

## IMPROVING THE QUALITY OF SKILLS DELIVERY IN TRADITIONAL APPRENTICESHIP IN NIGERIA THROUGH VYGOTSKY'S ZONE OF PROXIMAL DEVELOPMENT.

-----  
<sup>1</sup>Aminu, M. Kawa, <sup>2</sup>Isma'ila, Y. Shehu, <sup>3</sup>Umar Abubakar, & <sup>4</sup>Idris, A. Boris

\*<sup>1</sup>NDE/MDGs Skills Acquisition Centre Michika, Adamawa State.

\*\*<sup>2-4</sup>Department of Vocational and Technology Education, Faculty of Technology Education, Abubakar Tafawa Balewa University, Bauchi.

E-mail: aminukawu6@gmail.com

### Abstract

*This paper discussed the origin of traditional apprenticeship and how it is being practice in Nigeria. It also reviewed the skills delivery techniques in traditional apprenticeship and the need for improvement, Vygotsky's zone of proximal development and skills delivery drawbacks in traditional apprenticeship. It is concluded that the Vygotsky's zone of proximal development should be integrated in the traditional apprenticeship instructional approach in order to reduce some of the setback associated with its teaching strategy. It is recommended that efforts should be made by governments towards improving the image of apprenticeship in Nigeria, special training programmes for Master craftsmen should regularly be organized so as to equip them with the zone of proximal development teaching strategies and that there should be specific method of assessment of tasks learnt under the apprenticeship to determine the level of proficiency of the trainee upon the completion of the programme.*

**Keywords:** *Traditional Apprenticeship, Zone of Proximal Development and Skills Delivery*  
-----

Aminu, M. Kawa, Isma'ila, Y. Shehu, Umar Abubakar, & Idris, A. Boris

## Introduction

Technical and vocational training had been practice in Nigeria even before the advent of formal education. The training was done through apprenticeship where young boys and men were attached to master craftsmen to learn various skills and trades such as carpentry, masonry, blacksmith, foundry, caving, textile design and so on (Kennedy, 2013). He further stressed that currently it is offered at local apprenticeship with master craftsmen and vocational technical institutions. The views of Kennedy showed that apprenticeship is a form of technical and vocational training aimed at imparting skills to trainees. It can be considered a system of learning where an individual learns a professional skill in a practical way through a structured programme of on the job training. Explaining the process of apprenticeship training, Chinedu and Olabiyi (2015) stated that the system involves an experienced worker signing a contract to teach broad range of skills he has to trainees. Under this arrangement parents or guardians of the apprentices give out their wards (as apprentice) to the master craftsmen for a certain period within which the apprentice is expected to learn a skill which will in turn enable him be gainfully employed or be self employed.

Learning under apprenticeship system usually occurs as novice watch and imitate the master. An apprentices learn by observing the master as he goes about his daily routines, being obedient, observing and following instructions given by the master through the conscious effort from the part of the master as he demonstrate tasks for the trainee to learn by doing. In their views, Gubanyi and Ozel (2014) stated that traditional apprenticeship contains three primary components which includes modeling, coaching and scaffolding.

- i. Modeling: Where master craftsmen demonstrate expert behavior to the apprentice through which the apprentice learns the correct action by observation;
- ii. Coaching: The master provides hints and corrective feedback to the apprentice if needed;
- iii. Scaffolding/Fading: As the apprentice becomes more skillful the master gives him/her more control over the task.

Until recently traditional apprenticeship remains an effective approach to teaching vocational and technical skills. The current trend of technological advancement calls for a shift to a more suitable approach that gives room for teaching new concepts.

## Problems of Traditional Apprenticeship Skills Delivery

Major problems of traditional apprenticeship resulted from the way skills are delivered under the system. The training is set in the workplace, the problems and tasks that are given to learners arise not

**Aminu, M. Kawa, Isma'ila, Y. Shehu, Umar Abubakar, & Idris, A. Boris**

from pedagogical concerns but from the demands of the workplace. Adekola (2013) highlighted some of the problems of traditional apprenticeship to include;

**i. Perception of People that Apprenticeship**

**Training is for Illiterate or Poor People** Apprenticeship system is perceived by many as a programme for people who cannot do well in the formal education system or those whose parents cannot afford to sponsor their education. Sonnenberg(2012) stated that most apprentices are school dropouts, not necessarily out of poor performance but because of their economic situation. This inability to continue with education is seen as reason for taking apprenticeship as a last resort. Anoky and Afrane (2014) opined that as a survival strategy and coping mechanism for many of those who dropout at the basic education level, the best option for them has been learning a trade and settling in the informal economy. This particular problem makes it difficult to attract young graduates and youths of school age into the system.

**ii. Lack of Standardized Curriculum**

The fact that there is no standardized curriculum set out for the practice of apprenticeship system constitutes a hindrance. In all the vocational fields, there is no laid out curriculum. The apprentice only learns according to the available job type in the workshop, day by day. In practice, learning is not sequential, does not follow any pattern or move from simple to complex. Amadi, (2013) stated that in traditional apprenticeship system there is no established curriculum or formal procedure for acquisition of skills. Topics under the apprenticeship system are haphazardly learnt without any specific method of assessment. There is no organised content being followed by trainers and trainees.

**iii. Attitude of the Master Trainers**

The attitude of the masters in most cases constitutes a hindrance to the practice of apprenticeship. This is caused by the fact that they are not trained in the act of teaching. Most masters are difficult and have little skills to sustain the interest of the apprentice on the job. Adekola (2013) observed that master craftsman teaches and establishes his authority on learner and learning in an autocratic manner. He added that the master sometimes punishes the apprentice for making mistakes. This makes the rate of drop-out to be high. Some of the master trainers are not open, they tend to hide some of the important skills because of fear of being pushed out of business. In their views Monday and Udeorah (2018) observed that dishonesty most times from the part of master or servant has denied the good intention of the apprenticeship.

These problems are not just impediments to skills delivery in traditional apprenticeship but also gave birth to mismatch between the skills delivered under the system and the need of the society which in turn results to unemployment among the products of apprenticeship.

**Aminu, M. Kawa, Isma'ila, Y. Shehu, Umar Abubakar, & Idris, A. Boris**

Products of apprenticeship training need to be equipped with problem solving skills, which is one of the goals of technical and vocational education in general and it is also one of the essential skills that employees ought to have as the ability to adjust to new situations and to solve emerging problems at the workplace. These skills are needed not just for employment but also for selfreliance.

Incorporating Vygotsky's zone of proximal development into the traditional apprenticeship system would therefore, help in addressing these problems.

### **Skills Delivery Techniques in Traditional Apprenticeship and the Need for Improvement**

Approaches used by master craftsmen in skills delivery make or mar instructions, as such master craftsmen need to be conversant and use appropriate instructional strategies to achieve objectives of their instructions. Instruction delivery refers to the structure of the teaching and learning process to accomplish stated objectives. Use of effective strategies enable the master craftsmen to keep their trainees to be motivated which will in turn lead to achievement of objectives of the training which is effective skills delivery. Oriola (2009) observed that teachers need to use effective instructional strategies or techniques to reduce students' boredom and enhance their interest. This indicates that instruction delivery techniques are strategies adopted by teachers in maintaining the interest of their students towards learning. This is not just needed in the formal classroom setting but also in the informal apprenticeship training. Instruction delivery techniques involve directing learners to appropriate learning activities, guiding them to appropriate knowledge, helping them to rehearse, encode and process information, monitoring trainees' and practice performance. It is in light of the above therefore, that social constructivist approaches to instructional delivery like the Vygotsky's ZPD are considered.

### **Vygotsky's Zone of Proximal Development**

The works of Vygotsky contributed a lot to teaching and learning. His socio-cultural ideology of human learning and development through interaction left a great impact on learning and teaching profession in general (Shooshtaria & Mir, 2014). One of Vygotsky's work that supported teaching and learning is the idea of Zone of Proximal Development (ZPD), he came up with ZPD after studying the postulates of three psychologists about learning and development where he disputed all their arguments and come up with the concept of ZPD. He defines it as distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers. The space between the actual and potential performance is assessed through social interaction between the learner and someone who is more experienced potentially; a teacher; parent or even more advanced peers (Dennen & Burner, 2009). ZPD acquaint teachers or experts with the kind of support needed by the learner which if given appropriately aid learning. Kailani and Ikara (2006)observed that as the apprentice watch the expert as he models the skill, he can develop relevant conceptual model of the process, while trying to imitate the master/expert who provides coaching/assistance at critical level beyond the apprentice's level. This they added, is what Vygotsky referred as ZPD. Teachers, parents or

**Aminu, M. Kawa, Isma'ila, Y. Shehu, Umar Abubakar, & Idris, A. Boris** peers that provide support to the learner are referred as More Knowledgeable Others (MKO), Attwell and Hughes (2010) puts it that MKO is anyone who has better understanding or a higher ability level than the learner particularly regarding a particular task concept or process.

ZPD plays a significant role in teaching and learning process, Shooshtaria and Mir (2014) see it as a collaborative construction of opportunities for individuals to develop their mental abilities. Also in their views, Shen, Chou, Hsiao, Lee, and Chen (2012) stated that with the demonstration and assistance of individuals with better competencies by other people in society such as colleagues and experts, learners can reduce the gap between their actual development level and their potential development level (ZPD). The interactive activity between experts and novice to complete a task according to Khaliliaqdam (2014) enables knowledge to be transferred from the expert to the novice as he elicit novice's current status of knowledge that move him(the novice) from his actual to potential development level. When learners are led to think through MKO's support they attend a higher level of performance and generally retain it in subsequent performance (Kwon, 2014). This calls for applying the concept of ZPD in the practice of traditional apprenticeship in order to do away with the drawbacks associated with it in skills delivery.

**Applying the Zone of Proximal Development in Improving Traditional Apprenticeship** This study adapted the idea of Winkler (2012) in applying the concept of the zone of proximal development into teaching and learning situation, where by the master trainer instructs in small steps according to the tasks a trainee is already able to do independently. This strategy is referred to as **scaffolding**. The master trainer also supports and assists the trainee until he or she can complete all of the steps independently. The step-by-step process by which master trainer can apply the zone of proximal development includes:

- i. **Identification of Prior Knowledge or Skill of the Trainee**  
The master trainer should identify what a trainee already knows or can do in carrying out a task on the job. By identifying this prior knowledge, the trainer can build upon that skill set when introducing new concepts. While doing that the trainer also has the opportunity of providing the learner with the overall mental model of the task they are trying to learn (Wang & Bonk 2001). The trainer therefore creates tasks or activities that will allow him to gather information on trainees understanding of skills they are about to learn.
- ii. **Scaffolding**  
Scaffolding is an essential concept of ZPD which denotes temporary support provided by instructors for part of the task trainee or novice has difficulty in. Christmas, Kudzai and Josiah (2013) stated that the concept is used to explain the social and participatory nature of teaching and learning which occurs in the ZPD. Scaffolding is essential in ZPD instruction because it allows the master to

**Aminu, M. Kawa, Isma'ila, Y. Shehu, Umar Abubakar, & Idris, A. Boris** provide assistance that enable learners to solve problems, carryout a task or achieve a goal that he or she would not be able to achieve his or her own, (Khaliliaqdam 2014). The support will help trainees move from what they already know to what they should know by the end of the training.

When planning their activities, trainers should keep in mind the scaffolding process by integrating guided practice. in their instructional plans. In their study on ZPD application in writing strategy Shooshtari and Mir (2014) suggested three practical steps for scaffolding application in writing strategy namely Joint Construction, Peer response feedback and Teacher feedback. Applying these steps in Traditional

Apprenticeship we therefore, have the following: **(a) Joint Construction:** Apprentices or group of apprentices carryout a certain task or activity with the master serving as scribe and mentor suggesting possible steps to be followed.

**(b) Peer Response Feedback:** Apprentices work in pairs or small groups using timely intervention by the master to respond to each other's tasks.

**(c) Teacher Feedback:** Masters not just grade and evaluate the apprentice but also to scaffold future skills development.

### iii. **Connecting New Knowledge with Prior Knowledge**

The trainers can help trainees connect or relate the new knowledge ethey have acquired to their prior knowledge. Albert (2015) observed that sometimes instructors need to offer hints and suggestions in an effort to connect to prior knowledge and once they get there they will grasp the aspect as their own. Tompkins (2016) also posited that this follows the scaffolding/fading process arising when students are ready to take on variations of the assigned task. When trainees are assisted to make the connection between the new and prior knowledge, they are in turn assisted to internalize and generalize leant tasks to other situations. Fisher and Frey (2011) put it that the trainer helps the trainees to be less dependent on his extrinsic signals to begin to complete a task and also provide the oppportunity to practice the task in a variety of contexts.

All in all, through applying the concept of the zone of proximal development, the trainer identifies what the trainee already knows, guide him or her something new to add to it, and then relates this back to his or her prior knowledge so that he or she can now understand the new concept with assistance.

## **Conclusion**

Based on the literature reviewed in this paper, it is concluded that the method of instruction in traditional apprenticeship is deficient in supporting the trainees with the appropriate skills needed to secure them jobs and become self-reliant after graduation. It is on that basis that ZPD is required in the skills delivery process of traditional apprenticeship as it gives opportunity to the craftsmen to support the trainee move from actual development level to his/her level of potential development. It's also

**Aminu, M. Kawa, Isma'ila, Y. Shehu, Umar Abubakar, & Idris, A. Boris** concluded that skills delivery in traditional apprenticeship have major drawbacks as these types of trainings are not given from the pedagogical view rather from the demand of the work place, followed by lack of curriculum to operate, absence of specific assessment procedure and attitude of master craftsmen couple with the fact that they don't usually pass through formal education system.

## Recommendations

The following recommendations were made:

- i. Efforts should be made by governments and other stakeholders towards improving the image of apprenticeship in Nigeria this will in turn make it attractive for young Nigerians.
- ii. Skills development agencies of federal government like the National Directorate of employment (NDE) and Industrial Training Fund (ITF) should regularly be organizing special training/retraining programmes for Master craftsmen so as to equip them with the ZPD teaching strategies. This will to a great extent augment for the lack of curriculum since instructions will be given base on learners needs not as the jobs arrived.
- iii. There should be specific method of assessment on tasks learnt under the apprenticeship system by the master trainers. This will in turn enable the master craftsmen to determine the level of proficiency of the trainee upon the completion of the programme.
- iv. Further researches should be conducted especially to empirically study how the concept of ZPD can be integrated in the traditional apprenticeship so as to improve skills delivery.

## References

Adekola, G. (2013). Traditional Apprenticeship in the

Old Africa and Its Relevance to Contemporary Work Practices in Modern Nigerian Communities. *British Journal of Education, Society & Behavioural Science*, 3(4), 397-406.

Alber, R. (2015). *New Teachers: How to use classroom data to inform instruction.*

Retrieved March 11, 2017

from <https://www.edutopia.org/blog/newteachers>

Amadi, P.U. (2013) Appraisal of work-base learning experiences of technical and vocational Education and training programmes in Nigeria *Mediterranean journal of social sciences* 4(5) 137-146

Anoky, A. P. and Afrane, K. S. (2014) Apprenticeship Training System In Ghana: Processes, Institutional Dynamics And Challenges. *Journal of education and practice* 5(7) 130-141.

Attwell, G., & Hughes, J. (2010). *Pedagogic Approaches to Using Technology for Learning - Literature Review*

**Aminu, M. Kawa, Isma'ila, Y. Shehu, Umar Abubakar, & Idris, A. Boris**

Chinedu, C. C., & Olabiyi, O. S. (2015). Empowering Nigerian youths through technical vocational education and training for enhancing national security.  
*Journal Technical*

*Education and Training, 7(1), 10-22.*

Dennen, V. P., & Burner, K. J. (2009). The Cognitive Apprenticeship Model in Educational Practice. Tallahassee, Florida: Florida State University.

Frey, N. & Fisher, D. (2011). *The formative assessment action plan Virginia*: ASCD.

Gubanyi, I., & Ozel, M. (2014). *The Problems in TVET for Apprenticeship from the*

*Perspective of Different Groups of Actors: a Case Study*. Paper presented at the Conference on Innovative Apprenticeships: Promoting Successful School-to-work

Transitions, , Lit Verlag, Munster.

Kailani, I. S., & Ikara, M. S. (2006). Cognitive Apprenticeship In Classroom Instructional:

An Implication Fof Teaching Vocational, Technical And Technology Education Students In Nigeria. *Professional*

*Development, 1, 1-7.*

Kennedy, U. E. (2013). Status of technical education curriculum programme for skill acquisition in a dynamic society. *British Journal of Education, 1(1), 42-51.*

Khaliliaqdam, S. (2014). *ZPD, Scaffolding and Basic Speech Development in EFL Context*. Paper presented at the International Conference on Current Trends in ELT, Urmia University

Iran.

Kwon, E. S. (2014). *A New Constructivist Learning Theory for Web-Based Design Learning with its Implementation and Interpretation for Design Education*. (Doctor of Philosophy), Ohio State University.

**Aminu, M. Kawa, Isma'ila, Y. Shehu, Umar Abubakar, & Idris, A. Boris**

Monday, R. M. & Udeorah. (2018) Contract of Apprenticeship and Employment Generation in Nigeria Sector *International Journal of Scientific Research in Education* 11(3)335344.

Oriola, F. O. (2009). *Strategies For Improving The Intrest Of Automobile Technology Students In Technical Colleges In Ogun State*. (M Ed), University of Nigeria Nsukka.

Shen, C.-H., Chou, C.-M., Hsiao, H.-C., Lee, Y.-J., & Chen, S.-C. (2012). Development of —entrepreneur role-playing game|| educational program and evaluation of its implementation effect from the viewpoint of cognitive apprenticeship theory. *African Journal of Business Management*, 6(3), 1003-1009. doi: 10.5897/AJBM11.1659

Sonnenberg, K. (2012) Traditional Apprenticeship in Ghana and Senegal: Skills Development for Youths for the Informal Sector *Journal of instructional cooperation in education* 15(2) 93-105

Shoostaria, Z. G., & Mir, F. (2014). *ZPD, Tutor; Peer Scaffolding: Sociocultural Theory in Writing Strategies Application*. Paper presented at the International Conference on Current Trends in ELT.

Winkler, S. (2012). What is Zone of Proximal Development? Retrieved. from <http://psychohawks.wordpress.com/family/zon e-proximal2.htm>.