
someone-for-feedback-644bf689-31a0-4977-a4fb-afe01820c1fd?
ns=wdwaenduser&version=16&ui=en-us&rs=en-us&ad=us

Lesson 3 – Sway – 1. What is Microsoft Sway?

1. What is Microsoft Sway?
Saturday, December 12, 2020   9:35 AM

Sway is a new app from Microsoft Office that makes it easy to create and share interactive reports, personal stories, presentations, and more.

Start by adding your own text and pictures, search for and import relevant content from other sources, and then watch Sway do the rest. With Sway, you're no longer limited to picking a pre-designed template that makes your presentations look like everyone else's, and you don't have to have any design skills to transform and showcase information in modern, interactive, and attention-getting ways.

With Sway, there's no need to spend lots of time on formatting. Its built-in design engine takes care of making your creation look its best. If the initial design doesn't quite match your taste or mood, you can easily apply another — or fully customize your layout to make it your own.

It's super easy to share your finished Sways. Family, friends, classmates, and coworkers can see your creations on the Web without signing up, signing in, or downloading anything. And you can change the privacy settings for any Sway whenever you want more control over what you share.

Please continue to Lesson 3 - Sway Page 2 to see and/or manipulate examples of how to use this application in a classroom.

Lesson 3 – Sway – 2. Examples of use

Microsoft Word - converting Word to Sway

Designing a Sway
This video shows how I designed my example of the Element Project for my students. This video breaks down how to focus first on the text and pictures. From there you would design the layout and finally customize it visually.

Microsoft Sway - Designing a Sway Website

Microsoft Sway - Designing a Sway Website

Please continue to Lesson 3 - Sway Page 4 to begin creating a Sway you can use in your real classroom.

2. Example of use
Saturday, December 12, 2020   9:40 AM

Please look over the example of a way to use Sway in the classroom. The Sway have been embedded into our Notebook but if it do not open for some reason you can click the hyperlink at the top of the Sway.

Element Project Example
Last year I had students research an element and create a poster containing information on the element and it's importance. With being virtual this year I am going to given them the options to write a paper, create a PowerPoint or design a Sway website. The Sway below show you the example Sway that I would show students.

Sway

Element Project - Oxygen

Example by Ms. Phegley

Element Info

- element name - Oxygen
- element symbol - O

Please continue to Lesson 3 - Sway Page 3 to watch tutorial videos on how to use Sway in your classroom.

Lesson 3 – Sway – 3. Training

1/12/2021   OneNote

3. Training
Saturday, December 12, 2020   9:40 AM

Sway Introduction
Of all the apps this one is the one most people are unfamiliar with.
This video gives you an overview on the elements of Sway.

The Sway Way - Microsoft Sway Tutorials

The Sway Way - Microsoft Sway Tutorials

Converting Word Document to Sway
Already made a assignment, notes or project in a word document?
This video shows you how you can transform it directly into a Sway.
This is also great for students who complete research and need to
create a final presentation of the information.

Microsoft Word - converting Word to Sway

https://pwcps-my.sharepoint.com/personal/pheglej_pwcs_edu/_layouts/15/Doc.aspx?sourcedoc={67b3fc01-5f29-481c-b413-2e3e5df0dc5b2}&action=edit&wd=target...   1/2

Lesson 3 – Sway – 4. Practice

1/11/2021   Microsoft Applications Training Course

4. Practice
Saturday, December 12, 2020   9:40 AM

It's your turn to try out some of the features you
have learned about. Create a Microsoft Sway that
you can actually use with your students. You can
make it about a topic/lesson, an example of a
student project, a class newsletter, or any other
amazing idea you have thought of! Once you do,
share it below using the view link option.

Link your Sway here:

Please continue to Lesson 3 - Sway Page 5 to
complete your reflection form on this lesson.

Need help while you are working on your Sway? Fill out this form
to request a 1-1 help session!

Help Request Form

Microsoft Forms

Fill out the form

https://pwcps-my.sharepoint.com/personal/pheglej_pwcs_edu/_layouts/15/Doc.aspx?sourcedoc=[67b3fc01-5f29-481c-b413-2e3e5d0dc5b2]&action=edit&wd=target...   1/1

Lesson 3 – Sway – 5. Reflection

5. Reflection

Saturday, December 12, 2020   9:40 AM

Complete the form below after completing parts 1-
4 of this Lesson.

Microsoft Forms

· · ·

Lesson Reflection - Microsoft Word (Sway)

This survey is part of my Capstone project for my Master's Program. Participation in this
survey is optional. The data collected here is anonymous and for academic purposes, it will
not be disclosed with anyone but the faculty and evaluators at Western Governors University.

Directions: Please answer the following questions to the best of your knowledge. Click
'Submit' when you are finished.

· · ·

Hi Julie, when you submit this form, the owner will be able to see your name and email address.

Technology Questions

These questions help researchers identify effectiveness of the training in relationship to
teacher confidence level in using Microsoft Forms in their classroom.

1. Rank your own technology skills with using Microsoft Sway.

◯ Unfamiliar: I have never hear of Word.

◯ Learner: I am not sure how to use Word.

◯ Basic: I have used Word now, but might need additional training before using it
again.

◯ Proficient: I can use Word without any assistance.

Thank you for completing Lesson 3. Please continue
to Lesson 4 - Excel Part 1 Page 1 to continue your
training.

Lesson 3 – Sway – Extra Help/Resources

Extra Help/Resources

Saturday, December 12, 2020   9:43 AM

Microsoft's Tutorial Page - https://support.microsoft.com/en-us/office/create-in-
sway-db30c63b-6548-456d-b0e2-9fcd68bfa7a0?ui=en-us&rs=en-us&ad=us

Lesson 4 – Excel Part 1 – 1. What is Microsoft Excel?

1. What is Microsoft Excel?

Saturday, December 12, 2020   9:35 AM

With Microsoft Excel you can easily create spreadsheets from templates or on your own and use modern formulas to perform calculations. Share your workbook with others and always work on the latest version for real-time collaboration to help get work done faster.

Excel has great potential for tracking/organizing data, as well as, can be used for student assignments. This lesson will focus on the tracking/organizing data portion of excel.

Please continue to Lesson 4 - Excel Page 2 to see and/or manipulate examples of how to use this application in a classroom.

Lesson 4 – Excel Part 1 – 2. Examples of use

2. Example of use

Saturday, December 12, 2020   9:40 AM

Please look over the two examples of ways to use Excel in the classroom for tracking information by clicking on each link.

Missing Work Intervention Sheet
My team uses an excel sheet at the start of the year to track major missing assignments. As the year goes on we focus on our frequent flyers to see what work they are still missing. This sheet is designed to total up missing assignments across all for content areas. The total column will change colors when it reaches a certain number of missing assignments to bring attention. The link below takes you to the sample editable version. Feel free to add/remove missing assignments to students to see how it changes the sheet.

https://pwcps-my.sharepoint.com/:x:/g/personal/pheglej_pwcs_edu/EUpNItDR6HNOg5XRvWqfhh4B-MSiQ0LZkwh8cgiKpGLW1g?e=J6I1SH

Token Economy Sheet
One of my former coworkers runs a token economy system with his 7th graders to help teach them about economy. He usually does this through paper money passed out during class. With going virtual this year, he was not able to do this. Instead I created this spreadsheet for him. The link below takes you to the editable version. Feel free to add in new deposit/withdraws or change the amount of money a student receives for an activity. Watch what it does do their current balance.

https://pwcps-my.sharepoint.com/:x:/g/personal/pheglej_pwcs_edu/EfpZR8NIEopLumit0c-XJp0BInFomiOOlcmWQ7fA29tXeQ?e=cKb2HP

Please continue to Lesson 4 - Excel Page 3 to watch tutorial videos on how to use Excel in your classroom.

Lesson 4 – Excel Part 1 – 3. Training

3. Training

Saturday, December 12, 2020   9:40 AM

Sum Function

This video shows you how to set up your spreadsheet to add up your columns or sheets. The sum function will update as you change the data. This is great for shared excel sheets where multiple team members need to input data.

=sum(B3-E3)
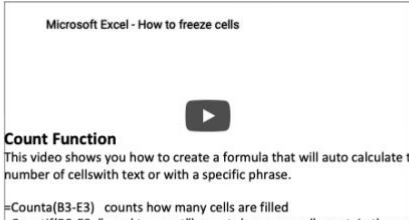
Microsoft Excel - Sum Function

Microsoft Excel - Sum Function

Freeze Cell Function

This video shows you how to solve the issue of needing to see your header columns and rows when using an larger excel sheet.

Microsoft Excel - How to freeze cells

Microsoft Excel - How to freeze cells

Count Function

This video shows you how to create a formula that will auto calculate the number of cellswith text or with a specific phrase.

=Counta(B3-E3)   counts how many cells are filled
=Countif(B3-E3, "word to count") counts how may cells contain the specific word

Microsoft Excel - Using CountA and CountIF functions

Microsoft Excel - Using CountA and CountIF functions

Conditional Formatting

This video shows you how you can use conditional formatting to code cells to change colors when certain values are reached within your sheet.
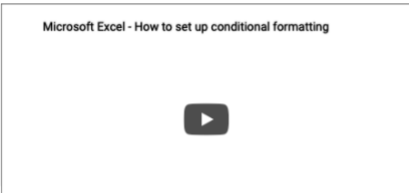
Microsoft Excel - How to set up conditional formatting

Microsoft Excel - How to set up conditional formatting

Please continue to Lesson 4 - Excel Page 4 to begin creating a Excel you can use in your real classroom.

Lesson 4 – Excel Part 1 – 4. Practice

4. Practice

Saturday, December 12, 2020   9:40 AM

It's your turn to try out some of the features you have learned about. Create a Microsoft Excel that you can actually use for tracking data within your classroom. Once you do, share it below using the share as a template option.

Link your Excel Sheet here:

Please continue to Lesson 4 - Excel Page 5 to complete your reflection form on this lesson.

Need help while you are working on your Excel sheet? Fill out this form to request a 1-1 help session!

Help Request Form

Microsoft Apps Training Course - Help Request Form

If you have questions you can email me or fill out this form to schedule a 1-1 help session.

. . .

Hi Julie, when you submit this form, the owner will be able to see your name and email address.

1. I need help with the following app(s):

☐ Forms
☐ Word
☐ Sway
☐ Excel
☐ PowerPoint

Lesson 4 – Excel Part 1 – 5. Reflection

5. Reflection

Saturday, December 12, 2020   9:40 AM

Complete the form below after completing parts 1-4 of this Lesson.

Microsoft Forms

. . .

Lesson Reflection - Microsoft Excel Part 1

This survey is part of my Capstone project for my Master's Program. Participation in this survey is optional. The data collected here is anonymous and for academic purposes, it will not be disclosed with anyone but the faculty and evaluators at Western Governors University.

Directions: Please answer the following questions to the best of your knowledge. Click 'Submit' when you are finished.

. . .

Hi Julie, when you submit this form, the owner will be able to see your name and email address.

Technology Questions

These questions help researchers identify effectiveness of the training in relationship to teacher confidence level in using Microsoft Forms in their classroom.

Thank you for completing Lesson 4. Please continue to Lesson 5 - Excel Part 2 Page 1 to continue your training.

Lesson 4 – Excel Part 1 – Extra Help/Resources

Extra Help/Resources

Saturday, December 12, 2020   9:43 AM

Excel Text Functions Cheat Sheet - https://www.dummies.com/software/microsoft-office/excel/excel-formulas-and-functions-for-dummies-cheat-sheet/

What the different Excel cursors mean -
https://www.omnisecu.com/excel/worksheet/excel-cursor-and-mouse-pointer-shapes.php

Lesson 5 – Excel Part 2 – 1. What is Microsoft Excel?

1. What is Microsoft Excel?

Saturday, December 12, 2020   9:35 AM

We need to be exposing students to Microsoft Excel because most office jobs require a basic understanding of how to use excel. Our students need more exposure to excel throughout their schooling. There are many ways Excel can be used for different content areas. This lesson will focus on creating student assignment portion of excel.

Please continue to Lesson 5 - Excel Page 2 to see and/or manipulate examples of how to use this application in a classroom.

Lesson 5 – Excel Part 2 – 2. Examples of use

Lesson 5 – Excel Part 2 – 3. Training

Lesson 5 – Excel Part 2 – 3. Training Continued

Microsoft Excel - How to make a Pie Chart or Circle Graph

Creating Geography data tables
In social studies we like to compare different areas of the word within various categories. Excel has a built in geography feature that allows teachers and students to quickly compare different counties, states, and countries.

Microsoft Excel - Geography Feature

Microsoft Excel - Geography Feature

Embedding a Sheet into Canvas
In this video it shows you how to embed an excel spreadsheet into Canvas. Please note that this method does not collect data but is great for in showing information to students. If you want to collect student responses and give them their own copy, insert it into an assignment as a external tool submission type.

Microsoft Excel - Embedding an excel table or sheet into Canvas

Microsoft Excel - Embedding an excel table or sheet into Canvas

Please continue to Lesson 5 - Excel Page 4 to begin creating a Excel you can use in your real classroom.

Lesson 5 – Excel Part 2 – 4. Practice

4. Practice
Saturday, December 12, 2020 9:40 AM

It's your turn to try out some of the features you have learned about. Create a Microsoft Excel activity that you can actually use with your students. It doesn't have to be something huge, even just an intro activity to expose your students to using excel. Once you do, share it below using the share as a template option.

Link your Excel Sheet here:

Please continue to Lesson 5 - Excel Page 5 to complete your reflection form on this lesson.

Need help while you are working on your Excel sheet? Fill out this form to request a 1-1 help session!

Help Request Form

Microsoft Apps Training Course - Help Request Form

If you have questions you can email me or fill out this form to schedule a 1-1 help session.

Hi Julie, when you submit this form, the owner will be able to see your name and email address.

1. I need help with the following app(s):

☐ Forms
☐ Word
☐ Sway
☐ Excel
☐ PowerPoint
☐ OneNote Class Notebook

2. I would like to schedule a 1-1 help session. Select all days of the week that work for you

Lesson 5 – Excel Part 2 – 5. Reflection

5. Reflection
Saturday, December 12, 2020   9:40 AM

Complete the form below after completing parts 1-
4 of this Lesson.

Microsoft Forms

Lesson Reflection - Microsoft Excel Part 2

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survey is optional. The data collected here is anonymous and for academic purposes, it will
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Directions: Please answer the following questions to the best of your knowledge. Click
'Submit' when you are finished.

. . .

Hi Julie, when you submit this form, the owner will be able to see your name and email address.

Technology Questions
These questions help researchers identify effectiveness of the training in relationship to
teacher confidence level in using Microsoft Forms in their classroom.

1. Rank your own technology skills with using Microsoft Excel.

○ Unfamiliar: I have never hear of Word.

○ Learner: I am not sure how to use Word.

○ Basic: I have used Word now, but might need additional training before using it
again.

○ Proficient: I can use Word without any assistance.

▷ Thank you for completing Lesson 5. Please continue
to Lesson 6 - PowerPoint Page 1 to continue your
training.

Lesson 5 – Excel Part 2 – Extra Help/Resources

Extra Help/Resources
Saturday, December 12, 2020   9:43 AM

Excel Text Functions Cheat Sheet - https://www.dummies.com/software/microsoft-
office/excel/excel-formulas-and-functions-for-dummies-cheat-sheet/

What the different Excel cursors mean -
https://www.omnisecu.com/excel/worksheet/excel-cursor-and-mouse-pointer-
shapes.php

Lesson 6 – PowerPoint – 1. What is Microsoft PowerPoint?

1. What is Microsoft Powerpoint?
Saturday, December 12, 2020   9:35 AM

Most of us have used Microsoft Word before but there are some great new features that you might not be aware of:

- Embed a YouTube video
- Translation feature
- Recording audio
- Creating task cards/interactive activities

PowerPoint

Please continue to Lesson 6 - PowerPoint Page 2 to see and/or manipulate examples of how to use this application in a classroom.

Lesson 6 – PowerPoint – 2. Examples of use

2. Example of use
Saturday, December 12, 2020   9:40 AM

Please look over the two examples of ways to use PowerPoint in the classroom. They have been embedded into our Notebook but if they do not open for some reason you can click the hyperlink at the top of the form.

Bohr Model Drag and Drop
When in person we usually practice drawing Bohr models on whiteboards but in the virtual setting I wanted a way to see students' work. I created this drag and drop activity. The example below has been shortened to demonstrate the activity. During zoom I modeled a few examples, then had students work through a few more with me checking answers every few minutes. They then completed the last five which I graded for a summative assignment. Check it out and don't worry if you don't know the answer.

Bohr
Model
Editable version

Master Copy - View Only - Bohr Model Assignment (Student Copy).pptx

Metals, Nonmetals and Metalloids Sort
When in person I love to use task cards for a check for understanding. In the virtual setting this is understandably more difficult. To accomplish the same goal, I use my premade task cards and adapt them to fit in a PowerPoint. When you open up the PowerPoint you will find that the only thing my students can move are the cards themselves, with everything else locked into the background to prevent students from accidently deleting or messing up the formatting.

Metals,
Nonmetals
Editable version

Master Copy - View Only - Metals, Nonmetals and Metalloids Sort - Student Copy.pptx

Semiconductors	Ductile	Corrosive
Zigzag line on the table	Malleable	Dull
Conducts heat under some condition	Left side of the table	Gain or share electrons when they react with other elements
Good electrical conductor	Brittle	Most are solid at room temperature
Poor electrical conductor	Luster (shiny)	Reactive

Part 1 – Characteristics
Place each box in in the correct part of the Periodic Table.

Lesson 6 – PowerPoint – 2. Examples of use continued

Please continue to Lesson 6 - PowerPoint Page 3 to watch tutorial videos on how to use Forms in your classroom.

Lesson 6 – PowerPoint – 3. Training

3. Training
Saturday, December 12, 2020   9:40 AM

Embedding a YouTube video
In the virtual setting keeping all of your lesson resources in one place is more important then ever with students accessing work asynchronously. This video shows you how to embed a YouTube video directly into your PowerPoint so students can watch it directly within the PowerPoint.

Microsoft Powerpoint - Inserting a Youtube Video

Microsoft Powerpoint - Inserting a Youtube Video

Translation Feature
If you give your notes using PowerPoint the translation feature is a great way for you to make your notes more assessable to your ELL students. What's great is that you can also teach them how to use the translate button so they can do it themselves when they need to. This video shows you how it works. Please note you will need to use the desktop version of PowerPoint to use this feature.

Microsoft Powerpoint - How to translate text on slides

Microsoft Powerpoint - How to translate text on slides

Recording audio
With virtual teaching you have some students who might be accessing the PowerPoint notes or activities on their own. The ability to record audio recordings is perfect for providing extra information to students. Your vocal inflection alone can provide additional understanding of the information on the slides. This video shows you how to record audio directly in PowerPoint.

Microsoft Powerpoint - How to record audio

Microsoft Powerpoint - How to record audio

Creating a sort/interactive activities

Lesson 6 – PowerPoint – 3. Training continued

We all have used sorts before when teaching in person. The first video shows you how to take your premade sorts and convert them into a format that you can use in the virtual setting. The second video expands on the concept and shows you how to create interactive drag and drop activities.

Microsoft Powerpoint - How to convert a paper sort activity to an online sort

Microsoft Powerpoint - How to convert a paper sort activity to a…

Microsoft Powerpoint - how to create drag and drop activities

Microsoft Powerpoint - how to create drag and drop activities

PowerPoints are embedding into Canvas the same way you would embed a Word Document or Excel Spreadsheet

Please continue to Lesson 6 - PowerPoint Page 4 to begin creating a PowerPoint you can use in your real classroom.

Lesson 6 – PowerPoint – 4. Practice

4. Practice
Saturday, December 12, 2020   9:40 AM

It's your turn to try out some of the features you have learned about. Create a Microsoft PowerPoint that you can actually use with your students. You can adapt a previous activity or create a brand new one. Once you do, share it below using the share as a template option.

Link your PowerPoint here:

Please continue to Lesson 6 - PowerPoint Page 5 to complete your reflection form on this lesson.

Need help while you are working on your PowerPoint? Fill out this form to request a 1-1 help session!

Help Request Form

Microsoft Apps Training Course - Help Request Form

If you have questions you can email me or fill out this form to schedule a 1-1 help session.

Hi Julie, when you submit this form, the owner will be able to see your name and email address.

1. I need help with the following app(s):

☐ Forms
☐ Word
☐ Sway
☐ Excel
☐ PowerPoint
☐ OneNote Class Notebook

2. I would like to schedule a 1-1 help session. Select all days of the week that work for you

Lesson 6 – PowerPoint – 5. Reflection

5. Reflection
Saturday, December 12, 2020   9:40 AM

Complete the form below after completing parts 1-
4 of this Lesson.

[Microsoft Forms](#)

Lesson Reflection - Microsoft Powerpoint

This survey is part of my Capstone project for my Master's Program. Participation in this
survey is optional. The data collected here is anonymous and for academic purposes, it will
not be disclosed with anyone but the faculty and evaluators at Western Governors University.

Directions: Please answer the following questions to the best of your knowledge. Click
'Submit' when you are finished.

· · ·

Hi Julie, when you submit this form, the owner will be able to see your name and email address.

Technology Questions

These questions help researchers identify effectiveness of the training in relationship to
teacher confidence level in using Microsoft Forms in their classroom.

1. Rank your own technology skills with using Microsoft Powerpoint.

◯ Unfamiliar: I have never hear of Word.

◯ Learner: I am not sure how to use Word.

◯ Basic: I have used Word now, but might need additional training before using it
   again.

◯ Proficient: I can use Word without any assistance.

Thank you for completing Lesson 6. Please continue
to Lesson 7 - OneNote Class Notebook Part 1 Page 1
to continue your training.

Lesson 6 – PowerPoint – Extra Help/Resources

Extra Help/Resources
Saturday, December 12, 2020   9:43 AM

PowerPoint Basics - [https://support.microsoft.com/en-us/office/powerpoint-for-
windows-training-40e8c930-cb0b-40d8-82c4-bd53d3398787?ui=en-US&rs=en-
US&ad=US](#)

Lesson 7 – OneNote Part 1 – 1. What is Microsoft Excel?

1. What is Microsoft OneNote Class Notebook?
Saturday, December 12, 2020   9:35 AM

OneNote Class Notebooks have a personal workspace for every student, a content library for handouts, and a collaboration space for lessons and creative activities. Class Notebooks are limited to within your district. The training for class notebook has been split up into two sections. This lesson covers how to set up a class notebook with some tips and tricks.

Just like with the other Microsoft Apps there is a desktop version and a web version. The web version is better for when creating certain tasks and the desktop version is better for others. Throughout the videos I will share which one to use for various things. I encourage you to download the desktop version to get the full range of tools available to you.

Please continue to Lesson 7 - OneNote Class Notebook Page 2 to see and/or manipulate examples of how to use this application in a classroom.

Lesson 7 – OneNote Part 1 – 2. Examples of use

2. Example of use
Saturday, December 12, 2020   9:40 AM

This training course is built within a Class Notebook, so the entire course is an example of how you can use Class Notebook in your classroom. This lesson will focus on how you set up a notebook for your own classes.

▷ Please continue to Lesson 7 - OneNote Class Notebook Page 3 to watch tutorial videos on how to use Class Notebook in your classroom.

Lesson 7 – OneNote Part 1 – 3. Training

3. Training
Saturday, December 12, 2020   9:40 AM

Setting up Notebook through Canvas
Canvas allows you to link one Class Notebook to each of your Canvas courses. This video walks you through the steps to create your notebook directly through Canvas.

Microsoft OneNote Class Notebook - how to set up from Canvas

Microsoft OneNote Class Notebook - how to set up from Canvas

Adding/Removing students to your notebook
This video shows you how to add and remove students from your notebook as needed. I recommend you also add your students using this method instead of having them join to ensure that all of them are added to the notebook. Once you start typing a students name it will auto-populate once enough letters are written.

Microsoft OneNote Class Notebook - How to add or removing students from a notebook

Microsoft OneNote Class Notebook - How to add or removing stu...

Difference between Desktop Version and Web Version
Just like with the other Microsoft Apps there are differences between the desktop and web based version. Both have their value and this video shows you the different functionality of them.

Microsoft OneNote Class Notebook - Desktop vs Web Based Notebook

Microsoft OneNote Class Notebook - Desktop vs Web Based Note...

Please continue to Lesson 7 - OneNote Class Notebook Page 4 to begin creating a Class Notebook you can use in your real classroom.

Lesson 7 – OneNote Part 1 – 4. Practice

4. Practice
Saturday, December 12, 2020   9:40 AM

It's your turn to try out some of the features you have learned about. Create a Microsoft OneNote Class Notebook that you can actually use with your students. You can create it through your Canvas sandbox or from your Microsoft Waffle. Create at least one section in your notebook. Don't worry about creating pages or content yet, you will do that in the next lesson.

Once you do, share it by adding me as a student using my email address: pheglej@pwcs.edu. Once the course is completed, I will remove myself from your notebook.

Please continue to Lesson 7 - OneNote Class Notebook Page 5 to complete your reflection form on this lesson.

Need help while you are working on your Class Notebook? Fill out this form to request a 1-1 help session!

Help Request Form

Microsoft Apps Training Course - Help Request Form

If you have questions you can email me or fill out this form to schedule a 1-1 help session.

Hi Julie, when you submit this form, the owner will be able to see your name and email address.

1. I need help with the following app(s):

☐ Forms
☐ Word
☐ Sway
☐ Excel
☐ PowerPoint
☐ OneNote Class Notebook

2. I would like to schedule a 1-1 help session. Select all days of the week that work for you

Lesson 7 – OneNote Part 1 – 5. Reflection

5. Reflection

Saturday, December 12, 2020   9:40 AM

Complete the form below after completing parts
1-4 of this Lesson.

Microsoft Forms

**Lesson Reflection - Microsoft OneNote Class
Notebook Part 1**

This survey is part of my Capstone project for my Master's Program. Participation in this
survey is optional. The data collected here is anonymous and for academic purposes, it will
not be disclosed with anyone but the faculty and evaluators at Western Governors University.

Directions: Please answer the following questions to the best of your knowledge. Click
'Submit' when you are finished.

. . .

Hi Julie, when you submit this form, the owner will be able to see your name and email address.

Technology Questions

These questions help researchers identify effectiveness of the training in relationship to
teacher confidence level in using Microsoft Forms in their classroom.

1. Rank your own technology skills with using Microsoft OneNote Class Notebook.

○ Unfamiliar: I have never hear of Word.

○ Learner: I am not sure how to use Word.

○ Basic: I have used Word now, but might need additional training before using it
   again.

Thank you for completing Lesson 7. Please
continue to Lesson 8 - OneNote Class Notebook
Part 2 Page 1 to continue your training.

Lesson 7 – OneNote Part 1 – Extra Help/Resources

Extra Help/Resources

Saturday, December 12, 2020   9:43 AM

Getting Started Walkthrough - https://support.microsoft.com/en-
us/office/getting-started-with-the-onenote-class-notebook-a-walkthrough-for-
teachers-28666b8e-b0ae-48fe-b001-1874f5f6db58

OneNote Training Website - https://onenoteforteachers.com/

Lesson 8 – OneNote Part 2 – 1. What is Microsoft OneNote Class Notebook?

1/11/2021   OneNote

1. What is Microsoft OneNote Class Notebook?

Saturday, December 12, 2020   9:35 AM

OneNote Class Notebooks have a personal workspace for every student, a content library for handouts, and a collaboration space for lessons and creative activities. Class Notebooks are limited to within your district. The training for class notebook has been split up into two sections. This lesson covers how to create content for your notebook.

Just like with the other Microsoft Apps there is a desktop version and a web version. The web version is better for when creating certain tasks and the desktop version is better for others. Throughout the videos I will share which one to use for various things. I encourage you to download the desktop version to get the full range of tools available to you.

OneNote

Please continue to Lesson 8 - OneNote Class Notebook Page 2 to see and/or manipulate

1/11/2021   OneNote

examples of how to use this application in a classroom.

Lesson 8 – OneNote Part 2 – 2. Examples of use

1/11/2021   OneNote

2. Example of use

Saturday, December 12, 2020   9:40 AM

Please look over the two examples of ways to use OneNote Class Notebook in the classroom. They are screenshots of my students science notebooks I use with my students because the Class Notebook is a closed system.

Notetaking
Without access to an physical notebook, I turned to the Class Notebook to provide my students with a notetaking. It provides my students with a centralized place to study for quizzes but also let me embed videos and PowerPoints in for their reference. I would provide students with fill in the blank Cloze Notes and during zoom we would fill in and discuss the yellow blanks together.

1. Atomic Theory Timeline
Tuesday, November 10, 2020   8:19 PM

Directions: If you missed Zoom fill in the blanks using the PowerPoint to the right. If you are on zoom, we will fill this together.

Democritus (460 – 370 BC)
- Determined that the world is made up of tiny _particals_____ that couldn't be broken down further.
- He called them atoms, which means "_indivisible_____"

Dalton (1803)
- His theory was that all __matter___ is made up of __atom_____
- His model was of tiny, indestructible ___spheres___ that have little structure.
- Solid sphere or ___billiard__ ball model

JJ Thomson (1904)
- Discovered ___electron_____
- His model had electrons embedded in a sphere that had a __positive____ charge.
- _Plum____ ___pudding___ or fruit salad model

Practice

1/11/2021   OneNote

After taking notes on density we practiced it together. I was able to see where students were struggling and provide a YouTube video at the bottom for those who needed additional review.

3. Calculating Density Part 2

Layer 4 - Least Dense Liquid - Water
Density = 1 g/mL

Layer 3 - Liquid - Dish Soap
Density = 1.03 g/mL

Layer 2 - Liquid – maple syrup
Density = 1.2 g/mL

Layer 1 - Most Dense Liquid – light corn syrup
Density = 1.33 g/mL

Density Practice Problems:
Given the mass and volume of each item determine which level it will fall to. Answer options: float on Layer 4, in layer 4, in layer 3, in layer 2, in layer 1.

Quarter (mass = 5.5 g and volume = 0.8cm³)
1. Density = _6.88__ g/cm³
2. What level will it fall to: _level 1__

Water bottle cap
(mass = 0.5g and volume = 1 cm³)
1. Density = _0.5_ g/cm³
2. What level will it fall to: _float on_level _4_

Grape
(mass =8g and volume =6cm³)
1. Density = _1.33_____ g/cm³
2. What level will it fall to: _level 3-4__

Dice
(mass = 2 g and volume =6.86cm³)
1. Density = _0.29____ g/cm³
2. What level will it fall to: _level 4__

Marble
(mass = 2 g and volume = 1.5 cm³)
1. Density = _1.33__ g/cm³
2. What level will it fall to: __1__

Calculating Density Review Video (In case you need a refresher)

Open ended response and Simulations
I was able to embed my PHET directly into the class notebook. This was great because students didn't have to split their screen to answer the questions while we did this simulation activity.

Part 1 Directions: If in class, Ms. Phegley will screenshare the PHET. If you are completing it on your own, open a second browser to States of Matter: Basics or use the insert below.

States of Matter: Basics

Lesson 8 – OneNote Part 2 – 2. Examples of use continued

States

1. The program should start with **solid Neon**. Describe the spacing and motion of the particles in a solid.
Spacing = Close together
Motion = Vibrating

2. What happens as you cool the solid? (Go all the way to 2 K).
Slowed down. Still vibrating but at a slower rate.

3. What happens as you heat the solid? (Go all the way to 20 K).
Molecules speed up. Vibrate at a quicker rate.

Please continue to Lesson 8 - OneNote Class Notebook Page 3 to watch tutorial videos on how to use Class Notebook in your classroom.

Lesson 8 – OneNote Part 2 – 3. Training

3. Training
Saturday, December 12, 2020   9:40 AM

Adding Interactive Elements
To get the most out of your OneNote notebook this video shows you how you can embed different interactive resources into your pages.

Microsoft OneNote Class Notebook - adding interactive elements to your OneNote Class Notebook

Adding a Microsoft Form
The one exception to the prior video is Microsoft Forms. This video shows how you use the Web based version to insert a Form into your pages.

Microsoft OneNote Class Notebook Inserting a Microsoft Form

Microsoft OneNote Class Notebook Inserting a Microsoft Form

Distributing a Page
This video explains how to distribute your notebook pages to students.

Microsoft OneNote Class Notebook - distributing a page to student notebooks

Providing Feedback to Students
This video shows different ways that you can provide feedback within OneNote.

Microsoft OneNote Class Notebook - Providing Student Feedback

Lesson 8 – OneNote Part 2 – 3. Training Continued

1/11/2021   OneNote

Microsoft OneNote Class Notebook - Providing Student Feedback

Please continue to Lesson 8 - OneNote Class Notebook Page 4 to begin creating a page for your Class Notebook that you can use in your real classroom.

Lesson 8 – OneNote Part 2 – 4. Practice

4. Practice

Saturday, December 12, 2020   9:40 AM
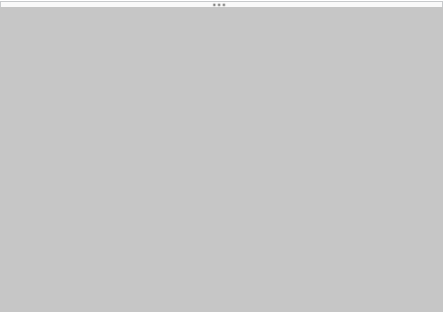
It's your turn to try out some of the features you have learned about. Within your newly created notebook create a page that you can actually use with your students.

Take your notebook page and add it to my student notebook.

Please continue to Lesson 8 - OneNote Class Notebook Page 5 to complete your reflection form on this lesson.

Need help while you are working on your Class Notebook? Fill out this form to request a 1-1 help session!

Help Request Form

Microsoft Forms

Fill out the form

Lesson 8 – OneNote Part 2 – 5. Reflection

5. Reflection
Saturday, December 12, 2020   9:40 AM

Complete the form below after completing parts
1-4 of this Lesson.

[Microsoft Forms](#)

Lesson Reflection - Microsoft OneNote Class
Notebook Part 2

This survey is part of my Capstone project for my Master's Program. Participation in this
survey is optional. The data collected here is anonymous and for academic purposes, it will
not be disclosed with anyone but the faculty and evaluators at Western Governors University.

Directions: Please answer the following questions to the best of your knowledge. Click
'Submit' when you are finished.

. . .

Hi Julie, when you submit this form, the owner will be able to see your name and email address.

Technology Questions

These questions help researchers identify effectiveness of the training in relationship to
teacher confidence level in using Microsoft Forms in their classroom.

1. Rank your own technology skills with using Microsoft OneNote Class Notebook.

○ Unfamiliar: I have never hear of Word.

○ Learner: I am not sure how to use Word.

○ Basic: I have used Word now, but might need additional training before using it
again.

Thank you for completing Lesson 8. Please
continue to Wrap Up Page 1 to complete your
Post Training Survey.

Lesson 8 – OneNote Part 2 – Extra Help/Resources

Extra Help/Resources
Saturday, December 12, 2020   9:43 AM

OneNote Training Website - https://onenoteforteachers.com/

Wrap Up – 1. Post Training Survey

1. Post Training Survey

Saturday, December 12, 2020 9:37 AM

If you are having issues opening the form within OneNote you can click this link to access the form from Forms - Microsoft Forms

Post Training Survey

This survey is part of my Capstone project for my Master's Program. Participation in this survey is optional. The data collected here is anonymous and for academic purposes, it will not be disclosed with anyone but the faculty and evaluators at Western Governors University.

Directions: Please answer the following questions to the best of your knowledge. Click 'Submit' when you are finished.

. . .

Hi Julie, when you submit this form, the owner will be able to see your name and email address.

Demographic Information

1. What grade(s) do you teach?

☐ Kindergarden
☐ 1st grade
☐ 2nd grade
☐ 3rd grade
☐ 4th grade
☐ 5th grade

Please continue to Wrap Up Page 2.

Wrap Up – 2. Thank You

2. Thank you!

Monday, December 21, 2020 4:50 PM

You are officially DONE!

I would like to take a moment to thank you once again for participating in this study. I hope it has provided you with some new skills and confidence in relation to using Microsoft Applications in your classroom.

At this point if you would like to be removed from this Class Notebook, please let me know by email. Otherwise you will continue to have access to it for your reference.

Some reminders from your Informed Consent Form:

Confidentiality

The raw data gathered from this research, with any personal identifiers, will be kept private and confidential. Your information will only be seen by the researcher and individual participant names will not be used in report findings. Data will only be reported in the aggregate.

Voluntary Participation and Withdrawal

Your participation in the study is completely voluntary and you have the right to withdraw at any time. Participants may also submit a request to the researcher that their individual results be excluded from the final report. To withdraw from the study, the participant must notify the researcher.

Questions, Rights and Complaints

Participants have the right to view the results of the study. If you have questions about this study, please contact me, Julie Phegley by calling: (908) 328-8083 or by email: jphegl2@student.wgu.edu.

If you have any unresolved questions or complaints, contact the WGU IRB e-mail: IRB@wgu.edu.

Appendix B

Pre-Training Survey
Section 1: Demographic Information
1. What grade(s) do you teach?
2. How many years have you been teaching for?
3. What subject(s) do you teach?
4. How are you currently teaching?

Section 2: Technology Questions
Please evaluate each of the following statements. Select one for each question: strongly agree, agree, neutral, disagree, or strongly disagree
1. I feel confident in my ability to use technology in my classroom.
2. I feel confident in my ability to integrate multiple technologies into my instruction.
3. The amount of time needed to prepare technology-based lessons deters me from creating them.
4. I am aware of the resources available by my district that can help me learn how to integrate technology.
5. I do not have the technology skills to support my students when they use technology for a project.
6. I am familiar with what technology is available to my students in me in our building.
7. Select all the types of training you have received on Microsoft Apps: mandatory district training, optional district training, Microsoft Educator Center courses, no training, other.
8. For each Microsoft App rank your own technology skill according to the scale below:
   a. Unfamiliar: I have never heard of this
   b. Learner: I am not sure how to use this
   c. Basic: I have used this before, but might need some help
   d. Proficient: I can use this without any assistance, or Advanced: I could train staff to use this.
9. How often do you integrate these Apps into your instruction or materials? Please select one for each App.
   a. Regularly: At least once per week
   b. Frequently: At least once per month
   c. Occasionally: At least once per semester
   d. Rarely: At least once per year
   e. Never: Never use it
10. What is/are factor(s) that have affected your confidence with technology?
11. How would you describe your relationship with technology?

Lesson Reflections
1. Rank your own technology skills with using the Microsoft Application (Word, Excel, PowerPoint, OneNote Class Notebook, Form, Sway)
   a. Unfamiliar: I have never heard of it.
   b. Learner: I am not sure how to use it.

     c.   Basic: I have used it now but might need additional training before using it again.
     d.   Proficient: I can use it without assistance.
     e.   Advanced: I could train staff to use this.

2. Did you learn anything new from this lesson?
3. How would you describe your comfort level with using the Microsoft App after this lesson?
4. Any additional comments you would like to make about the lesson.

Post Training Survey

Please evaluate each of the following statements. Select one for each question: strongly agree, agree, neutral, disagree, or strongly disagree

1. I feel confident in my ability to use technology in my classroom.
2. I feel confident in my ability to integrate multiple technologies into my instruction.
3. The amount of time needed to prepare technology-based lessons deters me from creating them.
4. I do not have the technology skills to support my students when they use technology for a project.
5. I am familiar with what technology is available to my students in me in our building.
6. For each Microsoft App rank your own technology skill according to the scale below:
     a.   Unfamiliar: I have never heard of this
     b.   Learner: I am not sure how to use this
     c.   Basic: I have used this before, but might need some help
     d.   Proficient: I can use this without any assistance, or Advanced: I could train staff to use this.
7. How often do you integrate these Apps into your instruction or materials? Please select one for each App.
     a.   Regularly: At least once per week
     b.   Frequently: At least once per month
     c.   Occasionally: At least once per semester
     d.   Rarely: At least once per year
     e.   Never: Never use it
8. What is/are factor(s) that have affected your confidence with technology?
9. What impact has this training had on your relationship with technology?
10. What did you like about this training?
11. What would you like additional training on?
12. Is there anything additional you would like to share?

Appendix C

Informed Consent

Adult Participants

Western Governors University - Teachers College

MED, Learning and Technology

Julie Phegley
Training and Teachers' Confidence with Microsoft Applications

Introduction

Julie Phegley, a graduate student researcher in the Learning and Technology Program of Western Governors University's Teacher College, is seeking to conduct a research unit for the purpose of determining the impact an 8-hour asynchronous online training course in using Microsoft Applications (Forms, Word, Sway, Excel, PowerPoint, and OneNote Class Notebook) on teacher's confidence in creating engaging assignments for virtual learning. Participants are from the researcher's social group so no initial approval to conduct research and gather data for reporting purposes is required. By signing this consent form, you agree to participate in the study. All data collected will be reported as aggregated summaries. Individual names will not be used.

Description of the Project

Adult learners from the researcher's social circle will work through an 8-hour online asynchronous training that is broken up into 8 lessons. Participants will have 2 weeks to complete the training. The lessons will cover Microsoft Forms, Word, Sway, Excel, PowerPoint and OneNote Class Notebook. The training will be contained within a Microsoft OneNote Class Notebook and each lesson contains an introduction, examples, training videos, opportunity to practice using the application and a reflection survey. Support from the researcher through email and videoconferencing. Prior to and after the training participants will complete a survey to determine knowledge, perceptions, feelings and thoughts surrounding the content area of the course.

Benefits and Risks of the Study

Some participants may feel a minimal degree of performance anxiety towards using the technology and completing the surveys. A normal amount of anxiety is to be expected and the researcher has addressed this letting participants work at their own pace and providing detailed videos demonstrating how to use each application. Other participants will not be able to see their progress and additional 1-1 training is available to participants. All anticipated risks to participation in this study are minimal and no greater risk than those which are normally encountered in training programs.

 A possible benefit to participants include learning more about how to use the different Microsoft Applications. Participants will be informed that the study activities are intended to help them better understand how to use the different Apps, enabling them to be more confident in their ability to create electronic resources for their classroom. The study may help the researcher acquire additional training opportunities to facilitate learning.

Confidentiality

The raw data gathered from this research, with any personal identifiers, will be kept private and confidential. Your information will only be seen by the researcher and individual participant names will not be used in report findings. Data will only be reported in the aggregate.

Voluntary Participation and Withdrawal

Your participation in the study is completely voluntary and you have the right to withdraw at any time. Participants may also submit a request to the researcher that their individual results be excluded from the final report. To withdraw from the study, the participant must notify the researcher.

Questions, Rights and Complaints

Participants have the right to view the results of the study. If you have questions about this study, please contact me, Julie Phegley by calling: (908) 328-8083 or by email: jphegl2@student.wgu.edu.

If you have any unresolved questions or complaints, contact the WGU IRB e-mail: IRB@wgu.edu.

Consent Statement

By signing this document, you agree to participate in the study and have had your study participation questions answered. Participation in the online survey constitutes informed consent. You also acknowledge that you have received a copy of this form.

_____   _____

Participant Signature   Typed/Printed Name

_____

Date