

**Research Article**

## **Teachers' Know-How on Teaching Methods and Designs Used for Minor Potential Transformation**

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### **Abstract**

Teacher know-how is the practical knowledge, skills, and expertise that teachers possess to effectively plan, deliver, and assess instruction in the classroom. It encompasses a wide range of competencies that enable teachers to create a positive and productive learning environment, engage minors, promote critical thinking, manage classroom behavior, differentiate instruction, and facilitate minor learning. The research covered the most prominent competencies such as content knowledge, general pedagogic knowledge, knowledge of learners and characteristics, knowledge of educational context, teacher craft knowledge and educational ends. The study of teacher know-how on teaching methods and designs is one of the important studies that have received the attention of researchers and scholars due to its educational importance in the field of curriculum and evaluation. The paper shed light on principles of teaching, requirements of teaching, minor potential transformation and appropriate teaching methods used for minor transformation.

**Keywords:** Teachers' Know-How, Requirements of Teaching, Teaching Methods, Minor Potential Transformation.

### **Introduction**

Teacher know-how consists of the manner in which the teacher has mastery of subject matter and assessment strategies, understanding the curriculum, educational ends, and learners and so on. According to Nilsen and Albertalli (2002), teaching in its broadest sense is the process whereby a teacher guides a learner or a group of learners to a higher level of knowledge or skills. Desforges (1995) defines teaching as the management of pupils' experience, largely in classrooms with the deliberate intention of promoting their learning. Schlechty (2004) defines teaching as an art of inducing students to behave in ways that are assumed to lead to learning, including an attempt to induce students to so behave. What Schlechty meant by teaching being 'an art' is that the teacher must create situations to facilitate learning and then motivate learners to have interest in what is being transmitted to them. Melby (1994) added that teaching is not merely dispensing subject or lesson-having, but an art which involves the student in the teaching-learning process where the student is given the chance to participate fully in the process, that the teacher accepts each pupil and has a favourable attitude towards individual differences. It is a relationship in which the teacher eschews sarcastic statements, ridicule and fault-finding. Farrant (1980) simply defined teaching as a process that facilitates learning. Confucius cited in Knott and Mutunga that 'in his teaching the wise man guides his students but does not pull them along; he urges them to go forward and does not suppress them; he opens the way but does not take them to the place ...If his students are encouraged to think for themselves, we may call the man a good teacher' (1993:158). From the above definitions, teacher know-how will greatly depend on (a) *principles and phases of teaching* in which the teacher explains the rule on how teaching is done or conducted and (b) *requirements of teaching* in which the teacher uses content knowledge, pedagogic knowledge, and educational ends to select the most appropriate teaching methods that will go a long way to boost minor potential transformation.

### **Principles of Teaching**

A principle of teaching is a basic idea or rule that explains how teaching is done or conducted. In this article, the following teaching principles given by Tamakloe (2005) are presented. Here the teacher must:

- ✓ Time the various stages of a lesson so that each stage receives the desired attention without exceeding the time limit of the lesson;

- ✓ Detect when learners are getting bored or restless so that s/he can vary his/her approach;
- ✓ Use the experiences of learners to initiate as well as generate further learning;
- ✓ Make judicious use of available resources in the teaching-learning process;
- ✓ Present what s/he teaches in an interesting way starting from the simple to difficult;
- ✓ Write orderly layout of summaries on the chalk;
- ✓ Express concepts and principles directly with concrete examples;
- ✓ Design suitable and adequate quantity of exercises and assignments for learners and insist on prompt tackling and submission;
- ✓ Use good and simple language in the teaching process;
- ✓ Correct and direct learners without making them feel embarrassed or frustrated;
- ✓ Select appropriate learning experiences of learners;
- ✓ Employ a variety of teaching methods and techniques within a lesson;
- ✓ Generate divergent thinking and creativity in learners;
- ✓ Achieve the objectives of his/her lessons;
- ✓ Use praises to urge learners to become eager to participate more in a lesson;
- ✓ Study and become aware of the need of the individual learners in the class;
- ✓ Assist his learners to able to assess their own performances;
- ✓ Maintain a reasonable balance between pupil-activity and teacher-activity as dictated by the nature of the lesson.

### **Main Phases in Teaching**

What the teacher has to teach is coherent in regard to students' learning and appropriate teaching methods to employ. Among the decisions that a teacher has to take on a daily basis are how to plan for the lessons which cover issues such as what to teach, how to teach what has been selected and how to evaluate what has been taught. These questions are concerned with three basic teaching functions: (i) Planning (Pre-Teaching Phase); (ii) Implementation (Teaching Phase) and (iii) Evaluation (Post-Teaching Phase).

### **Planning Phase (Pre-Teaching Phase)**

The decision on how to plan the lesson should be taken long time in advance of the lesson. Firstly, it allows the teacher enough time to read around the topic to be taught, especially where the teacher's command over the subject/topic is weak, secondly, it permits the collection of teaching-learning resources and the preparation of other teaching learning resources which could not be acquired commercially (Colin, 1969). This phase requires the teacher to make decisions about the students' needs, the most appropriate goals and objectives to help meet these needs, the motivation necessary to attain their goals and objectives and the most appropriate strategies for the attainment of those goals and objectives. The planning decisions cover the learners' progress; the availability of resources; equipment and materials; the time requirements of particular activities (Perrott *et al.*, (1977) cited in Perrott, 1982). It is during this phase that the teacher writes up his lesson plan.

### **Implementation Phase (Teaching Phase)**

This phase requires the teacher to implement the decisions made at the planning stage, especially those related to teaching methods, strategies and learning activities. The implementation function occurs when the teacher is interacting with the learners. In this phase, the teacher is expected to exhibit teaching skills such as presenting, explaining, listening, introducing, demonstrating, eliciting responses and achieving closure. The implementation phase has segments such as introduction, presentation and conclusion.

**Introduction:** It is getting learners into a state of readiness to learn. This may involve a review of relevant previous learning and giving brief outline of the topic and its structure and generating learners' interest by indicating the importance of the topic as well as how it will be utilized. At the end of this stage, learners should be aware of what is expected of them, should want to learn and should know how the subject/topic will be dealt with (Knott and Mutunga, 1993).

**Presentation:** This usually takes a greater part of the implementation phase. The main body of the lesson is delivered in a systematic and logical manner. If the teacher decides to use explanation, it should be aided by visual aids. This stage is used to make students think hard about the topic and as a result learn. At this stage students are forced to recall the information and think it through with guidance from the teacher.

The teacher can do this through the following steps:

- ✓ First pose some simple recall type questions on key elements of the topic;

- ✓ Then pose open-ended questions of a problem-solving type;
- ✓ Pause to give students a chance to think;
- ✓ Nominate at random a student to supply the answer;
- ✓ Echo the response by using the students' own words or paraphrasing them.

When the nominated student gives an incorrect answer, the teacher should refer it to another student or give clues to correct the original response. This procedure should be repeated until all the main elements and key aspects of the topic have emerged and the teacher should ensure this by distribution of questions that as many students as possible make a contribution. Another dimension of this stage, if time permits, is to give students the opportunity to ask questions requiring clarification or elaboration (Knott and Mutunga, 1993).

In this stage we have what is known as check learning through class exercise. It is the last stage of the implementation phase is to ensure that students have fully understood the lesson through a written test or assignment. This is done by asking several questions requiring short, or one word answers on the main points covered. These may be asked orally or shown on an Overhead Projector (OHP) or written on the chalk or white board, but should always require written answers. These should be marked there and then by each student, either personally or through exchanging answer sheets with a neighbour, whilst the teacher calls out answers and asks for results. This can be done formally or informally but both students and the teacher will have some idea of whether the instruction was assimilated because all students were tested (Knott and Mutunga, 1993).

In a one hour lesson, Knott and Mutunga opine that the teacher can allot the following duration or percentage to the five stages of the implementation phase:

- ✓ Prime stage-5 minutes or 7.5%
- ✓ Presentation stage- 21 minutes or 35%
- ✓ Summary-6 minutes or 10%
- ✓ Consolidation/recapitulation/closure-22 minutes or 37.5%
- ✓ Check learning through class exercises/assignments-6 minutes or 10%.

### **Evaluation Phase (Post-Teaching Phase)**

The evaluation function requires decisions about the suitability of objectives of the lesson and the teaching strategies linked to them, and eventually whether or not the students are achieving what the teacher intended. Teaching skills which support this function include specifying the learning objectives to be evaluated; describing the information needed to make such an evaluation; obtaining necessary resources, analyzing, recording information and forming judgments. In other words, you examine carefully the results of your teaching and decide how well you handled each teaching function. On the basis of this feedback you decide on whether or not to make new plans or try different implementation strategies. In this way, your decision-making will become more accurate (Perrott, 1982).

### **Requirements for Teaching**

Teachers need a special body of knowledge and special skills in order to bring out the potentials of the learners. The nature of the various subject areas as formal academic disciplines, the objectives for teaching them, the competencies they demand for their teaching and learning and the varied methods and materials required for teaching and learning them, makes it imperative for every teacher to possess a repertoire of knowledge, qualities, attitudes and values (Shulman, 1987). There are certain characteristics given by Shulman (1987) that every professionally-trained teacher should possess. These include content knowledge, general pedagogical knowledge, curriculum knowledge, knowledge of learners and their characteristics, knowledge of educational context/human relations, pedagogical content knowledge/teacher craft knowledge and knowledge of educational ends.

### **Content Knowledge**

Content knowledge can be described as the subject matter, ideas, skills or substance of what is taught. It covers issues such as:

- ✓ The teacher being familiar with the most recent knowledge in his/her discipline, history and philosophy of teaching the subject (various schools of thought), how the knowledge base of the subject informs or is informed by other disciplines;
- ✓ The teachers' knowledge and understanding of the different aspects in the subject;
- ✓ Broad view of the subject in all its aspects, a firm understanding of its concepts, principles, values, theories, generalizations, etc. and have an unending enthusiasm for its study;

- ✓ In-depth sources of knowledge in the subject—textbooks, journals, national dailies, unpublished materials, etc. from where s/he should tap his/her content.

Colin (1969) states that it is necessary for the teacher to read and study far beyond the level required for the actual lessons. For this reason, newly trained teachers must continue to study even though they have gained their teaching qualifications. The teacher should have both practical and liberal knowledge of his subject, with the latter making it possible for students to have an intelligent grasp of the salient features of world affairs. Lastly, the reason why the teacher should read broadly is that the world has now become a global village due to the modern means of technology, transport and communication. This has brought world events within the scope and experience of more people each year.

Students who have access to these modern means of communication are likely to ask in class questions on issues they don't understand. The well informed teacher should be in a position to deal with such questions expertly. In sum, there is no substitute for a sound knowledge of the subject matter and no teacher can be excused for trying to hide a deficiency of knowledge behind a façade of teaching techniques, for if your knowledge is suspect, your teaching techniques will invariably be suspect.

### **General Pedagogical Knowledge**

It is made up of the broad principles, approaches, methods and techniques for conveying content to learners. It covers issues such as the teacher should:

- ✓ Not be contented with one good teaching method, but should constantly seek new ways of approach that are likely to interest students and at the same time be more effective in imparting knowledge;
- ✓ Never consider having reached the ultimate in teaching. Teachers should always keep their minds and attitudes flexible enough to consider new methods and if these methods are good, attempts should be made to incorporate them in their schemes of work. This is because students not only accept but welcome new methods of approach which bring about receptive learning;
- ✓ Train students to observe things, record and correlate both primary and secondary data (e.g. study of maps, pictures and books);
- ✓ Teach students to learn to do things for themselves so as to be better equipped to carry across into everyday life the implications of what they learn at school. For example, a teacher teaching a topic like “the tropical grassland” in a savannah environment in a geography or social studies lesson should become the supplier of raw materials from which the students extract and interpret relevant details;
- ✓ Try as much as possible to break away from the teaching-talking and talking-teaching idea which lies behind much of the thinking of some teachers today.

### **Curriculum Knowledge**

It is the information on various materials and programs in the teacher's subject area which serve as “tools for the teacher.

These include:

- ✓ The various levels at which the subject operates. It covers the (a) largest level which in the case of a subject like geography may be referred to as the social sciences (i.e. broad field curricular). Other types of curricular which belong to this level include, core curricular, completely undifferentiated curricular and subject specific curricular; (b) intermediate level—includes courses organized as segments, e.g. social studies where we have Geography, History and Citizenship.; (c) lowest level—includes issues such as the various units, topics, lessons taught in a subject area;
- ✓ The teacher knowing the recommended textbooks, teachers' manuals, head teachers' handbooks, etc;
- ✓ The teacher knowing the materials required for teaching particular lessons; knowing the relevance of teaching certain topics;
- ✓ The teacher should know the i) Organizing elements—these are the knowledge (facts, concepts and principles), skills (cognitive, affective and expressive), values (socio-cultural, intellectual, moral, etc), attitude etc. which make up the content and the learning experiences to be taught. These serve as threads in the organization of an instructional program or course/subject; ii) Organizing principles—these are the standards by which the organizing elements are woven together to bring about effective teaching and learning. Examples include maxims of logical teaching methods such as teaching from the known to the unknown, from simple to complex, chronological arrangement of facts, demanding prerequisite learning, increasing breadth of application, increasing range of activities, use of description followed by analysis, forming a general conclusion from specific cases or examples, using specific examples or cases to form a generalization, stating objectives of study, repetition, application of facts,

etc.; iii) Organizing centers–these are the topics, problems, units of work or resource units which are used to combine the content and methods of teaching in the discipline with selected learning experiences in order to achieve the intended learning outcomes; iv) Organizing structures–they are the structural elements around which the learning experiences are organized.

### **Knowledge of Learners and Their Characteristics**

It is information on the physiological, social, demographic and psychological make-up of the learners which serve as one of the key determinants of minors' potential transformation. It demands that teachers should:

- ✓ Possess more than adequate knowledge of their students, their characteristics (personality traits), learning styles and habits, level of conceptualization, levels of motivation (i.e. their reasons for pursuing the subject/course), degree of interaction amongst themselves in both learning and non-learning environments;
- ✓ Know the theories of learning and human growth (e.g. Piaget, Thorndike, Skinner, Brunner, etc.) which correspond with learners' level of maturity or age–pre-conceptual, enactive representation, iconic representation, symbolic representation and formal operations stages;
- ✓ Know their students' skills, abilities, attitudes, knowledge, interests, individual differences in learning, etc;
- ✓ Consider the various levels and types of motivation their students bring into the classroom–is the program relevant to their interests, career aspirations, etc;
- ✓ Demographic information on their students–age range, sex ratio, number in class, etc.

### **Knowledge of Educational Context**

It is information on issues such as the works of a group of learners or the classroom, school organization/governance, peculiarities of local communities and cultures, etc. which impinge on the teaching-learning process.

It demands that:

- ✓ Teachers should know the culture and organization of their schools, the community and the cultural patterns of the society in which the school is located. All these influence to a great extent, the teacher's relations with the students, colleagues, school administrators and external school officials. As regards relationship with parents, the teacher can report to parents on their children's academic progress, hold parents' conferences and enlist the assistance of parents to help with some school project and encourage them to supervise their children's home work. When this is done on a regular basis, it strengthens the relationship between the teacher and parents and makes both teacher and parent partners in the grooming of the children (Callaghan, 1966);
- ✓ The teacher should be very effective in his working environment both in school and out of school. He should on first appointment acquaint himself with the various context in which she is required to work–his students, fellow teachers, school authorities, non-teaching staff, parents, educational authorities and more;
- ✓ The teacher should know the factors which bring about a productive environment for teaching and learning–these factors include discipline and order; conventions and routines in the school; his responsibilities as a teacher; intellectual, moral and spiritual values of the school; the schools' organogram (i.e. the organizational chart of the school showing the various administrative positions and their corresponding job descriptions, and more).

### **Teacher Craft Knowledge**

It is the special mix of content and pedagogy which is unique to teaching. It is the teacher's special form of professional understanding and how he blends content and pedagogy to teach particular topics or problems consistent with students' interest and abilities.

Teachers who possess teacher craft knowledge are:

- ✓ Able to foster the understanding of particular concept, principle or theory by having knowledge of the ways of transforming the concept for students. They must have knowledge of the ways of transforming the content for the purposes of teaching. In the words of Dewey (1956), in order to transform or 'psychologize' the subject matter, teachers must have a knowledge of the subject matter that includes a personal understanding of the content as well as knowledge of ways to communicate that understanding to foster the development of subject matter knowledge in the minds of students;
- ✓ Able to blend content and pedagogy into an understanding of how particular aspects of subject matter (e.g. concepts, principles, theories, etc) are organized, adapted and represented for instruction;

- ✓ Able to transform subject matter into teachable unit using different ways to represent it and make it accessible to learners. Teacher knows what teaching approaches fit the content, and likewise, knows how elements of the content can be arranged for better teaching;
- ✓ Having knowledge of what students bring to the learning situation, knowledge that might be either facilitative or dysfunctional for the particular learning task at hand. This knowledge of students includes their strategies, prior conceptions; misconceptions which students are likely to have about a particular domain and potential misapplication of prior knowledge (Shulman, 1987).

### **Knowledge of Educational Ends**

It provides information on cultural, philosophical and ideological issues which determine the general direction of the education system and the type of curricular that a nation should have. It makes the following demands on the professional teacher:

- ✓ This trait presupposes that if an educational program is to be planned and if efforts for continued improvement are to be made, it is very necessary for the teacher to have some conception of the educational goals being aimed at. These goals or ends become the criteria by which materials/resources are selected, content outlined, instructional procedures are developed and tests and exams are prepared. These goals are not simply matters of personal preference of individual teachers or groups, but are ends that are desired by the school staff;
- ✓ The teacher must have knowledge of the philosophy of education in order to come out with realistic educational goals. In Cameroon, the educational goals among others include i) Education should result in a well-balanced people with the requisite knowledge, skills, values, aptitudes and attitudes for self-actualization and for the socio-economic and political transformation of the nation; ii) Cameroonian should be trained to become enterprising and adaptable to the demands of a fast-changing world driven by modern science and technology to build a knowledge-based economy; iii) Education should lead to improvement in the quality of life of all Cameroonian by empowering the people themselves to overcome poverty and also raise their living standards to the levels that they can observe through the global interchange of images, information and ideas, etc. (Ministry of Education, Youth and Sports, 2004).
- ✓ The teacher should have knowledge of the various schools of thought with regard to educational goals such as the progressives, the essentialists, the subject specialists, child psychologists, etc. The progressive emphasizes the importance of studying the child to find out what purposes he/she has in mind information on this is the basis for selecting educational goals. The essentialist on the other hand is impressed by the large body of knowledge collected over many thousands of years and emphasizes this as the primary source for deriving educational objectives. The essentialist views objectives as essentially the basic learning selected from the vast cultural heritage of the past. The nature of teaching by the professional teacher in the new paradigm of education is no longer the exclusive preserve of the teacher. Today, the know-how of the teacher is no more being an agent of knowledge, that is, teaching is no longer limited to imparting information in the hope that it will be comprehended by students. In the present dispensation, the teacher is not only a communicator but also a manager with the responsibility of creating the enabling environment for learning to occur. To do this, the teacher needs to have at his/her disposal a repertoire of teaching skills and employ interactive activities to bring about significant learning on the part of students. The extent to which the teacher is able to incorporate these interactive activities in his/her lesson is a function of his/her competence and personality (Ababio, 2009). A teacher with good know-how will help inculcate potential transformation in the minors.

### **Teacher Know-How and Prisoners Potential Transformation**

According to Shulman (1987), to teach students in prison according to today's standards, teachers need to understand subject matter deeply and flexibly so they can help minors create useful cognitive maps, relate one idea to another, and address misconceptions. Teachers need to see how ideas connect across fields and to everyday life. This kind of understanding provides a foundation for pedagogical content knowledge that enables teachers to make ideas accessible to others. Shulman (1986) introduced the phrase pedagogical content knowledge and sparked a whole new wave of scholarly articles on teachers' knowledge of their subject matter and the importance of this knowledge for successful teaching. In Shulman's theoretical framework, teachers need to master two types of knowledge: (a) content, also known as "deep" knowledge of the subject itself, and (b) knowledge of the curricular development which include method of teaching and evaluation. Content knowledge encompasses what Bruner (as cited in Shulman, 1992) called the "structure of knowledge"—the theories, principles, and concepts of a particular discipline. This can help enlighten the minor' know-how on the various principles and concept of learning thereby increase their potential transformation and human capital. Importantly, content knowledge deals with the teaching process,

including the most useful forms of representing and communicating content and how inmates' best learn the specific concepts and topics of a subject. "If beginning teachers are to be successful, they must wrestle simultaneously with issues of pedagogical content (or knowledge) as well as general pedagogy (or generic teaching principles)" (Grossman, as cited in Ornstein *et al.*, 2000, p. 508). Shulman (1986, 1987, and 1992) created a model of pedagogical reasoning, which comprises a cycle of several activities that a teacher should complete for good teaching: comprehension, transformation, instruction, evaluation, reflection, and new comprehension.

**Comprehension:** To teach is to first understand purposes, subject matter structures, and ideas within and outside the discipline. Teachers need to understand what they teach and, when possible, to understand it in several ways. Comprehension of purpose is very important. We engage in teaching to achieve the following educational purposes: to help students gain literacy, enable students to use and enjoy their learning experiences, enhance students' responsibility to become caring people, teach students to believe and respect others, to contribute to the well-being of their community, give students the opportunity to learn how to inquire and discover new information, help students develop broader understandings of new information, help students develop the skills and values they will need to function in a free and just society (Shulman, 1992).

**Transformation:** The key to distinguishing the knowledge base of teaching lies at the intersection of content and pedagogy in the teacher's capacity to transform content knowledge into forms that are pedagogically powerful and yet adaptive to the variety of student abilities and backgrounds. Comprehended ideas must be transformed. Transformations require some combination or ordering of the following processes:

- 1) *Preparation* (of the given text material), which includes the process of critical interpretation;
- 2) *Representation* of the ideas in the form of new analogies and metaphors (teachers' knowledge, including the way they speak about teaching, not only includes references to what teachers "should" do, it also includes presenting the material by using figurative language and metaphors [Glatthorn, 1990]);
- 3) *Instructional selections* from among an array of teaching methods and models;
- 4) *Adaptation* of student materials and activities to reflect the characteristics of student learning styles;
- 5) Tailoring the adaptations to the specific students in the classroom.

Glatthorn (1990) described this as the process of fitting the represented material to the characteristics of the students. The teacher must consider the relevant aspects of students' ability, gender, language, culture, motivations, or prior knowledge and skills that will affect their responses to different forms of presentations and representations.

**Instruction:** Comprising the variety of teaching acts, instruction includes many of the most crucial aspects of pedagogy: management, presentations, interactions, group work, discipline, humor, questioning, and discovery and inquiry instruction.

**Evaluation:** Teachers need to think about testing and evaluation as an extension of instruction, not as separate from the instructional process. The evaluation process includes checking for understanding and misunderstanding during interactive teaching as well as testing students' understanding at the end of lessons or units. It also involves evaluating one's own performance and adjusting for different circumstances.

**Reflection:** This process includes reviewing, reconstructing, reenacting, and critically analyzing one's own teaching abilities and then grouping these reflected explanations into evidence of changes that need to be made to become a better teacher. This is what a teacher does when he or she looks back at the teaching and learning that has occurred—reconstructs, reenacts, and recaptures the events, the emotions, and the accomplishments. Lucas (as cited in Ornstein *et al.*, 2000) argued that reflection is an important part of professional development. All teachers must learn to observe outcomes and determine the reasons for success or failure. Through reflection, teachers focus on their concerns, come to better understand their own teaching behavior, and help themselves or colleagues improve as teachers. Through reflective practices in a group setting, teachers learn to listen carefully to each other, which also give them insight into their own work (Ornstein *et al.*, 2000).

**New Comprehension:** Through acts of teaching that are "reasoned" and "reasonable," the teacher achieves new comprehension of the educational purposes, the subjects taught, the students, and the processes of pedagogy themselves (Brodkey, 1986). Teachers need to build a foundation of pedagogical learner knowledge (Grimmet and Mackinnon, 1992). To help all students in prison learn, teachers need several kinds

of knowledge about learning. Teachers must be able to identify the strengths and weaknesses of different learners and must have the knowledge to work with students who have specific learning disabilities or needs. Acquiring this sophisticated knowledge and developing a practice that is different from what teachers themselves experienced as students, requires learning opportunities for teachers that are more powerful than simply reading and talking about new pedagogical ideas (Ball and Cohen, 1996). Training in inquiry also helps teachers learn how to look at the world from multiple perspectives and to use this knowledge to reach diverse learners need for potentiality.

### **Teaching Methods and Designs**

There are techniques and strategies used by teachers in their efforts to facilitate student learning. Some methodologies may not be appropriate for certain subjects and certain lesson situations. The methodologies teachers commonly use are: lecturing, demonstration, illustrating, experimentation, cooperative learning, dramatization, role playing, simulation and discussion.

**The Lecture Method:** The pure lecture method involves the teacher exposing subject matter to the learner in a systematic manner. The learners are expected to listen, take notes and not to ask questions. The learner should know from the onset what the teacher intends to achieve in the lecture in order to be prepared mentally. The lecture method is best suited in higher education institutions like the university. It is time efficient.

**Demonstration Method:** Demonstration is a method in which the teacher does something in the presence of the pupils in order to show them how that thing is done. A teacher using the demonstration method should ask questions during the demonstration to verify if pupils are following up well. If possible, pupils should be given the opportunity to demonstrate what they have learned. Demonstration entails the manipulation of concrete materials like stone, ball, and desk and so on.

**Illustration Method:** In the illustration method, relationships, facts, principles and ideas are explained or illustrated with the use of mainly graphic materials like charts, diagrams, pictures, film slides and other teaching materials. After such illustration, the teacher has to administer a test to find out if pupils have learned. The pupils should show that they have understood the ideas, facts or principles by drawing charts, graphs and so on.

**Experimentation Method:** This is a teaching and learning situation where pupils are expected to investigate some aspects of a given topic under the guidance of a teacher. Experimentation method is also known as field study or laboratory method. The pupils handle tools, appliances, materials, analyses data, facts and concepts objectively to arrive at some conclusion or finding. The materials to be used during teaching should be available and pre-tested to ensure they are in good condition.

**Cooperative Learning Method:** In this method pupils work together in small mixed ability group, interact with one another, and learn from each other and also from the teacher. Each group member is expected to be responsible and work for the interest of the group to succeed. The final work by the group is then presented to the teacher for evaluation.

**Dramatization Method:** This is a method in which pupils try to make a life situation, issue or problem clear to themselves and to the audience. For example, pupils are expected to memorize and rehearse script already prepared. Pupils can dramatize a court session on land dispute or what happens at polling stations when elections take place.

**Role-Play Method:** When dramatization method is done without script, rehearsal or memorization, it is referred to as role-play. In role-play, the action comes directly from pupils' creative use of their own knowledge of the situation or issue. They act the situation using their own words rather than the prepared words of someone else. For this method to be effective the issue to be acted should be clear in the minds of the pupils and the class should be interested on the issue. If these conditions are lacking, it will be a form of entertainment and not a means of learning.

### **Conclusion**

In this article we have presented specifications that met teachers' know-how on teaching methods and designs used in the classroom in order for minor to get potential transformation. To achieve our goals from this study, we present the principles and phases of teaching, requirements of teaching and the most common



and appropriate teaching methods focusing bases in order to help the teacher to choose the appropriate method to teach a specified subject so as to boost minors' potential transformation.

### **Declarations**

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### **References**

1. Ababio, B.T. 2009. Issues on the teaching and learning of geography at pretertiary levels. *Journal of Health, Physical Education and Recreation*, 1(2): 66-80.
2. Ball, D.L. and Cohen, D.K. 1996. Reform by the book: what is-or might be-the role of curriculum materials in teacher learning and instructional reform? *Educational Researcher*, 25(9): 6-8.
3. Brodkey, J.J. 1986. Learning while teaching. Unpublished doctoral dissertation, Stanford University.
4. Callaghan, G.S. 1966. Successful teaching in secondary school. Scott Foreman and Company, Glenview, Illinois.
5. Colin, H. 1969. Teaching geography in Ghana. Ghana Publishing House, Accra.
6. Desforges, C. 1995. How does experience affect theoretical knowledge for teaching?. *Learning and Instruction*, 5(4): 385-400.
7. Dewey, J. 1956. The child and the curriculum. University of Chicago Press, Chicago and London.
8. Farrant, J.S. 1980. Principles and practice of education. Longman Group Ltd., London.
9. Glatthorn, A.A. 1990. Supervisory leadership. New York: Harper Collins.
10. Grimmett, P.P. and Mackinnon, A.M. 1992. Chapter 9: Craft knowledge and the education of teachers. *Review of Research in Education*, 18(1): 385-456.
11. Knott, M. and Mutunga, P. 1993. Methods of teaching and learning. In: Matiru, B., Mwangi, A., and Schlette, R., (Eds.), teach your best: a handbook for university lecturers: University of Kassel Press, Kassel, Germany, 157-219pp.
12. Melby, C.S. 1994. Ghana primary school development. Ghana Publishing Corporation, Accra.
13. Ministry of Education, Youth and Sports. 2004. National program of research and development.
14. Nilsen, B. and Albertalli, G. 2002. Introduction to learning and teaching: infants through elementary age children. Albany, NY, Delmar.
15. Ornstein, A.C., Thomas, J. and Lasley, I. 2000. Strategies for effective teaching. New York: McGraw-Hill.
16. Perrot, E. 1982. Effective teaching: a practical guide to improve your teaching. Longman: London.

17. Schlechty, A. 2004. The art of teaching. Prentice Hall Inc., New York.
18. Shulman, L. 1987. Knowledge and teaching: foundations of the new reform. Harvard Educational Review, 57(1): 1-23.
19. Shulman, L. 1992. Ways of seeing, ways of knowing, ways of teaching, ways of learning about teaching. Journal of Curriculum Studies, 28: 393-396.
20. Shulman, L.S. 1986. Those who understand: knowledge growth in teaching. Educational Researcher, 15(2): 4-14.
21. Tamakloe, E.K. 2005. Preparing for teaching practice and the process of teaching. 3<sup>rd</sup> Edition, Cape Coast, Winx Computers.

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