



# ATTITUDE OF SECONDARY SCHOOL TEACHERS TOWARDS ONLINE TEACHING AND LEARNING

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**Abstract:** Online learning has been referred to as a form of distance education and as web-based learning, e-learning, and digital learning. It is offered over the Internet and uses web-based materials and activities. Effective online teachers need to be open to learning and becoming active participants in dynamic online learning environments. In online teaching, the desired product for some teachers could be an innovative, creative learning activity that students will be motivated to participate in and rate as transformative. Although teaching has changed with the advent of online education, a good teacher still makes a difference to learners and to the learning process itself. Students need to be technologically savvy to use technology tools that may be required. Students of the digital age appear to be independent, more technology disciplined, and technology savvy, well suited for online environment. Online learning at your own pace is beneficial for a high-quality college degree. Online education provides great opportunities and great challenges. It has benefits for the students and instructors. It offers the convenience of time and space, cost-effectiveness, and flexibility. Online learning allows student to pursue an internationally recognized degree without the need to attend classes on campus. This present study makes a sincere effort to find out the attitude of Secondary School Teachers towards online teaching and learning.

**Index Terms - Attitude, Secondary School Teachers, Online Teaching and Learning.**

## I. INTRODUCTION

According to Aristotle "Education is the process of training to fulfill the aim by exercising all the faculties to the fullest extent as a member of society". According to M.J Langeneld "Education is every interaction that happens in every association that occurs between adults with children in a field or state where the education work in progress". According to Socrates" Education means the bringing out of ideas of universal validity which are talent in the mind of every man". According to H.H HORNE" In the broadest sense, education the device by which a social group continued to renew self, and defend his ideals".

Formal education is a structured and systematic form of learning. This education of a certain standard delivered to students by trained teachers like schools, colleges, universities, etc. Formal education, also known as formal training, is the process of integral education correlated stretching from primary education to secondary education and higher education, and that entails a systematic and deliberate intention that concretizes itself in an official curriculum, applied with defined calendar and timetable. It is therefore a type of education regulated (by different internal regulations within the educational project of each College), intentional (because they have the primary intention to educate and give knowledge to students), and planned (because before each course, the college regulates and plans all the educational action which will be transmitted in the same).

Informal education is a general term for education that can occur outside of a structured curriculum. Informal education encompasses student interests within a curriculum in a regular classroom, but also not limited to that setting. It works through conversation and exploration and enlargement of experience. Informal education is a general term for education that can occur outside of a structured curriculum. Informal education encompasses student interests within a curriculum in a regular classroom, but is not limited to that setting. It works through conversation, and the exploration and enlargement of experience. Sometimes there is a clear objective link to some broader plan, but not always. The goal is to provide learners with the tools they need to eventually reach more complex material. It can refer to various forms of alternative education, such as unschooling or homeschooling, auto didacticism (self-teaching), and youth work. Informal education consists of accidental and purposeful ways of collaborating on new information. It can be discussion-based and focuses on bridging the gaps between traditional classroom settings and life outside of the classroom.

Online teaching offers existing opportunities to expand learning environment for diverse student population. Online teaching shares much with face to face teaching, but it has a unique set of skills and requirement. For successful online teaching and learning teachers should encourage student participation, encourage student cooperation, encourage action learning, encourage social interaction and also encourage student reflection. The process of learning is complex and it involves the auditory and tactile sense. Online learning has been referred as a form of distance education and a web-based learning, e-learning and digital learning. It is offered on the internet and use web-based material and activities. Student need to be technologically savvy to use technology tools that may be required. Students of the digital age appear to be independent, more technology discipline well suited for online environment. Whether offered on campus or delivered online, each course offering must meet the same rigorous criteria and strict academic standards. The only different in the way the course is delivered. Generally, students are to have access to computer system with high speed Internet connection.

The method of teaching is different from online classes. For class preparation, teachers need to experiment with graphical presentation, use virtual white board, and take live online classes, record screens and videos by using different tools. The differences between online and classroom instruction go beyond medium alone. How instructors deliver information, interact with students, and assess learning is much different in a virtual learning environment. Online education demands more independence, so students must be able to learn at least some of the material when professors are unavailable. Because online degree programs attract a larger share of out-of-region and non-traditional students, including working students, parents, and military personnel, professors must also learn to engage a more diverse.

Online examination system is a computer based test system that can be used fewer resources and reduces the need for question papers and answer scripts, exam room scheduling, arranging invigilator, coordinating with examiners and more. All the processes involved in a paper based examination are digitized through online examination systems. Right from student learning self assessment during campus placements can be done online.

Online Examination System is a simplify way for examination activities like defining exam patterns with question banks, defining exam timer, objective/subjective question sections, conducting exams using the computer or mobile device in a paperless manner. The purpose of the online examination system is to test the subject knowledge of the students. Such system eliminates logistical hassles and drawbacks in the traditional mode of the pen-and-paper examination. Students do not have to assemble in the classroom to give the exam. They can do it within a given time frame from their own device.

Meghalaya Board of School Education (MBOSE) first started in 1973, Headquarters at Tura to conduct examination, frame syllabus, evaluation and certification of SSLC and HSSLC. The Board is handling all the academic matters related with framing of syllabus for the SSLC and HSSLC. The vision of MBOSE is committed to quality education for the holistic development of all students, culminating in attaining excellence in their lives.

Online classes were not feasible in the state as most of the students, especially in the rural areas did not have access to smart phones and also internet connection in the remote areas was weak. Regular online classes being conducted by the teacher with the help of different digital equipments will definitely help the student communicating enormously not only completing the regular syllabus but also other creative activities tasks that may enhance human values as a whole. The shift of attitude of learning process from classroom based teacher- students relationship to technology based bond will surely be fruitful in the long run. Meghalaya as a state, even in normal situations has not reached the required percentage of Smart Class teaching and learning process. In abnormal situations due to national lockdown most teachers and students

were relying on smart phones as gadgets to cover the syllabus of the current academic session. Meghalaya cannot suddenly comply with online classes overnight as the majority of the students do not have access to smart phones.

## 2. SIGNIFICANCE OF THE STUDY

Education has changed dramatically with the distinctive rise of e-learning, whereby teaching is undertaken remotely and on digital platforms. With the sudden shift away from classroom in many parts of the globe, some are wondering whether the adoption of online teaching learning will persist post pandemic. During pandemic online education enables the teachers and the students to set their learning pace. As a result using online educational platforms allows for a better balance of work and studies, so there's no need to give anything up. Online education enables or teaches from anywhere and there's no need to commute from one place to another.

## 3. OBJECTIVES

- a) To find out the attitude of teachers towards online methods of teaching.
- b) To find out the attitude of teachers towards online teaching learning material.
- c) To find out the attitude of teachers towards online teachers' preparation.
- d) To find out the attitude of teachers towards online homework and assignment given to students.
- e) To study on the system of online examination.
- f) To find out the attitude of male and female teachers towards online teaching and learning in Secondary Schools under MBOSE Shillong on the whole.

## 4. HYPOTHESES

- a) There is significant difference in the mean scores of male and female teachers in the attitude towards online methods of teaching.
- b) There is significant difference in the mean scores of male and female teachers' attitude towards online teaching and learning material.
- c) There is no significant difference in the mean scores of male and female teachers' attitude towards online teachers' preparation.
- d) There is no significant difference in the mean scores of male and female teachers' attitude towards online homework and assignments given to student.
- e) There is no significant difference in the mean scores of male and female teachers' attitude towards online examination.
- f) There is significant difference in the mean scores of male and female teachers' attitude towards online teaching and learning in Secondary Schools under MBOSE Shillong on the whole.

## 5. REVIEW OF RELATED LITERATURE

Dhull.I & MS. S (2017), agreed that Online learning provides accessibility due to which a student can learn from anywhere in the world. This is an especially important consideration for students who wish to study in a different country. It doesn't matter where a student lives and what he wants to study- he can always find a suitable course or even a Degree Program that can be followed from home. Students learning options are not constrained by their geographic location.

Matthew.S, Adebo.P, and Musa.S (2018), describe that Online teaching offers exciting opportunities to expand the learning environment for diverse student population. As the demand for online teaching increases, college professors may be asked to consider teaching their classes online. Online teaching shares much with face to face teaching, but it also has unique set of skills and requirements.

Murthy.T and Srishylam.P (2016), describe that the teaching process has been greatly influenced by rapid advances in e-education integration of student's activities that lead to meaningful and sustainable learning experience. It supports students in their own constructive thinking allows them to transcend their cognitive limitations.

Hussein and Dori (2012), main characteristics of online learning are use of technological media, physical separate between teacher and learner and two way communications.

Sadiku, Adebo & Musa (2018), agreed that online teaching and learning is relatively new. Most universities and college agree that online education is critical to their long term strategy.

Crave (2017), described that to be effective, online teaching courses, including their student and resources' should be well integrated whether it is a course that is totally online or one that is blended or

flipped and contain face to face classes and online portion. The course should be clearly aligned with assessments and courses learning outcomes.

Barr.B & Miller.S (2013), described that Students of the digital age appear to be independent, more technology disciplined, and technology savvy, complimenting the online environment well. The online learning environment provides autonomy, yet requires self-directed learning, and self-discipline which may influence the success or failure of online learners. Equally, delivering the best learning system and practices do not assure automatic success of online learners, or the learning experience.

Sun.A & Chen.X (2016), described that online instructors also identified the need to engage their students, which can be accomplished by utilizing emails and online discussion boards, responding promptly to discussion questions, encouraging students to share their backgrounds and work experiences, and conducting meaningful small group projects.

Tao et al. (2006), described that this new environment for learning that is centered on electronic networks has allowed learners in universities to receive individualized support and also to have learning schedules that is more suitable to them as well as separate from other learners.

Britanny.G (2015), agreed that online learning is appealing to a range of learners and is becoming more common place in settings for Elementary Schools to high school and into post secondary education.

Appana.S (2008), described that the online delivery method is that associated anonymity can result in greater participation from all students, including “shy” ones. The lack of visual cues allows the instructor to treat all students in the same manner. Learner identity has emerged as a new strategic learning variable within online learning environments.

Sun.A & Chen.X (2016), described that education can become transformative when teachers and students synthesize information across subjects and experiences, critically weigh significantly different perspectives, and incorporate various inquiries. Educators are able to construct such possibilities by fostering critical learning spaces, in which students are encouraged to increase their capacities of analysis, imagination, critical synthesis, creative expression, self-awareness, and intentionality.

Nguyen.T (2015), described that there have also been increases of demand for online learning from the students from all walks of life. Given the exponential some would say precipitous growth of online education and its potential in higher education, it is imperative that researchers and educators examine education and its potential in higher education.

Palvia et al (2018), said that as information and communication technologies have kept advancing, online education has become more feasible technologically, economically and operational. Incentives for universities to offer online programs include financial constraints and rewards, increase in non-traditional students that are working full time and the advanced state of technology making it easy to implement.

Tyagi.P, Sharma.R & Kumar.K (2020), described that online learning is known with many names and terms like learning through web, online learning, instruction through computer assistance. Online teaching can be defined in a number of ways depending upon the contexts and milieu of its functionality and the way of its operation.

Paris (2004), pointed out that the use of online e-learning by the members of educational communities is increasing. It is suggested that educators identify and address individuals’ attitudes so that anxieties can be kept to a minimum while at the same time allowing learning to progress and can be cultivated in a positive manner.

Blackmon and Major (2012), described that students who have positive experiences are more likely to re-enroll in online courses in the future, so an institution that seeks to increase online enrollment would benefit from such information. Data about student experiences also can provide information to help institutions and faculty design and deliver better courses, which can help improve student learning in these courses.

Parvathy et al (2021), agreed Online teaching is a special kind of methodology and not all teachers are good at it. All teachers are not prepared for this sudden transition from face to face teaching to online teaching. Education is changing fast. It has gone beyond the traditional four walls of the classroom. It is now web based and learners can work at their pace, seek knowledge and change geographic locations without losing ground.

Kerr.S (2011), pointed out that teachers should include the need to provide timely feedback, encourage students’ technology access when planning learning activities, guard against diminishing the value of content knowledge, and use their online course to teach content literacy skill building.

Bongey and Graziano (2016), pointed out that the challenge for online teachers is to focus on educational strategies that effectively make use of this global storehouse of digital content to support students learning. Strategies that are based on a constructivist approach to learning and involve inquiry and project-based activities that help students learn how to solve problems and become critical consumers of internet based resources.

Barr.A.B. & Miller. A.S (2013), described Online learning focuses on a wide range of technological based learning platforms, delivery methods, and the integration of educational technology components into the learning environment. The emergence of modern technology has allowed students at all levels, young and mature, the opportunity to participate in advancing their education in an environment that is diversified, rich in best practices, yet progressive enough to allow students to proceed in a self-paced manner.

Trujillo. A.H (2008), described online learning has also it challenges. One of the most important and direct contrast with traditional education, is having no set times for classes and no assign physical place to go. This means that if the student is not well discipline and can managed time in a reasonable manner, he or she might not be able to cope with the work. Another challenge posed by online learning is the comparability of the materials they'll use, text books, and others, etc.

Graham.A.D (2019), stated that A face-to-face classroom allows the instructor to be committed to just one block of time, provide structure and immediate feedback, teach with direct eye contact, and respond immediately to questions. An online classroom allows the instructor to organize online communication via emails, discussion boards, chats, and web conferencing.

Kumar. D. (2010), pointed out that Online method of education can be a highly effective alternative method of education for the students who are matured, self-disciplined and motivated, well organized and having high degree of time management skills, but it is an inappropriate learning environment for more dependent learners and has difficulty assuming responsibilities required by the online courses.

Britanny, G. (2015,) pointed out that online course construction is as diverse as traditional classroom settings. Developing and teaching an online course that benefits students and yields positive learning outcomes is a complex undertaking. Attempting to recreate the traditional classroom in an online setting may not necessarily be the wisest course of action.

Song.L & Hill.R.J (2007), stated that it can be challenging to evaluate one's learning in an online context not only because instructors have time pressures associated with providing feedback to every student, but also because of learners' uncertainty in evaluating their own learning and peer's knowledge. The online learning context provides learners with benefits associated with flexibility. However, there are also challenges in planning, monitoring, and evaluating learning, many of which learners have not faced with in traditional classroom environments. It is important to continue to explore how the unique characteristics of online learning influence the processes associated with SDL.

Bongey.B.S & Graziano.J.K (2016), pointed out that the challenge for online teachers is to focus on educational strategies that effectively make use of this global storehouse of digital content to support students learning. Strategies that are based on a constructivist approach to learning and involve inquiry and project-based activities that help students learn how to solve problems and become critical consumers of internet based resources.

Lee.J, March.L & Peters.R (2015), described that Faculty generally believed that good teaching skills were transferable between the online and face-to-face environments. Faculties are often concerned about the role and value of discussions in an online educational environment. The value of meaningful student discussions had, at first, little support (57 percent) among instructors. This share dropped to about 50 percent after the training and to 41 percent after teaching online. Faculties not only fear students learn less online, but also that they receive lower grades in the process.

Chandwani.S, Singh.N & Singh.G (2012), on their study pointed out that lack of smart devices with economically weaker students was amongst the top most problem cited by teachers under other problem option. Teachers also shared that in online teaching they are not able to judge the facial expression of students, their attentiveness and interest in the subject. Thus, finding it difficult to accept online classes as an alternate of face-to-face teaching. Environmental noise is also one of the problems faced by teachers. A teacher went to say that "It's more like a monologue, not proper teaching. It can complement classroom teaching, but can never replace the later".

Panda. Ivy (2019), described that teachers have changed their belief systems as many schools adopt information and communication technology in learning and teaching. As a result, teachers have acknowledged that the traditional belief systems cannot help students in a society where ICT has dominated the system. Teachers have noted that changing trends in a global environment and the need

for them to adopt a positive attitude in learning and teaching and use the same to improve quality of education.

Omolara.S & Adebukola.O. (2015), described that the attitude of a teacher, consciously or unconsciously, greatly affects students' academic performance. It has been established that teachers' attitudes highly influence students' interest in learning. Moreover, personality traits of the teachers are more powerful and influential than the course content or instructional strategies used in the classroom. A good classroom strategy requires full interest and support from teachers and learners. If a teacher appears not interested or careful about a particular subject or student, he/she will be unable to foster a supportive learning environment. In addition to that, teachers with negative attitudes may not be as approachable to students as teachers who are positively motivated.

Pancholi.A & Bharwad (2015), described that a positive favourable attitude makes the work not only easier but also more satisfying and professionally rewarding. A negative and unfavourable attitude makes the teaching task harder, tedious and unpleasant. In addition, a teacher's attitude also influences the behavior of her/his students. Thus, effective and productive learning on the part of students can be achieved only by teachers with desirable attitudes. Thus, teacher's attitude towards teaching profession forms the major variable for the present study on secondary school teachers.

## 6. METHODOLOGY

In this present study, the author outlines the research strategy, research design, research methodology, the study area and tool of the data collection.

### a) Research Design

The present study is in a descriptive survey research design which describes the Attitude of Teachers towards online teaching and learning with special reference to the selected schools under Meghalaya Board of School Education (MBOSE) Shillong, Meghalaya.

### b) Population

It is indicated that there are 53 schools in Shillong under Meghalaya Board of School Education. There are 1155 teachers present from 55 schools which is the population of the study.

### c) Sample

The investigator selected 12schools from the list of 55 schools under Meghalaya Board of School Education (MBOSE) Shillong which are the targeted Sample of the study by using simple random technique, wherein 164 teachers from 11 schools are contacted for data collection.

### d) Tools of the Study

In the present study a self-developed attitude scale was used for data collection wherein close-ended question items were included in the development of statements. The Surveys included gathering input from large numbers of teachers through attitude scales. Further, the construction and development of the question items are already carried out with item analysis; and reliability and validity of the tool was established with the help of the Guttman's Split-half Coefficient Reliability Method where it was found out the reliability value as seen was .85 which indicates that the tool for the data collection is highly reliable.

## 7. ANALYSIS, RESULTS AND INTERPRETATION

**Hypothesis: 1-There is significant difference in the mean scores of male and female teachers in the attitude towards online methods of teaching**

**Table 1: Mean difference in the attitude of male and female teachers towards online methods of teaching**

Teachers	N	Mean	S.D	SEM	df	't' value	Level of significance
Female	94	26.38	5.44	0.5611	124	0.55	NS
Male	32	26.97	4.51	0.7973			

d.f= 124, .01=2.63 .05=1.98 P value=0.5820, NS= Not Significant

For the mean difference in the attitude of male and female teachers towards online methods of teaching the 't' value in table 1=0.55, indicates that the attitude of male and female teachers towards online methods of teaching do not differ significantly. Hence, Hypothesis (1) which states that there is significant difference in the mean scores of male and female teachers in the attitude towards online methods of teaching, is not retained which means it is rejected. But the mean value (26.97) of male teachers indicates that male teachers are slightly better in the attitude than the female teachers towards online methods of teaching.

**Hypothesis: 2-There is significant difference in the mean scores of male and female teachers' attitude towards online teaching and learning material.**

**Table 2: Mean difference in the attitude of male and female teachers towards online teaching and learning material**

Teachers	N	Mean	S.D	SEM	df	't' value	Level of significance .01
Female	94	24.41	4.53	0.4672	124	1.45	NS
Male	32	23.09	4.15	0.7336			

**df= 124, .01=2.63, .05=1.98, P value=0.1487, NS= Not Significant**

For the mean difference in the attitude of male and female teachers towards online teaching and learning material the 't' value in table 2=1.45, indicates that the attitude of male and female teachers towards online teaching and learning material do not differ significantly. Hence, Hypothesis (2) which states that there is significant difference in the mean scores of male and female teachers in the attitude towards online teaching and learning material, is not retained which means it is rejected. But the mean value (24.41) of female teachers indicates that female teachers are better off in the attitude than the male teachers towards online teaching and learning material.

**Hypothesis: 3-There is no significant difference in the mean scores of male and female teachers attitude towards online teachers' preparation.**

**Table 3: Mean difference in the attitude of male and female teachers towards online teachers' preparation**

Teachers	N	Mean	S.D	SEM	df	't' value	Level of significance .01
Female	94	22.91	5.72	0.5900	124	0.07	NS
Male	32	23	65.97	1.0554			

**df= 124, .01=2.63, .05=1.98, P value=0.9395, NS= Not Significant**

For the mean difference in the attitude of male and female teachers towards online teachers' preparation the 't' value in table 3=0.07, indicates that the attitude of male and female teachers towards online teachers' preparation do not differ significantly. Hence, Hypothesis (3) which states that there is no significant difference in the mean scores of male and female teachers in the attitude towards online teachers' preparation, is retained which means it is not rejected. But the mean value (23) of male teachers' indicates that male teachers are slightly better in the attitude than the female teachers' attitude towards online teachers' preparation.

**Hypothesis: 4- There is no significant difference in the mean scores of male and female teachers attitude towards online homework and assignments given to students**

**Table 4: Mean difference in the attitude of male and female teachers towards online homework and assignments given to students**

Teachers	N	Mean	S.D	SEM	df	't' value	Level of significance .01
Female	94	22.06	4.42	0.4559	124	0.71	NS
Male	32	22.69	3.91	0.6912			

**df= 124, .01=2.63, .05=1.98, P value=0.4752, NS= Not Significant**

For the mean difference in the attitude of male and female teachers towards online homework and assignments given to students the 't' value in table 4=0.71, indicates that the attitude of male and female teachers towards online homework and assignments given to students do not differ significantly. Hence, the Hypothesis (4) which states that there is no significant difference in the mean scores of male and female teachers attitude towards online homework and assignments given to students, is retained which means it is not rejected. But the mean value (22.69) of male teachers indicates that male teachers are better off in the attitude than the female teachers towards online homework and assignments given to students.

**Hypothesis: 5-There is no significant difference in the mean scores of male and female teachers attitude towards online examination**

**Table 5: Mean difference in the attitude of male and female teachers towards online examination**

Teachers	N	Mean	S.D	SEM	df	't' value	Level of significance .01
Female	94	28.23	4.67	0.4817	124	8.10	Sig.
Male	32	27.78	4.24	4.9109			

**d.f= 124, .01=2.63, .05=1.98, P value=0.0001, S= Significant**

For the mean difference in the attitude of male and female teachers towards online examination the 't' value in table 5=8.10, indicates that the attitude of male and female teachers towards online examination differ significantly at 0.1 level of significance. Hence, the Hypothesis (5) which states that there is no significant difference in the mean scores of male and female teachers in the attitude towards online examination, is not retained which means it is rejected. But the mean value (28.23) of female teachers indicates that female teachers are better off in the attitude than the male teachers towards online examination.

**Hypothesis: 6- There is significant difference in the mean scores of male and female teachers' attitude towards online teaching and learning in Secondary Schools under MBOSE Shillong on the whole.**

**Table 6: Mean difference in the attitude of male and female teachers' towards online teaching and learning in Secondary Schools on the whole**

Teachers	N	Mean	S.D	SEM	d.f	't' value	Level of significance .01
Female	94	123.99	17.23	1.7771	124	0.13	NS
Male	32	123.53	17.04	2.9875			

**df= 124, .01=2.63, .05=1.98, P value=0.8961, NS= Not Significant**



For the mean difference in the attitude of male and female teachers towards online teaching and learning in Secondary Schools under MBOSE Shillong on the whole, the 't' value in table 6=0.13, indicates that the attitude of male and female teachers towards online teaching and learning in Secondary Schools under MBOSE Shillong on the whole do not differ significantly. Hence, the Hypothesis (6) which states that there is significant difference in the mean scores of male and female teachers in the attitude towards online teaching and learning in Secondary Schools under MBOSE Shillong on the whole, is not retained which means it is rejected. But the mean value (123.99) of female teachers indicate that female teachers are better off in the attitude than the male teachers towards online teaching and learning in Secondary Schools under MBOSE Shillong on the whole.

## 8. MAJOR FINDINGS

In this study, the male and female teachers of the secondary school were asked to evaluate their experience to know their attitude with online teaching and learning. The findings can be divided into two board categories that is, the collected data on the secondary teachers and the collected data on male and female teachers. In the light of this analysis and interpretations the present study brings forth the below findings.

- i. Hypothesis (1) which states that there is significant difference in the mean scores of male and female teachers in the attitude towards online methods of teaching, is not retained which means it is rejected. But the mean value (26.97) of male teachers indicates that male teachers are slightly better in the attitude than the female teachers towards online methods of teaching.
- ii. Hypothesis (2) which states that there is significant difference in the mean scores of male and female teachers in the attitude towards online teaching and learning material, is not retained which means it is rejected. But the mean value (24.41) of female teachers indicates that female teachers are better off in the attitude than the male teachers towards online teaching and learning material.
- iii. Hypothesis (3) which states that there is no significant difference in the mean scores of male and female teachers in the attitude towards online teachers' preparation, is retained which means it is not rejected. But the mean value (23) of male teachers' indicate that male teachers are slightly better in the attitude than the female teachers' attitude towards online teachers' preparation
- iv. Hypothesis (4) which states that there is no significant difference in the mean scores of male and female teachers attitude towards online homework and assignments given to students, is retained which means it is not rejected. But the mean value (22.69) of male teachers indicates that male teachers are better off in the attitude than the female teachers towards online homework and assignments given to students.
- v. Hypothesis (5) which states that there is no significant difference in the mean scores of male and female teachers in the attitude towards online examination, is not retained which means it is rejected. But the mean value (28.23) of female teachers indicates that female teachers are better off in the attitude than the male teachers towards online examination.
- vi. Hypothesis (6) which states that there is significant difference in the mean scores of male and female teachers in the attitude towards online teaching and learning in Secondary Schools under MBOSE Shillong on the whole, is not retained which means it is rejected. But the mean value (123.99) of female teachers indicate that female teachers are better off in the attitude than the male teachers towards online teaching and learning in Secondary Schools under MBOSE Shillong on the whole.

## 9. SUGGESTIONS

- i. Making a shift from traditional to online teaching was a challenge to the teacher as the suddenness with which they were plunged into this new mode of teaching meant that they went into it with little preparation. Teachers can be prepared and should have the competency to deal with any problems during online teaching and learning, teachers must have sufficient qualifications.
- ii. Teachers who were unfamiliar with the use of technology had to struggle with tools such as video conferencing, prepare presentations and learn to be tech-savvy together with their regular teaching job. Special training must be given to teachers to enable them to manage to use different types of technologies, so that there will be no such problems for both teachers and students.
- iii. Teachers just need to find a high-speed internet connection at their home to resolve the internet connection problem in the online class. And they have to know where they can get technical support for their connection and other technical issues related to software and tools for effective teaching and learning.

- iv. Teachers must give strict rules and regulations to students with regards to homework and assignments given to them, so that students should not take online class lightly and online teaching and learning will be effective.
- v. Teachers must have skills in teaching online so that they are able to use different types of methods of teaching like demonstration method, Socratic method, lecture method.
- vi. Proper preparation must be done by the teachers before taking online class so that teachers are well prepared with different types of teaching aids, and the method used during teaching in order to make teaching learning effective.
- vii. Teachers must use platform that are easily supported by any device used by the students.
- viii. Teachers must provide regular feedback to the students to track their progress and students must also give feedback to the teachers to know their weakness and areas to improve.

## 10. CONCLUSION

The main aim of the study was gauge teachers' attitude towards online teaching and learning. Education is the process of transferring knowledge, values, methods, skills, and beliefs from one individual to another. Online teaching and learning is designed to reach and engage the modern learner on one-to-one basis anywhere, anytime (Mathew, N.O, 2018). Online learning has been referred to as a form of distance education and as web-based learning, e-learning, and digital learning. It is offered over the Internet and use web-based materials and activities.

Effective online teachers need to be opened to learning and becoming active participants in dynamic online learning environments. In online teaching, the desired product for some teachers could be an innovative, creative learning activity that students will be motivated to participate in and rate as transformative process. Although teaching has changed with the advent of online education, a good teacher still makes a difference to learners and to the learning process itself. Students need to be technologically savvy to use technology tools that may be required. Students of the digital age appear to be independent, more technology disciplined, and technology savvy, well suited for online environment. Online learning at your own pace is beneficial for a high-quality college degree. Online education provides great opportunities and great challenges. It has benefits for the students and instructors. It offers the convenience of time and space, cost-effectiveness, and flexibility. Online learning allows student to pursue an internationally recognized degree without the need to attend classes on campus. Online education is preferred by students who cannot participate in traditional classroom settings. It is convenient since it allows one to study anywhere that has an Internet access. Good teachers possess a capacity for connectedness. They are able to weave a complex web of connections among themselves, their subjects, and their students so that students can learn to weave a world for themselves.

The investigators have found that most of the teachers both male and female of secondary schools are not that satisfied with online teaching and learning and have trouble adapting to it. It is also found that teachers have problems with internet connection. Finally, from the present study it can be concluded that from the selected teachers of Secondary Schools under Meghalaya Board of School Education (MBOSE), Shillong, female teachers possess sound attitude than the male teachers towards overall online teaching and learning.

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