

## Evaluating Distance Education Programme Using Stufflebeam Cipp Model: University Of Buea Cameroon

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### ABSTRACT

The aim of the study was to evaluate the implementation of distance education programme of the University of Buea using the Context Input Process Product (CIPP) Model. The population of the study was made up of all postgraduates (10) of students of the 2018/2019 who did Distance Education (DED) at the undergraduate's level and two (2) administrators and four lecturers (4) of the DED programme of the University of Buea. A survey design was used for this study. Data was collected using questionnaire, interview guide and documentary analysis using observation checklist. The interview instruments and questionnaire were validated using key informants and some lecturers of DED in the faculty of education of the University of Buea. The overall reliability coefficient of the questionnaire was 0.89 obtained through alpha Cronbach. Data was analysed using descriptive statistics. Qualitative data from interview and observation checklist were analysed thematically. The findings revealed that DED programme of the University of Buea is achieving its objectives at the level of the Input, Process and Product stages of implementation. At the level of the context implementation stage, the findings showed that more needs to be done to improve on that stage of the DED programme implementation. It was recommended that expert lecturers in DED be trained, sufficient funds be provided and material resources be made available by the government for this programme. Secondly, the ministry of basic education provides authorization documents for nursery and primary school teachers who are qualified and are willing to study DED.

**Keywords:** Distance Education (DED) programme/curriculum, distance learning, e-learning, Need Analysis, Context, Input, Process and Product (CIPP)

Date Of Submission: 15-09-2019

Date Of Acceptance: 03-10-2019

### I. GENERAL INTRODUCTION

The world is fast growing and the quest for education is also on the increase. However, globalization and rapid changes in technology have created a need for adults to update their professional skill sets for career advancement and to be prepared to make broad decisions about complex problems using realms of information in the world today (Brown, Green, & Lauder, 2001). Education plays a pivotal role in maximizing individual's potentials and is also a prerequisite for meaningful and sustainable professional skills in every sector (Amosa, James, and Olubode, 2013). The use of technology in teaching today is very important. This has brought education to the door steps of everybody who is willing and anxious to learn at his/her convenient time and pace. There are many ways of bringing education closer to the people. Some of these ways are, e-learning, blended learning, distance learning just to name a few. In the perspective of the University of Buea, distance education (DED) or distance learning

means bringing education closer to the people who want to improve the professional skills in the basic education sector. Due to the nature of their work they cannot go back to school and study. Distance education in the University of Buea is limited only to the faculty of education as of now. The aim of this programme is to provide distance education to nursery and primary school teachers to upgrade their professional skills and be more productive in their teaching learning process (DED 201 course booklet, 2007). This programme started in the University of Buea since 2008 to cater for the professional skills of primary school teachers which needed to be upgraded to meet with the challenges of this information world of the digital generation. The programme has gone operational for decades and therefore warrants to be evaluated so as to inform policy makers of the curricula of higher education about the programme. This will enable them to judge the programme and take appropriate decision about DED programme of the University of Buea.

For a curriculum or a programme to be evaluated, it must have been implemented for at least five years and above according to literature. So therefore, evaluating this programme at this time is sacrosanct. This programme was evaluated using the Stufflebeam Model of evaluation with the acronym CIPP (Context, Input, Process and Product (Jati, Dadan, Supahar, 2017).

## **II. RELATED LITERATURE REVIEW**

### **Background to the Study**

Historically, distance education emerged from the study by correspondence. According to Alemnge (2018), correspondence study started in the 1800s in Britain as an alternative form of providing education to the masses at an affordable cost. It opened the possibilities of learning while working. This favoured the pace of the learners to learn and obtain education and training according to their capacity. This equally opened the gates of education to the masses. Many countries around the world over are practicing distance education based on their own perceptions. Some call it distance education, e-learning, and blended learning, learning by correspondence just to name a few. In former West Cameroon, activity in the area of Correspondence Education started after independence in the 1960s as individuals seized the opportunities offered by correspondence study programmes in the United Kingdom to obtain certificates in academic and professional fields (Alemnge, 2018).

Several private and public higher institutions of learning have initiated distance learning programmes in various domains of education and training in Cameroon today. Most of these programmes have been initiated in partnership with some national universities or foreign distance learning universities and institutions. This paper will trace the background of the various public and some private universities and higher institution in Cameroon that practice distance education.

The pioneer university that started Distance Education Programme was the University of Dschang in 1996 in the West Region of Cameroon (Ndongfack, 2016).

The University of Yaoundé I started its own programme in Electrical Engineering and Telecommunications in partnership with the “Agence Universitaire de la Francophonie” (AUF) in the 2006/2007 academic year. The programme is housed by the Département de Génie Electrique et de Telecommunication (Department of Electrical and Telecommunications Engineering) of the l’Ecole Nationale Supérieure Polytechnique (ENSP). It is a postgraduate programme aimed at providing the students with skills and competences

to conceive and install various telecommunications devices.

The University of Douala in 2008 initiated its own programme in partnership with the Université de Paris et Marne la Villé and the “Ecole Nationale de Sciences Geographiques, Paris. It is a professional postgraduate programme with the main objective to train students who have received basic training in computer programming in the fundamental concepts of Geographic information systems. Graduates of this programme should be able to work in various capacities such as software producers, service providers, managers of environmental projects and research institutions just to enumerate a few.

In the academic year of 2007/2008, University of Buea started its own distance education programme. The B.Ed. programme in Nursery and Primary Education, aimed at upgrading the knowledge and skills of primary school teachers from Grade one (1) teachers to Bachelor degree holders in Nursery and Primary Education. It is hoped that through this in-service training, practising teachers should acquire new skills for teaching and managing the ever increasing school enrolment (Ndongfack, 2016 and Alemnge, 2018).

University of Yaounde II Soa started Distance Learning programme in the 2013/2014 academic year. It is a postgraduate programme which is aim at training communication experts versed in the use of information and communications technologies in the conduct of their profession.

Ndongfack (2016) when further to indicate that the University Maroua; Higher institute of Sahel started distance education in 2014 in collaboration with Agence Universitaire de la Francophonie.

Some private higher institutions in Cameroon that operate distance education are: ICT University in Yaounde. It is an American university operating in Cameroon. They offer courses in distance education from diploma causes to Ph.D. They started distance education programme in 2012.

St Monica University (St-MU) in Buea operate distance education in collaboration of many foreign universities. They offer courses from diploma to Ph.D courses. They started distance education in 2012.

University Institute of International Development, Maroua (UIID). They offer courses in Bachelor, Masters and Doctorate degrees in many fields. In collaboration with William Carey International University; Capstone University; Christian Promise University; University of Maroua.

Due to the aim of this evaluation it is important that we through more light about the university of Buea. According to Alemnge (2015), University of Buea was created in 1993 as part of Higher education reforms at the time in Cameroon. Conceived in the Anglo-Saxon tradition; the university seeks to foster the values of that system while situating itself within the bilingual and multicultural context of Cameroon. It is located in the town of Buea, former capital of German Kamerun and Regional Capital of the Southwest Region of Cameroon. The mission of the University of Buea is to provide opportunities for quality education through teaching and research in an environment that is conducive to such pursuits and in ways that respond to market forces. The University of Buea is made up of seven faculties (Arts; Agriculture and Veterinary Medicine; Education; Engineering and Technology; Health Sciences; Science; and Social and Management Sciences) and two professional schools, the Advanced School of Translators and Interpreters, (ASTI), and the College of Technology (COT).

The Distance Education programme in the University of Buea started in 2008 as earlier mentioned. It is aimed at upgrading the knowledge and skills of teachers of Nursery and Primary schools to degree level. The B.Ed in Nursery and Primary Education is an eight semester programme. It is primarily print-based and tutorials are delivered face-to-face in study centres in different regions of the country. This is reinforced by telephone tutorials in between the tutorial sessions. Tutorial meetings last one week and are held twice each semester, one at the beginning and the other at the end of the semester. Assessment is based on continuous assessment in the form of two take home assignments which counts for thirty percent (30%) of the marks and an end of semester examination which covers the remaining seventy percent (70%) of the marks. The programme is funded from government subventions and fees paid by students. The first batch of students graduated in the 2011/2012 academic year (Alemnge, 2015).

This programme has been existence for decades. It is therefore incumbent that this programme be evaluated so as to see the area of strengths and weaknesses for amelioration.

### III. DISTANCE EDUCATION

According to Al-Khatir Al-Arimi (2014), distance education student do not need to present in a classroom, distance learning use all forms of technological devices such as radio, TV, audio and video conferencing, online learning. There are differences between e-learning and distance learning. Distance learning is a methodology used when student and teacher are separated by time and

place, while e-learning is the use of websites and other form of modern technologies for the delivery of instruction in which the students do not need to travel from one area to another. On the other hand, Ndongfack (2016) reiterated that distance learning may be broadly defined as a flexible form of education characterised by the:

- Separation of the teacher from the learner in time or space, or in both;
- Use of a variety of media to bridge that separation, including print, radio and television broadcasts, video- and audiocassettes, computer-based learning and telecommunications;
- Provision of two-way communication, which allows for tutor-learner and/or other learner interaction;
- Possibility of face-to-face meetings for tutorials, learner-learner interaction and laboratory or practice sessions; and
- Use of industrialised processes, where there is a division of labour that contributes to reduced unit costs through economies of scale (COL, 2000 as cited in Ndongfack, 2016).

### Difference between Distance Learning and E-Learning

It is of paramount important that the differences distance learning or education and e-learning be brought here for the clarity of this piece of work.

- Distance learning or distance education is a field of education that focuses on the pedagogy/andragogy, technology, and instructional system design that are effectively incorporated in delivering education to student teacher and student may communicate asynchronously and synchronously.
- E-learning is naturally suited to distance learning and flexible learning, but can also be used in conjunction with face-to-face teaching, in which case the term Blended learning is commonly used.
- E-learning can also refer to educational web sites such as those offering worksheets and interactive exercises for children. The term is also used extensively in the business sector where it generally refers to cost-effective online training.
- E-Learning is the employment of technology to aid and enhance learning. Focusing on the use of the Internet in e-learning, three primary uses have emerged.
- It is an electronic technology to deliver, support and enhance teaching and learning.

### Objectives of Distance Education Degree Programme of the University of Buea

According to DED 201 Course Booklet (2007), the main objective of distance education is to offer nursery and primary school practicing

teachers the opportunity for academic and professional development necessary for quality educational offering. This general objective enables the development of an understanding of effective teaching and learning process through academic, professional education for personal development. The following specific objectives were coined for the realization of this main objective, thus;

1. Develop a broad perspective on the role of nursery and primary school teachers as agents of change in Cameroons basic education in this age of ICT revolution and globalization.
2. Develop their academic and professional competencies for effective educational offerings.
3. Make them learn and understand new approaches to ensure quality education.
4. Enable them shift focus from teaching to learning.
5. Understand and develop competencies to organize learning experiences for inclusive/ integrated/ special education.
6. Develop ability to manage schools.
7. Understand more needs, interests and characteristics of nursery and primary school children.
8. Develop awareness for professional morals and ethics.

**Distance Education Strategies to Improve Learning on-Campus in University of Buea**

The measures to improve learning on campus will be those that will complement the regular lectures that teachers deliver in the classroom. These will be essentially e-learning

based on access to the internet, close circuit television, CD ROMs, audiocassettes, videocassettes, other devices and print out (DED 201 Course Booklet, 2007).

**Distance Education Strategies to Reach out to Off-campus Learners of the University of Buea**

This begins by focusing more on print, audio and audio-visual delivery than on the more sophisticated electronic systems. The distance students will study the material independently, but will be assisted by a support system put in place by the university (DED 201 Course Booklet, 2007).

**Basic Pedagogic Models for Distance Learning According to Al-Khatir Al-Arimi (2014), there are four fundamental ways of organizing the teaching and learning context:**

- The distributed classroom model-Synchronous is communication between on and off campus classrooms.
- Group conference model-Tutor and off campus groups and individuals are interactive contact.
- The individual learning model-Tutor manages individual content with student and their study programmers
- The independent learning model-Based on materials, self-direction and group interaction. Least contacts with tutor.

**Courses of Distance Education Offered in the University of Buea**

**Table 1 below presents the professional, academic content and University compulsory courses offered DED in the University of Buea.**

**Table 1: Professional, Academic and University Compulsory Courses**

Professional Courses in Education (138 Credits)		
Course Code	Course Title	Credit Value
DED 201	Foundations of Early Childhood and Primary Education	6
DED 202	Psychology of Learning	6
DED 203	Child Development	6
DED 204	General Pedagogy	6
DED 205	Introduction to Curriculum Development and Teaching	6
DED 206	Educational Technology	6
DED 207	The Curriculum of Nursery and Primary Education	6
DED 208	Curriculum Development and Evaluation	6
DED 301	Assessment and Evaluation of Learning in Nursery and Primary Education	6
DED 303	Special Teaching Methods (Language Arts, Social Studies, and Mathematics)	6
DED 308	Health and Physical Education	6
DED 402	Professional Ethics in Teaching/Civics/Moral Education	6
DED 403	Educational Psychology	6
DED 405	Sociology of Education	6
DED 407	Introduction to Research and Statistical Methods in Education	6
DED 408	Characteristics and Needs of Children with	6

DED 501	Learning Disabilities	6
DED 502	Moral Education Design of Effective Learning Environments for Early Childhood and Primary Education / Library	6
DED 503	Guidance and Counselling	6
DED 504	Introduction to Educational Administration & Planning	6
DED 505	Contemporary Issues in Nursery and Primary Education	6
DED 507	Citizenship Education	6
DED 598	Long Essay (Research Project)	6
<b>Academic Content Courses (48 Credits)</b>		
DED 302	Language Subject Matter for Nursery and Primary Education	6
DED 304	General Science Subject Matter for Nursery and Primary Education	6
DED 305	Mathematics Subject Matter for Nursery and Primary Education	6
DED 306	Social Studies Subject Matter for Nursery and Primary Education I	6
DED 307	Introduction to Agricultural Science	6
DED 401	Art in Nursery and Primary Education	6
DED 404	Introduction to Music in Nursery and Primary Education	6
DED 406	Social Studies Subject Matter for Nursery and Primary Education II	6
<b>University compulsory courses (8 credits)</b>		
ENG 101	Use of English 1	2
ENG 102	Use of English 2	2
FRE 101	Functional French 1	2
FRE 102	Functional French 2	2

**Source: Alemnge (2015)**

### **Challenges Faced by DED in the University of Buea**

Based on related literature reviewed some challenges were identified. The lecturers and the administrators of DED in the University of Buea encounter the following challenges;

1. Difficulties to manage students mind set since most of them finds it difficult to acquaint themselves as students..
2. Sometimes the students want things to be done for them as in the case teacher training colleges.
3. Lack sufficient finances to run and extent the programme at the postgraduate level and manage the programme effectively and efficiently.

According to Alemnge (2015) enumerated the following problems facing the DED programme of the University of Buea, prominent among these are; the problems of staffing, technology, cost of training, and management of student assignments. Alemnge (2018) came up enthusiastically to point out the major challenges facing DED in Cameroon in general. He made it clear that, there is a policy vacuum at all levels. Furthermore, there is no national policy to point the direction, provide orientations and create an enabling environment for

the practice of DED in Cameroon. In all the universities running a DED programmes there are no dual mode DED policy instruments (dual mode, copyright, quality assurance, and e-learning policies). Apart from the programme coordinators there are virtually no other trained and knowledgeable staff in the area of DED and there are no plans in place to pursue the training and promotion of staff in DED at the national level. The financial resources provided by the state as subventions to manage these programmes are largely insufficient to meet current expenditures.

### **Students Challenges**

1. Enough time is not given for the students to assimilate lectures at the DED centres assessment is carried out.
2. Many of the nursery and primary school teachers are not aware of this DED programme in the University of Buea.
3. Most of the training centres do not have libraries thus the students find it difficult to read widely.
4. Most of the nursery and primary school teachers are not given the authorization to study DED.

5. Some teachers who have graduated from this DED programme lack motivational factor such as reclassification in terms of grades. This has forced many products of this DED programme to change their ministry. Secondly some have decided to go for greener pasture abroad.
6. There is no DED programme at the masters and Ph.D level at the University of Buea for that reason many graduates from DED at the undergraduate have diverted to other programmes in the faculty of education. This is usually at the mercy of the students who wanted to continue and be professionals in nursery and primary education.

#### IV. STATEMENT OF THE PROBLEM

According to the Cameroon's Education and Training Sector Strategy Paper (2013), it highlights that the current demand for higher education in the country will double by 2020. Furthermore, Ndongfack (2016) reiterated in his study that the trends in the demand for higher education in Sub Saharan Africa indicates that many citizens will be knocking on the doors of institutions of higher learning in search of education by 2025. Therefore, school curricula needs to be effective and appealing to the students. Furthermore, the education community need re-strategized methods of bringing education closer to the people to meet these foreseeing quests for education in the days to come. However, distance education is one of the strategies that make education available to the masses, despite their other activities. For this reason it is paramount that distance education programme in the country be evaluated. That is the more reason that these researchers deemed it necessary to evaluate DED programme of the University of Buea so as to enable policy makers of higher education to know the decisions they have to make in ensuring quality education through DED to Cameroonians in the coming years. Furthermore, DED programme in the University of Buea has been operational for decades now and it warrants that the programme be evaluated according to the principles of programme evaluation in order to determine which area of the programme implementation needs to be improved upon. These researchers deemed it necessary and timely at this juncture that this programme be evaluated so that the findings of this study might inform policy makers to be aware of the extent to which DED programme in the University of Buea is achieving its objectives at the various levels of its implementation. These researchers have therefore adopted the (Stufflebeam, 1973 as cited in Kuo-Hung, et al., 2010) model of evaluation to evaluate the DED programme of the University of Buea. This model was considered appropriate for

this evaluation process because it is an evaluation model that is widely used by many evaluators in evaluating educational programmes.

#### General Objective of the Study

The general objective of this study was to evaluate the implementation of the distance education programme (curriculum) of the University of Buea using Stufflebeam CIPP Model of evaluation. Specifically, one specific objective was coined for this study; to find out whether the context, input, process and product stages of the implementation of the distance education programme are achieving its objectives at the various stages.

#### Stufflebeam Evaluation Model

Stufflebeam (1973 as cited in Jati, Dadanand Sapahar, 2010) defined the evaluation as a process to describe, obtain and provide information that is useful to assess alternative decision. These researchers see Evaluation just like many other scholars as the process of obtaining information and using it to form judgments which in turn are to be used in decision making. In addition to the above definitions, Arifin (2013) sees evaluation as an on-going process sustainable and systematic to determine a quality and value of a program thus giving meaning to that programme. This quality determination based on certain criteria and considerations.

In conducting an evaluation, it needs tools / instruments in order to be able to evaluate a program. Proper evaluation instruments will create evaluation results in accordance with the purpose of the evaluation. To produce a proper evaluation instruments, it would require a needs analysis as insinuated by (Kuo-Hung, et al., 2010). A minimum programme evaluation consists of three components, namely input, process and output. Good instrument is an instrument that meets the requirements or specific rules, to provide accurate meaningful data according to function, and the only measure samples of certain behaviours. It shows that the important of evaluating a school programme cannot be overemphasized.

The model developed by Stufflebeam is one of the widely used model that researchers have either used to evaluate educational programmes or in developing frameworks in assessing a particular course or programme (Shamsa, Munazah and Zahrah, 2018; Sheppard, Johnson and Leifer, 1998). That is the reason why these researchers deemed it necessary to evaluate the distance education programme (curriculum) of the University of Buea by adopting the principles of the CIPP model by Stufflebeam.

**The CIPP Model**

CIPP is an abbreviation for the evaluations: Context, Input, Process, and Product as presented on table 1 below. Context evaluation is used to choose the goal. Input evaluation is used to revise the plan. Process evaluation is used to

guide the implementation of the plan. Product evaluation is used to provide the inspection determination Stufflebeam, 1983 as cited in Kuo-Hung, et al., 2010).

Table 2 below describes in brief what the four stages of CIPP model is all about

**Table 2: The Four Stages of Evaluation in the CIPP Model**

	CONTEXT	INPUT	PROCESS	PRODUCT
<b>Aim</b>	To diagnose problems and assess needs	To assess the possible changes	To ensure the suggested changes are carried out as intended, and to identify problems in implementation	To find out whether the instructional programme or idea actually made a difference
<b>Method</b>	Using methods such as classroom interviews, diagnostic tests, analysis of students' written work	Using methods such as literature search, visits to exemplary programmes, pilot trials, ideas from teachers in the field	Monitoring the change process, observing and recording activities that take place, and both the expected and unexpected results	Measuring changes in performance compared with students' work begun, including whether students have learned to transfer their knowledge to new problems. Measures can include interviews with participants, class tests, analysis of students' written work
<b>Decision making</b>	To provide a basis for deciding on the changes needed	To find where there is the most support for change and to find out which solutions are most feasible	To help in fine-tuning the programme, and also to provide data which can be used later to interpret the impact of the change	To decide whether the changes should be continued, terminated or modified

**Source: Adopted from Stufflebeam 1983 as cited in Kuo-Hung (2010)**

**Context Evaluation**

Context evaluation deals with whether a curriculum includes focus, goals and curriculum objectives, meaning the organisational parameters. It also assesses the environment where evaluation takes place. The aggregate data and information gathered serve as a basis for curriculum decisions and the subsequent development of objectives (Kuo-Hung, et al., 2010). Therefore, context evaluation includes: policy, surroundings, needs assessment, at the least.

**Input Evaluation**

Input evaluation involves an examination of the intended content of teaching (i.e. the skills or strategies the students learn), and it relates to deciding the resources and strategies used to

achieve curriculum goals and objectives (Finch, and Bjorkquist, 1977). Besides, the purpose of input evaluation should support the choosing of resources. Therefore, input evaluation must include work plan, equipment, funds, and personnel resources, at the least. The item is used to revise the curriculum plan.

**Process Evaluation**

Process evaluation relates to the implementation of teaching. Based upon results of the pilot test or evaluation, it is necessary for process evaluation to describe the student's need in order to reconstruct the program. Its goals areas follows: to forecast the mistake of designs; to provide information for decisions; and to assure the procedure of plans. By using process evaluation, it

can provide regular feedback to the programme director. The researchers can understand the original plan, find the process, trace the change of plan, and provide the material to guarantee its efficiency and achievement (Finch, and Bjorkquist, 1997). Finally, the ways to gather the data of process evaluation are multiple. These include the use of teacher behaviour measure, teacher rating measures, standardised achievement measures, expert referenced measures, and teacher constructed knowledge and performance instruction.

### **Product Evaluation**

Product evaluation is the assessment of teaching outcomes. The purpose is to carry out an instructional product evaluation, where the instructor tries to find out whether the instructional ideas actually made a difference (Stufflebeam 1983 as cited in Kuo-Hung, et al., 2010). The product evaluation could determine whether the curriculum should be modified, fine-tuned, or terminated and it also could evaluate the output of curriculum activities. Based upon the information related to background, input, process, and so on, it refers to comparing the difference between the outcomes and a predetermined standard or absolute standard (Patil, and Kalekar, 2015). It can also provide reasonable explanation and consultation for decision-making.

Matthews and Hudson (2010) used the CIPP in North Carolina as an example where engineering education was evaluated. The pointed out that evaluating a programme should include the time-management of instruction, the management of students' behaviour, teaching performance, students' learning performance, the feedback of instruction, the influence of instructional surroundings, performance of instruction and so on and so forth. All the above items include systematic evaluation, formative evaluation and summative evaluation. As a result, the product evaluation is a very important element of CIPP because it shows the evaluators whether the programme is achieving its objectives of needs or not.

## **V. METHODOLOGY**

This study adopted a qualitative research design approach. To be more precise a descriptive survey design. This design was considered valid for this study because this study was not to test hypotheses. Furthermore, this study was to gather data in order to see whether the distance education programme practices is meeting the objectives of implementation at each level as stipulated by the standard of the CIPP evaluation model. The finding of each stage was used to determine whether the practice of that stage with respect to DED programme is functioning effectively with regards

to the CIPP evaluation model. The population of this study was made up of all the postgraduate students who did distance education at the undergraduate (10), administrators (2), and four (4) lecturers of distance education. The instruments that were used for this study were; interview guide for the administrators and lecturers, observation check list was used for documentary analysis. A questionnaire was used for the masters and Ph.D students of the faculty of education who did distance education at the undergraduate. The instruments were designed based on Stufflebeam stages of CIPP model. Both reliability and validity of the instruments were done using two key informants of the faculty of education (questionnaire, interview guide and checklist). Alpha Cronbach reliability test for the questionnaire was 0.86. Data was analysed using descriptive statistics and thematic analysis.

## **VI. PRESENTATION OF FINDINGS**

### **Materials of the DED programme in the University of Buea**

The materials observed were prepared distance education books and hand outs and other instructional materials for the programme. Well-equipped university of Buea library with various books and internet facilities, CD-ROMs, and radio station to disseminate information for the programme. There is also an IT centre for research. Furthermore, there are well established centres for DED where teaching and learning takes place in Kumba, Buea, Bamenda, Yaounde, Maroua and Douala. From inception, all the ten regions were entitled to a DED centres. However, some regions did not have candidates for DED as such those centres could not go operational. The coordinator said "we are carrying on a lot of sensitizations to make sure that many nursery and primary school teachers are enrolled into the programme this year". "Madam is this programme meant only for nursery and primary school teachers?" "No, it meant for every citizen, however, its conception was focused on nursery and primary school practicing teachers. Anyone can decide to make a profession in this noble field also" she concluded. From the observation and the interviewed we had with some administrators and lecturers of DED it was concluded that DED programme is equipped with materials and infrastructures in their various centres to admit students who meet the criteria for admission. However, the materials especially information and communication tools were not sufficient enough for the programme. The lecturers and the administrators also admitted that the funds to run this programme were insufficient. However, they have been sacrificing so much to make sure that the programme operates smoothly. They

appreciated the subvention from the government, fees from students and the support from the administration of the University of Buea for the DED programme.

The use of equipment like the information and communication technology (the Internet) is an important tool in the facilitation of the teaching/learning process of today cannot be overemphasized, opined by (Asongwe, Fonkeng and Galy, 2016).

Avong (2013) found out in his study that inadequate resource materials for teaching contribute to poor performance of students in mathematics.

In the same vein, Asongwe, et al. (2016) and Endeley (2014) in their studies pointed out that, lack of instructional materials plays a big rule in enhancing the implementation of the BMP system in the University milieu. Daniel (1996) further asserted that technology equips students with the generic skills for lifelong learning. Thus sufficient instructional materials enhance teaching and learning process for the betterment of academic outcomes.

**Quality of Lecturers Teaching DED Programme in the University of Buea**

The quality of lecturers to teach DED programme in the University of Buea ranges from professors, associate professors, assistance lecturers and instructors. Some of the lecturers for this programme are specialist in other domain such as sport, medicine, and music. None of the lecturers of this programme has below a master’s degree in their respective fields. This question was put to the administrators “are there qualified teachers for teaching DED in the University of Buea?” Answers; “the lecturers are extremely good and qualified because there is none of them without a master’s degree”, “they are well qualified and are endowed with a lot of pedagogic skills and practices, furthermore, they are very committed to the teaching of the DED students despite their workload”. Another question was asked, “Do the

lecturers of DED have the mastery of the use of ICTs in teaching DED programme?” Answer; “they are verse with ICTs devices, however, using it to teach DED might be out of context of DED as practice in the university of Buea, they use phones, and social media to communicate with the students. Materials in prints, audio are given to the learners to study at their convenient time” said one administrator. Another one added “there is a unit in charge of uploading materials online if it is very necessary. One major problem is that internet connectivity might not be in some remote areas where some of these students are found. In other to overcome these problems, their materials are always handed to them in their various centres”. Based on the question item, “How does the University of Buea administration support the DED programme?” The administrators and the teachers interviewed admitted that they receive administrative support from university of Buea in terms of human, financial and material resources. The teachers interviewed all agreed that the staff strength for DED is good to handle all types of students but not enough.

Draft Document of the Sector Wide Approach/Education, 2006 as cited in Yembe (2019), stipulate that many schools in Cameroon suffer from unqualified teachers and shortage of staff. It therefore, shows that if the staff are not sufficient and qualify then their productivity will also be low. However, the case of DED staff in the University of Buea is better because they have qualified staff, but number is not sufficient enough for the DED programme. This is because the workloads for these lecturers are much as they are also involved in administrative duties (Doh, 2015).

**Presentation of Findings Based on the CIPP Model Stages**

Table 3 below presents the analysis of data that was obtained based on the CIPP model stages. All the stages were evaluated to find out where the DED programme was performing better and the area where there was some loop holes.

**Table 3: Findings From the CIPP Evaluation Model**

NEED ANALYSIS									
S/N	STATEMENTS	S	%	A	%	D	%	SD	%
1	DED develops a broad perspective on the role of nursery and primary school teachers as agents of change in Cameroons basic education in this age if ICT revolution and globalization	7	70	3	30	00	00	00	00
2	DED develops their academic and professional competencies for effective educational offerings	7	70	3	30	00	00	00	00
3	DED makes them learn new approaches to ensure quality education.	7	70	3	30	00	00	00	00
4	DED enables them shift focus from teaching	3	30	5	50	1	10	1	10

	to learning.								
5	DED develops competencies to organize learning experiences for inclusive/integrated/ special education.	3	30	5	50	2	20	00	00
6	DED develops the graduates ability to manage schools	5	50	4	40	1	10	00	00
7	DED helps in-service teachers to understand more about the needs, interest and characteristics of nursery and primary school children and develop awareness for professional moral ethics.	6	60	4	40	00	00	00	00
<b>Total</b>		38	380	27	270	4	40	1	10
<b>Grand Total</b>		<b>65(92.86%)</b>			<b>5(7.14%)</b>				
<b>CONTEXT EVALUATION</b>									
8	There is electricity to undertake DED.	1	10	3	30	3	30	3	30
9	There are ICT tools available is ICT to undertake DED.	0	00	3	30	2	20	5	50
10	Lecturers to undertake distance education are available	2	20	6	60	2	20	00	00
11	Nursery and primary school teachers are aware of the existing have knowledge about Distance Education programme in the University of Buea.	3	30	4	40	2	20	1	10
12	Learners are able to use ICTs necessary to pursue Distance Education.	0	00	3	30	4	40	3	30
13	There are sufficient funds to acquire material resources for DED programme.	0	00	1	10	7	70	2	20
14	There are insufficient funds to recruit human resources for DED programme.	1	10	3	30	6	60	00	00
15	DED collaborates with external universities.	0	00	4	40	4	40	2	20
16	DED receives external support from international bodies.	1	10	4	40	3	30	2	20
<b>Total</b>		8	80	31	310	33	330	18	180
<b>Grand Total</b>		<b>39(43.33%)</b>			<b>51(56.67%)</b>				
<b>INPUT EVALUATION</b>									
17	Lecturers have a minimum qualification of a master and are enrolled in to Ph.D programme.	4	40	3	30	3	30	00	00
18	Learners possess a grade one certificate and at least one GCE A/L with a pass in at least a D grade.	2	20	3	30	5	50	00	00
19	Learners can send and receive emails.	1	10	4	40	5	50	00	00
20	Lecturers in the programme undertake in-service training.	1	10	2	20	3	30	4	40
21	Learners study by means of tutorials.	8	80	2	20	00	00	00	00
22	Hand outs are not given to the learners.	6	60	3	30	1	10	00	00
23	There are no standby generators in DED centres...	00	00	00	00	2	20	8	80
24	The four year duration of the programme is appropriate.	1	10	5	50	2	20	2	20
25	The programme receives administrative support from the university of Buea.	4	40	5	50	1	10	00	00
<b>Total</b>		27	270	27	270	22	220	14	140
<b>Grand Total</b>		<b>54(60%)</b>			<b>36(40%)</b>				

<b>PROCESS EVALUATION</b>									
26	In-service training is inadequate for the lecturers of DED.	1	10	4	40	4	40	1	10
27	ICT components function appropriately	00	00	3	30	5	50	2	20
28	Electricity is adequate.	00	00	3	30	3	30	4	40
29	Hand outs and reading materials reached learners on time.	2	20	4	40	4	40	00	00
30	The content meets the need and interest of the learners.	3	30	6	60	1	10	00	00
31	The lecturers are assiduous.	4	40	5	50	1	10	00	00
32	Students receive feedbacks from assignment on time.	1	10	5	50	3	30	1	10
33	Students receive feedbacks from questions on time.	1	10	4	40	5	50	00	00
<b>Total</b>		12	120	34	340	26	260	8	80
<b>Grand Total</b>		<b>46(57.5%)</b>				<b>34(42.5%)</b>			
<b>PRODUCT EVALUATION</b>									
34	Learners graduate in exactly four years	4	40	4	40	2	20	00	00
35	Graduates act as agents of change in Camerouns basic education in this age of ICT revolution and globalization	3	30	4	40	2	20	1	10
36	Graduates acquire academic and professional competencies for effective educational delivery	5	50	5	50	00	00	00	00
37	Graduates are able to apply new pedagogic approaches to ensure quality education.	5	50	3	30	2	20	00	00
38	Graduates adopt a more leaner centred approach to teaching'	3	30	6	60	1	10	00	00
39	Graduates acquire competences needed in a diverse classroom.	4	40	3	30	3	30	00	00
40	Graduate do not develop enough ability to manage schools.	5	50	5	50	00	00	00	00
41	Graduates diagnose and analyse the complexity of nursery and primary school children and develop awareness for professional and moral ethics.	3	30	7	70	00	00	00	00
<b>Total</b>		32	320	37	370	10	100	1	10
<b>Grand Total</b>		<b>69(86.25%)</b>				<b>11(13.75%)</b>			

**Table 4: Summary of Table 3**

<b>Variable</b>	<b>Need Analysis</b>	<b>Context Evaluation</b>	<b>Input Evaluation</b>	<b>Process Evaluation</b>	<b>Product Evaluation</b>
<b>Total Agreed</b>	65	39	54	46	69
<b>%</b>	<b>92,86</b>	<b>43,33</b>	<b>60</b>	<b>57,5</b>	<b>86,25</b>
<b>Total Disagreed</b>	5	51	36	34	11
<b>%</b>	<b>7,14</b>	<b>56,67</b>	<b>40</b>	<b>42,5</b>	<b>13,75</b>

42. What is your general impression about DED programme in UB?

Table 3 and 4 above presents data obtained from the field based on the various items

that were designed to find out the level at which DED programme responds to the need analysis, context, input, process and product processes of the CIPP model.

The findings showed that at the need analysis 69 respondents scoring 92.2% totally agreed that need analysis was properly done for the programme. On the other hand 5 respondents scoring 7.14% disagreed that need analysis for DED programme was not properly done.

Moreover, based on the context process, the findings revealed that a total of 39 respondents scoring 43.33% agreed that with respect to the context process of the DED programme, activities at this level is good. However, 51 respondents scoring 56% disagreed that the context stage activities are still lacking behind thus needs amelioration.

At the level of input, 54 respondents scoring 60% agreed that the input process for DED programme was moving well in the positive direction. Besides, 36 respondents scoring 40% disagreed that the input process of the DED programme was not moving in the positive direction.

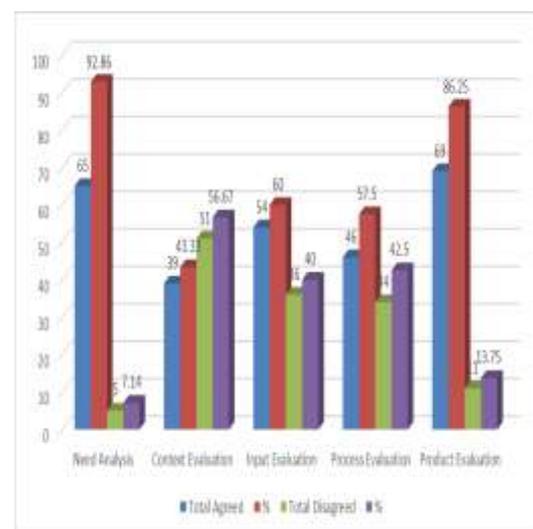
The interview with the teachers and administrators based on input revealed that; that the DED teachers all have basic skills in using ICT tools in teaching. One of the lecturers of DED reiterated that “DED lecturers all have a mastery of ICT tools”. One of the administrators reaffirmed that, “I do not want to get into the nitty-gritties of the lecturer’s mastery skills of ICT; this is because we are not doing e-learning perse as it is practiced in the Western world. We are doing distance education based on our context where we want to take education closer to the teachers of nursery and primary schools even those that are teaching in remote rural areas. So therefore, the lecturers are not obliged to know how to use ICT tools”. Based on other items on the interview, documentary analysis provided the necessary answers to those items. Answers to those items on DED qualification, DED centres, instructional materials have been answered in the literature of the study. Based on teachers and administrators views, we concluded that the input process of the DED programme was up to the task. This is in the same light with regards to the opinion of the students’ questionnaire as seen on table 3 above.

Corroborating the process stage activities of the DED programme, 46 respondents scoring 57.5% agreed that the process activities were moving smoothly. On the contrary, 34 respondents

disagreed that the process stage activities of the DED programme were not moving smoothly.

Based on the product of the DED programme, 69 respondents scoring 86.25% vehemently agreed that the products of the DED programme are meeting its objectives. Nevertheless, 11 respondents scoring 13.75% disagreed that, the product stage of the DED programme is not meeting its objectives.

The administrators and some lecturers of DED programme were also of the opinion that the objective of the DED programme was being met. This was in response to the interview item “Do you think that the objectives of creating the DED programme are being met, if yes or no, explain?” They explained that most of the DED graduates are currently doing Masters and Ph.D in the faculty of education. Secondly, some have been appointed as head teachers, and inspectors of basic education while some have been appointed at the Divisional Delegation of Basic Education. They cited the example of an inspector of Basic Education in one of the Sub Divisions in the South Region of Cameroon. Figure 1 below illustrates the information above for clarity purposes.



**Figure 1: Cumulated Agreed and Disagreed Responses of the Evaluation Scheme of the DED the Programme**

#### 42. What is your general impression about DED programme in UB?

Based on this opened ended question, the data were analysed thematically as presents on table 3 below.

**Table 4: Thematic Analysis on the Impression of DED Graduates with Respect to DED Programme in the University of Buea**

S/n	Theme	Grounding	Percentage	Comment
1	DED programme is good	4, 2, 2 and 2 respectively	100%	“ The programme is very good” “ It is a timely programme which is good” “ It is a good effective programme” “ DED programme is very important”
2	Teachers develop professionally	2, 4, 2 and 2 respectively	100%	“ I have acquired a lot of skills professionally” “ I do teach more professionally and my colleagues look up to me as a resource person” “ I am a pedagogic animator in my school” “ DED programme has helped me increased on my professional skills and educational career”
3	Action Research skills	2 and 1 respectively	30%	“ I have acquired enough skills in research” “ In my class, I can conduct an action research effectively in my class thanks to DED”

Table 4 above shows that 10 respondents scoring 100% affirmed that DED programme was a good programme. More so, 10 respondents scoring 100% commented that teachers through the DED programme have acquired enough professional skills. Three (3) respondents scoring 30% mentioned that they have acquired action research skills.

## VII. DISCUSSION

The findings revealed that the needs of the DED programme were achieved. Oliva (1992) opined that for program evaluation, the evaluator should analyse the needs of the programme to see whether they were met or not. Alemnge (2015) enumerated that, from creation in 2007/2008 academic to 2014, University of Buea have graduated 211 students from DED. This shows that the needs analysis for the creation of the programme was done correctly. Jati, et al. (2017) reiterated that in developing any instrument of a programme, it is of paramount important that feasibility studies be done effectively. This will actually show the needs of the people within the locality.

The findings about the context evaluation showed that the context of the DED programme in the University of Buea has some loop holes. This might be as a result of insufficient funds for the programme, inadequate instructional materials, lack of frequent electricity, insufficient knowledge by the nursery and primary schools teachers about DED programme in the University of Buea. Collaboration with external universities, and support from external universities are rare. Another major problem that might affect this context stage is the insufficient of teachers (60 lecturers in 2014)

in teaching DED in the university of Buea and over the national territory as a whole (Alemnge, 2015, 2018).

An unconducive context therefore might affect both the administrators, teachers and students negatively. It is clear at this juncture that more effort needs to be laid in the area of the context of DED in the University of Buea in other to improve on the quality of the DED programme. This finding is backed by the findings of the study carried out by Asongwe, et al. (2016) who concluded from their study that, professionalization process of higher education in Cameroon cannot be attained without adequate infrastructural development, materials, personnel and equipment.

Moreover, the findings of the input stage declared that the input for the operation of DED programme in the University of Buea was moving in the right direction. This shows that the things put in place in the University of Buea to run the DED programme were up to the task. This stage involves teaching methods, administrative supports, in-service training and seminars for DED, qualification of the lecturers, entry qualification of the students to be admitted, instructional materials just to name a few.

Crunkilton, 1979 as cited in Jati, et. al., (2017) put forward that, input evaluation is closely related to the source determination and any strategy that will be used to achieve the purpose of the system or program being evaluated. Examples of sources that affect efforts to achieve the goal are; teachers to teach, the use of instructional media, and learning environment.

The finding of the process stage revealed that with respect to the DED programme of the University of Buea, in-service training and

seminars are adequately done for the lecturers of DED to improve on their knowledge. Furthermore, the lectures are assiduous; give feedbacks on time, assignments on time, reading materials as well as hand outs on time. The class activities are interactive as students receive answers from their questions on time.

On the other hand, findings on the product stage revealed that, the product stage of DED programme in the University of Buea is meeting its objectives. This is because the learners are able to graduate at the stipulated time, the graduates actually act as the agent of change in Cameroon basic education in this age of globalization and revolution. Graduates also acquire professional skills for effective educational delivery. In addition to that, Graduates adopt a more learner centred approach to teaching; and apply new pedagogic approaches to ensure quality education at the Basic level. The graduates also develop awareness for professional and moral ethics, acquire competences needed in teaching diverse class and so on and so forth.

### VIII. CONCLUSION

We concluded that the distance education programme in the University of Buea is achieving its objective of offering nursery and primary school teachers the opportunity for acquiring academic and professional development skills necessary for quality educational offering in Cameroon today. However, the evaluation of this programme also revealed that the context of the distance education programme is still limping as compared to other stages of the evaluation model. Thus, the area of context of the DED programme in the University of Buea needs to be improved upon to meet the challenges of these digital students of the DED programme.

### IX. RECOMMENDATIONS

- Based on the findings of this evaluation, we therefore recommend that input aspect of the DED programme of the University of Buea should be revamped so as to improve upon it process. This will go a long way to improve on the standard and quality of the graduates of the programme.
- We also recommend that more teachers be trained in the domain of distance education practices in Cameroon.
- The government through the Ministries of Education should create departments in charge of distance education in Cameroon. Secondly more funds should be allocated for distance education.
- The Ministry of Basic Education should authorize those nursery and primary school

teachers who are qualified to study DED programmes. This is because education is the key to every meaningful development.

- Those nursery and primary schools teachers who went through the DED programme should be reclassified and appointed to some key positions in order to buttress the essence of the DED programme.

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Jitzi Samuel Ngala " Evaluating Distance Education Programme Using Stufflebeam Cipp Model: University Of Buea Cameroon" *International Journal of Engineering Research and Applications (IJERA)*, vol. 9, no. 10, 2019, pp 01-15