



Sandwich the study employed degree programme in a Nigerian University: perceptions of teachers on the opportunities and challenges

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Abstract

Sandwich degree programmes are in-service training programmes initiated by Nigerian Universities to upgrade the skills of primary and secondary school teachers, who either do not have a first degree or a professional teaching qualification. This study evaluates the Sandwich degree programme at Ekiti State University in Nigeria to determine the quality of the programme, its impact on the subject content knowledge as well as pedagogical knowledge of in-service teachers. A qualitative method was employed in the study, using questionnaires and semi-structured interviews on eight high school teachers who have completed their honours degrees through the Sandwich degree programme. Findings suggest that the Sandwich programme positively enhanced the subject content and pedagogical knowledge, as well as the teaching skills of the in-service teachers thereby improving their confidence and self-esteem. However, the participants highlighted the flaws of the programme, which include 1) too much theory and less practical work during the training, 2) short duration for teaching practice, 3) sub-standard accommodation as well as inadequate lecture halls to mention a few. This study recommends more time allocation to practical demonstrations in various subjects and increased teaching practice hours.

Keywords: Education, Evaluation, In-service training, Teachers, Sandwich.

1. Introduction

Education is an essential human endeavour intended to boost national economy due of its capacity to increase human capital in all sectors. According to Kleinbort, Duffy, Powell, Fogle, Gremillion, Kakraba, Olsen and Stephens (2020), education has been recognised as a basic human right since the 1948 adoption of the Universal Declaration of Human Rights. On this basis, a sizeable percentage of the finances of developed countries are been invested into the growth and development of educational institutions. Educational institutions all over the world have several educational programmes established to meet the demand for skilled manpower and quest for knowledge. Nigeria, being one of the developing countries that attach a lot of importance to educational qualification, is making progressive efforts to ensure that quality education becomes accessible to her citizenry. In order to meet the need for quality teachers to deliver quality education, higher educational institutions in Nigeria are making efforts to develop skilled manpower without compromising the standard of education (Osadebe and Oghomena, 2018). Most of the universities in Nigeria have established different degree-awarding programmes such as “Sandwich” degree programmes specifically to train

teachers while in-service. Sandwich degree programme was designed to equip the in-service training teachers with the necessary knowledge required in their teaching profession. According to Ekpenyong, Njong and Oboqua (2020), Sandwich degree programme was designed to provide information on several teaching methods and sharpen teachers’ skills and knowledge for effective teaching and learning. The introduction of Sandwich degree programmes has also made higher education accessible. Teacher’s educational development in Nigeria largely depends on the Sandwich degree programme, not only because it is the avenue for teachers to acquire degrees, but also because it is considered affordable and gives opportunity to work and study simultaneously. Sandwich degree programme was found to be financially affordable as compared to full time degree programmes (Adesoye and Amusa 2011). Apart from the aforementioned advantage, the emergence of Sandwich degree programme in Nigeria is very significant as the programme also enables the participating teachers to manage their commitment to family responsibilities while simultaneously pursuing their desire to acquire additional knowledge in the teaching profession (Adesoye & Amusa, 2011).

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The in-service (Sandwich) degree programme at Ekiti State University in Nigeria was designed for both primary and high school teachers to acquire B.Ed. (Hons) and B.Sc. Ed (Hons) degree in different disciplines on part-time basis. The degree programme was anticipated to improve the standard of education in Nigeria through knowledge acquisition and improved teaching skills. These qualities are considered as tools that would help the teachers to develop content and pedagogical knowledge by stimulating ability to transfer knowledge to the students. The aforesaid qualities are parts of the objectives of introducing the Sandwich degree programme. As much as it is good to develop and implement education programmes to train teacher while in-service, there is need to consistently evaluate the programme to ascertain if the objectives are achieved. This necessitates the need to regularly evaluate Sandwich degree programme run by Nigerian universities to determine its impact on the teaching skills of the participants. Evaluation of educational programme often reveals the extent to which the objectives of the programme are achieved (Herman, Morris & Fitz-Gibbon, 1987), as well as creating room for improvement on the particular programme. Ashcroft & Palacio (2014) noted that unless the evaluation of a programme is conducted regularly, the assessment of the quality of an education programme by the stakeholders might be difficult. An education programme is said to be successful when the set goals are achieved by being able to enhance the recipients' skills. However, it has been discovered that the success of a programme does not lie only in the mastery of the curriculum, but also on how useful the information on the programme is circulated to stakeholders (Laboskey, 1994). Several studies have been carried out evaluating Sandwich degree programmes in Nigeria Universities. However, evaluating the perceptions of the teachers trained through the Sandwich programme to determine if the programme meets their needs has not been adequately reported. It is adequately important to know whether the programme improve teachers' subject content and pedagogical knowledge. This study presents a comprehensive evaluation of the Sandwich programme and its influence on the teachers' subject content and pedagogical knowledge.

2. Research Design/ Method

2.1 Research population (Participants)

Eight high school teachers who have completed their honours degrees through the Sandwich degree programme participated in the study. All the teachers who participated in the study teach in the same school and got their degrees through Sandwich degree programmes. Open-ended questionnaires and semi-structured interviews were administered to the teachers who participated in the study. Table 1 reflects the profiles of the high school teachers who participated in the study. All the names are in pseudonyms.

Table 1: Profiles of the participants

Teacher's Name (Pseudonyms)	Age (years)	Qualification BSc. (Ed)	Teaching experience	Subject taught and other responsibilities
Nightingale	45	Economics Education	15	Economics
Louis	39	Economics Education	8	Economics
Nadia	30	Economics Education	3	Economics
Victoria	38	Mathematics Education	10	Mathematics
Joyce	38	Economics Education	6	Economics
Christiana	36	Computer Science Education	7	Computer Science
Loretta	41	Economics Education	10	Economics
Juliana	47	Educational Management	12	Social science

		(Hons).	(years)	ility
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Victoria	38	Mathematics Education	10	Mathematics
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2.2 Research instruments (Data collection)

There were various instruments employed for data collection in this study. Among the instruments were semi-structured interviews and open-ended questionnaires for the participants.

2.2.1 Interviews

Schostak and Goodson (2019) described interview as an extendable conversation between partners that aims at having 'in-depth information' about a certain topic or subject, and through which a phenomenon could be interpreted in terms of the significance the interviewees bring to it. Fontana and Frey (1998) summarised interviews into two types: structured and unstructured interviews. A structured interview is when the participants receive the same questions that are asked in a specific sequence by a researcher using the same protocol with all participants. This type of interview is not flexible. In the case of an unstructured interview, open-ended questions are used to encourage participants to tell stories about their experiences. An interview for research purposes must be done

accurately and the interviewer must display some levels of decency.

In this study, semi-structured interview was used, as this gave room for flexibility of the pattern and presentation of the expression. Two of the eight participants were interviewed. Each interview session lasted between 30-45 minutes. In addition, each session of the interview was recorded so as to ensure detailed collection of data.

Written permission was sought for and was granted by the principal of the school. Moreover, the participants were assured of the confidentiality of their personal information. The participants were also informed of their absolute opportunity to withdraw from the study anytime if they do not want to continue with the study. Besides, the participants were informed that their identity will be undisclosed and their rights protected.

2.2.2 Questionnaires

According to Goddard and Mellville (2004) gave a simplified definition of a questionnaire as a printed list of questions that respondents are expected to provide answers to. In this study, open-ended questionnaires were given to eight high school teachers who had their honours degree through the Sandwich programme.

2.3 Data analysis

Analysis of data is an arrangement, ranking and ordering of data according to their categories and similarities for a common goal to be achieved (McMillan & Schumacher, 2001). In this study, the data collected from the teachers were carefully analysed; the questionnaires and the interview transcripts generated were read and compared. Findings were deduced by identifying comparable patterns in the data analysed, and subsequently assembled into one categorical information. At the end of the process the comparison lists were compiled to formulate the ultimate research findings.

The audio-recorded interviews were assessed through a series of aural examinations to achieve a clear interpretation of the contents. And then, data were transcribed from the audio records and compiled to prepare for further analysis. However, the audio recordings were listened to again to ensure accurate transcribing and proper capturing of the data. The data was encoded to facilitate the identification of common themes. All the responses were tabulated into a table to simply reveal the similarities in participants' responses. After this process of listening, writing and coding, the data were sorted according to the themes that emerged. The data collected were used to provide notable answers to the research questions. As part of the process, the responses of the participants to the questionnaires were read thrice and compared with the identify patterns in the data. The findings were sorted by categorising the responses. The comparison results derived from the two approaches were analytically combined to generate a common inference for the study. The purpose of applying these approaches is to have adequate evaluation of the participants' perceptions on the Sandwich degree programme.

Validity and reliability tests

Validity and reliability of a study is an important aspect of a study that cannot be undermine or overrated. This shows the authenticity and the quality of the work done in the study. To validate the authenticity of the study, the expertise of the panel of judges from science indigenous knowledge (SIKPS group) were employed. In addition, two professors who are expert in the field were also requested examine and grade the instruments for validity and reliability purposes. These instruments were later used to collect the data for the study.

2.4 Research Findings

This section presents a narrative account of the findings derived from this study. The findings are divided into three different categories: the perceptions of Sandwich teachers on the courses offered in the Sandwich degree programme, the effectiveness of the Sandwich degree programme in enriching teachers' subject content and pedagogical knowledge, and the overall impact of the Sandwich degree programme on recipients.

2.4.1 The perceptions of Sandwich teachers regarding the types of training or courses offered in the Sandwich degree programme at Fountain State University

In the interview conducted, based on the responses given, it is revealed that some courses offered at the Sandwich degree programme institution are not relevant to enhance the teachers' skills. Some of the teachers mentioned some courses they considered not relevant, which include GST 201 (Computer Education), GST 202 (Application of computers), GST 105A (Citizenship Education), FSS 001 (Introduction to Social Studies and Data Processing), and ECO 303 (Econometrics) among others. The list of courses that were considered irrelevant are predominantly courses offered within the Faculty of Education. They are considered irrelevant due to the inability of the teachers to link the importance of the courses to their career. On the other hand, some teachers regarded all the courses offered during the programme as beneficial and relevant to their academic and career development. From a viewpoint, it appears that some Sandwich teachers considered the relevance of these courses to the subjects they teach at school. Thus, this pinpoints the reason why some of the courses are regarded irrelevant. In essence, it can be stated that some courses may be considered irrelevant to the current needs of the teachers, but they may also be beneficial to their career in the long run. (Ajani, Govender and Maluleke, 2018).

The questions remain as thus: 1.) should the Sandwich teachers only focus on the courses related to the subject they teach at school, without having knowledge of other subject areas? 2.) If the teachers do not have the knowledge of social related activities besides their subjects, then how will they impart the knowledge to the learners? From a standpoint, certificate acquisition in subject area should not be the only priority to the teachers, but knowledge acquisition in the areas that can benefit their career and social life should be included. Also, the Sandwich teachers provided clear responses to the question asked on the contact time. The responses indicate that contact time allotted for the programme is not adequate

considering the number of courses they do yearly. They specified that the limited contact times should be used for relevant courses in their subject areas instead of irrelevant courses. This is a critical matter that requires urgent attention in the Sandwich degree programme. Subject to this, a situation where a lot of modules are compacted into three contact periods could make the Sandwich programme content burdensome, and thus putting participants under immense stress. The teachers were also asked to comment on teaching practice in secondary schools before they concluded their Sandwich degree programme. The study found that teaching practice empowers, promotes innovative educational instructions, and enhances educational practices. The teachers specified that they undertake teaching practice twice before they complete their programme. And they further declared

that the teaching practice helped them to gain more confidence and enriched their teaching skills.

2.4.2 The effectiveness of the Sandwich degree programme in enriching teachers' subject content and pedagogical knowledge

The effectiveness of a programme is an extent to which a programme is successful in producing a desired result. The effectiveness of the Sandwich degree programme in preparing teachers was investigated by quantifying the impact of the programme on the Sandwich trained teachers. A total of eight teachers participated by responding to 10 items (questions) measured on four Likert Scale ratings (strongly disagree, disagree, agree and strongly disagree) shown in Table 2.

Table 2: The effectiveness of Sandwich degree programme (SDP) in preparing teachers

Items measured	Strongly disagree	Disagree	Agree	Strongly agree	Total
I have clearer understanding on how to teach my subject and how to handle my students	0	0	6	2	8
Sandwich degree programme has proper organization and leadership	1	1	6	0	8
Lecturers teach effectively, punctual, attend lectures promptly	1	2	5	0	8
Lecturers expose me to various teaching methods and the use of teaching materials in my area of specialization	0	0	7	1	8
Lecturers help facilitate skill development of their students	0	0	8	0	8
Lecturers give me quick feedback on the tests and assignments given by him	0	3	4	1	8
The programme (SDP) helps to improve my teaching skills	0	1	7	0	8
The programme (SDP) helps me to teach students how to apply different approaches to problem solving in their daily living and situations	1	0	5	2	8
The programme (SDP) helps me to motivate students to participate fully in the subject(s) I teach	1	0	6	1	8
The programme (SDP) helps me to make students participate in the school development and community projects	0	1	5	2	8

The 10 items (questions) arrayed in the table above are structured to offer quantitative understanding on how the Sandwich degree programme prepared them to develop their teaching skills. Only eight teachers participated in the study as mentioned in data analysis (see section 2.2). For the first item (question) in Table 2, two (25%) teachers 'strongly agree' that they have clearer understanding through Sandwich degree programme on how to teach their subjects and handle their

students, compared to six (75%) teachers who 'agree' with the question. Since the interpretation of the two scale ratings are similar, then it is agreed that all the eight teachers have acquired strong knowhow on teaching their subjects and handling their students through Sandwich degree programme. The responses obtained for the second item (question) show that six (75%) teachers 'agree' that Sandwich degree programme has proper organisation and leadership, but equal estimate of 12.5% teachers 'strongly disagree' and 'disagree'

with the question, respectively. This illustration suggests that more teachers perceive Sandwich degree programme as a learning avenue for teachers to acquire quality, efficient, and relevant teaching skills.

From the third item (question) five (62.5%) teachers 'agree' that lecturers in the Sandwich degree programme teach effectively, punctual, and attend lectures promptly, while 12.5% and 25% teachers 'strongly disagree' and 'disagree', respectively. Thus, this implies that more teachers have undergone good lectures under the tutelage of committed lecturers with great passion for their obligation. In support of this question, the teachers were asked if they were exposed by their lecturers to various teaching methods and use of teaching materials in their area of specialisation. However, their responses indicate that most (87.5%) of the teachers 'agree' that they were exposed by their lecturers to teaching methods and application of many teaching materials, while only one (12.5%) teacher 'strongly agree' with the question. This indicates the quality of teaching and learning skills that the teachers were exposed to by the Sandwich lecturers. In addition, this particular question fosters the formation of the fifth item (question).

The fifth item asked about lecturers' participation in helping students to facilitate their skill development in Sandwich degree programme. The responses provided indicate that all the eight participants 'agree' that their lecturers are strongly involved in facilitating their skill development. This signifies that lecturers were more involved in the activities that could improve their students' learning skills. This illustration complements the involvement of the lecturers in ensuring that the students have meaningful experience in teaching methods and use of teaching materials to develop their confidence and teaching skill. A question was asked on whether the Sandwich lecturers give feedback to their students on tests and assignments conducted. The responses provided reveal that four (50%) teachers 'agree' and one (12.5%) teacher 'strongly agree' that their lecturers give feedback on the tests and assignments conducted. Although, three teachers (37.5%) 'disagree' that lecturers do not give feedback on the tests and assignments given by the lecturers. Since 62.5% students agreed that lecturers give feedback on tests and assignments, then it implies that many students have the time and chance to seek more understanding on the courses undertake.

In addition, the last four items entail questions surrounding the advantages in Sandwich degree programme. The teachers were asked if the Sandwich degree programme has helped to improve their teaching skills. The responses to the question indicated that seven (87.5%) teachers 'agree' that the programme has improved their teaching skills, while only one (12.5%) teacher 'disagree' with the question. This specifies that classroom experience in the Sandwich degree programme have fostered the ability of the teachers to raise their teaching skills to enable them to offer their students quality teachings. The subsequent item was relatedly developed to buttress the preceding question. The teachers were asked to indicate if the programme has helped them to teach their students different approaches to problem solving in their daily living and

situations. The responses to that indicated that five (62.5%) teachers 'agree' and two (25%) 'strongly agree' that the programme has fostered their ability to offer the students various approaches to problem solving in their daily endeavours. However, an estimate of 12.5% 'strongly disagree' with the question.

Besides, the teachers were asked to indicate if Sandwich degree programme has helped them to motivate their students to participate fully in the subjects taught. The responses provided show that great number of teachers (87.5%) 'agree' and 'strongly agree' that the programme has been supportive in motivating students to participate fully in their classes, while only an estimate of 12.5% 'strongly disagree'. The subsequent item is an extension of the preceding question, wherein similar estimate (87.5%) of teachers 'agree' and 'strongly agree' that the programme helped them to make students participate in the school development and community projects, while only one (12.5%) 'disagree' with the question.

Based on the amount of affirmative responses ascertained, majority of the teachers demonstrated that the Sandwich degree programme is effectively administrated. Finding indicates that majority of the teachers agreed that Sandwich degree programme has fostered their ability to acquire quality, efficient, relevant teaching skills to enable them to offer their students quality teachings and different approaches to problem solving in their daily endeavours. This finding agrees with Archibong and Nja (2011) report that an effective teaching is characterised with its designed lessons, use of suitable teaching materials, and techniques to enhance learning for learners. Further finding indicates that most teachers affirmed to the commitment of the lecturers in ensuring that the students receive feedback in time, and offer good lectures to improve their learning and teaching skills.

Similarly, additional questions were responded to by the participants to fathom their perceptions with regard to their lecturers' commitment in assisting the students prepare for teaching skills. These questions offer further understanding on the effectiveness of Sandwich degree programme in preparing the teachers. The response estimates obtained are presented in the Table 3. The first item entails a question on whether lecturers assist their students to gain more confidence in teaching. It is observed that six (75%) teachers 'agree' that their lecturers are very helpful in ensuring that they have more confidence in their teaching. Only two (25%) teachers 'disagree' with this question. This signifies that the lecturers were efficient towards the teachers in enhancing their confidence level in teaching. Following item contains questions on whether the lecturers were helpful in establishing instructional objectives in planning for a class. Result indicates that six (75%) teachers 'agree' that their lecturers are very helpful towards them in developing instructional objectives in planning for a class, while equal estimate of 12.5% teachers 'strongly disagree' and 'disagree' with the question, respectively. This illustration implies that Sandwich lecturers were more involved with the students in designing instructional objectives before any lectures.

Table 3: Sandwich students' perceptions of their lecturers' assistance in preparing them for teaching skills

Item measured	Strongly disagree	Disagree	Agree	Strongly agree	Total
Lecturers help me gain more confidence in teaching	0	2	6	0	8
Lecturers help establish instructional objectives in planning for a class	1	1	6	0	8
Lecturers give me an insight into why I need to reflect on their teaching	1	0	7	0	8
Lecturers guide me on how to conduct purposeful daily lessons in my field	0	1	6	1	8

In addition, a question was asked on whether lecturers offer an insight into why the students need to reflect on their teaching. Responses produced indicate that seven (87.5%) teachers 'agree' that the Sandwich lecturers were instructive towards them by ensuring that they consider their teaching. And only one (12.5%) teacher 'strongly disagree' with the question. This demonstrates that the lecturers offer the students a clear understand on the need for them utilise their lecturers' teaching approach for reference. The last item in the table centred on whether the lecturers guide the students on how to conduct purposeful daily lessons within their fields. Responses indicate that one (12.5%) teacher 'strongly agree' that the lecturers guide the students on how to conduct daily lessons in their fields, followed by an estimate of six (75%) teachers with relative affirmation. Only an estimate of 12.5% 'disagree' with the question. The illustration suggests that the lecturers were more involved in instructing the students on how to perform daily lessons in their field of teaching.

From the illustrations given above, the majority of the Sandwich teachers declared that their lecturers were effective in improving their confidence level in teaching by being more involved in establishing instructional objectives for them in planning for classes. Also, the involvement of the lecturers has set the teachers aright on the need to always reflect on their lecturers' teaching approach for reference, including adequate guidance on how to conduct daily lessons in their field of teaching. It is understood that the parts played by the lecturers have certainly offer a significant number of teachers the confidence to conduct teaching with additional resources

and ability to construct and prepare active based lessons for learners. These deductions validate that the Sandwich degree programme is effective in preparing the teachers to be able to teach their subjects with utmost conviction at high school levels of education.

2.4.3 The overall impact of the Sandwich degree programme on recipients

This section evaluates the perception of Sandwich teachers on the overall impact of the Sandwich degree programme on their teaching skills. Five Likert Scale ratings (strongly disagree, disagree, not sure, agree and strongly agree) are considered for this particular observation. In this case, the first observation is to evaluate the responses provided pertaining to the perception of the Sandwich teachers on the reactions of the lecturers towards the programme. The response estimates derived are presented in Table 4. Four items (questions) were formatted in the table to guide the understanding of the participants in providing feasible responses. The first question (item) is centred on whether the Sandwich degree programme is a well-managed and organised programme. The responses provided show that an estimate of five (62.5%) teachers affirmed that Sandwich degree programme is well-managed and organised, while a sum estimate of two (25%) teachers disaffirmed the question. And only an estimate of 12.5% teacher declared to be unsure. Although, having a large percentage of teachers agreed to this question convince that the educational programme is well administrated towards ensuring adequate learning citadel.

Table 4: The perception of Sandwich teachers on the reactions of the lecturers towards the programme

Item measured	Strongly disagree	Disagree	Not sure	Agree	Strongly agree	Total
Sandwich degree programme is a well-managed and organised programme	1	1	1	3	2	8
Sandwich lecturers have adequate class instruction	1	0	0	6	1	8
Sandwich lecturers pay attention to students' needs, extra-time tutorials	0	5	0	3	0	8
Do lecturers give feedback on time	1	4	0	2	1	8

The second question (item) asked the participants if the Sandwich lecturers have adequate class instruction. The

responses provided reveal that a total estimate of seven (87.5%) teachers affirmed that the Sandwich lecturers had adequate class instruction, while only one (12.5%) teacher

'strongly disagree' with the question. This indicates that the lecturers offered the learners ample teaching towards becoming professional teachers. In the third question (item), the participants were asked to rate their opinion on whether the Sandwich lecturers pay attention to students' needs, extra-time tutorials. The result displayed in the third row explains the perception of the teachers on the said question. The responses indicate that estimate of five (62.5%) teachers 'disagree' that the Sandwich lecturers pay attention to students' needs and extra-time tutorials, while only three (37.5%) of teachers affirmed to the question. This deduction demonstrates that the Sandwich lecturers are not exclusively aware of their students' needs, including the need to organise extra classes for them. The last item in Table 4 is centred on the perceptions of the participants concerning whether the lecturers give feedback on time. The responses gathered show that an estimate of five (62.5%) teachers 'disagree' that the Sandwich lecturers do not give feedback on time. Only three (37.5%) teachers affirmed that the lecturers do give feedback on time. This illustrates that most participants declared that the feedback from the lecturers are delayed.

General deductions specify that most participants (teachers) affirmed that the Sandwich degree programme is well administered in ensuring that adequate teaching is delivered to

the learners. Further findings indicate that Sandwich lecturers are not entirely attentive to their students' needs and the essentiality of coordinating extra classes for them, including the inability of the lecturers to give feedback on time to their students. This provides further understanding that most lecturers are struggling to discharge their duties efficiently.

Similarly, the observation of Sandwich teachers on learning tools available to acquire teaching skills is measured with three items (questions) through four Likert Scale ratings (strongly disagree, disagree, agree and strongly agree) as presented in Table 5. The first item (question) is centred on if the Sandwich degree programme offers appropriate teaching strategies. Responses gathered show that six (75%) teachers affirmed that the programme lecturers offer appropriate teaching strategies, while only two (25%) teachers disaffirmed the question. The negative affirmative is buttressed with a comment by two participants that their lecturers only took them through theoretical classes and not considering the practical classes where necessary. This observation agreed with the study conducted by Hewson & Ogunniyi (2011), which suggested the need to promote various teaching strategies in educational programme as essentiality in developing highly skilled and qualified teachers.

Table 5: The perception of Sandwich teachers on learning tools available in acquiring teaching skills

Item measured	Strongly disagree	Disagree	Agree	Strongly agree	Total
Has appropriate teaching strategies	1	1	5	1	8
Has relevant content matter	1	0	5	2	8
Has reasonable workload	1	2	4	1	8

In the second row of the table, observations were made on whether the Sandwich degree programme offer relevant content matter. Responses indicated that seven (87.5%) teachers affirmed that the programme lecturers' content matter was considered relevant, but one (12.5%) teacher 'strongly disagree' with the question. This indicates that the most Sandwich teachers admitted that the content taught in the programme are quite beneficial and relevant to classroom teaching and learning in schools. According to Fatoba (2019), application of the training is made easy when relevant training is received by the recipients. However, the content of the teaching materials for the programme may require necessary improvement for better disposition. The last item contains question on whether the Sandwich degree programme offer reasonable workloads to its lecturers. The responses provided show that five (62.5%) teachers affirmed that Sandwich lecturers were assigned reasonable workloads, while the other three (37.5%) responses indicated contrary opinions. This observation indicates that more than half of participants admitted that Sandwich lecturers had been given appropriate amount of work.

Finding demonstrates that most Sandwich teachers confirmed that the programme delivered the content that helped them improve their teaching skills. The finding buttresses the affirmation that adequate teaching materials is provided to prepare the teachers for teaching. It is great that the Sandwich degree programme has contributed significantly to the pedagogical content knowledge of the teachers.

In addition to the preceding study, observation was conducted on determining the perception of Sandwich teachers pertaining to the influence of the Sandwich degree programme on the teachers' professionalism. Three items were measured through four Likert Scale ratings (strongly disagree, disagree, agree and strongly agree) as shown in Table 6. The first item is centred on whether the programme assists learners (teachers) to acquire thinking skills that could be developed in pupils. Responses indicate that seven (87.5%) teachers affirmed that the Sandwich lecturers helped them to acquire thinking skills that could be developed in the pupils. Only one (12.5%) teacher 'strongly disagree' with the question. This indicates that most teachers were greatly supported in achieving thinking skills that could be cultivated in the students.

Table 6: The perception of Sandwich teachers on the influence of Sandwich degree programme on teachers' professionalism

Item measured	Strongly	Disagree	Agree	Strongly	Total
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	disagree			agree	
Helps to acquire thinking skills that could be developed in pupils	1	0	6	1	8
Helps one to develop positive attitude towards teaching profession	1	0	5	2	8
Makes one attain the major concepts needed for further studies in the field of education	0	1	4	3	8

The second item entails a question on whether the Sandwich degree programme helps one to develop positive attitude towards teaching profession. The result obtained shows that seven (87.5%) teachers affirmed that the programme assists them in developing positive attitude towards teaching profession. And only one (12.5%) teacher disaffirmed the question. This implies that the programme has helped many learners through dedicated lecturers to cultivate constructive attitude. The last question was asked pertaining to whether the Sandwich programme makes one attain the major concepts needed for further studies in the field of education. It is observed that an estimate of seven (87.5%) teachers affirmed that the programme, through the lecturers, has made them attained major concepts required for further studies in the field of education. Only one (12.5%) teacher disaffirmed the question. This specifies that most teachers confirmed that the programme helped them to attain their desired academic goals.

Based on the findings, it is understood that the Sandwich degree programme have greatly improved or foster the teachers in developing constructive attitude and thinking

skills, as well as attaining desire academic goals as part of teaching skill qualities.

The five items presented in Table 7 were designed to evaluate the perception of Sandwich teachers on the overall impact of the programme on their teaching skills. The items are measured through four Likert Scale ratings (strongly disagree, disagree, agree and strongly agree). The first item entails a question on whether the lecturers assisted the leaners to become effective teachers. Responses gathered indicate that all eight participants affirmed that their lecturers have prepared to be effective teachers. In this case, it is understood that the teachers demonstrated a great satisfaction in their lecturers' impact in ensuring that they all becoming effective teachers. Similarly, participants were asked if their lecturers have changed their way of thinking. Observation shows that all eight participants declared that their lecturers have considerably changed their approach to thinking. It implies that all the teachers have greatly improved their way of thinking. This further buttress the fact that Sandwich degree programme has highly evolved the teachers approach to thinking.

Table 7: The perception of Sandwich teachers on the overall impact of the programme on their teaching skills

Item measured	Strongly disagree	Disagree	Agree	Strongly agree	Total
My lecturers have assisted me to become an effective teacher	0	0	7	1	8
My lecturers have changed my way of thinking	0	0	5	3	8
My lecturers have taught me how to make alternative solutions	0	0	8	0	8
My lecturers have helped me to develop thinking skills	0	0	8	0	8
My lecturers have made me practice activity-based lessons when teaching	1	0	6	1	8

The third item in the table is centred on whether the Sandwich lecturers taught the learners how to make alternative solutions. The responses provided indicate that all eight participants affirmed that their lecturers have adequately taught them how to develop alternative solutions. Also, the participants were asked if the Sandwich lecturers were helpful to them in developing thinking skills. Observation indicates that all eight participants confirmed that their lecturers helped them to develop thinking skills. The deductions suggest that the Sandwich lecturers were active in teaching the teachers alternative approach to fathoming solutions as well as assisting them in developing thinking skills in their field of teaching. The last item in the table was responded differently to by the participants. In this case, the participants were asked

if the Sandwich lecturers made them to practice activity-based lessons when teaching. The responses gathered show that seven (87.5%) teachers affirmed that their lecturers made them practice activity-based lessons when teaching. Only an estimate of 12.5% teacher 'strongly disagree' with the question. This indicates that the Sandwich lecturers at Fountain State University make substantial efforts to encourage the learners to perform activity-based lessons when teaching.

General deductions demonstrate that most teachers have been adequately trained and prepared to fathom alternative approach to solutions, develop reliable thinking skills, and perform activity-based lessons when teaching. It is understood that the acquisition of these skills will strengthen participatory

teaching strategies amongst the teachers and make teaching and learning exercise fascinating. According to Hewson & Ogunniyi (2011), critical thinking skill helps one to process actively and skilfully conceptualising, applying, analysing, synthesising, and carefully evaluating information or ideas.

3. Conclusion

Sandwich degree programme was established to offer learners more practical work experience with the theoretical study. It is understood there are challenges facing development of highly skilled teachers and maintenance of high education values in Nigeria. These challenges prompted the need to conduct survey amongst eight teachers, who have passed through this educational programme Nigeria. Findings deduced reveal that this programme is similar to other regular educational programmes, except the number of contact time allocated which was considered inadequate. The interview conducted highlighted that some teachers are concerned about the relevance of the courses taken at the Sandwich institution to the subjects taught at school. This effect has rendered some courses irrelevant to the current needs of the teachers, but they seem beneficial for future reference. Further findings confirmed that most teachers find Sandwich degree programme effective in developing quality teaching skills that are relevant to teachings. Additionally, Sandwich lecturers are rated effective and accommodating in ensuring that learners are taught more practical approaches on how to plan and conduct daily classes. Although, some teachers confirmed that some lecturers at the programme were struggling to perform their assigned workloads efficiently. Therefore, many lecturers struggled to organise extra class and give feedback

on time. Other findings derived show that Sandwich degree programme has contributed largely to the pedagogical content knowledge of the teachers, including the development of constructive attitude, thinking skills and attainment of teaching skill qualities. These qualities have been applied to performing activity-based lessons and fathoming alternative approach to solutions.

In the case of courses considered not been relevant, the administrators of the Sandwich programme should consider reviewing some courses and discard the irrelevant ones. This will enhance the redistribution of the contact time amongst these courses for betterment of the students. More so, concern was raised as regards the imbalance between the theory and practical approaches in programme. It is advised that the learners should be exposed to both approaches during the programme, in order to stabilise the learning curve between them. If these suggestions can be considered, then the learners will be able to interpret training received into practical application by able to provide quality teaching techniques to their students. According to Elthanahy and David (2018), effective teaching is that with designed lessons, the use of suitable teaching materials and techniques to enhance and improve learning for all learners.

In conclusion, the survey has assisted in understanding the level of increase in knowledge or intellectual capability of the teachers after going through the Sandwich degree programme. The responses of the teachers show that Sandwich degree programme has positive impact on their teaching skills and that the programme has assisted them to become skilled and professional teachers.

Appendix

Table 1: Distribution of teachers' responses in frequency counts regarding their reactions to Sandwich degree programme

Reaction	Strongly disagree	Disagree	Not sure	Agree	Strongly agree	Total
In my first year of my programme, I understand the difference between college of education and higher degree programme in the university	2 (25%)	0 (0%)	0 (0%)	5 (62.5%)	1 (12.5%)	8 (100%)
I learnt a lot during my Sandwich degree education programme	0 (0%)	2 (25%)	0 (0%)	5 (62.5%)	1 (12.5%)	8 (100%)
I have the basic foundational knowledge of what university degree entails and its impact in my teaching career	1 (12.5%)	0 (0%)	0 (0%)	4 (50%)	3 (37.5%)	8 (100%)

Table 2: The respondents opinion about the Sandwich degree programme

Reaction	Strongly disagree	Disagree	Not sure	Agree	Strongly agree	Total
Sandwich degree programme is a well-managed and organized programme	1 (12.5%)	1 (12.5%)	1 (12.5%)	3 (37.5%)	2 (25%)	8 (100%)
Has adequate class instruction	1 (12.5%)	0 (0%)	0 (0%)	6 (75%)	1 (12.5%)	8 (100%)

Pays attention to students' needs, extra-time tutorials	0 (0%)	5 (62.5%)	0 (0%)	3 (37.5%)	0 (0%)	8 (100%)
Has lecturers feedback on time	0 (0%)	4 (57.1%)	0 (0%)	2 (28.6%)	1 (14.3%)	7 (100%)

Table Error! No text of specified style in document.:8: The degree of effectiveness of Sandwich degree programme on the recipients

Learning	Strongly disagree	Disagree	Not sure	Agree	Strongly agree	Total
I have clearer understanding on how to teach my subject and how to handle my students	0 (0%)	0 (0%)	0 (0%)	6(65%)	2 (25%)	8 (100%)
I understand all my lecturers and I can answer most of the questions in the exam	0 (0%)	0 (0%)	0 (0%)	7 (87.5%)	1 (12.5%)	8 (100%)
Sandwich degree programme has proper organization and leadership	1 (12.5%)	1 (12.5%)	0 (0%)	6 (75%)	0 (0%)	8 (100%)
Lecturers teach effectively, punctual, attend lectures promptly	1 (12.5%)	2 (25%)	0 (0%)	5 (62.5%)	0 (0%)	8 (100%)
Lecturers expose me to various teaching methods and the use of teaching materials in my area of specialization	0 (0%)	0 (0%)	0 (0%)	7 (87.5%)	1 (12.5%)	8 (100%)
Lecturers help facilitate skill development of their students	0 (0%)	0 (0%)	0 (0%)	8 (100%)	0 (0%)	8 (100%)
Lecturers give me quick feedback on the tests and assignments given by him	0 (0%)	3 (37.5%)	0 (0%)	4 (50%)	1 (12.5%)	8 (100%)
My degree helps me to use classroom experience to improve my teaching	0 (0%)	1 (12.5%)	0 (0%)	7 (87.5%)	0 (0%)	8 (100%)
My degree helps me to teach students different approaches to problem solving in their daily living and situations	1 (12.5%)	0 (0%)	0 (0%)	5 (62.5%)	2 (25%)	8 (100%)
My degree helps me to make students aware of their environment and care for it	1 (12.5%)	0 (0%)	0 (0%)	6 (75%)	1 (12.5%)	8 (100%)
My degree helps me to motivate students to participate fully in the lessons I teach	1 (12.5%)	0 (0%)	0 (0%)	6 (75%)	1 (12.5%)	8 (100%)
My degree helps me to make students participate in the school development and community projects	1 (14.3%)	1 (14.3%)	0 (0%)	5 (71.4%)	0 (0%)	8 (100%)

Table 3: The perception of Sandwich trained teachers about the impact of the lecturers in acquiring teaching skill

Behaviour	Strongly disagree	Disagree	Not sure	Agree	Strongly agree	Total
Lecturers help me gain more confidence in teaching	0 (0%)	2 (25%)	0 (0%)	6 (75%)	0 (0%)	8 (100%)
Lecturers help establish instructional objectives in planning for a class	1 (12.5%)	1 (12.5%)	0 (0%)	6 (75%)	0 (0%)	8 (100%)
Lecturers give me an insight on why you need to reflect on his teaching	1 (12.5%)	0 (0%)	0 (0%)	7 (87.5%)	0 (0%)	8 (100%)

Education lecturers guide me on how to conduct purposeful daily lessons in my field	0 (0%)	1 (12.5%)	0 (0%)	6 (75%)	1 (12.5%)	8 (100%)
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Table Error! No text of specified style in document.: The relevance of Sandwich degree programme to acquiring teaching skill

Learning	Strongly disagree	Disagree	Not sure	Agree	Strongly agree	Total
Has appropriate use of teaching strategies	1 (14.3%)	0 (0%)	0 (0%)	5 (71.4%)	1 (14.3%)	7 (100%)
Has relevant content matter	1 (12.5%)	0 (0%)	0 (0%)	5 (62.5%)	2 (25%)	8 (100%)
Has reasonable workload	1 (12.5%)	2 (25%)	0 (0%)	4 (50%)	1 (12.5%)	8 (100%)

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