

A COMPARISON OF LEARNING ACHIEVEMENTS VIA MICROSOFT TEAM PROGRAMS AND IN CLASS LEARNING

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Abstract

The proposes of this study were 1) to compare the learning achievement of Fundamental English for Airline Business 1 by the online learning via MS Team program and in the class learning. 2) to survey students' opinions on teaching and learning through the Internet network. The sample groups were used in the study were first-year students at the Aviation Personnel Development Institute enrolled for 100 in ES 101 the course. The same content was taught for both groups within 120 minutes/the period. The research instruments were Lesson plans, Learning the achievement Test, and Questionnaires. The statistics were used are average $\overline{(x)}$ the standard deviation (S.D.) statistics, dependent Samples t-test, and Independent Samples t-test. 1) Students who learn online through the Microsoft Team program and in-class learning there are statistically significant differences in the academic achievement at .05 levels. 2) Students who learn online through the Microsoft Team program before and after the experiment, there are statistically significant differences in academic achievement at .05 levels, 3) Students who learn in the class learning before and after the experiment, there are statistically significant differences in the academic achievement at .05 levels. And 4) Students comment on the teaching and learning through the Internet using Microsoft Team Program. The atmosphere is at the most agreeable level, learning activities are very gareeable and the benefits are at the most gareeable level. When considering the average in 3 areas, the majority was of students who have commented on the teaching and learning through the Internet network from MS Team programs are at a high level with (\bar{x}) of 4.20 and (S.D.) of 0.51.

Keywords: Online learning, MS Team Program, learning achievement

1. Introduction

In the current situation with the Covid-19 outbreak, all sectors are continually affected even the education life which inevitably required adaptation followed by the detention measure in the accommodation to avoids the public meeting. Educational institutions have to switch to online teaching and learning models so that the education system can continue. Affect to the learning management process of students And the coordination of university activities must be done online, and some of them are on-site, which is a direct learning organization and on-air as part of the basic course or practical course, In addition, it must provide a new learning area where students can use various technology materials. Online learning is another form of educational innovation that can change the old way of learning as a new study that uses technology to help teach In addition, another meaning in one also means

Distance learning, the web learning as well. Online learning is done through the Internet. In the form of a computer, It is the use of modern technology cooperate with the Internet. To create high-quality, interactive education without needing to travel. It creates convenience and quick access anytime, anywhere, creating a life-long education for the population. Online instruction, it is an education through the Internet by themselves, students can choose to study according to their own preferences. The content of the class consists of text, images, audio, VDO, and multimedia, etc. These will be sent directly to learners through web browsers for students, teachers, and all

classmates. They can communicate, discuss, exchange ideas in the same way as in the general classroom by using an e-mail, Chat, Social Network, etc. For this reason, online learning has let it suitable for everyone, study at any time.

For the new teaching and the learning management guidelines and examinations in the situation of the COVID-19 the epidemic and the normal situation Aviation Personnel Development Institute establish guidelines for teaching and learning management and examinations both in epidemic situations and in normal situations So that every campus can operate with flexibility. While maintaining the intention of the university to develops the quality human resources still resist the desired skills according to the rapidly changing the world this includes the university's policy on the effective teaching and learning (Active Learning) that is concrete and quality with the guidelines set as follows.

By organizing Hybrid Learning, a variety of teaching and learning activities, to combine the online learning classroom study together with the other learning management styles that focus on building analytical thinking skills Problem solving, practice, and others that can measure and evaluate learning outcomes.

- 1. By organizing Hybrid Learning, a variety of teaching and learning activities, to combine the online learning classroom study together with the other learning management styles that focus on building analytical thinking skills Problem solving, practice, and others that can measure and evaluate learning outcomes.
- 2. Consider modifying the exam format which is a measure of a variety of learning results combine the exam in the classroom with other appropriate and effective forms of measurement and evaluation, such as: online exam, taking the exam outside the exam room (take-home exam), reflection, evaluation of activities or results corresponds to the active learning teaching at each subject
- 3. Provide classrooms equipped with systems and online learning materials. In order to avoid inequality for students who have problems with equipment, location, and network signal. Educational management by the institution's online system because there is an application for use in many teaching and learning formats.

The institute has chosen an application that is suitable for the institute, that is, Microsoft Teams program, as every student has an email account that the institute has applied for everyone. Let it possible to use the e-mail issued by the institute for convenient access to the system.

The advantages of Microsoft team can create teams as an online classroom. (the eclassroom), create a team as a group project, creates a channel as a group in the team, can chat and post like Facebook exchange files. Upload teaching materials, order homework, the assignment, set date/time. Submit and review ratings. Create a quiz with automatic grading. Make a video conference with up to 250 people, able to mute everyone in the classroom. Live screen or choose specific Apps, such as Broadcasting only PowerPoints, allowing teaching to be saved and stored in Microsoft OneDrive that can be restricted. Able to conduct one-way live events for up to 10,000 people (limited to 15 Live events at the same time, that can be taught with 15 Live events at the same time, so it is suitable for class sizes. If installing the app, you can make a conference with a blurry face, use MS planner, MS office, MS OneNote and MS Whiteboard together in a team.

From the information mentioned above The researcher has conducted research on The Effect of Online Teaching with the Microsoft Teams Program on Academic Achievement of APDI Year 1 Students to Study and Develop Student Learning Achievement.

Researchers think that online teaching should make students more interested and enthusiastic about their studies, the attention to studying more than the normal learning. It is likely that the learners have higher academic achievement, which resulted from this research will serve as guidelines and guidelines for the management of online teaching and learning in the future.

Objectives

- 1. To compare the learning achievement of ES101 courses of students taught online using the Microsoft Team program with students who receive the regular teaching.
- 2. To compare the learning achievement of ES101 courses of students taught online using the Microsoft Team program before and after the teaching.
- 3. To compare the learning achievement of ES101 subject of the regular teaching before and after teaching
- 4. To study students' satisfaction with the ES101 online teaching model using the Microsoft Team program and regular learning.

Research hypothesis

- 1. Students who learn online through the Microsoft Team program with regular teaching get different learning achievements.
- 2. Students who are taught online through Microsoft Team program before and after teaching get different learning achievements.
- 3. Students who learn regular before and after teaching get different learning achievements.
- 4. The students were highly satisfied with the online teaching model of es101 courses through the Microsoft Team program.

2. Review of literature

2.1 Online learning

Online learning (E-Learning) is an educational innovation is that transformed the old way of learning and uses advanced technology such as the Internet, intranet, extranet, satellite, and therefore distance learning. Web-based learning Virtual classroom which has a connection point: Communication technology is a medium of learning. " (http://www.capella.edu / e-learning) E-Learning It is a form of content that is created as a ready-made lesson. That may use the CD-ROM as a medium for transmission or use the transmission through the internal network or the Internet This may be in the form of computer-aided training.(Computer Based Training: CBT (Web-Based Training: WBT) Or teaching and learning via satellite. (Krutus (2000))

E-Learning is the use of the technology available on the Internet. Create an interactive, high-quality education. That people around the world are convenient and can access quickly. No place and time limit It opens the door of life-long education for the population. (Campbell (1999) Technology-based learning covers a variety of learning methods, such as computer-based learning, web-based learning, virtual classrooms, digital collaboration, etc. Learners can learn through all types of electronic media such as the internet, intranet, extranet, satellite broadcast, audio/videotape, interactive TV, CD- ROM. Learning through electronic media It is an increasingly important learning method.

Assoc. Prof. Dr. Thanomporn Laohajaratsang from Chiang Mai University has been defined in 2 aspects which are

- Content study Or information for teaching or training, which uses slide text presentations combined with the use of animation Video and audio based on Web Technology to convey the content Including using technology Course Management System in the management of teaching jobs.
- E-Learning is learning in any way which is used to transmit content via electronic devices Whether it is a computer Internet, intranet, extranet, or TV signal network Satellite signal Composition

Wittaya Wayo and Team. (2020) provides the definition of online teaching and learning management: a learning management that combines knowledge with innovative learning and modern technology. There are various teaching styles. Elements of Online Instructional Management Summarized as follows.

- 1. Instructor is the content provider. Various knowledge for learners to understand the content of the experience. Instructor expertise contribute to the achievement of online teaching goals. The role of the instructor is the adviser (Guide) mentor is the coach facilitates. (Facilitators) 8 to help students realize their potential in learning. Including the development of competencies to learn the skills of knowledge used in the workplace the ability to use techniques in the work taught.
- 2. Student is the recipient of content and knowledge from the teacher who students need to be ready in the use of technology and information. Media literacy (Digital Literacy) can search, analyze data. Systematically evaluate the content by using reasonable judgment in making decisions about the information. There is a preparation for learning such as studying the scope of the content before class, searching for information related to learning from various learning sources, preparing the Internet network to be ready for use Preparing a suitable study place. Communicating digitally with teachers to enable them to interact appropriately with them. They also have an emotional intelligence in the use of media (Digital Emotional Intelligence) appropriately, such as sharing information with others. Being generous in the online world, etc
- 3. Content is an important part of the teaching and learning to achieve the objectives. The content should be structured according to the course objectives. Courses are laid out to serve as a navigation system to link to various content in the lesson. The text of the content should be clear, concise, easy to understand and updated at all times. So that the students study to understand by themselves properly including should have a sequence of information. Various sub topics to be linked together. And the content of the lesson can encourage learners to study further after online learning.
- 4. Instructional Media & Resources is considered very important to education management, good teaching materials will help students understand the content while they study. Teaching materials should be unique. Capture the attention of learners and stimulate learning such as video, still image, animation. Scenario Academic articles, etc. However, teachers should choose appropriate media such as text size, color, contrast of pictures accuracy of information. Including the media used should be consistent with the content of the course for the learners to gain more understanding. In addition, resources such as books, textbooks, E-book, E-Journal, libraries are an alternative that allows learners to access learning materials. By searching for additional information to bring to study Which the learning resources should be diverse for the learners to be able to search sufficiently The teacher does not have to include content in the whole lesson.
- 5. The Learning Process is a learning design process for learners based on topics, objectives, content, teaching materials, learning activities, measurement methods, evaluation methods, and learning processes. Using information technology to design how to manage learning under the analytical process: Analysis, Planning Design,

Implement, Development Evaluation, Authentic Learning. Learning courses for learners, which are effective learning management processes. Students should be encouraged to apply the content to authentic learning.

- 6. Communication Systems play an important part in making online teaching a success. Communication is divided into two types. 1) One-way communication is the transfer of content through teaching materials such as video, power point, slide, scenario, case study without interaction between instructors and learners. 2) Two-way communication is the transfer of content through teaching materials such as computer assisted instruction (CAI), learning management system (LMS), or learning through video conferencing applications such as: Google Hangout Meet, Zoom Meeting, Schoology, Webex, Microsoft Team etc. Instructors and learners can talk, ask questions together while teaching and verifying the student's understanding. According to the thesis's online teaching experience, considering the choice of communication system, learning the highlights. Program limitations include the number of users, duration of use, image clarity, audio, making online teaching efficient and appropriate. As well as selecting two-way communication systems through programs, teachers and learners can be encouraged to interact more together. This makes it easier for learners to talk or ask questions with their instructors.
- 7. Network Systems are ways to facilitate the smooth teaching and learning. The information network consists of 1) an intranet networking system within the school. This allows students to access the school's internal network for online learning. 2) An external network (Internet) that connects computer networks around the world to provide quick communication. Students can use the internet network for online classes anytime, anywhere, and search for information on learning. However, there may be restrictions on the availability of students to prepare equipment to connect to information technology networks and areas without internet connections. As well as the speed of the Internet, online teaching may not be smooth.
- 8. The measurement and the evaluation require both formative assessments have measured and evaluated, such as questioning, observing learner behavior, reflecting thoughts, etc. And after classing (Summative Assessment), such as the testing with various tests to check the student's understanding effectiveness of the study to reflects students' learning abilities should be varied to measure and evaluate them according to their actual conditions. However, instructors need to design effective measurement and evaluation tools. In order to prevent prevents fraud during the exam, the company should also promote the ethics of online testing to prevent fraud during the exam. It was found that the problem of corruption in exams was minimal. Because the instructor has clearly defined the method of examination. There is a randomized test sorting system so that the sorting of each test sent to the learner will not be the same.

Students must turn on the camera at all times while the test is conducted so that instructors can observe their behavior each one of them. Therefore, it is said that elements of online teaching are an important part of making teaching effective. These elements are essential to be designed to be consistent with real-world situations and can be adapted to suit the learner. The availability of such elements should be evaluated. Analyzing the strengths and weaknesses of application to online teaching, However, the challenge of online teaching is not solely based on information technology but the preparation of learners and instructors also has an important part to play in adjusting their perspective. The concept should not adhere to the old teaching methods but should open the view. Concepts How to keep up with the changes.

2.2 Using Microsoft teams for teaching and learning

Microsoft Teams is a group chat service that supported the connectivity with Microsoft Office and supports in-app, a voice-video, chat, or video conferences. Tablets, Microsoft teams computers can create teams as online classrooms ((e-classroom) and posts are similar to Facebook, file exchanges, uploading teaching materials, directing assignments, setting dates/times, sending and scoring, create a quiz that automatically scores, make video conferences for up to 250 people, can mute everyone in the classroom. One-way live events can accommodate up to 10,000 people (limited to 15 live events at the same time) and can be taught with 15 live events at the same time, making them suitable for class sizes. Available both through the web and through the application installation. If the application is installed, it can shoot blurry post-blurred conferences. Share MS planner, MS office, MS OneNote, and MS Whiteboard in the team.

Preparing for Microsoft Teams students when using the learning environment in online learning and regular classroom learning is different. In the addition to discipline, responsibility, proper time management. Students need to take into account that engaging in online learning is an important part of promoting their learning. Online classes where students and instructors can interact with each other Students should participate in the study by commenting on the opportunity. Discussions with fellow students will help foster a common learning relationship. Giving feedback to students in the same course creatively. It will enhance the learning environment in online classrooms, as well as provide feedback on teaching that will help teachers get information to adjusts the method to align with student learning practices. Students need to be prepared for learning, should have at least the skills to use technology at the level they can study online. Ready to interact with instructors and fellow participants in the same course. Learn to communicate appropriately by typing/writing comments and setting up questions online.

2.3 Related Research

In Thailand

Kornthawat Wuttiyan (2017) Students' Satisfaction with Learning English Online via Skype program at ECC Language Institute: The purposes of this independent study were to (1) study the levels of students' satisfaction with learning English Online via Skype program at ECC Language Institute (2) classify students' satisfaction with online English teaching in overalls and individuals by different factors. The sample population of this study consisted of the two hundred students who were taking the Online English course at ECC Language Institute. The research instruments used in this study was a questionnaire. Using technique of descriptive statistics, the researcher analyzed the data collected in terms of mean and standard deviation. The independent t test and one-way analysis of variance (ANOVA) techniques were also employed by the researcher. Findings are as follows: 1. In regard of students' satisfaction of learning English online via Skype program, most of the subjects investigated were satisfied at a high level in the aspects of format and content, learning and teaching management and student. In only one aspect was students' satisfaction at a medium level: teachers. Most students were satisfied with the aspect of format and content at the highest level. 2. The students who differed in gender evinced concomitant differences in levels of satisfaction with learning English online via Skype program. The female students female show higher level of satisfaction than the male students at the statistically significant level of 0.05. 3. The students who differed in

age did not affect differences in levels of satisfaction with learning English online via Skype program at the statistically significant level of 0.05. 4. The students who differed in education levels affected differences in levels of satisfaction with learning English online via Skype program with the statistically significant level of 0.05. The students who were studying at the high school level show the lower satisfaction with learning English online via Skype program than the students who were studying at the undergraduate level did. The undergraduate students showed higher level of satisfaction with learning English online via Skype program than the graduated students did.

Chaopho T. and Author. (2020) Development of Microsoft Teams-Based Learning Model for Introduction to Political Science: The objectives of the research were (1) to develop the Microsoft Teams-based learning model for the subject "Introduction to Political Science," (2) to study the students' learning achievement from the model, and (3) to study the students' satisfaction with the model. The target group was a total of thirty-two first-year students of Mahamakut Buddhist University, Srilanchang Campus, majoring in Government and studying Introduction to Political Science in the first semester of the academic year 2563. The instruments used for data collection comprised of (1) Thai Qualifications Framework for Higher Education (TQF) 3 for Introduction to Political Science, (2) Assessment for Microsoft Teams-based Learning Model for Introduction to Political Science, (3) Content Assessment for Microsoft Teams-based Learning Model for Introduction to Political Science, (4) Online Classroom Assessment for Microsoft Teamsbased Learning Model for Introduction to Political Science, and (5) Student Satisfaction Survey on Microsoft Teams-based Learning Model for Introduction to Political Science. The statistics used for data analysis composed of percentage, arithmetic mean, standard deviation, and the t-test for dependent samples.

The findings of the research were as follows: (1) The developed model was found efficient for learning. The opinion of the experts on the model was found to be overall at a high level ($\bar{x} = 4.37$). Their opinion on the model's content was found to be overall at a high level ($\bar{x} = 4.44$); their opinion on the model's online classroom was found to be overall at a high level ($\bar{x} = 4.44$). (2) The learning achievement of the students from the model was found to be higher and the students' posttest was found to be higher from their pretest at a statistically significant level of 0.01. (3) The students' satisfaction with the model was found to be overall at a high level ($\bar{x} = 3.50$).

Abroad

Saranya A.K. (2020) A CRITICAL STUDY ON THE EFFICIENCY OF MICROSOFT TEAMS IN ONLINE EDUCATION: Online education kick started in 1984 when the University of Toronto irst started a complete online course. 35 years later, the face of online education has changed with the invent of powerful internet connectivity, cloud computing, Arti icial Intelligence, Virtual Reality etc. drawing more participation in the global online learning market. With the attack of SARS-CoV-2 virus in the year 2020, conventional education had to be put on hold, which led to the ingress of virtual classrooms all over the world. The study analyses the effectiveness of Microsoft Teams Platform in a teacher perspective. An inferential quantitative method of study using questionnaire data collection was followed. The feedback from 25 teaching faculties were used to analyze the efficiency of basic functions, ease in discussion and assessment, and User-Interface features of Microsoft Teams. Results states that even faculties who are aged and would probably have been in practice only with the conventional methods of teaching are welcoming the online teaching system, especially Microsoft teams. This teacher friendly

application is helping breach the barrier between student community and academics in the recent pandemic situation.

Ahmad Ridho Rojabi (2020) Exploring EFL Students' Perception of Online Learning via Microsoft Teams: University Level in Indonesia: An internet connection has been crucial in the era of globalization to enhance human activities in various activities of economic, culture, defense, and many others, especially in the EFL classroom setting. Microsoft Teams as an innovative online learning platform provides unique features to enhance its potential to help EFL teachers to conduct better interaction as well learning environment in online learning. This research aimed at exploring students' perceptions of online learning via Microsoft Teams. The study was conducted with twenty-eight sixth-semester students at Open University (Universitas Terbuka-UPBJJ Jember). Data were collected by using questionnaires to gain information about the EFL students' perception of online learning via Microsoft Teams. The questionnaire was distributed to the students through Google forms after all materials in online learning had been conducted. The questionnaires data obtained were analyzed descriptively. The finding of the research revealed that online learning via Microsoft Teams is categorized as something new for the students but this interaction and learning environment motivated students in participating online learning, as a result, they can easier to comprehend the learning materials.

3. Method

This research is semi-experimental research.

Population

Population used in research This time, 200 students took APDI's ES101 course in semester 1, academic year 2020. The samples were 100 students who took APDI's ES101 course for the first semester of the academic year 2020 by cluster random sampling of 4 classes, raffled for 2 sects and then raffled into one experimental group. One-room control group

Research Tools

- 1. Fundamental English 10 lesson plans using regular teaching and online teaching via Microsoft Teams
- 2. Achievement Test
- 3. Satisfaction Assessment form for ES101 learning management via Microsoft Teams.

Learning lesson plans for experimental groups. It is a lesson plan by studying online via the Microsoft Teams researcher program.

- 1.1 A study of the subjects and the explanation of the subjects in TQF2 Bachelor's Degree in Aviation Business (Revised 2020)
- 1.2 Offer TQF3 courses to consider and revise before applying for teaching in the course.
- 1.3 Study of Documents Research and research on steps to create a learning management planning-related teaching style, including distance learning. Web instruction, application-based instruction Teleconferencing, and related applications, especially Microsoft Teams.
- 1.4 Designing and developing online teaching arrangements in terms of qualifications Web-based teaching elements, support resources, and Microsoft Teams to

form the basis for defining elements and guidelines for developing the ES101 course learning management model using the Microsoft Teams program.

- 1.5 Study teaching and learning to use Microsoft Teams for learning objectives, courses, content, guidelines methods, teaching activities and assessments to guide and fundamentally create an ES101 learning management model using Microsoft teams.
 - 1.6 Develop/create an ES101 learning management model using Microsoft Teams
- 1.7 Take content assessment ES101 course learning management model, using Microsoft Teams, to experts to verify the accuracy and reliability of the format.
- 1.8 Check the quality of the tools during creation by providing experts with web-based teaching and learning 3 persons are content fidelity reviewers, including the consistency of questions and sub-issues. Key Points The purpose of the tool and to verify its individuality include language clarity. The use of language is not ambiguous, uncomplicated, etc.
- 1.9 Check the quality of the tool after creation, which is to find content validity by having 3 experts evaluate each question by considering the consistency of the question as follows:
 - Rated +1 for consistent sure verses
 - Rated 0 for unsure
 - Rated 1 for inconsistent verses

Take feedback scores to find the conformity index value of the question to the content using the formula (Boonched Pinyoanantapong.

 $IOC = \Sigma$

IOC = Content Conformity Index.

R = Expert Opinion Score

N = Number of experts

The criteria used for consideration is questions with an IOC value of 0.50 or higher. The question with an IOC value below 0.60 is a question that needed to be updated or eliminated.

- 1.10 Conduct online tutorials are using Microsoft Teams based on the teaching management model created.
- 1.11 Periodically collect test results before and after class to uses the data for analyzing student achievements.
- 1.12 Data analysis in the assessment form In question, a 5-level approximate scale is performed for analysis.
- 1.13 Take the data from the assessment to distribute the frequency. The opinion of experts on each question is the most appropriate. Very suitable level. Moderately appropriate Low level of suitability it is the least appropriate level and found a percentage of each comment. The breakdown of expert opinions on each question is as follows:
 - score of 5 means the most appropriate.
 - score of 4 means very appropriate.
 - score of 3 means moderately appropriate.
 - score of 2 means a low level of suitability.
 - score of 1 means the least appropriate.
- 1.14 Find the average, standard deviation (S.D.) of comments in each text, compared to the interpretation criteria of the average in each question.
 - average score of 4.51 5.00 means the most appropriate.
 - average score of 3.51 4.50 means it is very appropriate.
 - average score of 2.51 3.50 means moderately appropriate.
 - average score of 1.51 2.50 means less appropriate.
 - average score of 1.00 -1.50 means the least appropriate.

1.15 Design a measure of student satisfaction with the ES101 course learning model using the Microsoft Teams program.

A control group lesson plan that is taught regularly. The researchers have performed the following:

- 1. The study of the subjects and explain the subjects in TQF2 Principal Program in Aviation Business (Revised 2020)
- 2. Offer TQF3 courses to consider and revise before applying for teaching in subjects to be used to create a control group lesson plan that uses the same content as the experimental group.
- 3. Study from course descriptions and expected learning outcomes and create Lesson plan by studying normally 15 times, including:
 - 3.1 Concepts
 - 3.2 Expected learning outcomes
 - 3.3 Social Skills
 - 3.4 Content Topics
 - 3.5 Teaching activities are divided into the following steps
- Motivation is a step that encouraged students to get interested and prepare before taking the exercises. By informing them of their destination and guiding purpose, and the benefits students will receive from doing the exercises in that chapter.
- Presentations provide students with a form of language that they want to trains and explain to lead participants into training sessions.
- Practice is a step is that allowed learners to practice as well as allow them to do exercises to re-teach vocabulary according to their intended guiding purposes.
- Transfer activities are stages that allowed students to perform supplementary activities outside the classroom so that they can understand more about the content.
- Evaluation is a stage where students have taken a chapter-by-chapter exercise to measures their ability to studies according to their intended the purpose.
- 3.6 Take the lesson plan created to the experts for the examination 3 persons to validate the ideas, the content of the activity. Teaching, language use, and consistency between the stages of the lesson plan to improve the shortcomings according to the experts' recommendations.
- 3.7 Take a lesson plan that has been reviewed by experts and has been revised to trial. This is not an example to find flaws in the suitability of teaching activities and the time limits to be revised. To get a complete lesson plan before applying it to a control group.

Steps to create a test

- 1. Study theory, principles How to create educational measurement instruments
- 2. Analyze behavioral purposes and content subjects ES101 In higher education, according to the basic education curriculum.
- 3. Create a behavioral purpose analysis table to determine the weight of content and behavior in each purpose to cover the content created in the lesson plan.
- 4. Create four multiple-choice ES101 achievement tests, each with only one correct answer. It created in accordance with learning habits and covers each subject. 70 questions.

Quality Step

1. The test presents to the Research Committee.

2. The test offers experts to check the accuracy of the test.

By assessing the consistency between the exam and the purpose of learning, and then revising it by considering that each of them matches the knowledge. Understanding and applying with the criteria Assessed as follows (Somnuk Pattiyathani, 2003)

- +1 when you are sure that this test meets your learning objectives.
- 0 when you are not sure that this test meets your learning objectives.
- -1 When you are sure that this test does not meet your learning objectives.
- 3. Evaluation of the conformity index value using the IOC formula by selecting the Form .0.66 to 1.00 (Department of Academic Affairs.2002:65) The more recent exams are eliminated and experts' recommendations were revised, which received an IOC value of 0.66-1.00.
 - 4. The test is to improve before actually used.

Data Collection

Data collection is collected based on the demographics set up by the researchers. Rely on the tools created to compare achievements.

- 1. Organize lesson plans in both regular and online teaching formats.
- 2. Divide students into 2 groups: a control group and an experimental group.
- 3. Pre-study test to measures student achievement before class
- 4. Conduct regular and online teaching. Teach in the classroom as usual, but online classes are scheduled to be taught on a sect.
 - 5. Re-apply the test after using both teaching methods.
 - 6. The results of both tests are based on data analysis.

Statistics have used in this research, researchers have used computers to analyze data using a statistical success program.

To determine the following statistics:

- 1. Compare the achievements of pre and post-study achievements of the control group using statistics. Dependent Samples t-test
- 2. Comparing achievements before and after the experimental group by using statistics. Dependent Samples t-test
- 3. Compare the average difference before and after studying for experimental and control groups using Independent Samples t-test statistics.

4. Findings

Table 1. Comparison of ES101 achievements before and after the control group

Sample group	Ν	Χ	X ₂	MD	S _{MD1-MD2}	T	р
Online Teaching	50	20.64	28.88	8.26			
					.557	4.059*	.000
Inclass Teaching	50	16.82	22.80	6.00			

^{*} Statistically significant at the level. 05

According to table 1, the experimental group, which was taught online using Microsoft Teams, achieved a higher academic achievement in ES101 than the control group, which was taught statistically normally at .05.

Table 2. Analysis of achievements before and after teaching online using the program Microsoft Teams

Sample group	Ν	Χ	SD	T	р
Before Learning	50	20.64	3.65		
				19.68*	.000
After Learning	50	28.88	4.79		

^{*} Statistically significant at the level. 05

According to the table.2, students who were taught online using Microsoft Teams have achieved statistically significantly higher post-experiment achievement at .05.

Table 3. Analysing achievements before and after regular teaching

Sample group	Ν	X ₁	SD	T	р
Before Learning	50	16.82	6.76		
				16.40*	.000
After Learning	50	28.80	7.74		

^{*} Statistically significant at the level. 05

According to table .3, students who were taught regularly achieved significantly higher achievements after the experiment than before the experiment at .05.

Summary

- 1. Students who are taught online through the Microsoft Team program and students who are regularly taught have statistically significant differences in academic achievement at .05.
- 2. Students who learned online through the Microsoft Team program before and after the experiment. There are statistically significant differences are in learning achievement at .05 levels.
- 3. Students who are taught regularly before and after the experiment there are statistically significant differences in learning achievement at .05 levels.
- 4. Students are satisfied with the es101 online teaching style through the Microsoft Team program.

Students comment on teaching and learning through the Internet using The Microsoft Team program in the atmosphere is at the most agreeable level, with an average of 4.26 learning activities at a very agreeable level with an average of 4.10. And the benefits were at the most agreeable level, which averaged 4.22 when considering the average including 3 aspects. Microsoft Team programs are at a high level with an average of 4.20 and a standard deviation of 0.51.

5. Conclusion

- 1. Students who are taught online through the Microsoft Team program and students who are regularly taught have statistically significant differences in learning achievement at .05.
- 2. Students who learned online through the Microsoft Team program before and after the experiment. There are statistically significant differences are in learning achievement at .05 levels.
- 3. Students who are taught regularly before and after the experiment there are statistically significant differences are in learning achievement at .05 levels.

4. Students are satisfied with the es101 online teaching style through the Microsoft Team program. Students comment on teaching and learning through the Internet using The Microsoft Team program in the atmosphere is at the most agreeable level, with an average of 4.26 learning activities at a very agreeable level with an average of 4.10. And the benefits were at the most agreeable level, which averaged 4.22 when considering the average including 3 aspects. Microsoft Team programs are at a high level with an average of 4.20 and a standard deviation of 0.51.

6. Discussion

1. Compare the achievements of es101 subjects taught by online learning to use Microsoft Teams with teaching normal Style.

By comparing learning achievements Students' es101, taught by studying online using Microsoft Teams and regular teaching methods, found that students who were taught online using Microsoft teams programs there is a statistically significant difference is in learning achievement of .05 based on Assumption 1, since Microsoft Teams applications are designed and developed on the basis of a variety of needs and combine the capabilities of the programs that Microsoft develops. To provide a medium of work in areas such as communication, appointments, meetings, announcements, follow news It is central to access services built into the Office 365 system, such as Manage Discussions All files and tools in a team workspace in one place, as well as access and share for applications in Microsoft Office, including PowerPoint, Word, Excel, Planner, OneNote, SharePoint, Delve, and Power BI, which can create and edit documents directly from within the App. It allows teaching on virtual classrooms to go. The lecturer is the lecturer and the student is a learner. Instructors can also record video tutorials and distribute them to learners. Access can be restricted, live video conference tutorials with Microsoft teams. You can also create and use online classrooms, such as distributing teaching materials, discussions, and more. Create A board, assign tasks, or direct homework This includes a system for recording academic performance, testing and scoring, as well as a record system. Students can also easily track their learning history. When the programs used for teaching and learning are complete, The teacher's learning system is also an important issue that must be considered to be appropriate and conducive to student learning. According to the model developed by the researchers, it is based on the criteria of the teaching style through the website. Based on the video conferencing capabilities of Microsoft programs, teams, and other systems, it is consistent with the research of Chaopho T. and Author. (2019: Abstract) that has been researched. Development of Microsoft Teams-Based Learning Model for Introduction to Political Science. The objectives of the research were (1) to develop the Microsoft Teams-based learning model for the subject "Introduction to Political Science," (2) to study the students' learning achievement from the model, and The statistics used for data analysis composed of percentage, arithmetic mean, standard deviation, and the t-test for dependent samples. The findings of the research were as follows: (1) The developed model was found efficient for learning. The opinion of the experts on the model was found to be overall at a high level (X= 4.37). Their opinion on the model's content was found to be overall at a high level (X = 4.44); their opinion on the model's online classroom was found to be overall at a high level (X= 4.44). (2) The learning achievement of the students from the model was found to be higher and the students' post-tests was found to be higher from their pre-test at a statistically significant level of 0.01.

2. Compare the achievements of 101 subjects taught online through the Microsoft Team program before and after teaching.

By comparing student achievements taught online through the Microsoft Team program before and after the experiment. It found that students achieved statistically significant differences in academic achievement at .05 levels. According to Hypothesis 2, Microsoft Teams has several educational tools that faculty members at both higher-Ed and K-12 levels can use to transform old classroom teaching into digital teaching. The advantage of Microsoft Team For online tutorials.

1. Chat, share files, creates a talking group, suitable for everyone in the organization 2. Arrange online meetings, video calls, at the touch of a button, 3. Share screen, takes notes, record 4. Blur the background during a video meeting, to cut out distractions 5. Share files together in the team, to collect data 6. Event Planner, with Planner in Microsoft Teams 7. Instructors can also record video tutorials and distribute them to learners. Access can be restricted, live video conference tutorials with Microsoft teams. You can also create and use online classrooms, such as distributing teaching materials, discussions, and more. Create a board, assign tasks, or direct homework Job checks, quiz creations, and ratings, etc. Including the transcript recording system. Students can also easily track their learning history in line with their research. Tanutcha Bindulem. (2019) This research is aimed at Comparison of learning achievement Subject: National Income, Economics Principles Of the first-year diploma level students who are taught by online learning and regular teaching. The research tool is Learning management plan By using normal teaching and learning online Population and sample group are Students at the level of the Diploma of Vocational Education, Year 1, Accounting Division, 30 persons. The research has found that students who are taught online before and after study with different learning achievement at a statistical significance level of .01.

3. Students who are taught regularly before and after teaching different learning achievements.

From comparing the achievements of students who were taught normally before and after the experiment, the achievements of es101 subjects differed statistically significantly at .05. According to Hypothesis 3, as a result of the usual teaching methods, there is a difference from online teaching through Microsoft Team: Regular teaching activities are freer than no regulations or rules during the course, students are comfortable and willing to carry out activities according to the overall structure introduced by the instructor before teaching. In teaching, students and instructors discuss content together, and students are separated into group activities, individually, according to the instructor's instruction. Students and instructors debate to conclude lessons before evaluating and compliment high-scoring students. Therefore, students have motivated to study. Students who do not pass the teacher's assessment will perform individual repairs based on defects and from the exercises prepared by the teacher in order of difficulty. Before practice, teachers review and summarize the content before students follow them until they become skilled with their research. Tanutcha Bindulem. (2019) This research is aimed at Comparison of learning achievement Subject: National Income, Economics Principles Of the first year diploma level students who are taught by online learning and regular teaching The research tool are Learning management plan By using normal teaching and learning online Population and sample group is Students at the level of the Diploma of Vocational Education, Year 1, Accounting Division, 30 persons. The research has found that students who receive regular teaching before and after the experiment with different learning achievement at a statistical significance level of .01.

4. Students are satisfied with the es101 online teaching style through the Microsoft Team program.

Students were overall satisfied with the es101 learning management model using Microsoft Teams at a high level, finding that the atmosphere was at the most agreeable level, with an average of 4.26. The learning activities are very agreeable, which is an average of 4.10, and the benefits are at the most agreeable level, which is an average of 4.22. When considering the average in three areas, the majority of students commented on teaching and learning through the Internet using the Microsoft Team programs with an average of 4.20 and a standard deviation of 0.51 are very high, according to Hypothesis 4. it is consistent with the research of Chaopho T. and Author. (2019: Abstract) that has been researched. Development of Microsoft Teams-Based Learning Model for Introduction to Political Science. The objectives of the research were (3) to study the students' satisfaction with the model. The findings of the research were as follows: The students' satisfaction with the model was found to be overall at a high level (x = 3.50).

7. Recommendations for future studies/Implications

- 1. The ES101 learning management model using Microsoft Teams should be applied to other subjects because of its many advantages and utilization.
- 2. The ES101 learning management model using Microsoft Teams should be implemented to allow students to review the actual course content in the classroom from the prepared video recordings.
- 3. Instructors can use the ES101 learning management model using Microsoft Teams as the main channel for teaching and learning. Using individual counselling channels as an auxiliary channel for additional teaching for students experiencing teaching and learning problems.

8. Recommendations for further research

- 1. Research on the development of learning management patterns should be developed or improved in other subjects with similar contexts Web-based interactive learning and Web-based self-directed learning
- 2. Research should be conducted comparing the achievements of learning management using learning management models via applications such as Zoom, Google Meet, etc.

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