



# The Application of YouTube Video on the Skill of Set Induction as Gateway for Effective Classroom Presentation in the Teaching-Learning Process

Haruna Abubakar <sup>a\*</sup>, Hasnah Binti Mohamed<sup>b</sup> Megat Aman Zahiri B Megat Zakaria<sup>c</sup>

<sup>a</sup> University of Technology Malaysia FCZ School of General Education  
Department of Curriculum and Instruction, School of Education,  
Federal College of Education, Zaria.

<sup>b</sup>University of Technology Malaysia, Johor Bahru, MALAYSIA, Faculty of Social Science and Humanities Department of  
SCIENCE, Mathematics & Creative Multimed

<sup>c</sup>University of Technology Malaysia, Johor Bahru, MALAYSIA, Faculty of Social Science and Humanities Department of  
SCIENCE, Mathematics & Creative Multimed

---

## Abstract

All strata of lecturers, teachers, subjects, and lessons need good presentation when teaching students from all angles. The beautiful presentation would not be possible without the skill of set induction of Microteaching. Set induction is the skill of microteaching used at the beginning of the lesson to introduce the topic and capture the mind and interest of the learner to the lesson. The application of Set induction skills in classroom lessons is a game-changer, improving teachers' knowledge of teaching methods and abilities, while encouraging students to, independently understand the lessons. The objectives of this research are to explore the application of the set induction and its role in the learning process by teacher trainees during microteaching practicum. The research took 6 months to collect data, with 691 teacher trainees as respondents. The pre-test and post-test were conducted. Chalk-talk method of teaching and YouTube video technology as modern methods of teaching were used. The objective was tested using SPSS, and the null hypothesis was rejected. The results of the study showed that the skill of set induction plays a significant role in capturing students' minds in lesson presentations. Recommendation, the research recommends all teachers and lecturers should apply set induction in their lessons, and orientation should be made on the usage of YouTube in Microteaching.

**Keywords:** Teacher trainees, Set induction, Micro teaching, Skills, YouTube, Technology

© 2016 IJCI & the Authors. Published by *International Journal of Curriculum and Instruction (IJCI)*. This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (CC BY-NC-ND) (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

---

---

\* harunshika@gmail.com

## 1. Introduction

### 1.1. Introduce the problem

You cannot be a successful teacher if you cannot get your students' attention, mind-set, and readiness. Set and induction are two words that are combined to form set induction. "Set" refers to something that is prearranged, ready, or planned, whereas "induction" refers to the procedure for introducing a new task (Abubakar, 2023). Any activity that a teacher does at the beginning of the lesson with their class that inspires them is called; a "set induction". (Saidu, 2019) In educational settings, set induction is frequently used at the start of a lecture to get students' attention, boost motivation, and help them grasp what they have already learnt. It also gives a summary of the material that will be covered later, or establishes expectations for the audience.

Fatinah et al. (2022) suggested that, a key component of classroom learning is set induction, which makes the shift from familiar to unfamiliar material easier. By helping students visualize the material and get ready for the class objectives, it fosters their interest. Set induction addresses learners' concerns, summarises the topic, and connects previous understanding to the new. Its purpose is to make teaching easier.

Narayanan et al. (2019) believed that, set induction is the technique of grabbing students' attention and providing an outline of the presentation topics at the commencement of a class by presenting an intriguing fact, provocative phrase, or audio-visual stimuli.

The first teaching action a teacher takes to create a framework for understanding the relationship between the student's experienced field and the intended behavioural goals of the procedure for learning is called, set induction.

Ikrimina (2020) explained set induction as, an activity that is coming at the beginning of the class. These include; asking students to stand up, greeting them, having them do exercises, checking attendance, raising their voices at the beginning and also, doing something related to the lesson, that can capture the minds and attention of the learners, at the beginning of the lesson.

Habibi (2016) mentioned the procedures and steps of conveying knowledge in the teaching process. He said, teaching in class has processes and steps, and the entire class has objectives to achieve. The steps should, in general, have a beginning (where set induction occurs), a middle (where closure manifests itself), and an end (at the end of the lesson).

A good lesson should have a good beginning and is expected to have a good ending. Set induction does this job by making sure that, students or learners go home with something meaningful at the end of the class work (Shika, 2015). Set induction is a deliberately planned action by the teacher, to attract the attention and interests of

students to get them set or ready for the lesson, and it is applied at the beginning of the lesson to arouse, stimulate, and motivate learners.

The latest innovations in science and technology led to stress on the usage of technology, to make education better and more interesting. The attachment of the Internet, technological media, and computers into the educational system has made learning more different, lively, and enthusiastic. The above statement is what was expressed by (Albahiri & Alhaj, 2020).

YouTube in worldwide is increasingly applied in teaching and learning processes. According to Kabooha and Elyas (2018), the technology of YouTube video becomes an avenue for improving learners' competency, through the explanation of visual cues, specifically for conversation.

The main reason for conducting this research is to examine the opinion of teacher-trainees on the role of set induction skills in YouTube video technology, and to assess the influence of set induction skills on their academic performance. Moreover, most of the teachers in colleges and universities lack the skill of set induction. The lecturers in colleges of education start their lessons without a good presentation at the beginning of the lesson. Abubakar (2022) stated that to have good lessons the skill of set induction must be employed. This research sets the following research question and research hypothesis.

**Research Question:** Is there any significant difference in the academic performance of teacher trainees who have benefited from watching the Set Induction skill of Microteaching on the YouTube video technology platform?

**Research Hypothesis:** There is no significant difference in the academic performance of teacher trainees, who have benefited from watching the set induction skill of Microteaching on the YouTube video technology platform

## **2. Literature Review**

An introduction to the teaching and learning process is paramount, and is a carefully thought-out approach, intended for stimulating students' enthusiasm and, "catching or captivating the student's concentration and attention". Set induction is the foundation of the entire learning process that an instructor must pass through. The process of meeting learning objectives will not be accomplished, if a teacher cannot grab students' interest and attention at the opening of a lesson. Abubakar and Hasnah (2021) posited that, the classroom teacher's pre-planned action to stimulate his or her students' interest is called, "set introduction." Set induction fosters curiosity and motivation in a classroom.

According to Ughamadu (2019), introduction is important for classroom learning, because it allows dialogue to flow smoothly, from the familiar to the unfamiliar. Turney (2017)

revealed eight skills in teaching that play important roles and determine the quality of learning. Teaching competence is essential for becoming a professional teacher. The ability to open (set induction) and close (closure) lessons is one of the fundamental teaching skills that every teacher must master.

Rohmah (2021) explained set induction as a pre-planned action by the classroom teacher to arouse the interests of his or her students, at the beginning of the lesson. In other words, all the activities that the teacher performs to get the learners ready for the new topic may be referred to as, "set induction." Introduction is very important to classroom instruction because it provides a smooth transition from the known to the unknown.

Set induction is the start of learning activities, such as checking students' attendance or introducing the subjects that will be covered at that time. Set induction entails more than either verifying attendance or getting ready for a specific topic. Rather, opening lectures should involve creative and inventive exercises that boost learners' interest, so that they will attend classes and, ultimately, instructional materials can be properly provided.

Ikrimina (2020) explained set induction as an activity that is coming at the beginning of the class. These include; asking students to stand up, greeting them, having them do exercises, checking attendance, raising their voices at the beginning, and doing something related to the lesson that can capture the minds and attention of the learners at the beginning of the lesson.

Habibi (2016) mentioned the procedures and steps of conveying knowledge in the teaching process. He said, teaching in class has processes and steps, and the entire class has objectives to achieve. The steps should, in general, have a beginning (where set induction occurs), a middle (where closure manifests itself), and an end (at the end of the lesson).

By the above explanation, a teacher's skill in managing resources and media, for introducing a topic in an interesting, logical, and meaningful manner, is referred to as, "set induction".

Set induction introduces a new topic in a way that will stimulate students' interest in what comes next, while also establishing what they already know. Set induction also refers to a teacher's capacity to begin a lesson by mentally preparing and drawing students' attention, before beginning the lecture and linking the introduction to the topic that will be discussed.

Additionally, it indicates that pupils are highly motivated to keep up their academic progress and do so with a positive attitude. They are also highly focused until the needed skill is attained.

However, Abubakar (2023) said, you may see set induction as a deliberately planned action by the teacher, to attract students' attention, get them ready, and interested,

motivate them ahead, make them eager, and induce them to attend to the lesson. It is the introductory or beginning step of a lesson. It is a teacher's device to open the room of knowledge. Haruna (2023) mentioned the following as examples of set induction:

**Examples:**

1. On your marks, get set, go!
2. By doing something unusual.
3. Ask the class to stand up at the beginning of the lesson.
4. By writing test at the beginning of the class.
5. Ask a provocative question.
6. Give the students a parable, or story, that has a linkage with the lesson.
7. The teacher can say to the class; let us pray.
8. Good morning or good afternoon!
9. Asking funny questions.
10. Telling funny stories.
11. Showing real objects that have a linkage with the topic to be discussed.
12. A teacher can say; every Muslim student should go out, or, stand up.

*2.1. Reason for Set Induction*

Abubakar and Hasnah (2022) mentioned the following as reasons for applying set induction in the classroom as a means of making the class lively:

1. It prepares someone or individuals to tackle tasks mentally, as well as, manipulate them.
2. It promotes speed, accuracy, and efficiency, by eliminating other responses that are not relevant to the task.
3. Set induction facilitates recalling.
4. It prepares the individual actions.
5. It creates a frame of reference, before or during the lesson. It gives meaning to new concepts or principles and stimulates and involves students in activities.
6. It directs students.

## *2.2. Technological Considerations for Using YouTube Video Technology for Set Induction Skill:*

To explain why people accept new technology, several theories and frameworks have been developed and constructed (Taherdoost, 2018). Cruz-Jesus et al. (2019) claimed that variables that may be considered, while utilising technology include those that have been employed in the past or those that are easily accessible and known to offer benefits but have not yet been utilized by an organization.

The features of technology that exist are compatibility, advantage, observability, complexity, simplicity, and trialability (Tripopsakul, 2018). The comfort as mentioned by Tripopsakul (2018), is the same as the opinion of (Palladan, 2023) who stated that, perceived compatibility refers to the belief that innovation is more likely to succeed than current options in a small and medium-sized enterprises business procedures, clientele, and suppliers. The people who accept anything new are used to following some processes before being accepted in all aspects.

Technology is one of the most significant subjects in all subjects on how to make people accept innovation. Over the years, numerous theories and models have been proposed to explain individuals' usage behaviour towards technologies.

The social media that this research employed is the YouTube video technology. The YouTube video technology can be used to control the overcrowding of students and can be used to boost students' academic performances (Omolere 2021). The use of YouTube technology media in colleges is increasing rapidly, because of free internet, and escalation of social media; the minds of the students are always on social media. Since this is the current issue among students in tertiary institutions, the remedy is lecturers can apply YouTube video technology in various subjects to substance students' interest and boost their academic performance, and achieve the stated educational objectives (Abubakar, 2020).

## *2.3. Cognitive Theory of Multimedia Learning (CTML)*

Scholars are examining the aspects that influence the acceptance or rejection of innovations, since it is important to understand these variables for the advancement and future expansion of organisations. Taherdoos (2018) explains that, many theories and models were designed to elaborate on the individual adoption of new technologies.

This research selects the theory of Mayer as the defended theory for the study. The mixture of texts and images is what multimedia scholars typically refer to as, "multimedia", and they contend that, learning through multimedia happens when we

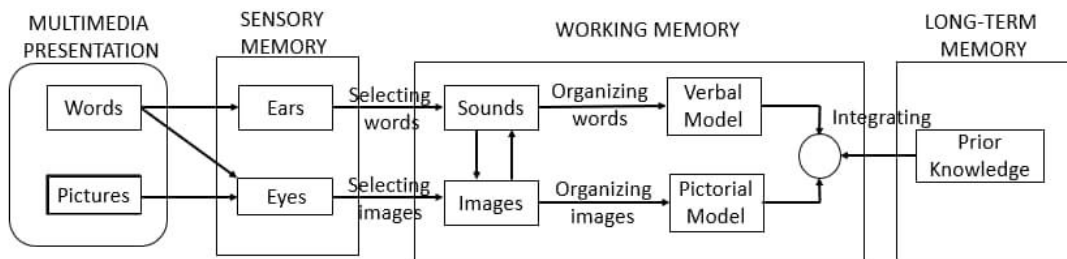
create mental structures out of these words and images. The main reason for including this theory in our research is that it deals with the image in YouTube.

Kabooha and Elyas (2018), testify in their research that, theory of Mayer is good for any research that deals with video. The theory of Mayer, put forth by contends that, engaging in multimedia training improves one's brain's functionality. The idea contends that composed visuals and words must be applied, for learning to take place effectively.

The major step of knowing why multimedia educational learning is so strong in understanding of the students in teaching learning system is, understanding how the human brain processes information. Mayer explains how multimedia learning works, and how we can most effectively use it. Mayer developed the Cognitive Theory of Multimedia Learning, which he published in 1973. Not all uses of multimedia learning are equally effective for the learners.

Mayer explains that, the brain takes in information and processes it in multiple channels, based on how that information is presented. When a learner is presented with visual information, including pictures, videos, charts, or printed words, all that information goes into the visual channel and is processed there.

Mayer continues by saying, the brain processes auditory information independently from visual information, including spoken phrases in a narrative, as well as other non-verbal sounds



The integrated words-based image is making linkages between word-based and image-based representations. Coordination between verbal and visual working memory is required for this process to take place. The graphical and verbal models that the learner has created thus far serve as the information for this phase, and the result is an integrated model that is built by joining the two representations: structure of the spoken and visual communication.

### 3. Methodology

The research is a mixed method. The research was limited to NCE students at the Federal Colleges of Education in the Northwest Zone of Nigeria. The population of the research is 691 respondents. The pre-test and post-tests were conducted, and later, the

teacher-trainees were given the test questions base on what they learned during and then followed up with a questionnaire. The SPSS statistical tool has applied on testing the hypothesis and answering the research question.

### 4. Results and Discussions

Table 4.6: Opinions of the Respondents on the Set Induction Skill

S/n		SD		SLD		D		SLA		A		SA		Mean	STD
		F.	%	F.	%	F.	%	F.	%	F.	%	F.	%		
1.	The skill of set induction in the YouTube video is very interesting and sustains my attention to the presentation	113	16.4	52	7.5	76	11.0	97	14.0	215	31.1	138	20.0	3.96	1.73
2.	I am happiest whenever I'm learning a brand-new skill from a YouTube video	71	10.3	73	10.6	77	11.1	87	12.6	226	32.7	157	22.7	4.15	1.64
3.	I am keeping an eye on what the instructor does on YouTube video	63	9.1	62	9.0	93	13.5	101	14.6	240	34.7	132	19.1	4.14	1.55
4.	The modern technology of YouTube videos helped students-teacher learn the skill of set induction more than the traditional way of teaching	75	10.9	66	9.6	106	15.3	108	15.6	200	28.9	136	19.7	4.01	1.61
5	Whenever I concentrate, I normally pay attention to the text or images displayed in front of me	70	10.1	61	8.8	56	8.1	104	15.1	246	35.6	154	22.3	4.24	1.59
6	I particularly enjoy viewing movies, taking pictures, reading artwork, and observing people on video	72	10.4	72	10.4	64	9.3	117	16.9	228	33.0	138	20.0	4.12	1.60
7	Teacher-trainees are inspired to be qualified and professional teachers through the extent of their watching of the YouTube video on the process of micro-teaching practicum	79	11.4	61	8.8	105	15.2	114	16.5	195	28.2	137	19.8	4.01	1.62
8	Watching set-induction skills on YouTube videos microteaching subject	75	10.9	71	10.3	77	11.1	95	13.7	205	29.7	168	24.3	4.14	1.66
9	YouTube videos help teacher-trainees master the skill of set induction more than conventional methods of teaching	73	10.6	67	9.7	109	15.8	129	18.7	187	27.1	126	18.2	3.97	1.58



10	I would rather watch a YouTube video demonstrating the skill than listen to a class lecture	109	15.8	78	11.3	135	19.5	118	17.1	147	21.3	104	15.1	3.62	1.66
11	I have never watched a YouTube video before and I find it very useful to teacher-trainees	94	13.6	83	12.0	112	16.2	95	13.7	196	28.4	111	16.1	3.79	1.66
12	On YouTube, I quickly learned the skill of microteaching	59	8.5	65	9.4	107	15.5	116	16.8	195	28.2	149	21.6	4.11	1.56
13	YouTube video technology allow for flexible interaction	67	9.7	73	10.6	87	12.6	135	19.5	194	28.1	135	19.5	4.04	1.58

In the table above, as indicated by the frequencies and percentages, also with the mean and standard deviation, the set-induction skill practices adopted by the YouTube video in Microteaching skills is multidimensional. In the first item of the table for example, 113 (16.4%) and 52 (7.5%) of the respondents strongly disagreed and slightly disagreed respectively, that the set induction skill in the YouTube video is very interesting and sustains my attention to the presentation. But, 76 (11.0%) and 97 (14.0%) of the respondents do not adopt this practice of YouTube video, as they disagreed and slightly agreed with the suggested type of the item, and only 215 (31.1%) and 138 (20.0%) of the total respondents agreed and strongly agreed, with a mean score of 3.96, and standard deviation 1.73 in item 2. Also, 71 (10.3%) and 73 (10.6%) of the respondents strongly disagreed and slightly disagreed respectively that, they use YouTube for specific reasons, while 77 (11.1%) and 87 (12.6%) of the respondents disagreed and slightly agreed in the table. However, 226 (32.7%) and 157 (22.7) agreed and strongly agreed with the mean score of 4.15 and standard deviation of 1.64, which would imply that, this was another skill that influenced YouTube video as adopted by the set induction skill.

From the expressed opinions of the respondents in item 4 of the table, among the underlined factors for such skills practices is aimed at meeting some unforeseen exigencies. For example, 75 (10.9%) and 66 (9.6%) of the respondents strongly disagreed and slightly disagreed respectively, that they expect students to learn the set induction skill, which could be more than the traditional way of teaching, especially in times of emergencies. Only 106 (15.3%) and 108 (15.6%) of the respondents disagreed and slightly agreed, with also response of agreed and strongly agreed with frequency and percentage of 200 (28.9%), 136 (19.7%) and also with mean score of 4.01 and standard deviation 1.61.

Among such set-induction skills in the item 5, the purposes as indicated by 70 (10.1%) and 61 (8.8%) of the respondents who strongly agreed and slightly disagreed respectively, likewise, that they pay attention for the text or images display in font for the purposes. Only 56 (8.1%) and 104 (15.1%) of the respondents disagreed and slightly agreed with

this suggestion of the item, and 246 (35.6%) and 154 (22.3%) agreed and strongly agreed with the mean score of 4.24 and standard deviation of 1.59, suggested that the notion was generally one of the purposes for the set induction skills practices adopted by the academic performance of student-teacher trainees on YouTube video.

In the item 6, 72 (10.4%) and 72 (10.4%) of the respondents were of the opinion that, set induction skill influences the academic performance of the student-teacher trainees. But, 64 (9.3%) and 117 (16.9%) of the respondents only, had a divergent opinion on this suggestion, as they disagreed and slightly agreed respectively, with 228 (33.0%), and 138 (20.0%) agreed and strongly agreed, with mean score of 4.12 and standard deviation 1.60, obtained for the item suggested on observing people on video on YouTube. The respondents however, agreed that teacher-trainees are inspired to be qualified and professional teachers that influence YouTube video. This is indicated by 79 (11.4%) and 61 (8.8%) of the respondents who strongly disagreed and slightly disagreed respectively, with the suggestion in the table.

Respondents who disagreed and slightly agreed with the suggestion were 105 (15.2%) and 114 (16.5%), respectively, while 195 (28.2%) and 137 (19.8%) agreed and strongly agreed, with mean score for the item as 4.01 and standard deviation of 1.62. In item eight, only 75 (10.9%) and 71 (10.3%) strongly disagreed and slightly disagreed for watching set induction skills. However, 77 (11.1%) and 95 (13.7%) of the respondents disagreed and slightly agreed, and 205 (29.7%) and 168 (24.3%) agreed and strongly agreed that their tendencies to increase set induction with interest in the Microteaching subject, with average mean score 4.14 with standard deviation of 1.66. Only 73 (10.6%) and 67 (9.7%) of the respondents strongly disagreed and slightly disagreed with this general opinion as indicated. Also, 109 (15.8%) and 129 (18.7%) disagreed and slightly agreed, and 187 (27.1%) and 126 (18.2%) by the mean score of 3.97 and with standard deviation 1.58 for item (10) in the table.

The respondents were, therefore, of the view that, YouTube video helps more in demonstrating the skill than listening to a class lecture in the academic performance of teacher-trainees. This is indicated with a mean score of 3.62 and with standard deviation 1.66 for item 11 in the table. The respondents, 94 or 13.6% and 83 or 12.0%, who strongly disagreed and slightly disagreed, disagree and slightly agree, respectively were of the opinion that, set induction skill. Also, 112 (16.2%) and 95 (13.7%), have never watched YouTube video before, while only 196 (28.4%) and 111 (16.1%) agreed and strongly agreed in the item, with an average mean score of 3.79 and standard deviation of 1.66. However, 59 (8.5%) and 65 (9.4%) of the respondents strongly disagreed and slightly disagreed with this opinion, while some disagreed and slightly agreed with a total number of 107 (15.5%) and 116 (16.8%), 195 (28.2%) and 149 (21.6%) agreed and strongly agreed, respectively.

However, with mean score of 4.11 and standard deviation of 1.56 suggested that, it is generally accepted that YouTube video technology allows for flexible interaction in set induction skill practices in the academic performance of student-teacher trainees, with frequency and percentage of 67 (9.7%), 73 (10.6%), 87 (12.6%) and 135 (19.5%) strongly disagreed, slightly disagreed, disagreed and slightly agreed also in table 194 (28.1%), 135 (19.5%) agreed and strongly agreed respectively, with standard deviation of 1.58, with a mean score of 4.04.

Similarly, this result is also in backing of other researchers, like Roza (2021), whose findings agreed to use Zoom and YouTube in teaching Microteaching skills, although his research was conducted as a result of COVID 19, it can be applicable to the traditional method. It is also supported by the research of Ambarini et al. (2023), the study called, “Tadaluring Microteaching Learning Paradigm”. According to Arifmiboy (2019), microteaching integration with modern technology, help aspiring teachers (teacher-trainees) grasp a variety of fundamental teaching techniques. The Tadaluring Microteaching Learning Paradigm employs three integrated training methods, including classroom (traditional method), practice, online practice, and offline practice. They practice both online Microteaching (YTVT), and chalk talks certainly will produce a better understanding of the skills of MCTS. Kusmawan (2017) and Lin (2016), conducted research, and the findings of the research revealed that, the use of Micro-teaching videos have improved attitudes towards peer evaluation and perceived value of learning through peer evaluation in online learning. Arifmiboy (2019), concluded by saying, to support successful learning and teaching of MCTS, YouTube combines synchronous learning models like Zoom with asynchronous learning techniques like YouTube, to help students understand the skill of MCT.

#### 4.1 Hypothesis:

There is no significant difference in the academic performance of teacher-trainees who are exposed to watching the set induction skill of Microteaching on the YouTube video technology platform.

**Table 4.1.1**

	N	Mean	Std. Dev.	Std. Error	T	DF	P	Remarks
Who are exposed	691	4.11	1.057	0.040	8.292	690	0.000	Significant
Who are not exposed	691	3.88	1.097	0.042				

The observation from the table is that, the performances of teacher-trainees who were exposed and who were not exposed have significant influence on their YouTube video satisfaction. This is indicated with a paired samples test (t.) of 8.292 obtained at the 690 degrees of freedom (DF). The observed level of significance (P-value) for the test is 0.000 ( $P < 0.05$ ). These are clear indications of a high influence between the two variables. These observations provide sufficient evidence for the rejection of the null hypothesis. The null hypothesis that YouTube video practices have no significant influence on the teacher trainees is therefore, rejected.

Table 4.2: Mean scores of who are exposed and who are not exposed to YouTube between teachers and who use YouTube and who do not use YouTube video type on their set induction.

<b>Set induction skill via YTVT</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Std. Error</b>
Who exposed	691	4.11	1.057	0.040
Who not exposed	691	3.88	1.097	0.042
Total	691			

Observe Descriptive Statistics for each condition such as, the sample size (N) mean, and standard deviation. The paired samples Test table indicates whether the difference between the mean scores is statically significant. The results can be found in the last column labeled sig (2-tailed), the significance level that is used to determine whether or not results are significant is p.05, unless otherwise stated if the significance level is less than .05, the difference is significant, whereas if the significance level is greater than .05, the difference is not significant.

The above table shows that the academic performances of teacher-trainees who were exposed to YouTube videos have the highest influence on the Microteaching skills of set induction and academic performance in the trainees. In the table, the teachers who were exposed to YouTube videos have a mean score of 4.11 with a standard deviation of 1.057 and were followed by those who were not exposed where the mean score was 3.879 with a standard deviation of 1.097. The mean scores of the different types of the two factors who use, and who do not use YouTube videos to learn skills were computed and compared as indicated in Table.

Those who use YouTube videos to learn skill of set induction have a mean score of 4.15 with a standard deviation of 0.996. Those who did not use YouTube video have a mean score of 4.13, with a standard deviation of 1.039 and have the least influence on the

academic performance of teacher-trainees. YouTube type has a major influence on the academic performance of the teacher-trainees.

Consequently, the set induction has a favourable impact on pupils' academic achievement. This research contradicts the AbudulLah findings that suggested that the main issue with using YouTube in the classroom is that it is difficult to separate a single clip from each other, since that is how the site is designed. Despite having little control regarding the "related videos" area, a teacher may locate a helpful video on YouTube. Nevertheless, this not true, because the site was created by the name MCTS and all students will be guided on how it should to be utilized.

Nevertheless, this finding supported the research of Sadaf et al. (2016) whose research is on using Web 2.0 for teacher-trainees, the conclusion of their results revealed that, the results demonstrated significant variation in the perceptions of teacher, self-efficacy and online pedagogical subject understanding among prospective instructors following the use of online Web 2.0 technologies. The study also found a moderately advantageous causal connection between teacher-trainees' awareness of web-based educational content and their degree of self-efficacy. They claimed that, using these technologies was simple, that learning was enjoyable, quick, and effective, and that students actively participated in class. They continued by saying how excited they were to use Web 2.0 tools in their future classrooms. However, when looking at the other theory of this research, which is the theory of constructivism; according to constructivism theory, knowledge is generated by the person, and the generation and adaptation of knowledge represent the belief that students' interactions are essential to learning, and knowledge develops through the process in terms of both composition and coherence.

## **5. Conclusion and Recommendation**

This research investigates the usage of YouTube video technology to teach one of the biggest microteaching skills - set induction - to the teacher-trainees of Colleges of Education in the Northwest zone of Nigeria. The result of the research revealed that, using YouTube video technology to teach teacher-trainees has a significant impact on their academic performance. However, the findings show that the technology of the YouTube video can be applied to teaching Microteaching subjects effectively. The adoption of technology can benefit the teachers and teacher-trainees of the Colleges of Education in Northwest zone of Nigeria. Likewise, this research testified that teacher-trainees of Federal Colleges of Education require the use of technology in the teaching and learning cycle.

The research recommended that, lecturers in colleges and universities should cultivate the habit of applying set induction in their various classes. The orientation should be

made for teacher-trainees that lessons must always begin with the set induction that has link with the subjects. However, the technology of YouTube videos should be adept in teaching microteaching.

## 6. Funding

There was no funding for this research.

## 7. Conflicts

The researchers declared no conflicts of interest.

## 8. Acknowledgement

This research acknowledges the assistance of the Managements of the Federal Colleges of Education in Bichi, Kano, and Zaria and Heads of the Department from the colleges, for giving me the opportunity to take data from their colleges and the students I used in the process of data collection.

## Reference

- Albahiri, M. H., & Alhaj, A. A. M. (2020). Role of the visual element in spoken English discourse: implications for YouTube technology in EFL classrooms. *The Electronic Library*, 38(3), 531-544.
- Ambarini, R., Faridi, A., Sukarno, S., & Yuliasri, I. (2023). Tadaluring Microteaching Learning Model: A Practical and Applicable Key to Improve Teacher Students' Qualified Teaching Achievements. *International Journal of Research in Education and Science*, 9(2), 546-570.
- Clark, R. C., & Mayer, R. E. (2016). *E-learning and the science of instruction: Proven guidelines for consumers and designers of multimedia learning*. John Wiley & Sons.
- Cruz-Jesus, F., Pinheiro, A. and Oliveira, T. (2019) 'Understanding CRM adoption stages: empirical analysis building on the TOE framework', *Computers in Industry*, Vol. 109, pp.1–13.
- Eliyas, L. (2018). *Teachers' perceptions about classroom management preparedness* (Doctoral dissertation, Walden University).
- Fatinah, D. O., Setyono, B., & Sukmaantara, I. P (2022). The Development of My Set Induction Skill during My Teaching Practicum Program: A Video-Mediated Self-reflection

- Garba, L. S. (2018). *Impact of micro-teaching Skills on Nigerian Colleges of Education students Teaching Practice Performance in North-West Geo-Political Zone, Nigeria. Ahmadu Bello University Zaria, Kaduna State.* (Doctoral dissertation, Ahmadu Bello University).
- Gultom, S., Hutauruk, A. F., & Ginting, A. M. (2020). Teaching skills of teacher in increasing students-learning interests. *Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences*, 3(3), 1564-1569.
- Habibi, A. (2016). An Analysis of the English Teaching and Learning Process in Accordance with the 2013 Curriculum. *Journal of English Literacy Education (JELE)*, 3(1).
- Ikramina, A F. (2020). Teachers 'Set induction and Closure in EFL Young Learners Classroom. *EEAL Journal (English Education and Applied Linguistics Journal)*, 3(3), 226-231.
- Kabooha, R., & Elyas, T. (2018). The effects of YouTube in multimedia instruction for vocabulary learning: Perceptions of EFL students and teachers. *English language teaching*, 11(2), 72-81.
- Kusmawan, U. (2017). Online microteaching: A multifaceted Approach to Teacher professional development. *Journal of Interactive Online Learning*, 15(1).
- Narayanan, S., Shankar, N., & Ananth, V. (2019). Medical student's perception of different types of set induction in anatomy lectures. *Anatomy & Cell Biology*, 52(3), 296-301.
- N. S., Cheng, I. L., & Chew, S. W. (2016). Evolution is not enough: Revolutionizing current learning environments to smart learning environments. *International Journal of Artificial Intelligence in Education*, 26(2), 561-581.
- Omolere, O. J. (2020). An Exploration of Micro-Teaching skills with digital technology (cell phone) in B. ED Programmes at a Western Cape University
- Rashid, T., & Asghar, H. M. (2016). Technology use, self-directed learning, student engagement and academic performance: Examining the interrelations. *Computers in Human Behaviour*, 63, 604-612.
- Richta, R. (2018). *Civilization at the Crossroads: Social and Human Implications of the Scientific and Technological Revolution (International Arts and Sciences Press): Social and Human Implications of the Scientific and Technological Revolution.* Routledge.
- Rohmah, I. I. T. (2021). Microteaching: Preparation and Performance.
- Saidu Shuaibu (2021) Rudiments of Teaching: ABU Press Zaria. First Edition: ISBN:1187161779015

- Shika Harun Abubakar Saidu Shuaibu (2020) *Instructional Methodology and Modern Method of Teaching*: Kaduna Press Nigeria. Second Edition: ISBN:1187161779015
- Nielsen, W., Turney, A., Georgiou, H., & Jones, P. (2020). Working with multiple representations: Preservice teachers' decision-making to produce a digital explanation. *Learning: Research and Practice*, 6(1), 51-69.
- Narayanan, S., Shankar, N., & Ananth, V. (2019). Medical students' perception of different types of set induction in Anatomy lectures
- Taherdoost, H. (2018). A review of technology acceptance and adoption models and theories. *Procedia Manufacturing*, 22, 960-967. <https://doi.org/10.1016/j.promfg.2018.03.137>.
- Tripopsakul, S. (2018) 'Social media adoption as a business platform: an integrated TAM-TOE framework', *Polish Journal of Management Studies*, p.18.