The Influence of Teaching Methods on Approaches to Student Learning in Teacher Education: The Case of Kilosa District in Morogoro, Tanzania

Saigilu Lootha Mindey

Mbeya University of Science and Technology

P.O. Box 131, Mbeya, Tanzania

ARTICLE INFORMATION

ABSTRACT

This study examined the influence of teaching methods on approaches to student learning in teacher education. The study was conducted at Ilonga and Dakawa teacher's colleges in the Morogoro region. The study adopted Bigg's 3Ps (Presage, Process, and Product) model. This model helped in relating teaching aspects and students' approaches to learning because it links the students' prior experiences with their perceptions of the learning context, their approaches to learning, and their learning outcomes. Data were obtained from a sample of 32 respondents through purposive sampling. Students were categorised into high- and low-performing groups. Data were subjected to content analysis and presented verbatim. The study findings revealed that, despite receiving many professional trainings on learner-centered teaching from teachers colleges, many tutors still use less participatory methods. Additionally, the majority of teaching in teachers colleges has relied on teacher-centered approaches, such as lectures and storytelling, with only a few instances of a learner-centered approach. It was also found that there is a close relationship between teaching methods and students' approaches to learning. It is recommended that tutors use learner-centered teaching to encourage more students to adopt a deeper approach to learning. Additionally, tutors should encourage students to study for understanding rather than relying on memorization as a learning method. The need for further research on the factors that make tutors avoid learner-centered methodology is significant.

*Corresponding author's e-mail address: olelotha@gmail.com (Mindey, S.L.)

1.0 Introduction

Teaching is an effective agent of individual transformation that generates a reasonably formative outcome for learners. The primary purpose of teaching at all levels of education is to bring an ultimate change in learners through various teaching and learning methods (Oigara, 2011). Teaching methods are divided into two categories: teacher-centered and learner-centered. Lectures and storytelling are examples of teacher-centered approaches. Learner-centered methods involve a state in which students construct their own understanding and develop a personal feeling about the learned concepts, which is compatible with a deep approach to learning rather than a surface approach to learning (Asikainen & Gijbels 2017; Entwistle & Ramsden 1983; and Collins, 2003).

Studies by Marton and Saljo (1976), Colander (1997), Biggs (1987), and Prosser & Trigwell (1999) show that students' learning outcomes result from approaches to learning. For example, when students use a surface approach to learning, they develop a surface understanding. The surface understanding results in low-quality learning outcomes and, hence, lowers the quality of education. The deep approach to learning has resulted in a better learning outcome than the surface approach to learning (Diseth, 2003). Research has been conducted on the possibility of encouraging a deep approach to learning, and it has been proposed that the teacher's teaching and learning methods may determine the learners' approach to learning (Prosser & Trigwell 1999).

Despite the researchers' efforts to describe approaches to student learning, some tutors resort to transmission teaching, which encourages surface learning for student teachers (Lavy, 2015; Lee et al., 2019; Kember et al., 2020; Chan & Yeung, 2019).

A teacher-centered approach that is compatible with surface learning reduces the quality of graduates and may lower their efficiency at work. The cited studies, such as Marton and Saljo (1976), Colander (1997), Biggs (1987), and Prosser & Trigwell (1999), were conducted in various higher learning institutions, specifically in the fields of psychology, law, nursing, and business. However, they did not specifically focus on education-oriented disciplines, such as teacher education. It is recommended that the learner-centred approach promotes self-learning among students in developing critical thinking and retaining knowledge for self-actualisation (Rivkin & Schiman, 2015). Scholars' suggestions motivated the researcher to plan this study, which aims to examine the adopted teaching methods in selected teacher colleges and their impact on students' learning approaches.

The main goal of this study was to examine the teaching methods employed in teacher education and their influence on student learning approaches. In particular, the study aimed to identify the approaches used by student teachers in teacher's colleges and establish a relationship between the student learning approach and the teaching methods used in teacher's colleges.

The conceptual framework for this study is a modified version of the 3P (Presage, Process, and Product) model developed by John Biggs in 1987. It links the students' prior experiences with their perceptions of the learning context, their approaches to learning, and their learning outcomes (Prosser & Trigwell, 1999, p. 08). That is, "students' perceptions of their learning situation evoke prior learning experiences that relate to their learning approaches and their learning outcomes" (Prosser & Trigwell, 1999). This conceptual framework represents the researcher's synthesis on how to explain concepts in comparing students learning approaches with practices of teaching methods. The focal point of this study is to assess whether the teaching methods encourage a surface or a deep approach to learning in TCs. The figure below describes the components of the study's revised conceptual framework.

Figure 1

Conceptual Framework of the Study

Independent Variables   Dependent Variables
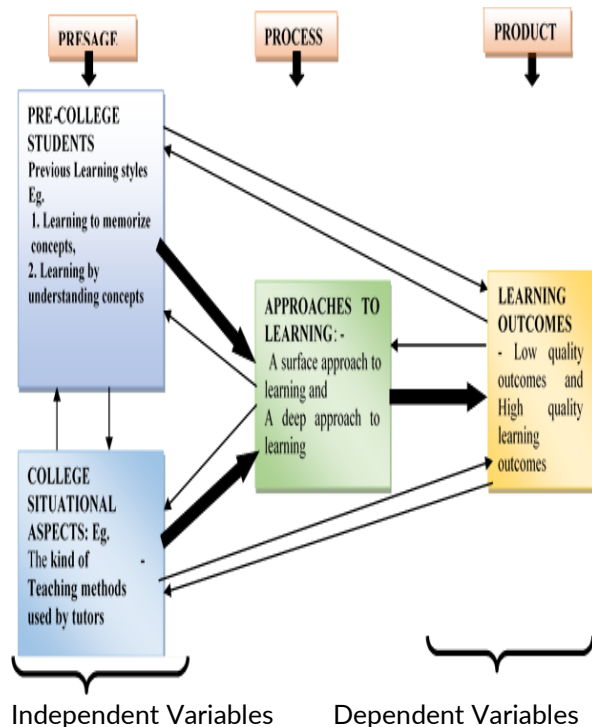
3P (Presage – Process – Product) Model adopted and Modified from Biggs, (1987) p 18.

2.0 Materials and Methods

The study used a qualitative approach to collect qualitative data. A qualitative approach to research is concerned with the subjective assessment of attitudes, opinions, and behavior. Such an approach to research generates results either in non-quantitative form or in the form that is not subjected to rigorous quantitative analysis (Kothari, 2004; Creswell, 2013). Qualitative research focusses on the understanding of social phenomena in natural settings (Ary, Jacobs, & Sorensen, 2010). The qualitative research approach was chosen because it focusses on the conceptual phenomenon, which is difficult to study using a quantitative approach. A qualitative approach can adequately explain the study's key variables, teaching practices, and learning approach. A qualitative approach assisted the researcher in organising qualitative field data.

This study used a case study research design, an in-depth exploration of a person, group, or event. It gives researchers the chance to collect information on why one strategy might be chosen over another (Creswell, 2014). The researcher selects a case study research design due to the study's focus is on the experiences and practices of tutors and student teachers in areas related to teaching and learning. It is used to examine individuals' understandings, behaviors, changes in thoughts, and personal experiences of a phenomenon. It generally offers a means of investigating complex social units consisting of multiple variables of potential importance in understanding social phenomena like teaching and learning. Therefore, the use of case study research design helped a researcher gain an in-depth understanding of the phenomenon described in the conceptual framework of this study.

The sampling technique used in this study is non-probability sampling, particularly purposive sampling in selecting colleagues, tutors, and students for the study. Malterud, Siersm, and Guassora (2015) proposed the concept of "information power", or information-rich cases, to guide a sample size in qualitative studies. Information power indicates that the more information the sample selected holds relevant to the actual study, the lower the number of participants needed. Malterud, Siersma, and Guassora (2016). While none of the guidelines presented by the mentioned researchers are intended to be perfect reference tools for selecting qualitative sample size, all of them agree that saturation of data is achieved at a comparatively low level. As a result, the study selected 32 respondents using the information power principle. The interview, observation, and document review methods were used for data collection. This study adopted an unstructured interview for students and tutors. The main reason for using this kind of interview is to make the information obtained more relevant and valid for the study. The researcher chose the interview method because of its advantages, which include facilitating an exchange of ideas between the researcher and respondents, as well as providing opportunities for

clarification and probing. The researcher was also aware of the interview's limitations, which is why he planned other methods such as qualitative observation and document review to complement those limitations. Both Kiswahili and English language (code switching) were used in interviews to find out how teaching and assessment practices influence students' approaches to learning. Communication was easiest in this language because participants preferred it. All interviews were audio-taped and transcribed word for word. Hand notes were also taken by the researcher.

In-classroom observation was used to demonstrate tutors' teaching methods. The researcher employed document review to examine various tutors' plans prior to the actual teaching session. The researcher collected the information from the observation and document review methods using the observation and document review checklist forms that were completed.

Content analysis was used to organize and analyze the collected data. Content analysis is a research method used to determine the presence of certain words, themes, or concepts within some given qualitative data or text. This type of qualitative data analysis is highly inductive, meaning that the themes emerge from the data and are not imposed upon it by the researcher (Dawson, 2007). Content analysis was established by the development of categories and a coding scheme were used to establish content analysis. Categories and coding schemes were derived from two main sources: field data and previous related studies. Coding schemes were developed primarily inductively based on the respondents' statements. The researcher involved the second coder in the coding process in order to ensure the reliability of the categories that were formulated. In order to make the study applicable, the researcher monitored and reported analytical procedures and processes as truthfully as possible. After organising, presenting, and classifying the data by coding through the content analysis process, the researcher summarised the entire study-related information for simple management and interpretation.

3.0 Results

3.1 Approaches to Learning

The questions for an unstructured interview with student teachers were made to elicit what approaches are mainly used by student teachers in TCs. Participants were asked about "What learning approaches are mainly used by student teachers in the selected colleges?" It was revealed that student teachers use two main approaches to learning: the deep approach and the surface approach. Further, interviewees from high and low-performing groups were required to clarify how they learn History or Geography. The responses reveal some of the characteristics of deep and surface approaches to learning, as explained below:

3.1.1 Deep Approach to Learning

The findings reveal that student teachers in TCs also use a deep approach to learning in their studies, regardless of the group to which they belong. The only difference is that most of the student teachers who performed well in their subjects are the champions in studying for understanding, which is the characteristic of deep learning compared to those in the lower-performing group. That is to say, the majority of learners in the high-performing group exhibited deep learning characteristics, while a smaller number displayed characteristics of surface learning. Higher performance: People with deep understanding typically perform better in tests, exams, and their day-to-day work, as they can think critically about a topic and articulate their thoughts more effectively. Deep understanding is also the basis for mastering a subject and becoming an expert (Wang, 2013). The learners who opt for deep learning immerse themselves in their subject and are motivated by their internal desire to know and understand more, often going beyond what is required by the taught content, and therefore perform higher than those who opt for a surface approach (Lublin (2003). The following subtheme shows examples of responses from the main question, which asked the student teachers how they learn History or Geography, and their responses depicted the deep approach to learning.

3.1.1.1 Relate the Ideas to Everyday Life

The student teachers have also shared their approach to learning, which involves connecting the material they need to learnThis approach may aid a learner in gaining a deeper understanding, as the association of ideas aids in a better understanding of the subject matter. derstand better the given idea. Their responses are as follows:

"I learn Geography by firstly, mastering the contents of key areas, which to me are very important for real life, in order to study them deeply or to master their contents. After sorting the subject contents to get the most important ones, I set my timetable, which must provide more priority for intensive study on the selected important topics." (ST17m).

Participants responded that they normally have priority topics by targeting useful information that will help them in examination. Another participant explained that:

"Those topics, which are not very applicable to my life, I study them partially. This is because, in my experience, the tutors always assess these important areas. Therefore, regardless of understanding them deeply, I can pass my examination." (ST3f)

The respondent's statement above demonstrates that student teachers often select major topics in the subject and study them to gain understanding, particularly for future use. These elements constitute a deep approach to learning, as their intention extends beyond merely preparing for their examinations. The other relevant response was provided by ST11 at college "B", who explained that:

"I learn Geography by focusing on where the tutor gave much concentration during teaching. What I'm trying to convey is that when a tutor focuses on a particular topic, it indicates the importance of that topic in life, particularly in the workplace. Therefore, I set aside enough time to study these important topics for understanding. I do not mean that I

ignore the other topics, but more weight is given to these areas of concentration rather than those other topics of the subjects." (ST11m).

The statement above demonstrates that student teachers can develop cues for effective learning by reflecting their tutor's emphasis on the topics when organizing lessons in class. This implies that when tutors place greater emphasis on a topic, student teachers may perceive it as significant, leading to effective learning. Therefore, tutors must be aware that learners somehow need to hear from their tutors in order to intensify the learning process. The other related response is that:

"I learn Geography very well because it is all about our environment. Everything I learn in Geography is connected to our daily lives. For example, environmental pollution, hazards, and conservation are the possible events that can be justified in our environments." (ST13m).

The response above shows that the student teacher has a good understanding of Geography concepts because they are related to his daily life and are also reliable in his environment.

3.1.1.2 Seek to Understand the Subject

The student teachers also showed the tendency to study very hard in order to understand the subject. Their responses are as follows:

"I learn History through listening properly to what is instructed by the tutors before going deep into reading several books to get more knowledge on what was taught." (ST5f).

Other respondents had this to add:

"I understand History very well if I relate the new concepts with the previous knowledge that I have already learnt in previous levels of education. I see like there is nothing new in History; instead, it is just an extension of what I already know." (ST1m).

"I understand Geography very well because it is related to other subjects like agriculture." (ST4m).

The responses above demonstrate that student teachers possess elements that support a deep approach to learning, as they aim to comprehend the subject matter, rather than merely preparing for examinations.

3.1.2 Surface Approach to Learning

The study's results indicate that many student teachers adopt a superficial approach to learning in their studies. Many student teachers in the low-performing group revealed that they prefer a surface approach to learning, whereas only a small number in the high-performing group demonstrated a similar preference. The main question, which asked student teachers how they learn History or Geography, was also used to depict the characteristics of a surface approach to learning. The following examples help to show the student's characteristics in learning:

3.1.2.1 Study for Remembering

The findings show that some of the student teachers revealed the way they approach their learning by taking a few aspects of the subject and concentrating on learning them in detail in order to remember them in the examination. This is done, particularly when they are preparing for examinations. This aspect of learning may encourage a learner to memorise facts because they do not focus on the other aspects related to the selected area of study. Their responses are as follows:

"...Generally, I study History by summarising the topics into simplified points in order to be able to study and remember them when doing examinations." (ST15m).

The above response shows that the student teacher's focus is on remembering the points when answering the examination. The other response is as follows:

"The means that our tutors use to teach us can somehow show how I learn Geography.

The way we are taught cannot make me study for understanding apart from only remembering what to write in the examination." (ST11m).

The above response shows that the student teacher believes that the means that their tutors use to teach them cannot make him understand deeply the subject; instead, it makes him remember only what to write in the examination.

3.2 Teaching Methods Used by Tutors

We conducted the interview to find out how students' teachers are instructed in History or geogrWe also collected information from the tutors during the interview, specifically asking them about their methods of teaching History or Geography. aphy. The findings show that there are many teaching methods that tutors use in TCs. Based on a conducted interview and the observations of four tutors during their actual teaching lessons, the following methods were revealed to be used in tutoring centers (TCs).

3.2.1 Study Tour

The students' teachers revealed that they are sometimes taught by conducting a study tour, especially for History and Geography subjects. They indicated that they are currently in the process of raising funds for a study tour to Bagamoyo to visit historical sites, but they are encountering significant financial challenges to ensure the success of this plan in an area known for its unique historical information centers. On the other hand, a Geography tutor reported that they had successfully conducted a study tour to an agricultural training institute in Kilosa during the student teachers' first year of study. The following examples illustrate the responses provided by the respondents.

"Study tour method of teaching is also used by our tutors. For example, the History tutors are planning a tour to Bagamoyo to observe historical sites... The problem is that they depend much on the students as source finance, which always limits the plans." (ST16m).

The college tutor provided the following response:

"In teaching Geography, I sometimes use field trips or study tours." For example, last year I went with my student to the Agricultural Research Institute (ARI) at Kilosa district to learn about the weather station."(CT11m).

The response given by the college tutor above shows that he sometimes uses the study tour method in teaching Geography, and he evidenced that they managed to visit the nearby agricultural area within the district.

3.2.1.1 Lecture Method

The findings of the study show that in most cases, the tutors use a lecture-style teaching method. The student teachers demonstrated that in rare instances, tutors, particularly those teaching Geography, may facilitate a group discussion by assigning questions or assignments to their organised group when they are not present at the college. Conversely, those who taught History were the strongest advocates of the lecture method. Additionally, the findings showed that tutors in administrative positions tend to favour the pure lecture method over other tutors who occasionally use a modified lecture method. This observation was also revealed in an interview with one of the respondents heading one of the administrative offices, who claimed that they always use a lecture method because they are more occupied with other non-academic duties.

The student teachers also explained that tutors who use a modified lecture method sometimes provide questions for an assignment. The assignments given to student teachers are not always followed by follow-ups, as the tutors sometimes receive the tasks for these assignments when they return, and sometimes they don't need to review what the students have completed. When the tutors return to the college, they simply pick up where they left off, regardless of the effort the student teachers put into preparing for that assignment. As a result, the students are reluctant to attempt questions or assignments, which are always given by the tutors after the lecture. This is because they are unsure of the tutor's follow-up

and the type of assistance they will receive to improve their learning. For example, the reasons provided by student teacher "1" at college "B" can be summarised as follows:

"My History tutor uses the lecture method in teaching. This teaching method is similar to the one used by my previous History teacher in ordinary-level secondary education: "I am experienced in listening and memorising historical facts."(ST1m).

The response from ST1 aligns with the perspective of "B", a college tutor, who highlighted the complexity of young people's conception of History, as they tend to focus solely on past facts, which can only be verified by present and future facts. The students hold the belief that proving past facts is a challenging task unless they personally witness them. The summary of the tutor's response is provided below:

"...Yes, I mostly use the lecture method because of the nature of students and subjects as well. For example, students have the perception that History is all about the past facts, which are verified by the present and future facts. Therefore, they think that it is difficult to study in group discussion because they have less to express independently.

.... I think they prefer lecture methods because for them, History is just like telling stories of the past." (CT3f).

The response above, as explained by the college tutor, revealed that the student teachers' perception of History subjects does not attract them to get a room for studying this subject deeply; instead, they study it for memorising the facts. They hold the belief that you cannot prove a past event unless you were there. As described in an earlier part of this method of teaching, History was found to be taught by using the lecture method as compared to Geography.

3.2.1.2 Think, Pair, Share (TPS)

The student teachers also show that the tutors use Think, Pair, Share (TPS) in TCs. An example of a response from a student teacher is provided below:

"I always learn better when I am exposed to participatory teaching methods. The best example of these teaching methods, which sometimes Geography tutors apply, is a TPS teaching method." (ST11m).

3.2.1.3 Debate Method of Teaching

The responses from both student teachers and tutors indicate that the debate teaching method is also used in TCs, particularly by tutors who specialize in History. For example, one student teacher provided the following response:

"They always use group discussions, questions and answers, role play, and debates on teaching History." (ST12m).

The response from the student teacher above shows that their tutors, especially those who teach History, do apply the debate teaching method.

3.2.1.4 Questions and Answers

The study's findings revealed that college tutors also employ a question-and-answer method of instruction. The researcher's observation of actual classroom lessons further supports this finding. The tutors use oral questions and wait for answers during the actual teaching activities. The intensity increases during the lesson's introduction and gradually decreases thereafter. The researcher also observed that the tutors do not value the answers provided by the students, nor do they focus on listening to the student teachers' responses. One of the respondents said:

"When I use questions and answers when my students seem to not understand the subject differently from when I use a discussion method of teaching." (CT1m).

The response indicates that the tutor does not favor using question-and-answer sessions due to the students' apparent lack of understanding.

3.2.1.5 Storytelling

This method is used by the History tutors at both of the selected colleges. According to the information provided by the respondents, this method involves selecting an individual with experience in a specific historical event to serve as the main speaker and narrate the story about that event. For instance, they invited an elderly man to recount the events surrounding the announcement of the Kagera war by the late Father of the Nation, Julius K. Nyerere. The student teachers also demonstrated that History is primarily about storytelling and fact memorization. The example below illustrates the college tutor's response, "A".

"I, sometimes, use a storytelling technique in teaching History. For example, for this second-year student teacher, I managed to invite our neighbour, who is an old man who evidenced colonial rule in Tanzania and the Kagera war, to just tell stories about the effects of these major events. The students were calm and very attentive in listening to the story, and sometimes they asked him some guided questions for their needs." (CT4m).

The response above demonstrates that the tutors sometimes use a storytelling method of teaching in TC. The tutor gave an example of the visit of one old man who acted as a guest speaker in one History lesson. The following example demonstrates the other responses from the tutors:

3.2.1.6 Role-Playing

The tutors also demonstrated their use of role-play methods in teaching History. They explained that role play is used to make learners aware of the practical role played by our ancestors. It encourages learners to take an active role, often using the roles of their ancestors as models to become good citizens and parents. The tutor at college "B" provided the following example:

"I use the role-play method in teaching History so as to make learners not rely on cramming the events that were practically played by our ancestors. The best examples of

these events are strong leadership during the time of their resistance to colonial rules and the management of the slave trade."(CT1m).

The above response demonstrates that the tutor employs the role-play method of teaching in order to discourage student teachers from cramming the facts that explain the roles played by grandparents.

3.2.1.7 Group Discussion

Group discussion is among the methods used by tutors in TCs. The student teachers are organised into small groups and assigned to work on certain tasks. The tutors claimed to use the group discussion method in their teaching practices during interviews, but upon observing their lessons in class, the researcher discovered that this method was implemented without any preparation to enhance its effectiveness. The tutors organise the groups roughly within the class, regardless of their compositions, and there is no critical supervision from tutors.

For example, in this area, the response given by the college tutor "1" can be summarized as follows:

> "When the topic is familiar to the student teachers, I always use group discussion in order to cover large contents."(CT3m).

> "Sometimes I use group discussion in teaching Geography."(CT4f).

> "If I use group discussion I feel that my students understand the subject well." (CT9m).

> "I mostly use the lecture method and sometimes group discussion in teaching." (CT2m).

The responses above indicate that college tutors occasionally employ group discussion methods in their teaching, but the researcher's lesson observation indicates that these methods are not effectively implemented by the tutors in TCs.

4.0 Discussion

The basic objectives of this study were to investigate the learning approaches mainly used by students' teachers in the selected teacher's colleges, to identify the teaching methods mainly used by tutors, and lastly, to examine the influence of teaching methods on the students' approaches to learning.

Generally, the study was about how teaching processes in TCs reflect students' learning approaches. To realise the aforementioned objectives, several interview and observation guide questions were used to establish information. The following are the discussions of the findings based on the objectives.

4.1 Learning Approaches Mainly Used by Student Teachers

For this study's guiding objective, the findings show that there are two main approaches to learning that were found to be encouraged in teaching Geography and History in TCs. These are the deep and surface approaches to learning, but the findings revealed that a deep approach to learning is less encouraged than a surface approach to learning. The study's findings also revealed that student teachers from low-performing groups exhibited more characteristics of surface learning compared to those from high-performing groups. These findings are related to those of Molander (1997), who concluded that a common characteristic of successful students is that they adjust to the teacher's way of structuring the subject by means of a deep approach, while less successful students more frequently use a surface approach to learning.

The findings are also related to the study done by Jimamva (2012) in a secondary school in Tanzania, which shows that teaching methodology in secondary schools is viewed to promote a surface understanding. This surface understanding usually led to poor quality learning outcomes. Despite the study being conducted in secondary schools, the results also showed that student teachers apply their prior learning experiences to their college studies. Therefore, theyTherefore, they continue to employ the same approach they adopted in their secondary schools, which primarily focuses on memorization, a form of surThis argument also relates to the Gijbels (22005) study, which

confirmed that student approaches to learning are sensitive to the learning context, as well as student age and gender, and that the values for deep and surface learning approaches may be related to academic outcomes.

However, Sumara and Kapler (2008) explained that it does not mean that there is no place for some rote memorization, but it must be minimized as it lowers the quality of the learning outcome. Decoding text and counting must become automatic and clear before being used to develop more complex skills. However, rote memorization, if pursued fully, can lead to a form of learning that allows students to pass a test only, without gaining the ability to use this knowledge in the development of more sophisticated understandings or apply what they learned within realistic contexts. This phenomenon appears to arise when learning occurs in decontextualized environments, where the acquired knowledge is disconnected from the broader context of skills or tasks, which runs counter to the principles of social constructivism. The insights from social constructivists suggest that deep learning occurs when students are given entrance experiences just beyond their abilities, whereby they are asked to relate what they have learned in practical situations. Therefore, providing thorough feedback on their works and scaffolding tendencies must be an integral part of the teaching process.

4.2 Teaching Methods Used by Tutors

The findings indicate that tutors employ various teaching methods such as lectures, storytelling, question-and-answer sessions, study tours, debates, and group discussions in their actual practices. Despite the use of various teaching methods in TCs, the findings indicate that many tutors prefer to use lecture and storytelling methods when teaching History and Geography. This practice is more prevalent in the teaching of History than in Geography. Many tutors who teach History claimed that they use the lecture method more frequently because of the nature of the subject, which requires learners to memorise rather than understand the subject. They argued that History is all about the past facts, which are

verified by the present facts, and therefore it is impossible for the young historians (learners) to easily understand them because they were not there. History is also about the narration of past events.

Their propositions align with Perkins' (2009) concept of "spoon feeding," in which students typically learn about a topic or concept without actively participating in the construction of that knowledge. For example, in History, students are generally presented with an authoritative, authorless series of facts about an epoch in the form of a long list of names, dates, and events. Students rarely have the opportunity to participate in actual historical inquiry aspects, thereby learning how historians constructed knowledge about the past.

On the other hand, those tutors who teach Geography argue that they often use the lecture method because the classes are overcrowded, which forces them to use less interactive teaching methods in order to complete the content given in the syllabus. They acknowledge that the policy, along with other directives and circulars, mandates them to implement a variety of participatory teaching methods to make their teaching more interactive. However, they often struggle to implement these methods due to the overwhelming number of students in their classrooms.

It was also found through actual teaching observation, which was made by the researcher, that many tutors use the pure lecture method in teaching Geography, especially those holding managerial functions like the academic masters or mistresses and those from the dean's' office. This could potentially be attributed to a lack of preparation prior to the actual teaching session, as they often have numerous other responsibilities outside of teaching. This finding also relates to Wang's study, which found that teaching clarity, organization, and innovative assessment methods can contribute to the greater use of deep approaches to learning in classrooms. However, developing effective teaching methods, innovative assessments, and innovative curriculum designs are time-consuming tasks for educators (Wang, 2013).

This idea shows that if tutors are too occupied, they might not get enough time to get prepared for effective teaching.

In summary, a disproportionate number of tutors taught Geography and History using methods classified under the transmission approach, compared to those under the collaborative and interaction approach. Smith, Lee, and Newman (2001) explain that in classrooms that emphasise interactive instruction, students discuss ideas and answers by talking, and sometimes arguing, with each other and with the teacher. Students work on applications or interpretations of the material to develop new or deeper understandings of a given topic. Such assignments could take several days to complete. Students in interactive classrooms are often encouraged to choose the questions or topics they wish to study within an instructional unit designed by the tutor. Different students may be working on different tasks during the same class period. This, therefore, shows that the need to promote interactive teaching methods must not be underestimated when student teachers are required to learn for understanding. Interactive or participatory teaching methods are said to promote deep learning and improve the quality of learning outcomes.

The transmission approach involves the tutor dominating the lessons through the use of oral transmission techniques. The best examples of these methods include the lecture method, exposition, and storytelling.

The results indicate a preference for the transmission approach in Technical Colleges (TCs). Therefore, tutors in TCs likely encourage a surface approach to learning, as various scholars have proven that transmission-oriented teaching methods promote a surface approach to learning. For example, Trigwell, Prosser, and Waterhouse, as cited in Richardson (2005), showed that students whose teachers adopted a student-focused approach were more likely to adopt a deep approach to learning and less likely to adopt a surface approach to learning than students whose teachers adopted a teacher-focused approach. Bransford, Brown, and Cocking (2000) explained that lecture methods promote less interaction and make students more passive in learning processes, which promote a surface understanding. Lublin (2003), on the other hand, explained that traditional forms of teaching reward passivity in students rather than active involvement and have less chance of developing those higher-level cognitive abilities that are usually stated in learning objectives and that always promote a deep approach to learning. The study's findings are also contrary to Mayer's (2004) social constructivist learning, who explained that the constructivist view favors teaching methods that focus primarily on learners playing an active and major role in acquiring information and developing concepts and skills while interacting with their social and physical environment. The teacher's role becomes one of facilitator and supporter rather than solely instructor. The nature of the teaching method can determine the extent to which the learners have gone deeper in their learning.

5.0 Conclusion

From the findings of the study, it was concluded as follows: first, most of the teaching in TCs is teacher-centred, relying on lecture and storytelling teaching methods that reflect a surface approach to learning. There are a few examples of learning-centered approaches to teaching. Tutors, particularly those teaching History, tend to use the lecture method more often than those teaching Geography.

Secondly, there is a close relationship between the teaching methods and student teachers' approaches to learning. The findings showed that the teaching methods used more frequently, such as lecture and storytelling, encourage a surface approach to learning.

6.0 Recommendations

To make teaching in TCs more effective for deep learning, the researcher recommends that tutors should use more learner-centred teaching methods in order to encourage more student teachers to adopt a deeper approach to learning.

Additionally, further research could be conducted to explore the correlation between other pre-college and college-related factors that could potentially influence students' learning approaches. Consider the students' intellectual capabilities and learning approaches. Further research may be necessary, as the researcher has only addressed one aspect of the college situation, leaving out the pre-college situational factors outlined in the conceptual framework of this study.

9.0 References

Acosta-JaAry, D., Jacobs, L. C., & Sorensen, C. K. (2010). Introduction to research in education (8th ed.). Australia: Wadsworth Cengage Learning.

Biggs, J., & Tang, C. (2007). Teaching for quality learning at university: What the student does (3rd ed.). New York, NY: McGraw-Hill Education.

Biggs, J. (1987a). Students' approach to learning and studying. Hawthorne, Australia: Australia Council for Educational Research.

Bransford, J. D., Brown, A. L., & Cocking, R. R. (2000). How people learn: Brain, mind, experience, and school. Washington, DC: National Academies Press.

Chan, C. K. Y., & Yeung, N. C. J. (2019). 'Students' 'approach to develop' in holistic competency: An adaption of the 3P model. *Educational Psychology*, *40*(5), 622–642. https://doi.org/https://doi.org/10.1080/01443410.2019.1648767.

Creswell, J. W. (2014). *Research design: qualitative, quantitative, and mixed methods approaches.* 4th ed. Thousand Oaks, California, SAGE Publications.

Dawson, C. (2007). A practical guide to research methods (3rd ed.).Entwistle, N. J., & Ramsden, P. (1983). Understanding student learning. London, UK: Croom Helm.

Huba, M. E., & Freed, J. E. (2000). Learner-centered assessment on college campuses: Shifting the focus from teaching to learning. Boston, MA: Allyn and Bacon.

Kember, D., Webster, B., & Chan, W. (2020). Refocusing the 3P model to incorporate a learning and teaching environment and graduate attributes. *Educational Psychology*, *40*(5), 592-607. https://doi.org/https://doi.org/10.1080/01443410.2020.1732304.

Kothari, C. R. (2004). Research methodology, methods, and techniques. New Delhi, India: New Age International (P) Ltd.

Molander, B. (1997). Joint discourses or disjointed courses: A study on learning in upper secondary school (Doctoral dissertation). Stockholm, Sweden: Stockholm Institute of Education Press.

Msabila, D. T., & Nalaila, S. G. (2013). Towards effective researching and dissertation writing a research proposal and dissertation writing; principles and practice. Dar es Salaam, Tanzania: Nyambari Nyangwine Publishers.

Msonde, C. E. (2011). Enhancing teaching competence on learner-centered approach through learning study in Tanzania schools (Doctoral dissertation). Hong Kong, China: the University of Hong Kong.

Mtitu, E. A. (2014). Learner-centered teaching in Tanzania; Geography teaching perception and experience (Doctoral dissertation). Victoria, New Zealand: Victoria University of Wellington.

Perkins, D. (2009). Making learning whole: How seven principles of teaching can transform education. San Francisco, CA: Jossey-Bass.

Prosser, M., & Trigwell, K. (1999). Understanding learning and teaching: The experience in higher education. Buckingham, UK: SRHE and Open University Press.

Smith, J., Lee, V., & Newman, F. (2001). Instruction and achievement in Chicago elementary schools. Chicago, IL: Consortium on Chicago School Research: University of Chicago.

Sumara, D., & Kapler, L. (2008). Engaging minds: Changing teaching in complex times. Mahwah, NJ: Lawrence Erlbaum Associates.

Westwood, P. (2008). What teachers need to know about teaching methods. Camber well, Vic, Australia: ACER Press.

Jidamva, G. B. (2012). Understanding and improving quality of secondary school education: Conceptions among teachers in Tanzania [Unpublished doctoral dissertation]. Abo Academy University. Retrieved from http://www.doria.fi/bitstream/handle/10024/86169/jidamva_george.pdf?sequence=1&isAllowed=y

Onuka, A. (2006). Continuous assessment as an instrument of achieving learning objectives [Unpublished research report]. Ibadan, Nigeria: University of Ibadan.

Wang, J. S. (2013). The effects of deep approaches to learning on students' need for cognition over four years of college [Doctoral dissertation, University of Iowa]. Retrieved from http://ir.uiowa.edu/etd/4924

Asikainen, H., & Gijbels, D. (2017). Do students develop more deep approaches to learning during studies? A systematic review on the development of students' deep and surface approaches to learning in higher education. Educational Psychology Review, 29(2), 205–234. https://doi.org/10.1007/s10648-016-9369-4

Diseth, Å. (2011). Self-efficacy, goal orientations, and learning strategies as mediators between preceding and subsequent academic achievement. Learning and Individual Differences, 21(2), 191–195. https://doi.org/10.1016/j.lindif.2011.01.004

Diseth, Å. (2003). Personality and approaches to learning as predictors of academic achievement. European Journal of Personality, 17(2), 143–155. https://doi.org/10.1002/per.467

Gijbels, D., et al. (2005). The relationship between students' approaches to learning and the assessment of learning outcomes. European Journal of Psychology of Education, 20(4), 327–341. https://doi.org/10.1007/BF03173622

Lee, S., Wang, T., & Ren, X. (2019). Inner speech in the learning context and the prediction of students' learning strategy and academic performance. *Educational Psychology*, *40*(5), 535549. https://doi.org/https://doi.org/10.1080/01443410.2019.1612035

Lublin, J. (2003). Deep, surface and strategic approaches to learning. Centre for Teaching and Learning Good Practices in Teaching and Learning, 1, 1–10.

Malterud, K., Siersma, V. D., & Guassora, A. D. (2015). Sample size in qualitative interview studies: Guided by information power. British Medical Journal, 26(13), 1753–1760. https://doi.org/10.1136/bmj.h2070

Malterud, K., Siersma, V.D. and Guassora, A.D. (2016) Sample Size in Qualitative Interview Studies: Guided by Information Power. Qualitative Health Research, 26, 1753-1760.

Meece, J. L. (2003). Applying the learner-centered principle to middle school education: Theory into practice, 42(2), 109–116.

Mayer, R. E. (2004). Should there be a three-strikes rule against pure discovery learning? The

case for guided methods of instruction. American Psychologist, 59(1), 14–19. https://doi.org/10.1037/0003-066X.59.1.14

Marton, F., & Saljo, R. (1976). On qualitative differences in learning: In outcome and process. British Journal of Educational Psychology, 46(1), 4–11. https://doi.org/10.1111/j.2044-8279.1976.tb01937.x

Nieminen, J. H., et al. (2021). Promoting deep approach to learning and self-efficacy by changing the purpose of self-assessment: A comparison of summative and formative models. Studies in Higher Education, 46(7), 1296–1311. https://doi.org/10.1080/03075079.2020.1844210.

Ndalichako, J. (2015). Secondary school teachers' perception of assessment. International Journal of Information and Educational Technology, 5(5), 326–330. https://doi.org/10.18178/ijiet.2015.5.5.504

Oigara, J. (2011). The effect of school environment on student achievement and self-esteem: A case study of Kenya. Special Issue on Behavioral and Social Science, 50–54.

Parpala, A., et al. (2010). Students' approaches to learning and their experiences of the teaching-learning environment in different disciplines. British Journal of Educational Psychology, 80(2), 269–282. https://doi.org/10.1348/000709909X482056.

Richardson, J. T. E. (2005). Students' approaches to learning and teachers' approach to teaching in higher education. Educational Psychology, 25(6), 673–680. https://doi.org/10.1080/01443410500072867.

Waugh, G. H., & Waugh, R. F. (1999). The value of lectures in teacher education: The group perspective. Australian Journal of Teacher Education, 24(1), 36–51. https://doi.org/10.14221/ajte.1999v24n1.4.