

A study of the effectiveness of teachers training for secondary schools in Sindh province

Comment [s1]: The Effectiveness of teachers training in Sindh Province: A study

Abstract

This research study take a look into a study of the effectiveness of teachers training program for private secondary schools in Sindh. Technology integration is far behind in Pakistani Schools as a consequence of ICT deficiency, absence of in-service teachers training. ICT has tremendous potential to prepare students for the workplaces globally and improve educational systems, if it's integrated wisely into a curriculum. ICT Teacher Training is being sorted out at distinctive levels for the educators to outfit them with essential most recent information and abilities to make them great ICT educators by the Government of Pakistan and Education Department; in this study the relationships between in service ICT teachers training and changes in teaching behavior will be investigated. This research study take a look into a study of the effectiveness of ICT teachers training program for private secondary schools in Sindh to promote Ubiquitous learning among students. The study's main goals were to investigate the impact of in-service teachers' ICT training on subject teachers' teaching methodology based on Ubiquitous Learning. Apricot Education System conducted this study in private schools in Karachi, and 150 teachers were chosen as a target sample using purposive random sampling following three months of teacher training. The investigation was descriptive in nature. A questionnaire with 60 items based on a 5 Likert scale was used to collect data using the survey method. The data was analysed using the correlation, regression, and reliability tests. The results of the regression test revealed that teacher training had a substantial impact on subject teachers' teaching style based on Ubiquitous Learning. The t- value is 5.079. The data was analysed using the correlation, regression, and reliability tests. The results of the regression test revealed that teacher training had a substantial impact on subject teachers' teaching style based on Ubiquitous Learning. The t-value is 5.079, and the p-value is .000 less than 0.05. That equals .000. It indicates that H1 is acceptable. Finding administrators should perform maximal ICT Teachers Training to improve teacher competencies, according to the recommendation.

Key words: IT Technology, Competency, Teaching, Pedagogy, Fundamental ICT Skills, 21st century skills.

Introduction

The teachers training program for school teachers is play a vital role because skillful and capable teachers rise excellence of education through professional development. There are some

problems faced by trained teachers when they implement it in schools. Many institute of public sector tried to improve the public sector education through their In-Service teachers training programs.

Hale (2021) found that teachers training always increase the quality teaching and learning process. The trained teachers always ensure and develop 21st century skills among students. Classroom activities of trained teachers enhance the quality education environment. Teachers training promotes innovation, cognition and competency in students. Scott (2015) explored that trained teachers can improve performance as a teacher. Shah (2018) claimed that the classroom teaching experience also polish their skills so the effective teaching method is play a vital role. Palmer (2018) found that teaching is a scientific thinking in which teachers should have achieve their objectives and goals designed before going in the classroom. Priestley (2020) found that teaching skills are the essential part of teacher training. Schneider (2019) found that the effective teaching warranties excellence in teaching and learning process. Sindh Education Foundation and PITE are two well-known departments of government of Sindh, Pakistan that tried to trained government teachers continuously. But more quality of in-service teachers training in Sindh education institutes are required on regular basis. Shakir (2018) found that the role of research and development institutes of Sindh are very important to ensure quality. The higher education institutes of Sindh offers ADE, B.Ed and M.Ed programs with different credit hours for In-Service teachers to motivate their best brains. Malik (2021) described that feasible policy mechanism helps to conduct meaningful In-Service continuous professional development program. The authorities should have strong policy to bring various programs of teacher education in Sindh higher education institutions. Järveläinen (2020) found that the higher education is facing challenges in Pakistan regarding In-Service teachers training executions. The economical development and reduction of poverty cause major 'issues and challenges in Pakistan. According to Alam (2023) in ubiquitous learning anywhere and anytime teacher can facilitate students. Ubiquitous learning is often simply defined as process to get skills anytime and therefore closely associated with mobile technologies. Harmann (2023) found that U-Learning supports language learning. Abdullah (2022) revealed that U-Learning based education has a positive effect on student satisfaction. Kumar (2019) found that mobile promotes distance education. Quality and excellence in education are continual efforts to build the new millennium generation, the generation that will control the future state. As a result, the country's education system requires deliberate initiatives to strengthen the capacity and ability to practise quality and excellence standards.

Ghunio (2023) offered new pedagogical strategies, resources, and technologies, enabling better academic results. CPD programmes had a significant favourable effect on students' academic achievements. His study underlines the problems that teachers experience in CPD programmes in the Sukkur district of Sindh, Pakistan. Laboriousness (2017) revealed that The teacher education make teachers able to bring a positive change in teaching and learning process across the globe. Hussain (2018) revealed that in 21st century the CPD model was developed to complement the School Assembling Policy. Zubair (2023) revealed a significant association of secondary education in Balochistan. According to Rabia (2023), there is a limited body of study on teacher perspectives, particularly in terms of what teachers think PBL work entails and how they see it

Comment [s2]: Geographical location of Sindh, number of schools, no. of private and government schools, students etc. are necessary.

carried out. Comprehending these viewpoints will facilitate the stakeholders' ability to modify PBL implementation appropriately.

The social side of the Internet has undergone significant change; in general, social media allows users to participate and interact with one another by sharing thoughts, perspectives, and opinions. Users have the ability to tag, share, tweet, and like. Quality and excellence in education are continual efforts to build the new millennium generation, the generation that will control the future state. As a result, the country's education system requires deliberate initiatives to strengthen the capacity and ability to practise quality and excellence standards in order to meet the challenges of the twenty-first century. One of the primary purposes of school is to foster creativity. According to Alam (2023) in ubiquitous learning anywhere and anytime teacher can facilitate students. Ubiquitous learning is often simply defined as process to get skills anytime and therefore closely associated with mobile technologies. Harmann (2023) found that U-Learning supports language learning. Abdullah (2022) revealed that U-Learning based education has a positive effect on student satisfaction. Kumar (2019) found that mobile promotes distance education. Quality and excellence in education are continual efforts to build the new millennium generation, the generation that will control the future state. As a result, the country's education system requires deliberate initiatives to strengthen the capacity and ability to practise quality and excellence standards. Debriefing innovation is critical for success in global competition. Practicing creativity is possible because to advances in information and communication technology. Creating a learning management system (LMS) is one way to increase the quality of creativity-oriented learning. Even if the course content is boring and mundane, e-learning can stimulate and foster creativity in the same way that any classroom teacher can. Try some of these seven techniques to tap into your learners' creativity if you're creating an e-Learning course. Ali (2023) offered new pedagogical strategies, resources, and technologies, enabling better academic results. CPD programmes had a significant favourable effect on students' academic achievements. His study underlines the problems that teachers experience in CPD programmes in the Sukkur district of Sindh, Pakistan. Lord (2023) revealed that The teacher education make teachers able to bring a positive change in teaching and learning process across the globe. Ali (2019) revealed that in 21st century the CPD model was developed to complement the School Assembling Policy. Zain (2022) revealed a significant association of secondary education in Balochistan. According to Rabin (2022), there is a limited body of study on teacher perspectives, particularly in terms of what teachers think PBL work entails and how they see it carried out. Comprehending these viewpoints will facilitate the stakeholders' ability to modify PBL implementation appropriately.

Objectives:

The main objectives of the study was; To examine the effect of In-service Teachers ICT Training on the Teaching pedagogy of subject teachers based on Ubiquitous Learning.

Research question:

Comment [s3]: Without review of literature it is not correct to set objectives.

Comment [s4]: Go for two objectives:
1. To examine the effect of In-service Teachers ICT Training on the Teaching pedagogy of subject teachers
2. To know the effectiveness of Ubiquitous learning.

What is the the effect of In-service Teachers ICT Training on the Teaching pedagogy of subject teachers based on Ubiquitous Learning?

Literature review:

Archer (2000) introduced the theory named Community of Inquiry (CoI) for online learning environments based on the concept of three distinct “incidences”:

1. Cognitive
2. Social
3. Teaching

According to Alam (2023) in ubiquitous learning anywhere and anytime teacher can facilitate students. Ubiquitous learning is often simply defined as process to get skills anytime and therefore closely associated with mobile technologies. Harmann (2023) found that U-Learning supports language learning. Abdullah (2022) revealed that U-Learning based education has a positive effect on student satisfaction. Kumar (2019) found that mobile promotes distance education. Quality and excellence in education are continual efforts to build the new millennium generation, the generation that will control the future state. As a result, the country's education system requires deliberate initiatives to strengthen the capacity and ability to practise quality and excellence standards. Anderson (2001) revealed that the community of inquiry tools such as discussion boards, blogs, wikis, and videoconferencing etc. Most of the schools will prepare themselves to start U-Learning by developing ICT infrastructure and teachers training programs, But the heads didn't know how the curriculum entertain multidisciplinary task and achieve the targets of 21st century skills. The most important point is that principals, heads, coordinators and headmistress are the building blocks of teaching and learning environment. On the other hand professors of higher level institutes are the main focal points of U-Learning. The “U learning” refers to the customized learning, that's shaped with the aid of the traits of “net 2. 0” getting to know resources and studying. The net, computer computers, and lecture room multimedia are the customized ecological mastering gear in nowadays ubiquitous computing technology. In ubiquitous learning environment two or greater than college students can collaborate, create, talk and think severely. The wise learning resources can also increase ubiquitous getting to know surroundings for digital natives of college stage. There may be a want of latest teaching strategies, unified curriculum and obligatory lecture room for teaching and learning process. Ubiquitous environment allows students with capabilities and extraordinary IQ levels, everywhere according to their predicted know-how shape needs. Grunion (2023) offered new pedagogical strategies, resources, and technologies, enabling better academic results. CPD programmes had a significant favourable effect on students' academic achievements. His study underlines the problems that teachers experience in CPD programmes in the Sukkur district of Sindh, Pakistan. Mriousness (2016) revealed that The teacher education make teachers able to bring a positive change in teaching and learning process across the globe. Husnain (2019) revealed that in 21st century the CPD model was developed to complement the School Assembling Policy. Baird (2022) revealed a significant association of secondary education in Balochistan. According to Rabid (2021), there is a limited body of study on teacher perspectives,

Comment [s5]: As literature review is integral part of research one should study objectives, methodology opted and findings. Without these the article will not be published.

Comment [s6]: After introduction of the topic, thorough review of literature and then objectives.

particularly in terms of what teachers think PBL work entails and how they see it carried out. Comprehending these viewpoints will facilitate the stakeholders' ability to modify PBL implementation appropriately. Alam (2023) revealed that there is a lot of talk about ubiquitous learning in educational side, definition and implementation from this management. The first thing that we should know what is “Ubiquitous” and “learning”. Word of ubiquitous is anywhere and anytime whereas learning means act or process of acquiring knowledge. So if we make two connections from these words. Ubiquitous learning is often simply defined as process to get skills anytime and therefore closely associated with mobile technologies. It is same if we called mobile learning because it can be accessed in a variety of contexts and situations.

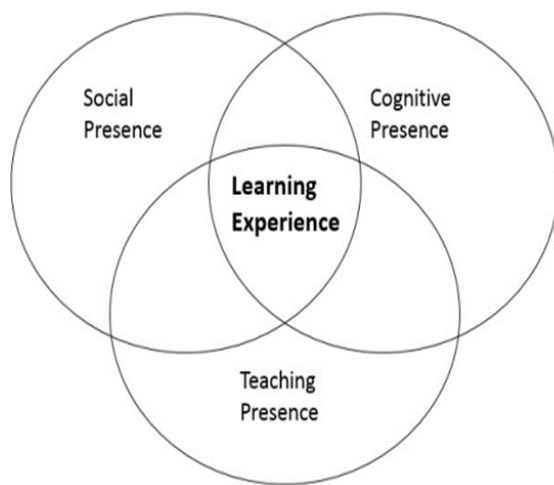


Fig 1. Community of Inquiry (Garrison, Anderson, Garrison and Archer, 2000)

Harmann (2023) found that U-Learning supports language learning. Abdullah (2022) revealed that U-Learning based education has a positive effect on student satisfaction. Kumar (2019) found that mobile promotes distance education. Sarab (2018) revealed that type of learning such as; distance learning, virtual learning, electronic learning, mobile learning and ubiquitous learning after COVID-19. Merriam Webster, (2017) revealed the fact of being available anytime and anywhere. Crompton (2017) analysed that mobile devices influence learning. Chee (2017) explored ubiquitous based education, p-learning, and mobile pervasive learning. Konget (2017) found that gamification which are smartphone oriented helps people to train novice users. Chiang (2016) found dimensions of U-Learning such as radio, mobile, permeative, and ubiquitous technologies. Kukulaska-Hulme (2010) analysed the student centered classroom based virtual learning such as U- Learning. waris (2023) offered new pedagogical strategies, resources, and technologies, enabling better academic results. CPD programmes had a significant favourable

effect on students' academic achievements. His study underlines the problems that teachers experience in CPD programmes in the Sukkur district of Sindh, Pakistan. Laila (2017) revealed that The teacher education make teachers able to bring a positive change in teaching and learning process across the globe. Haris (2018) revealed that in 21st century the CPD model was developed to complement the School Assembling Policy. Zahid (2023) revealed a significant association of secondary education in Balochistan. According to Rohit (2023), there is a limited body of study on teacher perspectives, particularly in terms of what teachers think PBL work entails and how they see it carried out. Comprehending these viewpoints will facilitate the stakeholders' ability to modify PBL implementation appropriately.

Jabeen (2023) discovered a favourable correlation between teacher performance and the training, which also helps teachers advance their abilities and skills to function more effectively in the classroom. According to this study, educational institutions ought to provide their teachers with training that would help them succeed in the classroom and further the growth of the institution. Tanveer (2023) discovered that when it comes to the execution of practicum activities in the classroom, female PTs have a more statistically significant attitude than male PTs. The study advises TTI principals to take the required actions to enhance the delivery of teaching practise courses. Educating cooperative teachers on how to effectively implement the practicum component is important. As a result, PTs will feel more motivated and have a more positive outlook on teaching. According to Alam (2023) in ubiquitous learning anywhere and anytime teacher can facilitate students. Ubiquitous learning is often simply defined as process to get skills anytime and therefore closely associated with mobile technologies. Harmann (2023) found that U-Learning supports language learning. Abdullah (2022) revealed that U-Learning based education has a positive effect on student satisfaction. Kumar (2019) found that mobile promotes distance education. Quality and excellence in education are continual efforts to build the new millennium generation, the generation that will control the future state. As a result, the country's education system requires deliberate initiatives to strengthen the capacity and ability to practise quality and excellence standards. According to Jamil (2022), the initiative did not have the expected significant impact and yielded no visible results. The goal of this study is to determined that schools offer in-service teachers training, as well as the effects of nationwide efforts to train teachers. Nadeem (2023) conducted the research using a descriptive survey-style methodology. The technique of Random Sampling was employed to choose secondary school teachers and head teachers. Data collection was done using the questionnaire tools. According to the study's findings, teacher preparation programmes should enhance their in-service training so that instructors can learn and apply all facets of teaching techniques. Junejo (2022) demonstrated how in-service training programmes improve teachers' performance. The study also showed that teachers had a positive view of their own professional development. It suggested that rather than being general, the in-service training programmes be introduced in accordance with the subject. According to Sahito (2022), the five factors that UNICEF (2000) identified as being important to the study. The research study's findings would make a significant contribution to the body of knowledge about high-quality education and existing research findings. Brandenburg (2023) offered new pedagogical strategies, resources, and technologies, enabling better academic results. CPD programmes had a significant favourable effect on students' academic achievements. His study underlines the problems that teachers experience in CPD programmes in

the Sukkur district of Sindh, Pakistan. Larry (2017) revealed that The teacher education make teachers able to bring a positive change in teaching and learning process across the globe. Hussain (2018) revealed that in 21st century the CPD model was developed to complement the School Assembling Policy. Brain (2023) revealed a significant association of secondary education in Balochistan. According to Neel (2023), there is a limited body of study on teacher perspectives, particularly in terms of what teachers think PBL work entails and how they see it carried out. Comprehending these viewpoints will facilitate the stakeholders' ability to modify PBL implementation appropriately.

Theoretical foundation

Social Learning Theory (SLT). a single component of SLT, self-efficacy, is frequently referred to in teacher education research, Every child has the right to a good education, and the teacher who makes a difference is the key to a successful teaching process. The finest furnishings and books will remain lifeless without a skilled, enthusiastic, and vibrant teacher to bring the walls, furniture, books, and resources to life. A child can develop holistically under the guidance of a professionally trained and groomed teacher. Eighty percent of students attend government schools in Pakistan, where they are not provided with a quality education. As a result, they are unable to compete with students who graduate from private schools because they lack the necessary knowledge and skills. Scott (2015) explored that trained teachers can improve performance as a teacher. Shah (2018) claimed that the classroom teaching experience also polish their skills so the effective teaching method is play a vital role. Palmer (2018) found that teaching is a scientific thinking in which teachers should have achieve their objectives and goals designed before going in the classroom. Priestley (2020) found that teaching skills are the essential part of teacher training. Schneider (2019) found that the effective teaching warranties excellence in teaching and learning process. Sindh Education Foundation and PITE are two well-known departments of government of Sindh, Pakistan that tried to trained government teachers continuously. But more quality of in-service teachers training in Sindh education institutes are required on regular basis. Shakir (2018) found that the role of research and development institutes of Sindh are very important to ensure quality teaching and learning process. The higher education institutes of Sindh offers ADE, B.Ed and M.Ed programs with different credit hours for In-Service teachers to motivate their best brains. According to Alam (2023) in ubiquitous learning anywhere and anytime teacher can facilitate students. Ubiquitous learning is often simply defined as process to get skills anytime and therefore closely associated with mobile technologies. Harmann (2023) found that U-Learning supports language learning. Abdullah (2022) revealed that U-Learning based education has a positive effect on student satisfaction. Kumar (2019) found that mobile promotes distance education. Quality and excellence in education are continual efforts to build the new millennium generation, the generation that will control the future state. As a result, the country's education system requires deliberate initiatives to strengthen the capacity and ability to practise quality and excellence standards. Ghori (2023) offered new pedagogical strategies, resources, and technologies, enabling better academic results. CPD programmes had a significant favourable effect on students' academic

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Conceptual framework of Ubiquitous learning

Comment [s7]: Mention source number
Brief explanation is necessary.

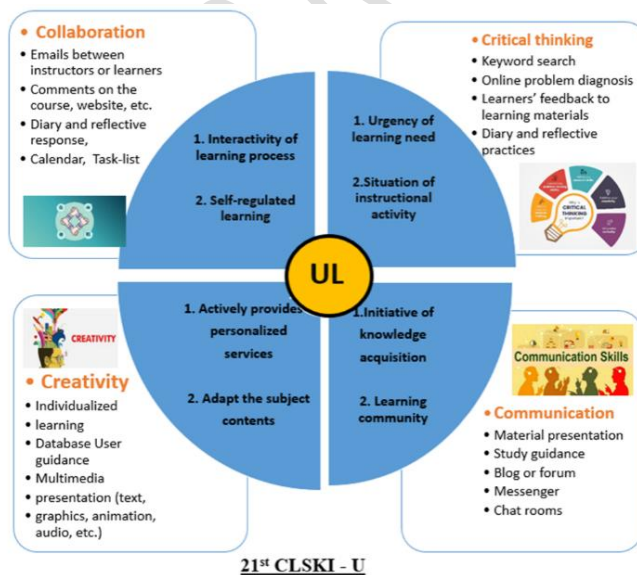


Fig 2. Conceptual framework

Research Model

Comment [s8]: SEM is appropriate here.

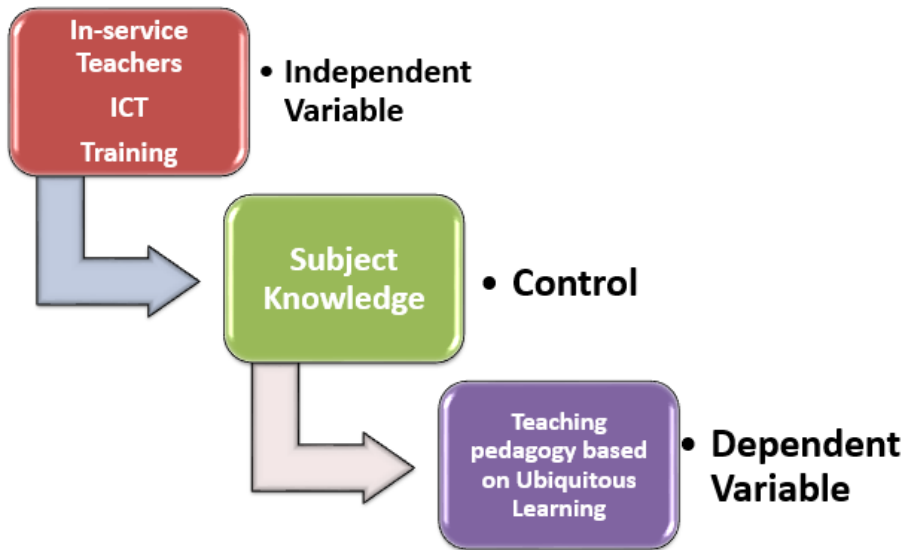


Fig 3. Research Model

Methods

The nature of this investigation was quantitative. The method of purposeful sampling was chosen. 150 teachers were chosen as a target sample using purposive random sampling after three months of teacher training. The investigation was descriptive in nature. A questionnaire with 60 items based on a 5 Likert scale was used to collect data using the survey method. Correlation and Regression test was used to analyze the data.

Data analysis

For both male and female data, the normal curve is not visible in the histogram. The value of Cronbach's Alpha is .939, which is acceptable for item reliability, So all items are 94 percent reliable. A fully linear relationship was shown by an extreme value of -1 and 1. The dependent and independent variables are perfectly linearly related.

Table 1. Regression

Comment [s9]: Provision of characteristics of data is necessary. The relevancy of histogram, Cronbach Alpha should be stated.

Comment [s10]: For Correlation, regression analysis separate tables are necessary.

Model Summary^b

| Model | R | r ² | S. E | D-Watson |
|-------|-------------------|----------------|---------|----------|
| 1 | .989 ^a | .885 | 1.46649 | 1.769 |

a. Predictors: (Constant), ICTT

b. Dependent Variable: TP

The value of r² in the given table is 885. So the model is explained 88%. The value of R square showed that model is fit. The F value is 74.510 at .000 significant level which is less than 1%. So the fitness of model is ok.

Table 2. Hypothesis testing

| H | V | C | t | p | Decision |
|---------------------------------------------|----|------|-------|------|----------|
| Con | | | | | |
| H1: ICTT has a significant relation with TP | TP | .342 | 6.435 | .001 | Accepted |

H1: There is a significance relationship between the effect of In-service Teachers' ICT Training on the Teaching pedagogy of subject teachers based on Ubiquitous Learning. t-value is 6.435 and p value is .001 less than 0.05. That is .000. It means that H1 is accepted.

Comment [s11]: Attention to the quality of language, font size and styles .

Discussion and Conclusion

This study explored that continuous professional growth helps teachers to develop their teaching pedagogy regarding ubiquitous learning. Ubiquitous learning enhances teacher's 4Cs (collaboration, critical thinking, creativity and communication) during teaching and learning process. According to Alam (2023) in ubiquitous learning anywhere and anytime teacher can facilitate students. Ubiquitous learning is often simply defined as process to get skills anytime and therefore closely associated with mobile technologies. Harmann (2023) found that U-Learning supports language learning. Abdullah (2022) revealed that U-Learning based education has a positive effect on student satisfaction. Kumar (2019) found that mobile promotes distance education. Quality and excellence in education are continual efforts to build the new millennium generation, the generation that will control the future state. As a result, the country's education system requires deliberate initiatives to strengthen the capacity and ability to practise quality and excellence standards. One of the primary purposes of school is to foster creativity. Debriefing innovation is critical for success in global competition. Practicing creativity is possible because to advances in information and communication technology. Creating a learning management system (LMS) is one way to increase the quality of creativity-oriented learning. Even if the course content is boring and mundane, e-learning can stimulate and foster creativity in the same way that any classroom teacher can. Try some of these seven techniques to tap into your learners' creativity if you're creating an e-Learning course. Webster, (2017) revealed the fact of being available anytime and anywhere. Chee (2017) explored that the Department of Education and

Literacy has been working for a while to revitalize the Teacher Training institutions. This was organised in response to an evaluation that found the teachers had little comprehension of the material they were teaching and were unable to effectively manage the classroom resources in the institutions.

Recommendations

The teachers training program for school teachers should be conducted regarding ubiquitous learning because ubiquitous learning play a vital role because techno-savy skillful and capable teachers rise excellence of education through professional development. There are some problems faced by trained teachers when they implement it in schools. Institute of public sector should try to improve the public sector education through their In-Service teachers training programs.

The scientist suggests that the Division of Schooling and Proficiency, Administration of Sindh ought to check out creating educators expertly by prepping them through customary stages of preparation. These preparation phases could of three month to month or six month to month. A sample of scholastic phases of preparation in this manner should be made. 3. The scientist suggests that educators ought to be given equivalent motivators to go to the scholastic preparation phases where their substance authority and academic abilities are upgraded. Up to this point educators just get money related motivators for such managerial preparation phases which persuaded them to acknowledge offers for such phases of preparation.4. After the stages of preparation an instrument of follow up ought to be set up without which no preparation could lastingly affect a calling. In the example schools there are no phases of preparation started by the public authority of the Division of Instruction and Education and if by any means there are such preparation stages, there is no development of the preparation stages, 5. Educators ought to likewise be consulted exhaustively and their apprehensions might be tended to. The greater part of them understand that they need specific preparation stages however dread their impediments and are terrified to fall flat. The phases of preparation ought to be given by their fundamental necessities. 6. The Town Officials (TOs), Extra Region Officials (ADOs), the Locale Officials (Dos) and the Representative Area Officials (DDOs) ought to be generally prepared about the significance of scholarly preparation for the educators with the goal that they keep it a high need in their projects to prepare instructors. Assuming that they know the significance of content centered preparing and academic stages of preparation, they would direct the educators as needs be and make the important strategies. The majority of government school teachers exhibit strong dissatisfaction towards attending any after-hours or unpaid training sessions. There is currently either no trainings or a lot of resistance to attending trainings because there is a fundamental lack of motivation to give importance to such trainings. The outcomes have also been impacted by a lack of exposure to these trainings.

Teachers were hardly aware of any academic or pedagogical trainings, which may have contributed to the lack of awareness among them that academic trainings could have an impact on their careers. According to Alam (2023) in ubiquitous learning anywhere and anytime teacher can facilitate students. Ubiquitous learning is often simply defined as process to get skills anytime and therefore closely associated with mobile technologies. Harmann (2023) found that

Comment [s12]: Suggestions

They should be creative, original and practical. They should be adaptable and based on observations.

Comment [s13]: Where are other two

U-Learning supports language learning. Abdullah (2022) revealed that U-Learning based education has a positive effect on student satisfaction. Kumar (2019) found that mobile promotes distance education. Quality and excellence in education are continual efforts to build the new millennium generation, the generation that will control the future state. As a result, the country's education system requires deliberate initiatives to strengthen the capacity and ability to practise quality and excellence standards. The concept of various types of trainings, and particularly academic trainings, is also missing. Comparably, more than half of the sample is persuaded to pursue academic training, while the other half is not; this could be due to the nature of the programmes that have been provided thus far. Therefore, before drawing any conclusions or making any recommendations, the nature of the trainings may be carefully examined. Similar to how the issue of teachers' and students' improved performance following trainings is related to specific circumstances, the outcome for students may not actually depend on the teacher's additional training given the prevalence of cheating and unethical board exam practises.

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Comment [s14]: Arrange alphabetically. Separate space for books. Those literary works included in literature review should be included here. Font size and style to be focused.

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