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# Use of Demonstration in Instructional Scaffolding and Students' Learning in Geography in Secondary Schools in Fako Division, Cameroon

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## Abstract

Lev Vygotsky's socio- cultural Theory and the concept of the Zone of Proximal development has been credited for the use of instructional scaffolding in modern day classrooms. Though the constructivist theorists advocate for students to construct knowledge on their own for it to be meaningful to them, scaffolding facilitates the learner's ability to build on prior knowledge and internalize new information. The process of teaching implies interaction, cooperation and effective communication among the teacher and students. This is strongly influenced by the social and cultural context of the education system that sees teaching as the transformation of socially constructed knowledge where the role of the teacher is that of a collaborator and co- constructor. One way to describe and explain the role of the teacher is with the use of the concept of scaffolding. To this end, the study describes Instructional scaffolding and seeks to investigate how the specific pedagogical strategy of demonstration used in scaffolding can promote learning in secondary school students in Fako Division. Using a descriptive survey design, questionnaires were used to collect data from Geography students and teachers. The sample population for the study was made of 200 students. Descriptive statistics were used to describe the data collected, while the Pearson product-moment correlation

**Keywords:** Instructional scaffolding, demonstration, learning, secondary, school, students

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coefficient was used to test the research hypotheses. Statistical findings showed a very significant and positive relationship between demonstration techniques and students' learning in Geography (R= 0.533**, P= 0.002 < 0.05). The positive sign of the relationship implies that students learning improves when demonstration techniques are used in teaching Geography. The study recommended that the school authorities and the ministry of Secondary Education should ensure adequate and regular supervision of schools and instructions to ensure that suitable instructional strategies are used to improve students' performance.

## INTRODUCTION

Geography is a discipline that deals with how man relates with his environment and therefore, it is a subject that is alive. It deals with issues that affect the environment as was created by God (Genesis 1:1-31). Geography is unique in bridging the social sciences (human geography) with the natural sciences (physical geography). Human geography concerns the understanding of the dynamics of cultures, societies and economies, and physical geography concerns the understanding of the dynamics of physical landscapes and the environment. Geography puts this understanding of social and physical processes within the context of places and regions recognizing the great differences in cultures, political systems, economies, landscapes and environments across the world, and the links between them. Understanding the causes of differences and inequalities between places and social groups underlie much of the newer developments in human geography.

Geography as a more practical subject requires the use of strategies that give the learner hands-on experiences to be able to relate better with the environment. These abilities are necessary for the learner to use long after schooling and therefore any teaching processes must enhance a more practical approach based on their training at universities.

Vygotsky contended that interaction is vital for learning as learners can benefit from the process to enhance their learning achievement. This interaction between the learner and other more skilful peers could effectively aid in developing the learner's skills, competence, and strategies. Vygotsky did not propose a specific procedure for determining how to locate an individual's ZPD, nor did he specify

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how to perform dialogic interaction within it. He did, however, briefly mention examples of the work that could be conducted within the ZPD, such as giving demonstrations, asking leading questions, and giving part of a task's solution (Chaiklin, 2003).

Cameroon's vision 2035 has highlighted geography -related problems that need to be handled as a matter of urgency (Ambei and Kibinkiri, 2020). Among these are urban and regional development challenges, environmental and climate change protection and mitigation, space control, indiscriminate distortion of the ecosystem, extension of plant and animal species, infrastructural development and African and geo-political management.

**Problem and Purpose of the study**

Student-teacher interaction, teaching techniques, method of transmission of concepts affects students learning. Some teachers generally prefer traditional teaching approach and this has led to continuous poor academic achievement of students in social science subjects generally and Geography in particular. The level at which students learn in geography calls for a need to ascertain a teaching method that will improve the achievement of students. The instructional strategy adopted by geography teachers as observed, were not well-matched to really enhance students' understanding of concepts, added to inadequate teaching materials, large class size, unconducive teaching environment. All of these contribute to student's poor academic achievement in geography. The poor performance and low level of achievements in local and standardized examinations in the educational system in Cameroon is a call for concern, for researchers, educators and stake-holders in this sector over the years. It is observed that students usually fail in geography examinations especially in topics like map reading, field trip case study just to name a few due to improper teaching technique, motivation and lack of essential teaching aids for instructional delivery. Some consequences of such failures include increase in educational wastage (school dropout), increase in deviant behaviours and waste of academic resources. Therefore, there is the need to explore other ways of presenting geographical concepts to the students to enhance meaningful learning, academic achievement, and retention of concepts. When there is effective interaction between teacher and students, teaching becomes meaningful. The Scaffolding technique may play an important role in the teaching and learning processes. Hence the use of instructional scaffolding to improve these falling students' academic achievement was the main concern or problem of our study.

The study therefore seeks to assess the use of instructional scaffolding technique of demonstration in teaching and its effects on how students learn in Geography secondary schools in Fako Division.

**The context of Geography Teaching in Cameroon**

According to Njah (1999), the Cameroon curriculum on geography as a discipline enables us to

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understand the Earth we are living in from a spatial perspective. It offers a systematic framework for enquiry into questions about the world that surrounds us. Geography provides a bridge between the social sciences and the physical sciences, through the provision of an understanding of the dynamics of cultures, societies and economies on the one hand, and those of physical landscapes and environmental processes on the other. Geography as a secondary school subject enables students to explore and understand the relationship between the earth and its peoples through the study of space, place and environment. These three elements (or macro-concepts) form the core of geography in secondary school education. In pursuit of such an understanding, the questions "what", "where", "how", "why" and "what if" are central and are basic constructs for developing a geographical framework for enquiry.

The study of geography at secondary school level is built on the knowledge and skills students would have acquired in the primary school curriculum. These include the concepts and knowledge embedded in the various strands of the curriculum, in particular on environment. Students completing the secondary school geography curriculum would also have acquired basic enquiry and generic skill, and have had experience of making value judgments through investigating issues from a geographical perspective. Geography aims to provide students with an understanding of the earth and the modern world. Through examining the interrelationship among people, place and environment it helps students to acquire an in- depth understanding of the changing contemporary world in terms of space and environment. Natural features, provides a rich context for geography students to develop a global outlook, an awareness on the influence of globalization and an appreciation of the importance of international cooperation in tackling global issues. Senior secondary geographical education seeks to use the rich context to enable students to gain a deeper understanding of changing world, the changing environment and the changing economy.

On the other hand, the study of geography will help students develop a sound knowledge of our nation. It will help students to face challenges posed by population explosion, environmental pollution, regional socio- economic inequality, resource depletion, etc, all of which are becoming ever more prominent in the world in general. Moreover, the study of geography also provides opportunities for students to develop their global intellectual capacity for life-long learning, and for generic skills such as critical thinking, communication, information processing, problem solving, decision making.

The study of geography in secondary schools provides students who will study geography in the universities with a solid conceptual foundation, while for those who will enter university to study other subjects (such as Arts or Social and environmental Sciences), it would have provided exposure to higher order thinking. For all students, it provides a perspective towards socio-economic and

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environmental issues, a focus on citizenship and on national and global identity, and opportunities for developing generic skills such as the ability to analyse and synthesize, to solve problems, to communicate and to use information technology. The subject also prepares students for a range of career choices in which a global perspective, environmental ethics and awareness, and a sound sense of space and region are specifically needed.

More obvious examples of such careers include urban and transport planning, resources and environmental management, tourism and recreation, and at a broader level administration and business. In brief, secondary geographical education will equip our students to become geographically informed and inquiring people; people who see meaning in the arrangement of things in space; who see relations between people, place and environment; who ask geographical questions and find answers through enquiry; who use geographical knowledge and skills in solving problems; and who apply spatial and ecological perspective to life situations. In geography, a child learns better if the teaching is supported by concrete and objective materials that give the child first-hand knowledge and experience. For example, when teaching field work a trip to the riverside, visit to a factory, a forest, some specimens of seeds, fruits or vegetables, rocks and minerals would form concrete illustration in geography lesson. Some differences of apprehension are cleared up with the use of illustration since explanation are simplified and given vividness with help of illustration.

**Instructional Scaffolding**

The idea of a scaffold approach to learning can be traced to scholars such as Jerome Bruner and Lev Vygotsky. Vygotsky was of the opinion that children do not operate in isolation but learn by interacting with more knowledgeable others (an adult, an older peer, a teacher, or, perhaps today even the internet) (Smith, Cowie, and Blades, 2003). Bruner is in support of Vygotsky's view that society provides the tools that enables a child to develop his/her thinking beyond his/her chronological age, and he also developed Vygotsky's ideas further by calling the role that knowledgeable others play in helping a child to learn as a loan of consciousness' scaffold (Smith, 2003). Scaffold functions as a tool that allows learners to accomplish a given task). In the context of education, it serves as a framework to help the student step beyond age-related limitations by breaking up the learning into chunks and then providing a tool, or structure through which a child can gradually build up knowledge. Hence, support and the helpful interactions between the teacher and the learner provide a step-by-step approach through which a child can gradually build up knowledge to enable him/her to perform beyond their independent efforts, where the support is not given the reverse would be the case. Instructional scaffolding is a learning process designed to promote a deeper level of learning; it is the support given during the learning process which is tailored to the needs of the learner with the intention of helping the learner achieve his/her learning goals (Sawyer, 2006).

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In a social interaction, a knowledgeable participant can by means of speech, create supportive conditions in which the student (novice) can participate in and extend current skills and knowledge to a high level of competence (Donato, 2000). Similarly, (Turku, 2008) postulates that scaffolding is an instructional structure whereby the teacher models the desired learning strategy or task then gradually shifts responsibility to the students. Turku (2008) and Sawyer's (2006) emphasized the explicit support giving to learners in learning processes to enhance their performance. Podolefsky, Moore, and Perkins (2014) argued that Scaffolding can be implicit or explicit, the implicit scaffolding is neither written nor verbal, but is built into the design of the learning environment or the learning tool itself.

By incorporating implicit scaffolding, the learning environment or tool can support students to learn and move into their ZPD with minimal explicit guidance from a teacher or more knowledgeable other. Podolefsky Furthermore noted that, implicit scaffolding can provide an inherent flexibility that can support students along varied, individualized learning trajectories, fulfilling the need for adaptability in scaffolding. Scaffolding as a metaphor in teaching and learning describes a system of temporary guidance offered to the learner by the teacher, jointly co-constructed, and then removed when the learner no longer needs it (Boblett, 2012).

**Features of Scaffolding**

If effectively used, scaffolding provides a support, can functions as a tool, can extends the range of the worker, allows a worker to accomplish a task not otherwise possible; and it is used to selectively aid the worker where needed (Greenfield 1999). Ellis and Larkin cited in Larkin (2002) provide a simple structure of scaffold instruction. First, the instructor does it. In other words, the instructor models how to perform a new or difficult task, such as how to use a graphic organizer. Second, the class does it. The instructor and students then work together to perform the task. For example, the students may suggest information to be added to the graphic organizer. As the instructor writes the suggestions on the white board, students fill in their own copies of the organizer. Third, the group does it. At this point, students work with a partner or a small cooperative group to complete the graphic organizer (i.e., either a partially completed or a blank one). More complex content might require a number of scaffolds given at different times to help students master the content. Fourth, the individual does it. This is the independent practice stage where individual students can demonstrate their task mastery (e.g., successfully completing a graphic organizer to demonstrate appropriate relationships among information).

There are three essential features of scaffolding that facilitate learning. The first feature has to do with the interaction between the learner and the expert. This interaction should be collaborative for it to be effective. The second, learning should take place in the learner's zone of proximal development.

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To do that the expert needs to be aware of the learner's current level of knowledge and then work to a certain extent beyond that level. The third feature of scaffolding is that the scaffold, the support and guidance provided by the expert, is gradually removed as the learner becomes more proficient. (Beed, Hawkins, and Roller: 1991; Wood, and Wood, 1996). Similarly, Wood (1976) described six tutor actions that constitute the process of scaffolding: (1) recruiting interest in the task; (2) reducing the degrees of freedom (simplifying the task); (3) maintaining direction toward the goals of the task; (4) marking critical features; (5) controlling frustration; and (6) modelling the preferred procedures by demonstrating, so that the learner can _imitate it back'. Van de Pol, Volman, Elbers, and Beishuizen (2010) distinguished three scaffolding key characteristics: contingency (also referred to as responsiveness); fading; and transfer of responsibility (also referred to as handover to independence). Alibali (2006) suggests that as students' progress through a task, faculty can use a variety of scaffolds to accommodate students' different levels of knowledge. More complex content might require a number of scaffolds given at different times to help students master the content.

**Role of Teachers in Scaffold**

To ensure that specific objectives of lesson is achieved, teachers' have prominent role to play in scaffolding. It is the duty of a teacher to provide encouragement and motivation as well as ask questions and have students explain their progress to help them stay focused on their learning goals. It is the responsibility of the teacher to provide assistance to learners to make them become less dependent on instructional supports as they work on tasks and encourage them to be more creative. It is duty of the instructor to models how to perform a new or difficult task by the learners. Moore, Herzog, and Perkins (2013) argued that Teachers as well as teacher-designed activities and worksheets continue to serve critical roles shaping and scaffolding the students' learning experience‖. Similarly, Crawdford 2000, as cited in Raes, Schellens, Wever, and Vanderhoven (2011) noted that Teachers play multiple roles in inquiry classes. Moreover, when the inquiry classes are technology enhanced, teachers' roles become even more crucial. The teacher needs to first help students understand the inquiry practice before they can effectively use the computer-based scaffolds embedded in the project.

**Demonstration in Instructional Scaffolding**

Demonstration method refers to the type of teaching method in which the teacher is the principal actor while the learners watch with the intention to act later. Here the teacher does whatever the learners are expected to do at the end of the lesson by showing them how to do it and explaining the step-by-step process to them (Ameh, Daniel and Akus, 2007). Mundi (2006), described it as a display or an exhibition usually done by the teacher while the students watch with keen interest. He further added that, it involves showing how something works or the steps involved in the process. Some of

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the advantages of this method as outlined by Mundi (2006) include: - It saves time and facilitate material economy; the method is an attention inducer and a powerful motivator in lesson delivery; students receive feedback immediately through their own products; it gives a real-life situation of course of study as students acquire skills in real-life situations using tools and materials; it help to motivate students when carried out by skilled teachers and it is good in showing the appropriate ways of doing things.

Conventional lecture method is a common strategy teacher employ in the teaching of Geography. It is also referred to as talk and chalk or textbook method (Gbamaja, 1991). In the course of employing the method, the teacher dominates the teaching with very little participation on the part of the learners. Here the teacher is seen as the repository of all knowledge while the students are passive recipients of knowledge transmitted by the teachers in the process of learning. The method has the advantage of covering a wider area within a short time but it is not student centred and students do not gain mastery of concepts.

Demonstration teaching method refers to the type of teaching method in which the teacher is the principal actor while the learners watch with the intention to act later. Here the teacher does whatever the learners are expected to do at the end of the lesson by showing them how to do it and explaining the step-by-step process to them (Adekoya & Olatoye, 2011). Daluba (2013), described it as a display or an exhibition usually done by the teacher while the students watch with keen interest. Daluba (2003), further added that, it involves showing how something works or the steps involved in the process. Demonstrations provide a multi-sensory means to describe a concept, idea, or product that may otherwise be difficult to grasp by verbal description alone (Cabibihan, 2013). The act of demonstrating readily helps to kindle more natural interactions between the students and the teacher.

In demonstration teaching method, according to Dorgu (2015), the role of the teacher is to illustrate how to do something or illustrate a principle first by explaining the nature of the act verbally, followed by demonstrating the act in a systematic manner and later the students repeat the act. Demonstration is useful mostly in imparting psychomotor skills and lessons that require practical knowledge. The gains of using demonstration method in teaching lies in the fact that it bridges the gap between theory and practice, enables learners to become good observers and generate their interest; students see immediate progress as a result of a correct effort and it enables the teacher to teach manipulative and operational skills. It is a method of teaching concepts, principles of real things by combining explanation with handling or manipulation of real things, materials or equipment (Akinbobola & Ikitde, 2011).

The demonstration teaching method according to McCabe (2014), is an attention inducer and a powerful motivator in lesson delivery. It gives a real-life situation of course of study as students

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acquire skills in real-life situations using tools and materials; it helps to motivate students when carried out by skilled teachers and it is good in showing the appropriate ways of doing things. It is against this backdrop that researchers, such as Daluba (2013), Vincent and Akpan (2014), Amaechi and Thompson (2016) as well as Osuyi and Ainetor (2018), recommend that demonstration teaching method be used for teaching within social sciences, such as Geography.

**Methodology**

The study employed the descriptive survey design with a measurable population of 200 students selected from public, lay private and denominational secondary schools in Fako Division. The selection was done with the use the non-probability sampling designs as indicated in table 1 below

**Table 1:** ***Sampled population***

| Type of school | Population of students |
|---|---|
| Public | 100 |
| Mission | 50 |
| Lay private | 50 |
| **Total** | **200** |

**Instrument for Data Collection**

The questionnaire was the instrument used to collect data for the study. The questionnaire contained a four Likert type scale (Strongly Agree-SA, Agree-A, Disagree-D and Strongly Disagree-SD) and closed ended questions

**Method of Data Analysis**

Two data analysis approaches were used in analyzing the data collected for the study. Before analyzing the quantitative data were collected from the field, both the test items and questionnaires were coded with a serial number. After the process of coding, a pre-designed Epi Data Version 3.1 (Epi Data Association, Odense Denmark, 2008) database which has an in-built consistency and validation checks was used to enter the data. The study made use of the descriptive statistical tools with frequency count and percentages. The Pearson test was the inferential statistical tool adopted for the study and used for hypothesis testing.

**Presentation of Findings Based Demonstration and Students' Learning in Geography**

The objective of the study was to find out the effects of demonstration on students' learning in Geography in secondary schools in Fako division. In order to achieve this objective, and so provide an answer to the research question, the opinions of Geography students and teachers were sought, using closed-ended questionnaire and an interview guide respectively. The data collected is

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presented below;

***Table 2: Demonstration and Students' Performance in Geography***

| Statements | Stretched Responses | | | Collapsed Responses | | |
|---|---|---|---|---|---|---|
| | Strongly agree | Agree | Disagree | Strongly Disagree | Agree | Disagree |
| My Geography Teacher often illustrates when teaching | 98 (49%) | 76 (38%) | 11 (5.5%) | 15 (7.5%) | 174 (87%) | 26 (13%) |
| My Geography Teachers explain concepts by handling and manipulating real objects | 59 (29.5%) | 63 (31.5%) | 22 (11%) | 56 (28%) | 122 (61%) | 78 (39%) |
| My Geography teachers teach us concepts in a systematic and step-by step way | 74 (37%) | 53 (26.5%) | 40 (20%) | 37 (18.5%) | 127 (63.5%) | 73 (21%) |
| The use of demonstration method in teaching increase my curiosity and enhances my reasoning abilities. | 62 (31%) | 55 (27.5%) | 50 (25%) | 33 (16.5%) | 117 (58.5%) | 83 (41.5%) |
| I score well in Geography exams/tests due to demonstration teaching methods | 92 (46%) | 88 (44%) | 11 (5.5%) | 09 (4.5%) | 180 (90%) | 20 (10%) |
| I am able to understand/retain concepts in Geography because of illustrations/display used by the teacher | 78 (39%) | 93 (46.5%) | 19 (9.5%) | 20 (10%) | 171 (85.5%) | 29 (19.5%) |
| My Geography Teacher often sets targets for me to meet up after watching a class presentation | 50 (25%) | 52 (26%) | 54 (27%) | 44 (22%) | 102 (51%) | 98 (49%) |
| Demonstration makes me to actively participate in class | 63 (31.5%) | 114 (57%) | 10 (5%) | 13 (6.5%) | 177 (88.5%) | 23 (11.5%) |

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| | | | | | | |
|---|---|---|---|---|---|---|
| Demonstration helps me to create mental links between new and previous learning. | 81 (40.5%) | 67 (33.5%) | 30 (15%) | 22 (11%) | 148 (74%) | 52 (26%) |
| My performance in Geography is high due to the use of demonstration teaching methods by my Teacher | 93 (46.5%) | 75 (37.5%) | 20 (10%) | 12 (6%) | 168 (84%) | 32 (14%) |
| **Multiple Response Set** | **750 (37.5%)** | **736 (36.8%)** | **253 (12.65%)** | **261 (13.05%)** | **1486 (74.3%)** | **514 (25.7%)** |

**N = 100**

Results of the inferential statistics above shows students' opinions on effects of demonstration on students' learning in Geography. On aggregate, the findings revealed that demonstration is commonly used in the teaching of Geography in secondary schools in Fako division and that demonstration has positive effects on students' learning. This argument has held and supported by a majority of 74.3% respondents.

Specifically, the results revealed that, out of the 200 Geography students sampled for the study, a majority of 174(87%) respondents agreed that their Geography Teachers often illustrate when teaching. Only 26(13%) of them disagreed. Secondly, 122(61%) respondents agreed that their Geography Teachers explain concepts by handling and manipulating real objects. Also, a majority of 127(63.5%) of them agreed that their Geography Teachers teach them concepts in in a systematic and step-by step way. 117(58.5%) respondents agreed that the use of demonstration method in teaching increase their curiosity and enhances their reasoning abilities while a majority of 180(90%) respondents agreed that they score well in Geography exams/tests due to demonstration teaching methods.

The research findings further revealed that, out of the 200n student respondents, a majority of 171(85.5%) respondents agreed that they are able to understand/retain concepts in Geography because of illustrations/display used by their teachers. 102(51%) of them also agreed that their Geography Teachers often set targets for them to meet up after watching a class presentation, while 98(49%) of them disagreed. It was also found that 117(88.5%) respondents agreed that the use of demonstration makes them to actively participate in class, while 148(74%) respondents agreed that demonstration helps them to create mental links between new and previous learning and finally, the findings revealed that a majority of 168(84%) respondents agreed that their performance in Geography is high due to the use of demonstration teaching methods by their Teachers.

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It can be deduced from the above findings that the use of demonstration teaching method is common among Geography teachers in secondary schools in Fako division and that demonstration increases students' performance in Geography. This is because Geography teachers illustrate when teaching, they explain concepts by handling and manipulating real objects, they teach concepts in a systematic and step-by step way. All of these increase students' curiosity, it makes it easy for students to understand/retain concepts in Geography, it makes them to actively participate in class and helps students to create mental links between new and previous learning. The resultant effect is an improvement in students'' performance.

***Table 3: Descriptive statistics***

| Items | N | Mean | Std. Deviation |
|---|---|---|---|
| **Demonstration** | | | |
| My Geography Teacher often illustrates when teaching | 200 | 2.90 | 1.251 |
| My Geography Teachers explain concepts by handling and manipulating real objects | 200 | 2.83 | 1.243 |
| My Geography teachers teach us concepts in a systematic and step-by step way. | 200 | 2.84 | 1.321 |
| The use of demonstration method in teaching increase my curiosity and enhance my reasoning abilities. | 200 | 2.33 | 1.125 |
| I score well in Geography exams/tests due to demonstration teaching methods | 200 | 2.67 | 1.233 |
| I am able to understand/retain concepts in Geography because of illustrations/display used by the teacher | 200 | 2.72 | 1.222 |
| My Geography Teacher often sets targets for me to meet up after watching a class presentation | 200 | 2.76 | 1.401 |
| Demonstration makes me to actively participate in class | 200 | 2.80 | 1.319 |
| Demonstration helps me to create mental links between new and previous learning. | 200 | 2.81 | 1.320 |
| My performance in Geography is high due to the use of demonstration teaching methods by my Teacher | 200 | 2.84 | 1.321 |
| **Average mean/standard deviation** | **200** | **2.615** | **1.311** |

**Source:** *Field survey.*

Statistics show that the average mean for teachers use of demonstration is 2.615, above the cut-off point of 2.5 meaning more than 50% of the respondents were perceived to have witnessed

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demonstration in the teaching of Geography.

**Testing of hypotheses**

$H_o$: There is no significant relationship between demonstration technique and students' learning in Geography in secondary schools.

***Table 4: Relationship between demonstration technique and students' learning in Geography***

| Test | Statistical parameters | Demonstration Techniques | Students' Learning In Geography | Explanatory power of the relationship in terms of % (Pseudo R-square) |
|---|---|---|---|---|
| Spearman's Rho | R-value | 1.000 | 0.533** | |
| | P-value | . | .002 | 74.3% |
| | N | 200 | 200 | |

**. Correlation is significant at the 0.05 level (2-tailed).

Statistically, findings showed that there is a very significant and positive relationship between demonstration techniques and students' learning in Geography ($R= 0.533^{**}$, $P= 0.002 < 0.05$). The positive sign of the relationship implies that students learning improves when demonstration techniques are used in teaching Geography. This is further supported by a high explanatory power of 74.3%.

Therefore, the null hypothesis, which states that there no significant relationship between demonstration techniques and students' learning in Geography was rejected and the alternate hypothesis which states that there is a significant relationship between demonstration techniques and students' learning in Geography was accepted.

**Discussion of Findings**

Results obtained from the inferential statistics revealed that demonstration is commonly used in the teaching of Geography in secondary schools in Fako division and that demonstration has positive effects on students' learning. This argument was held and supported by a majority of 74.3% respondents. Specifically, the results revealed Geography Teachers often illustrate when teaching. Geography Teachers were also found to explain concepts by handling and manipulating real objects. Also, findings showed that Geography Teachers teach concepts in in a systematic and step-by step

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way. The use of demonstration method in teaching was also found to increase their curiosity and enhances their reasoning abilities, making students score well in Geography exams/tests due to demonstration teaching methods.

The research findings further revealed that, students are able to understand/retain concepts in Geography because of illustrations/display used by their teachers. Geography Teachers were found to often set targets for students to meet up after watching a class presentation. It was also found that that the use of demonstration makes them to actively participate in class, and that demonstration helps students to create mental links between new and previous learning and finally, the findings revealed that students' performance in Geography is high due to the use of demonstration teaching methods by their teachers.

Statistically, findings showed that there is a very significant and positive relationship between demonstration techniques and students' learning in geography. The positive sign of the relationship implies that students learning improves when demonstration techniques are used in teaching Geography. This is further supported by a high explanatory power of 74.3%.

The results therefore allowed the study to reject the first null hypothesis which states that there no significant relationship between demonstration techniques and students' learning in Geography and to accept the alternate hypothesis which states that there is a significant relationship between demonstration techniques and students' learning in Geography.

The above results are supported the research works of Daluba (2013), who conducted a study on the effect of demonstration method of teaching on students' achievement in agricultural science in secondary school in Kogi East Education Zone of Kogi State, Nigeria and found that demonstration method had significant effect on students' achievement than those taught with the conventional lecture method. The study concluded that efforts should be made by teachers to thoroughly integrate demonstration method in the teaching of agricultural science in secondary schools and recommended that efforts should be intensified by teachers to aggressively adopt demonstration method in teaching agricultural science in all classes at the secondary school level were proffered.

It also in cognizance with the works of Okotubu (2020), who carried out a study that investigated the effect of demonstration teaching method on students' academic achievement and retention in auto mechanic trade in technical colleges in Delta State, Nigeria and found that demonstration teaching method had significant effect on students' achievement and retention than those taught with the conventional lecture method. The study recommends that teachers should integrate demonstration teaching method in the teaching of auto mechanic trade students in technical colleges.

The findings also conform to those of Ochogba *et al*., (2019), who conducted a study on the Effect of

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Demonstration Method on Students' Academic Performance in Basic Technology in Secondary Schools in Ogba/Egbema/Ndoni Local Government Area, Rivers State, Nigeria and found that students taught with demonstration method did better than those taught with lecture method. Furthermore, the study found that there was a significant difference in the mean score of students taught with demonstration method and those taught with lecture method in the production of wood and metal. Therefore, it was recommended that Basic Technology Teachers should adopt the use of demonstration teaching method in teaching production of wood and metal in Secondary Schools in order to enhance student's academic performance.

**Conclusion**

Based on the findings, the study concludes that the instructional scaffolding technique of demonstration has positive effects on students learning. That is, if well practiced, instructional scaffolding can effectively improve students' learning and hence academic performance in Geography in secondary schools in Fako division.

Instructional scaffolding is a formidable and highly effective instructional strategy in the domain of Geography. Therefore, for student's achievement in the subject to be improved, Geography teachers should imbibe the spirit of regular use of instructional scaffolding in the classroom. The school authority and ministry of Secondary Education should ensure adequate and regular supervision of schools and instructions to ensure that suitable instructional strategies are used to improve students' performance.

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