



Reflective Pedagogical Needs of TVET Lecturers for Promoting Creativity in Teacher Education in South-South Nigeria

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ABSTRACT

The study sought to explore reflective pedagogical needs of Technical Vocational Education and Training (TVET) lecturers for promoting creativity in teacher education in south-south Nigeria. Four research questions and four hypotheses guided the study. The population of the study was 217 TVET lecturers, consisted of 165 TVET lecturers from Colleges of Education and 52 TVET lecturers as experts form Vocational Education University of Uyo. Using simple random technique, the sample size consisted of 80 TVET lecturers from Colleges of Education and 42 TVET lecturers form Vocational Education University of Uyo. A-40 item structured questionnaire instrument tagged Reflective Pedagogical Questionnaire (REPEQ) was used to collect data from the respondents. The instrument was validated by two experts from Vocational Education, University of Uyo, Nigeria and one expert from Vocational Teacher Education University of Nigeria, Nsukka. A reliability coefficient of 0.82 was obtained after trial test. The research questions were answered using Improvement Need Index (INI) while Z-test was used to test the hypothesis at .05 level of significance. The findings of the study showed that peer observation skill, lesson recording skill, teachers' dairy and evaluation skills of reflective pedagogy were needed by TVET lecturers for promoting creativity in College of Education, South-South Nigeria. It was recommended that the officials of state the Ministry of Education in conjunction with Faculty of Education in the Federal Universities should embark on massive training and re-training of TVET lecturers in College of Education, in the reflective pedagogy skills. It was concluded that the COE lecturers should be abreast with the innovative pedagogy for the 21st century instructional delivery.

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Introduction

Quality teacher education is the foundation for strong educational system and this is the key to unlock all facets of development. This is very relevant in nations that lookup to education as a vehicle for attaining the desired development in all sectors of national life.

The concern of teacher education world over is the training and preparing of the would be teachers for effective functioning at various schools where they would subsequently work. Teacher Education provides the professional training in pedagogical principles that enable trainee teachers at graduation to be classified as professionals. Being the training arm of the teaching profession, teacher education according to [9] Han is charged with the task of developing knowledge and skills as basic practice, with preparing personnel entry into the teaching profession (pre-service) and with contributing to the ongoing development of practicing professionals (in-service). Despite the immense benefits of emerging pedagogies in the teaching of Technical Vocational Education and training (TVET) courses, the efficacy of the teacher training programmes in Nigeria in preparing the would be teachers that will meet expected standard seems in doubt. As observed by [7a] Usoro and Udoh (2014), TVET programmes have been criticized in recent times for their inability to turn out Pre-

Service Teachers who are well grounded in Classroom delivery competencies, and salable skills required in the world of work. The unemployable nature of these graduates has continued to elicit a lot of concerns and worries from education stakeholders and employers of labour. This unfortunate development is at variance with the goals of teacher education as enshrined in the National Policy on Education [3] (FRN) which emphasized the production of competent teachers.

The assertion that the quality of students cannot rise above the quality of lecturers is not entirely unfounded. Some TVET lecturers in the Colleges of Education still adhere to the traditional pedagogies sacrosantly; they failed to seek creative ways of improving the instructional delivery. Accordingly, Creativity is the act of turning new and imaginative ideas into reality. As ascertained by [10] Jasper, creativity is characterized by the ability to perceive the world in new ways, to find hidden patterns, to make connections between seemingly unrelated phenomena, and to generate solutions. [7b] Usoro and Ogbuanya poised that creativity is the process of bringing something new into being and, it requires passion and commitment to the processes of thinking and producing. Creativity in teacher education would therefore means generating new things, ideas or the transformation of

those things that exist previously. It requires TVET lecturers to be novel in ideas, in the ways they approach teaching activities. TVET lecturers need to formulate ideas, design things, carry out activities and bring to students' awareness what was previously hidden and points to new life.

Many at times, problem solving requires creative mind. As such, the TVET lecturers need to think reflectively to come out with new ways of approaching their teaching activities. Reflective teaching is a process where teachers think over their teaching activities, analyzing how a specific lesson was taught and how the whole activities in the delivery can be improved or changed for better learning outcomes. [4] Ferraro stated that to reflect is to remember with thoughtful consideration, come to recollect, realize, or consider in a course of thought. The consideration of some subjects matter, ideology or purpose often is with a view to understanding, accepting it or seeing it in its right relations. [2] Bartlett had earlier agreed that reflection in a social context of teaching and learning is the introspective contemplation of the contents of one's own thoughts in order to activate experiences. Critical reflection encourages teachers to develop the skills of considering the teaching processes thoughtfully, analytically, and objectively as a way of ensuring effective teaching. The writers noted that whenever TVET lecturers reflect, teaching could be more productive, satisfying, thereby freeing teachers from impulse and routine behaviour. Concept of Reflective Pedagogy has the following skills:

Peer Observe Skill

This design invites a teacher-colleague to come into the class and collect information about the lesson. This is simple observation task and through note taking. The observer is expected to relate back to the teacher how well he had done and areas where improvement is needed. On the other hand, the teacher needs to implement the objective and observations, constructive criticism and suggestions of the observer in order to improve his skills in instructional delivery. [6] Ufot stated that peer observation helps in revealing unexpected information about the teaching activity based on which he can improve his subsequent lesson delivery.

Lesson Recording Skill

Video or audio recordings of lesson can provide very useful information for reflection. A teacher though in class may not be aware of things happening in the class; through lesson recording the teacher can provide answers for the following. How much do I talk? Are instructions and explanations clear? How do I response to students? After each class, the teacher needs to play the video or audio recording of the lesson. This he does with a view to identifying areas where corrections and improvement are needed. [2] Bartlett stated that lesson recording approach to reflection helps the teacher to recollect event, review and response appropriately to subsequent lesson delivery.

Teachers' Diary Skill

This is the easiest way to begin a process of reflection and it is purely personal. After each class, the teacher is expected to write in a notebook what happened in during the class. The teacher can also describe his own reactions and feelings and those he observed on the part of the students. From the diary writings, the teacher can pose questions about what he had observed for an improvement. [1] Atonek stated that record of past experiences can help the teacher improve upon his teaching activity. The fact remains that when diary record is well written, it serves as a basis for improvement.

Evaluation Skills

The teacher systematically assesses himself through the students. The teacher can also ask his students what they think about what goes on in the classroom. Their opinions and perceptions can add a different and valuable perspective to subsequent lessons. This can be done with simple questionnaire. [5] Schon stated that it is imperative to constantly assess teacher's performance in class through questionnaire method. This implies that TVET lecturers should begin to construct a reality about their teaching activity, learn to assess personal beliefs through the important questions and answers for assimilating their role as teachers and the characteristics contributing to general effective. From the forgoing, in order to address lack of critical exploration of one's own teaching activity it is essential to determine the needs of TVET Lecturers in Reflective Pedagogy for promoting creativity in teacher's education, South-South Nigeria with the following

1.2 Research Questions

What are the reflective pedagogical needs of TVET lecturers in peer observation skills for promoting creativity in teacher education in South –South, Nigeria?

What are the reflective pedagogical needs of TVET lecturers in lesson recording skills for promoting creativity in teacher education in South –South, Nigeria?

What are the reflective pedagogical needs of TVET lecturers in teachers' dairy skills for promoting creativity of teacher education in South –South, Nigeria?

What are the reflective pedagogical needs of TVET lecturers in evaluation skills for promoting creativity of teacher education in South –South, Nigeria?

1.3 Null Hypothesis

The null hypothesis was tested at .05 level of significance.

H₀₁. There is no significant difference in the mean responses of College of Education Lecturers and University Lecturers on reflective pedagogical needs for promoting creativity in teacher education in South –South, Nigeria.

1.4. Methodology

Survey research design was adopted for the study as it allows the researcher to study the group of people, collecting and analyzing data from a few people considered to be representatives of the entire group. The design was therefore appropriate for the study since it was to solicit information from Technical Vocational Education and Training (TVET) lecturers through the use of questionnaire. The study was conducted in colleges of Education South-South Nigeria. The choice of this level of institution was informed by the fact that this is the pre-service teachers' education training institution with large population of TVET Lecturers and resource materials needed to carry out the research study. The population for this study drawn from Agricultural Education Unit, Home Economics Unit, Business Education Unit, Technical Unit and Computer Education Unit was 217 TVET Lecturers consisted of 165 TVET lecturers from Colleges of Education and 52 TVET lecturers as experts form Vocational Education University of Uyo. Using simple random technique, the sample size consisted of 80 TVET lecturers from Colleges of Education and 42 TVET lecturers form Vocational Education University of Uyo. A-40 item structured questionnaire instrument tagged Reflective Pedagogical Questionnaire (REPEQ) was used to collect data from the

respondents. The instrument was validated by two experts from Vocational Education, University of Uyo, Nigeria and one expert from Vocational Teacher Education University of Nigeria, Nsukka. The experts input were incorporated in the production of the final instrument. The analysis of the data obtained from the testing using Cronbach Alpha formula for internal consistency of non-dichotomous response modes yielded a reliability index .84 for the instrument. The questionnaire has two categories: needed and performance categories. The needed categories had a four point response scale of very highly needed, highly needed, moderately needed, and very low needed with corresponding values of 4, 3, 2, and 1 respectively. The performance category has a four response scale of very high performance, high performance, moderate performance, and very low performance with corresponding scores of 4, 3, 2, and 1 respectively.

Copies of the questionnaire were administered to the respondents with the help of three research assistants. The completed copies of the questionnaire were collected from the respondents by hand after two weeks. A total number of 120 copies of the instrument representing 100 % were correctly filled and returned. It was this number that was analyzed to generate data used for answering the research questions and testing the null-hypotheses. The data collected was analyzed using mean and Improvement Need Index (INI) to answer the research questions. The weighted means needed for each Reflective Pedagogy Skill; Peer Observation, Lesson Recording, Teacher's Diary, and Evaluation Skill was represented by (XN) while the weighted means performance of respondents for each item was represented by (XP). The difference between the two means, i. e. (XN-XP) was determined to indicate performance gap (PG) which yields a negative or positive value.

The weighted mean needed of each peer observation, lesson recording, teacher's diary, and evaluation skill item was taken as (XN).

The weighted mean performance of peer observation, lesson recording, teacher's diary, and evaluation skill for each item was taken as (XP).

The difference between the two means that is (XN and XP) was determined to indicate TVET lecturer Reflective Gap.

Zero (0) indicates that there is adequate TVET lecturer Reflective pedagogical skills because the level at which the TVET lecturer Reflective skills is required is the same as the level to which TVET lecturer had been trained,

A positive (+) difference implies that there is over TVET lecturer Reflective skills because the level at which TVET Teacher has been trained is greater than the level at which the skill is required,

A negative (-) indicates that the level at which the TVET lecturer possesses Reflective pedagogical skills is required is less than the level at which the TVET lecturer had been trained. This difference may range from low to average depending on the value of the learning gap. z-test statistic was used to test the null hypotheses at probability level of .05 level of significance. Any hypothesis whose calculated t-value was greater than critical t-ratio stands

rejected and otherwise accepted with relevant degree of freedom.

2.1 Research Question 1

What are the reflective pedagogical needs of TVET lecturers in peer observation skills for promoting creativity in teacher education in South-South, Nigeria

Table 1. Performance gap analysis of mean ratings of the responses of TVET lecturers on peer observation. N=122

	Peer Observation Skill	XN	XP	PG XN- XP	Remark
1	Listening skill during teacher's delivery	3.01	2.38	0.62	IR
2	Taking Note while watching a co-teacher's lesson delivery.	2.62	2.40	0.22	IR
3	Interpersonal skill in relating with a colleague after observing lesson delivery.	2.80	2.76	0.04	IR
4	Analytical skill in assessing a colleague presentation objectively	3.03	3.00	0.03	IR
5	Non-verbal skill in disseminating sensitive information to colleague after the observation.	3.86	2.80	0.06	IR
6	Watching to constructively criticize a colleague's presentation	3.78	2.75	1.03	IR
7	Specifying areas on which colleague presentation will be assessed	2.69	2.38	0.31	IR
8	Focusing on different aspects of a colleague's presentation	3.53	2.20	1.32	IR
9	Reporting writing skill of the presenter after lesson's observation	3.91	2.20	1.70	IR
10	Discussing post-observation report.	3.50	2.33	1.17	IR
11	Receiving feedback from the observers	3.86	2.11	1.71	IR

KEY: PG = performance gap value, IR = Improvement required.

The result in Table 1 revealed that all the eleven items on peer observation skills were needed for effective teacher education in College of Education, Afaha Nsit. This result implies that lecturers in Colleges of Education require re-training in peer observation skills as a variable for reflective pedagogy.

2.2 Research Question 2

2. What are the reflective pedagogical needs of TVET lecturers in lesson recording skills for promoting creativity of teacher education in College of Education?

Table 2. Performance gap analysis of mean ratings of the responses of TVET lecturers on lesson recording. N=122.

	Lesson Recording	\bar{X}_N	\bar{X}_P	$\frac{PG}{\bar{X}_N - \bar{X}_P}$	Remark
1	Manipulating electronic gadgets to connect to the receiver.	4.50	3.40	1.10	IR
2	Editing recorded lesson to capture the needed fact only.	4.60	3.41	1.19	IR
3	utilization of one's time effective during recording	4.44	3.37	0.17	IR
4	Effective utilization of recording support material	1.79	4.09	-2.26	INR
5	Effective utilization of recording personnel	4.05	1.72	2.33	IR
6	Formatting recorded lessons for teaching activities	3.60	2.17	1.43	IR
7	Ability to manage Audio machine for recording	4.45	2.22	2.23	IR
8	Ability to manage Video machine for recording	3.59	1.72	1.87	IR
9	Skills in focusing on lesson planning	2.72	4.00	-1.22	INR
10	Skills in capturing objectives of the course	4.27	2.39	0.88	IR

KEY: PG = performance gap value, IR = Improvement required.

Result in Table 2 showed that 8 out of 10 identified items on lesson recording have their performance gap range 1.72 to 2.33. This indicated that TVET lecturers need re-training in the above items. Only 2 items out of 10 have negative performance gap. This indicated that TVET lecturers do not need re-training as regards those items. Technically, it will not be possible to isolate the negative item during training without creating a gap because of overlapping nature of the skills in reflective pedagogy, thus at training less emphasis would be placed on the negative item.

2.3 Research Question 3

What are the reflective pedagogical needs of TVET lecturers in teachers' dairy skills for promoting creativity of teacher education in South-South, Nigeria?

Table 3. Performance gap analysis of mean ratings of the responses of TVET lecturers on Teachers' Dairy. N=122

	Teacher's Dairy	\bar{X}_N	\bar{X}_P	$\frac{PG}{\bar{X}_N - \bar{X}_P}$	Remark
1	Skill in documenting objectives in teachers' diary	3.95	2.40	1.55	IR
2	Skill in summarizing lesson experiences	3.86	2.05	1.81	IR
3	skill in filing of document	2.05	4.32	-2.27	INR
4	Skills in retrieving needed information from scheme of work	4.00	1.94	2.06	IR
5	Skill in recording analysis into diary	4.36	2.16	2.20	IR
6	Skills in synthesizing various diary information	3.95	2.40	1.55	IR

7	Skill retaining diary record	3.91	2.20	1.70	IR
8	Skill in recording disposal into diary	3.50	2.33	1.71	IR
9	Skills in disseminating diary information	3.86	2.05	1.81	IR
10	Skills in updating diary records	3.82	2.11	1.71	IR
11	Skills in improving lesson presentation based on diary records.	3.09	1.94	1.15	IR

KEY: PG =performance gap value, IR =Improvement required.

The result in Table 3 revealed that 10 items out of 11 skills need on teacher's dairy have their performance gap range from 1.15 to 2.20 and are positive. This indicated that TVET lecturers need re-training on these 10 positive items. On the other hand, only 1 item had a negative performance gap. This negative performance gap implies that TVET lecturers don't need re-training in that regard. Technically, it will not be possible to isolate the negative item during training without creating a gap because of overlapping nature of the skills in reflective pedagogy, thus at training less emphasis would be placed on the negative item.

2.4. Research Question 4

What are the reflective pedagogical needs of TVET lecturers in evaluation skills for promoting creativity of teacher education in South-South, Nigeria?

Table 4. Performance gap analysis of mean ratings of the responses of TVET lecturers on Evaluation Skills. N=122.

	Evaluation Skills	\bar{X}_N	\bar{X}_P	$\frac{PG}{\bar{X}_N - \bar{X}_P}$	Remark
1	Non-verbal information seeking skill for reflective thinking	3.59	2.28	1.31	IR
2	Self evaluation skills for post presentation reflection	4.05	1.89	2.16	IR
3	Diagnostic assessment skill for	4.05	2.61	1.44	IR
4	Formative assessment skill	4.32	2.05	2.27	IR
5	Summative assessment skill	3.09	1.94	1.15	IR
6	Skills in implementing evaluation result	4.00	1.94	2.06	IR
7	Assignment skill	3.82	2.11	1.71	IR
8	Questioning skill	3.91	2.20	1.70	IR

KEY: pg = performance gap value, IR = Improvement required.

The data presented in Table 4 showed that all the items on evaluation skills have their performance gap to be positive (1.15 to 2.16). This result implies that TVET lecturers need re-training on all the identified evaluation skill.

2.5. Hypothesis

H₀₁. There is no significant difference in the mean responses of College of Education TVET Lecturers and University TVET Lecturers on reflective pedagogical needs

for promoting creativity in teacher education in South – South, Nigeria.

Table 5. Z-test analysis on COE TVET Lecturers and University TVET Lecturers on reflective Pedagogy for effective teaching of Pre-Service Teachers. COE Lecturers = 80, University Lecturers = 42, df = 120.

Variable	N	Mean \bar{X}	SD	df	z-cal	z-crit	Decision
COE lecturers	80	3.36	1.21	120	2.47	1.96	Sig.
University Lecturers	42	4.27	1.43				

The result on Table 5 indicated that the calculated z-value of 2.47 was greater than the table value of 1.96 at 0.05 level of significance with 120 degree of freedom. Hence the null hypothesis was rejected. This implies that there is significant difference in the mean response of College of Education TVET lecturers and University TVET lecturers on reflective pedagogy skills for effective teaching of pre-service teachers in Colleges of Education.

3.1 Discussion of Findings

As shown in Table 1, there were gaps in the performance level of TVET lecturer from Colleges of Education as compared to the expected level of performance in peer observation skill as indicated by experts' lecturers from the University. To bridge this gap, TVET lecturers from Colleges of Education, south- south Nigeria need re-training in all the identified skills in peer observation. Also, the Z-Test analysis in Table 5 indicated that there was significant difference in the responses of lecturers from colleges of education and TVET lecturers' from the University. The result of this study is in line with Ufot (2014) who stated that peer observation helps in revealing unexpected information about the teaching activity based on which he can improve his subsequent lesson delivery.

The analysis of result shown in Table 2, revealed a performance gap between TVET lecturers from Colleges of Education and expected performance lesson recording skills as indicated by experts lecturers from the University. As such, TVET lecturers from colleges of Education South-South Nigeria need re-training in all lesson recording skills identified. This finding is in consonance with the suggestion of Bartlett (1990) who stated that lesson recording approach to reflection helps the teacher to recollect event, review and response appropriately to subsequent lesson delivery.

The analysis of result shown in Table 3 indicated a gap in the performance level of TVET lecturers from Colleges of Education in teachers' dairy and expected performance indicated by experts Lecturers from the University. In this regard, TVET lecturers from Colleges of Education need re-training in all the teachers' diary skills that were identified. This result is in consonance to the result of Atonek (1997) who stated that record of past experiences can help the teacher improve upon his teaching activity. The fact remains that when dairy record is well written, it serves as a basis for improvement.

The data presented in Table 4, showed a gap in performance level between TVET lecturers from Colleges of Education and expected performance level indicated by experts lecturers in evaluation skills. Therefore, TVET

lecturers from Colleges of Education need re-training in all the identified evaluation skills. This result corroborated the finding of Schon (1996) who stated that it is imperative to constantly assess teacher's performance in class through questionnaire method.

4.1 Conclusions

The teaching methods adopted by TVET lecturers greatly affect the teaching/learning of students in College of Education in South-South Nigeria. This is usually reflected in students' academic performance and retention of learning task. The findings of the study showed that there is need for TVET lecturers' attention on reflective pedagogy for greater classroom delivery. This implies that tremendous dimension of reflective pedagogy could address students diverse disposition, as such TVET lectures should be exposed to peer observation skills, lesson recording skills, teacher's diary skills and evaluation skills for effective teaching and learning. Hence there arise the needs for capacity building for TVET lecturers on the various reflective pedagogies to ensure improved standard of education for sustainable development among pre-service teachers in South-South, Nigeria.

5.1 Recommendations

The Officials of the state ministry of education in conjunction with the Faculties of Education in the Federal University should embark on a massive training and re-training of TVET lecturers in college of education, South-South Nigeria in the use of reflective pedagogy skills. This will keep the lecturers abreasted in the innovative pedagogy whereby the product of TVET program will not be performing poorly.

The officials of each state ministries of education on budget should implement the UNESCO'S budgetary allocation of 26%. This will ensure TVET programs have adequate funds for training and re-training of TVET lecturers in college of education, south-south Nigeria.

National Commission for Colleges of Education (NCCE) should make it mandatory for all TVET lecturers to go for emerging pedagogy training at least once in a year. This would ensure that TVET lecturers are up-to-date in teaching pedagogy to ensure effectiveness.

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