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Original Research Article

# Teachers Perspective of the Implementation of Differentiated Instruction in the University of Buea, Cameroon

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**Abstract** 

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In a bid to respond to the diverse needs of individual students such as their unique abilities, interests, learning styles, and cultural backgrounds, lecturers have been using differentiated instruction. Differentiated instruction ensures that all students in the classroom have equitable access to educational opportunities and resources that meet their needs. Despite its goals the implementation of differentiated instruction in higher educational institution is illusive as such this exploratory and qualitative study examined the use of differentiated instruction in the university of Buea one of the most influential higher institutes of learning in Buea Cameroon which provides mentorship to many other higher institution of learning with a focus on courses with enrolment of 30 and above students more. The researcher worked with 35 instructors from four faculties of Education, Science, Social and Management Sciences, and Arts these faculties were selected because the least class size ranged from 30 and above. The findings suggest that differentiated instruction in the university of Buea Cameroon is challenging. Moreover, instructors teaching in the University of Buea need a better understanding of differentiated instructional strategies and how to implement them.

Keywords: Differentiated Instruction, Implementation, Teachers' Perspective

### INTRODUCTION

Education in the 21<sup>st</sup> century has seen a shift in its paradigm towards inclusive education globally. Inclusion is education for all learners irrespective of their strengths, needs, learning preferences, backgrounds, interests, abilities, disabilities, gender, and educational experiences in regular rather than in segregated schools. Apart from these differences and peculiarities, children also learn differently with different learning styles. Some are auditory learners, some kinesthetic and others learn better visually. Inclusion presupposes a philosophy of acceptance, where all people are valued and treated on equal terms. It is seen as a base for an unending process that fosters participation for all students. As such, it involves the development of practices, which aim at

reorganizing schools as places of equal opportunities for all students to participate and learn (Saloviita, 2020).

Thus, inclusive education is about increasing participation for all learners in the classroom. It calls for support to schools in order to enable them to become more responsive to the diversity of children's backgrounds, interests, experience, knowledge and skills (Brissett,2019). Thus, the focus is not merely on the improvement of the skills of the student with special needs, but mainly on the improvement of teaching for all students.

A neglect of classroom diversities as well as the use of a singular teaching approach threatens classroom inclusiveness and may put a good number of students at risk of dropping out, lagging, losing motivation, getting bored, failing to learn and not maximizing their potential(Blackman, 2017). To ensure that all learners in inclusive learning settings benefit maximally from instruction, classroom teachers have the responsibility of ensuring that all learners in the regular classroom, to the greatest possible extent, make progress in their learning irrespective of any form of individual difference (Mngo and Mngo, 2018).

Cameroon, like many countries in the world adopted the Salamanca Statement on Principles, Policy and Practice in inclusive education and a Framework for Action (UNESCO, 1994) and United Nations Convention on the Rights of Persons with Disabilities (2006). Inclusive education ideally, calls for the elimination of differences, support learning and respond to individual needs of all students in the classroom. However, global policies are heavily dependent on local values, thus, the implementation of international policies on inclusive education is closely related to the different understandings of disability and the meaning of inclusion in different societies (Strogilos, 2017).

Internationally, the understanding of inclusion and its implementation differs. These understanding could be grouped under the following two broad approaches: a) the radical restructuring of the education system; and b) the implementation of additional special programmes in the existing arrangements in mainstream settings. The proponents of radical restructuring of the education system believe that such a change could provide appropriate education for all students and see specialized programmes as a form of exclusion, even within a mainstream setting. Contrariwise, those who support the continuation of special programmes believe that special education is a service, which needs to remain alive in mainstream settings, and that not all students' needs are best served in mainstream schools (Strogilos, 2017).

Inclusive education is conceived as a broad reform that welcomes diversity among all learners mainly implemented as programmatic regularities (UNESCO, 2001). Thus, it could be said that inclusive education in many countries has not yet provided a shift in approach from serving diverse learners within mainstream education settings to a more blended practice through a process of eliminating the barriers to participation and learning experienced by students within the school system (Saloviita, 2020; Strogilos, 2017).

Creating and maintaining an inclusive classroom is a calculated, well-thought-out process that ensures that all learners get the most out of their education. Inclusion is not special education; all students are expected to master the same goals. inclusion is not placing students with disabilities into mainstream classes simply to fill a quota. Maintaining an inclusive classroom is a calculated, well-thought-out process that ensures that all students get the most out of their education. Inclusion is not special education; all students are expected to master the same

goals. Finally, inclusion is not meant to ostracize classmates; it is meant to bring them together and ensure that they reach their maximum potentials and this is in line with the mission of differentiated instruction (Ismajli and Imami-Morina, 2018).

Differentiated instruction is the act of individualizing a lesson for each student and maximizing everyone's potential. It is not grouping students into low, mid and high performing groups for the entire school year but tailoring a lesson, not a leaner's goal. Differentiating instruction is not a strategy to make sure each child reaches the minimum requirements; it ensures that each child reaches his or her potential.

## **Differentiated Instruction (DI)**

Differentiation according to Suleyman (2019)is the practice of modifying and adapting instruction, materials, content, students' project, and product and assessment to meet the learning needs of individual students. It involves responding effectively to the differences that exist among learners in the classroom by giving them multiple options for taking in information. Saloviita, (2020) sees differentiated instruction as an approach that enables teachers to plan strategically to meet the needs of every student. It is an educational theory that employs multiple teaching approaches in the same classroom to the accommodate variety of aptitudes. needs. personalities, and experiences of individual students. Differentiated instruction is inquiry-based, interest-based, learner-oriented and activity-intensive. It uses strategies such as heterogeneous grouping to ensure that general classroom instruction is accessible for all students. The goal of differentiated education is to ensure that all students learning in the same classroom have equitable access to educational opportunities and resources that meet their needs (Charity and Maximus, 2020). Students are whole people; therefore, differentiation should transpire in a holistic manner. Differentiation must consider readiness levels, interests, learning profiles, and affect regarding the teacher, course material and environment. Differentiated instructional strategies are not only important for primary and secondary level students, but university students can benefit too (Garba and Muhammad, 2015)

Instruction in higher education is dominated by a one-size-fits-all pedagogical method, which poorly serves a diverse student body. Rather than learner-centered approaches, the current educational system is often supportive of keeping traditional ideals and the one-size-fits-all approach to teaching(Turner, Solis and Kincade, 2017). Contemporary students in the university, are not traditional, they generally do not read newspapers, carry books, or use handwriting they have cell phones, laptops, and iPads. They interact with their friends through social media, blogs, and online forums. Tailoring instruction to

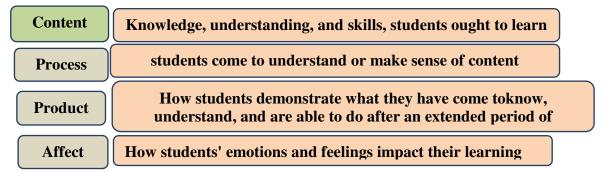


Figure 1. Elements of Differentiated Instruction

**Source:** Adopted from Association for Supervision and Curriculum Development as cited by Hanover Research (2018)

each student's learning style, readiness level, and interest is crucial and has been applied with success to primary and secondary classrooms but has limited documented application in the undergraduate classrooms. This can be attributed to the following; (a) large class sizes, (b) minimal number of contact hours with students, (c) time commitment to create multiple means of student assessment while also meeting research and service obligations, and (d) controversy over ethical issues such as fairness in grading (Garba and Muhammad, 2015)

Despite the above challenges, to the implementation of differentiated instruction, when used by instructors, this teaching strategy promotes engagement, facilitates motivation, and helps students make the connection with what is being taught in the classroom to the things they value outside of class. Students tend to improve in their retention of the information, discover new interests, places students as the focal point of the instructional process, allows flexibility in learning tasks, it revaluates and respects the differences between individual student needs and preferred learning modalities, and it levels the for student success. Further, differentiated instruction empowers instructors to be responsive rather than reactive to students' unique and individual personalities, backgrounds, and abilities (Onyishi, 2017). Walton,(2017)teachers can differentiate instruction by adjusting the four elements shown below in figure 1.

Differentiating content includes using various delivery formats and students may have opportunities to choose their content focus based on interests. Process refers to how a student makes sense of the information and learns. Delivering material according to students' preferred learning style is a process. Product is the medium through which the students show what they know and are capable of doing based on their investigation of a particular topic. Assessment based on students' preferred learning style is a product. Meeting the physical and psychological needs of students refers to the learning environment. Tomlinson's model suggests

that teachers promote equity and excellence by differentiating high quality content, process, and product when instruction is centered on students' readiness levels, interests, and learning profiles (Garba and Muhammad, 2015)

## **Differentiated Instruction in Higher Education**

Differentiated instruction is a collection of best practices strategically employed to maximize students' learning at every turn, including giving them the tools to handle anything that is undifferentiated, this can be challenging can be a challenge to practice because it touches on all aspects of teaching and entails far more than the adaptation of curricula and teaching strategies (Turner, Solis and Kincade, 2017). In most modern higher educational system, educators are required to address the diverse and various needs of learners from different cultural and social backgrounds. Differentiated instruction is a teaching practice that focuses on learners with the aim of overcoming inequalities and differences in their abilities, skills and learning styles. To better practice differentiation across the various strata of education the is need for an effective understanding of every student. This can be done through a learning profile questionnaire which contain a student's learning preference(s), family structure, favourite hobbies, interests, state assessment scores, reading scores, and fluency in reading group orientation, cognitive recordings, styles, intelligence preferences, and learning environment preferences. Differentiation guided by learning profiles allows students to learn by means that are natural and efficient (Santangelo and Tomlinson, 2009). This is not an easy task for most teachers in higher education thus making the implementation of differentiation an uphill task.

In most higher education classes, topics are taught in a single class. This is a challenge to the effective implementation of differentiated instruction as they may not have the time to revisit or re-teach atopic when students need further explanations or some other form of differentiation. Therefore, these instructors would need to be purposeful when utilizing class time. Another reason that makes differentiated instruction an up-hill task is the complicated nature of the environment. Instructors in higher education seldom have their own classroom and, as such, may be limited in how much they can modify the classroom environment (Chamberlin and Powers, 2010).

The implementation of differentiation in higher education meets with a lot of challenges as well as benefits for instance, Santangelo and Tomlinson (2009)reported that effective differentiation requires a considerable amount of time, effort, and dedication from the instructor and differentiated instruction gave each student the opportunity to acquire knowledge and understanding of course content and activities based upon their individual readiness, interests, and learning profiles. These findings were obtained from a self-study conducted in an introductory graduate education course using differentiated instructional strategies such as supplemental readings, tiered assignments, interestbased centres, independent study projects, flexible groupings, flexible timelines, and reading comprehension support.

Turner, Solis and Kincade (2017) reported a study conducted by Ernst and Ernst (2005) on the characteristic of differentiated instruction using a quasi- experiment in an undergraduate political science classroom by evaluating students and teachers' responses to teaching methods. The findings show an increase in intellectual growth, interest and satisfaction in courses of students in the experimental group over those in the control group. The instructors also recorded a positive response to the use of differentiated instruction though they complained of the fact that it is timing consuming. Despite its challenges, differentiated instruction could be seen to be one effective way of addressing the increased level of diversity in higher educational institutions across the world, specifically in Africa.

#### Research problem and questions

Higher education in Cameroon has seen an increase in terms of enrolment of students, with this increase comes various forms of diversity. Diversity in higher educational classrooms varies from disabilities, to gender, cultural differences, language, race and more. For effective inclusion, the needs of learners from these varied backgrounds ought to be addressed. It is expected that every learner across the various disciplines in the university should participate fully in every activity that goes on in the class. Every professor, lecturer is expected to be responsive to the diverse learning needs of each student in their various courses by addressing their backgrounds, interests and experiences. This is not

the case in higher educational institutions in Cameroon especially in the university of Buea. The lecture halls are overcrowded, lecturers are overloaded making teaching to address diversity an uphill task. Most teachers neglect classroom diversity by making use of a singular teaching approach which for the most part threatens classroom inclusively and makes students become demotivated, bored, and unable to maximise their potential. Most children with disabilities are left to figure their way out in most courses. This is the case for most learners with hearing impairments, the teachers do not know what to do to increase their classroom engagement as a consequence most of them end up discouraged, and the less resilient ones end up as drop out. It is against this that the researcher wishes to find out whether the implementation of differentiated instruction can enhance classroom inclusivity for all learners. To address this the researcher set out to find out instructors' understanding of differentiated instruction and their implementation strategies as well as the challenges.

## Three research questions

- 1. How do instructors in the university of Bueadefine differentiated instruction
- 2. To what extent do instructors in the university of Buea use differentiated instruction
- 3. What type of differentiation do instructors in the university of Buea practice
- 4. What are the benefits and challenges in using differentiated instruction

#### **METHODOLOGY**

## **Research Design and Population**

The study made use of both qualitative and quantitative research paradigms with the descriptive survey research design. This design enabled the researcher to collect data systematically, on the features and facts on instructors' ability to implement differentiated instruction for the enhancement of inclusion in the University of Buea Cameroon. The population of the study comprised of all instructors from four Faculties in campus A of the University of Buea specifically the faculties of Arts, Education, Science and Social and management Sciences and the Advanced School of Translation and Interpreters ASTI. These faculties were selected because they have students with disabilities enrolled in their programs.

## Instrument for Data Collection

Data were collected using a researcher constructed

questionnaire with both open and closed ended items. Section 'A' of the questionnaire elicited the demographic information of the respondents such as Sex, Faculty Department, Level and Types of Disability. Section B comprised of items for each cluster with the first cluster being instructors' definition of differentiated instruction, second cluster being instructors use of differentiated instruction, third being types of differentiation used by instructors and cluster four being the benefits and challenges in using differentiated instruction in the university of Buea. Reliability and validity were established as the questionnaire were administered to 08 instructors from the Advanced school of translators and Interpreters a school in campus A with students with disabilities. The reliability coefficient was derived using the Cronbach Alpha statistics, which yielded a reliability coefficient of 0.88, which showed that the instrument is reliable.

# **Data Collection and Analysis**

Qualitative and quantitative data were collected by means of self-administration. Participants for the survey included instructors teaching in the university of Buea has existed for 30 years with eleven establishments (faculties, schools, and colleges) with a student population of over 25000 students (ubuea.cm 2023). The class size in the university ranges from 30 -250 for first degree programs and from 2-60 for post graduate programs. The university is known for the practice of co-teaching as no course is taught by a single instructor except in rare cases. The researcher worked with 35 instructors from four faculties of Education, Science, Social and Management Sciences, and Arts these faculties were selected because the least class size ranged from 30 and above. The researcher was interested in using those lecturers with more 30 learners in a class. In compliance with the university's research protocol, ethical clarence was obtained from the appropriate quarters prior to data collection.

To encourage participation in the study and to maintain diversity and breadth in the purposeful sample pool, the researcher wrote a letter to each of the participant where she explained the purpose of the study and the criteria for participation, which included that participants were (a)currently teaching in the university of Buea and (b) were identified as teaching classes with more than 50 learners. Willing and qualified participants were instructed to complete the survey. The researcher coded the open-ended questions of each completed survey identify common descriptors instructors used to describe their perceptions of differentiated instruction and the challenges of implementing differentiation in their various classrooms.

## **Demographic Profile of Participants**

Of the 35 instructors that responded to the survey 20 (57.1%) were female, and 15 (42.9%). They ranged in age from 35 to 65 years old, and reported their ranks as follows: 3 part- time instructors, 5 senior instructors, 10 assistant lecturers, 10 lecturers, 5 associate professors and 2 full Professors. In terms of teaching duration in higher education, ranged from one to more than 10 years. Of the 35 participants 70% had extensive experience in teaching large classes while 30% were newly recruited and had less than two years of experience in teaching in higher education. It is worth noting that enrolment in large classes vary according to academic discipline; Accounting (2 participant), Computer Sciences (1 participant), Curriculum Studies and Teaching (7 participant), Educational Foundation and Administration (5 participant), English Language (2 participant), Educational Psychology (10 participant), Journalism and Mass Communication (5 participant), and Sociology and Anthropology (3 participant). The participant profile represents an exposure of instructors to 6,494 undergraduate students in the university of Buea.

#### **DISCUSSIONS OF FINDINGS**

All 35 participants responded to this question and all responses captured the following four components of differentiation: content modification, process modification, product and environmental modification. The table 1 below capture vividly the definitions of differentiation:

Giving the option of choosing more than one response university instructors participating in the study primarily described differentiated instruction as tailoring instruction and instructional process to meet individual learners needs (100%). 71.4% of the participants describe differentiated instruction as utilising different activities in the practice of modifying instruction, material, content and assessment to meet students, same proportion of participants holds that differentiation is the provision of multiple ways of performing a task to students in order to foster their acquisition and mastery of skills through formative and summative assessment. 57.1% of the participants adheres to the fact that differentiation is a student-centred curriculum that focuses on the process of learning and using strategies and materials individualised learning for students at different levels within the same classroom settings. The option with the least (28.6%) approval was that which viewed differentiated instruction as a designed curriculum within varied complexity tailored towards the needs of each student. Most of the participants gave a clear description of differentiated instruction which fits within literature stipulated definition which focuses on the process of teaching, content modification, assessment and environ-

Table 1. Understanding of differentiation

Items	Agreed	Disagreed
Tailoring instruction and instructional process to meet individual learners needs	35	0
	(100%)	(0%)
It is the use of differentiated activities in the practice of modifying instruction,	25	10
material, content and assessment to meet students needs	(71.4%)	(28.6%)
It is student centred curriculum that focuses on the process of learning and using	20	15
strategies and materials to individualised learning for students at different levels within the same classroom settings.	(57.1%)	(42.9%)
It is a designed curriculum within varied complexity tailored towards the needs of	10	25
each student.	(28.6%)	(71.4%)
It is the provision of multiple ways of performing a task to students in order to foster	25	10
their acquisition and mastery of skills through formative and summative assessment.	(71.4%)	(28.6%)

Table 2. Forms of differentiation

Forms of differentiation used across the department	Agreed	Disagreed
Differentiating through teams/groups	34 (97.1%)	01 (2.9 %)
Differentiating through learning profile	02 (5.8 %)	33 (94.2 %)
Differentiating through modification of content	34 (97.1%)	01 (2.9 %)
Differentiating through modification of process	33 (94.2 %)	02 (5.8 %)
Differentiating through modification of learning environment	06 (17.2 %)	29 (82.8 %)
Differentiating through modification of assessment	33 (94.2 %)	02 (5.8 %)

Table 3. Strategies for differentiation used by instructors

I make use of the following strategies for differentiation	Agreed	Disagreed
Whole class instruction	35 (100 %)	00 (00%)
Small groups	35 (100%)	00 (00%)
Individual tasks	33 (94.2%)	02 (5.8%)
Digital resources	17 (48.6%)	18 (51.4%)
Ongoing assessment	35 (100%)	00 (00 %)
Setting task with variable outcomes	33 (94.2%)	02 (5.8%)

mental adaptation. They all held to the fact that differentiated should take into account the individual needs of the learners such personal interests, culture, ability/disability, socioeconomic status, sex, etc.The open-ended question provided further comments and enlightenment on this research question. One participant described differentiated instruction as instruction that meet the needs of learners. Another holds it as the process of tailoring lessons to each student's individual interest, needs and strength. The teacher uses all learning styles, offer assignment options organise students in groups and more. Table 2

When asked what forms of differentiation instructors use in their classes it was realised that majority (97.1%)of the instructors indicated that they differentiate by team/groups and use of content modification. 94.2% of the respondents indicated that they differentiate via modification of the process of teaching and modification of assessment strategies. Just 17.2% held that they differentiate via modification of learning environment

while 5.2% indicated that they differentiated based on the learner's profile. The participants also indicated via the qualitative findings that make use of the blended form most of the times I blend content, process, and assessment modification. Others holds that modification by profile of learners is difficult since they teach very large classes. They also said it is difficult to differentiate based on a unique criterion but they some time do the differentiation based on two or more rubrics and that a mixture of two and more approaches will produce effective result. Table 3

All respondents (100%) agreed to using whole class instruction, small groups as well as ongoing assessment as best strategies for differentiation. 94.2% adhere to the fact that, they make use of individual task and they set tasks with variable outcomes for the 2.8% who seldom make use of individual task and set tasks with variable outcome they disclosed during the interview session that using individual task and setting task with variable outcome makes teaching difficult for them since they

Table 4. Opinion About Using Differentiated In	nstruction in Higher Education
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Responses	Agreed	Disagreed
Some what important	35(100 %)	00 (00%)
Not effective in higher education	20 (57.2%)	15 (42.8%)
Extremely important	00(00 %)	35 (100 %)
A buzzword will fade with time	1 (2.9%)	34 (97.1%)
Practical and reasonable	05 (14.2%)	30(85.8%)
Significant and worthy of effort	05 (14.2%)	30 (85.8%)

Table 5. Challenges to the implementation of Differentiated Instruction in Higher Education

Responses	No	Percentage
Lack of instructional Time	33	94.2%
Lack of training	31	88.5%
Class size	30	85.7%
Lack of resources	27	77.1%
Inadequate space	24	68.5%

have very large class size. the use of digital resources is the least strategy used. It was justified that frequent curt of internets, scarcity of tools/gadgets on the part of the students, limited provision of digital resources by the university makes it difficult for instructors to use digital resources. Those who uses them frequently are those who are enrolled to study technology, since the study upon admission are conscious of the fact that they will need the gadgets as such they buy and ensure from their personal resources that they have a constant supply of data. Qualitative data also revealed that most of those using small groups makes use of mixed ability groupings to ensure effective collaboration and inclusion. Table 4

All respondents attest to the fact that differentiated instruction is some what important in higher education except for one (2.9%) who held to the fact that differentiated instruction is one of those "new propaganda and slogan which will fade eventually like many other concepts and ideas in time past". Despite the respondent's affirmation (100%) to the importance of differentiated instruction 42.8% held that it is it is not effective in higher education. When examining the poser of benefits versus challenges, only five or less than 20% of the respondents selected that option that differentiated instruction is practical and reasonable in higher education while more than 50% held that it is unpractical and unreasonable. The remaining 30% were indecisive. Table 5

In a focus on challenges to the use of differentiated instruction, participants were asked which of the following: lack of instructional time, lack of training, class size, lack of resources, and inadequate space. Given the opportunity to choose more than one option, the response receiving the highest rate was lack of instructional time (94.2%), this is supported by Turner, Solis, and Kincade (2017) who states that, differentiation

requires dedication, effort and a considerable amount of time from lecturers for it to be implemented effectively. The next most common response was lack of training which serves as a call for more knowledge of pedagogy. Another response with an interesting rate was class size and lack of resources and inadequate space. In addition to the quantitative findings, participants raised the following challenges to the implementation of differentiated instruction in higher education:

- It is an uphill task to implement differentiated instruction in a large class. Due to the populated nature of some courses and programs, differentiation is not feasible. Differentiation can work in smaller classes but has no place in a large class. Large classes make differentiation impossible.
- Lecturers have a lot of pressure to meet up with research and other outreach programs embarking on differentiation is an impossibility for most because it is seen as a delay to meeting up with the other expectation in academia.
- Course content to be covered for thirteen weeks in some courses are heavy making the practice of differentiation very tedious and leaving the lecturer with unfinished content.
- lack of ideas for environmental modification is another reason for our inability to fully implement differentiated instruction, inadequate infrastructure is another major reason behind our inability to implement this concept each semester
- Today's university classroom is filled with diverse learners using differentiation according to learners' learning style is an impossibility.

In a nutshell the participants in this study were aware of differentiated instruction, they used it in diverse forms but to a minor extent and identified its benefits and challenges. For most of the respondents, lack of instructional time, lack of training, class size, lack of resources and inadequate space constituted the main challenges for the implementation of differentiated instruction in higher education. Most of the respondents affirm whole class instruction to differentiated instruction.

#### IMPLICATIONS AND RECOMMENDATION

Quality learning in higher education is determined by the nature of teaching which entails the use of diverse methodologies of teaching, blended mood of teaching that is face-to- face and online methods, whole campus engagement and more. The introduction of newer teaching strategies in higher education often meets with stiff resistance despite their benefits. Most teachers in higher education find it difficult to move beyond the ageold teaching strategies such as whole class instruction, to the incorporation of new ones due to the fact they pose challenges at almost all levels of implementation. Despite its challenges Turner, Solis, and Kincade (2017) points out that among the many directions of university education reform, differentiated instruction has the potential to provide: reassessment of individual differences, emphasis on students and learning activities, equal opportunities for professional training, and individualized and flexible learning paths. For this to happen teachers in higher education have to reconceptualise their role as subject specialist teachers and pedagogues. The findings of this study indicated that most teachers are aware of differentiated instruction but expressed some resistance to the implementation of the pedagogy due to the fact that it is time consuming and this finding is confirmed by Turner, Solis, and Kincade (2017), Kanuka, (2010) and Santangelo and Tomlinson, (2009). It was also pointed out that implementation of differentiated instruction is resource intensive and cannot be done for every student. Darra and Kanellopoulou (2019), holds that at its most basic level differentiation requires teachers' efforts to respond to variance among learners by creating the best learning experience possible and this entails variation in resources. Offering different paths to understanding content, process and product taking into account learners' profile of strength. interests and styles as buttressed by Dixon et al (2014). It was also realised that lack of training was another major obstacle to the implementation of differentiation Turner. Solis, and Kincade (2017), says instructors need training and other assistance to implement these strategies in their classrooms. Varying the instructional process, learning content and even the assessment strategies warrant training in order not to distort the entire teaching and learning process. A student might want to do internet research, another want library books and yet another wants phone call interviews, these are legitimate differentiated ways of learning the same content but they give students maximum choice to keep them engaged.

Sometimes varying the learning process also warrants the mixing up of lessons based on learning modalities such as a video learner may be drawn to watching a video while an audio learner wants to listen to a song or an audio on the topic. And also varying assessment which is changing the ways students demonstrate their knowledge of the same content as well as changing the classroom atmosphere to suit a learners individual needs training else the class will be chaotic. It is due to these complexities that, Drew (2023), holds that differentiated instruction is good because it is student centered, it strives for equity, it acknowledges differences, it gives students choices, increases engagement, however it is time consuming, it often leads to dumbing down the content, it cannot be done for every student, it is unrealistic in the context of standardized tests, learning styles are unproven and students need to learn in all different ways. The lack of extensive training among the participants may account for the conflicting information found in the responses to both definition of differentiated instruction and the challenges to differentiate instruction (Turner, Solis, and Kincade (2017)). It is obvious that instructors in higher education need more support and training in differentiated instruction to better aid student learning and achievement. Teachers and administrators in higher educational institution are in dare need of more knowledge about differentiated instruction in order to ensure an improvement on their classroom process of teaching, teaching activities and assessment in order to produce proficient results in learners as it addresses their deficiencies in both speed and depth.

#### Limitation

This study was a descriptive survey and as such had some innate limitations which serves as the bases for the biases and enrichment in the study. This study sampled teachers' perception in just higher institute of learning thus, the findings are confined within, and bounded by, this limited perspective. Perception of administrators' students and other stakeholders are not considered in this study. Notwithstanding these weaknesses the findings brings out the main challenges instructors face in their attempt to differentiate instruction.

## CONCLUSION

Differentiated instruction is an innovative teaching strategy which is gaining grounds in higher institutions of learning. It allows teachers to express their creativity, think about the subjects they teach in different ways and grow as educators. It forces the teachers to think of new ways to help learners learn. Once they are able to arrive at a solution to meeting a learner's unique need, they will have a new tool available for future use. By being flexible

in process presentation, activities and assessment the teacher demonstrates respect for each learners' talents. strength and experiences as a consequence the learner feels respected and belonged. With increase in enrolment in higher education institutions across the globe, teachers are positioned to change their teaching and assessment strategies to focus on learners' variance and through differentiation this could be attained as well as the reinvigoration of the teaching environment. This study therefore calls for the need to create awareness about differentiated instructions and its benefits on both teachers and students. Differentiation provides instructors with the opportunity to provide a variety of methods to teach and assess learners' learning and excel. This study provides a roadmap to the use of differentiated instruction in higher education and as such it calls for more research to further press on the understanding of differentiation and its implementation across the various disciplines in higher education.

#### REFERENCES

- Blackman S (2017). From charity education towards inclusion. Caribbean Discourse in Inclusive Education: *Historical and Contemporary Issues, 1.*
- Brissett NO (2019). Evolution of Educational Inclusion Policy Discourse in Jamaica: From Colonialism to Globalization. In Achieving Inclusive Education in the Caribbean and Beyond (pp. 17-33). Springer, Cham. https://doi.org/10.1007/978-3-030-15769-2\_2
- Chamberlin M, Powers R (2010) The promise of differentiated instruction for enhancing the mathematical understandings of college students. Teaching mathematics and its applications 29,113 139 https://doi.org/10.1093/teamat/hrq006
- Charity NO, Maximus MS (2020). Teachers' Perspectives on the Use of Differentiated Instruction inInclusive Classrooms: Implication for Teacher Education. *Int. J. Higher Educ.* http://ijhe.sciedupress.com.vol. 9, No. 6; doi:10.5430/ijhe.v9n6p136
- Chris D (2023). Differentiated instruction strategies, pros, and cons. https://www.helpfulprofessor.com
- Classesin Higher Education. *Int. J. Teach. Learn. Higher Education*, Volume 29, Number 3, 490-500 http://www.isetl.org/ijtlhe/ISSN 1812-9129
- Dixon FA, Yssel N, McConnell JM, Hardin T (2014). Different instruction, professional development and teacher efficacy. J. Educ. Leader. 37(2) 111-127
- Education. Paris: UNESCO. Electronic source available online at:http://www.unesco.org/education/pdf/SALAMA\_E.PDF (accessed 18-08- 2017).
- Eurydice-Maria K, Maria D (2019). The implementation of the lesson study in Basic teacher education: a research review higher education studies Canadian center of science and education vol. 9(3) p. 65-73.

- Garba AA, Muhammad SA (2015). The effectiveness of differentiated instruction on Students' geometric achievement in Kebbi state senior secondary schools, Nigeria. *Int. J. Sci. Eng. Res.* 6(1). ISSN 2229-5518 Retrieved from IJSER © 2015 http://www.ijser.org Gentry, Sallie & Sanders, 2013;
- Interactive Strategies to Meet the Needs of All the Students. Int. J. Instruction, 11(3), 207-218.https://doi.org/10.12973/iji.2018.113
- Ismajli H, Imami-Morina I (2018). Differentiated Instruction: Understanding and Applying
- Kanuka H (2010). Characteristics of effective and sustainable teaching development programmes for quality teaching in higher education. *Higher Education Management and Policy*, 22(2), 69-81.
- Mngo ZY, Mngo AY (2018). Teachers' perceptions of inclusion in a pilot inclusive Education program: Implications for instructional leadership. *Education Research International*, https://doi.org/ 10.1155/2018/3524879Mulder, 2014
- Onyishi (2017). Differentiating instruction for learners' mathematics self-efficacy in inclusive classrooms: Can learners with dyscalculia also benefit? *South Afr. J. Educ.* Volume 41,
- Saloviita T (2020). Attitudes of teachers towards inclusive education in Finland. Scandinavian *J. Educ. Res.* 64(2), 270-282. http://dx.doi.org/10.1080/00313831.2018.1541819
- Santangelo T, Tomlinson CA (2009). The application of differentiated instruction in postsecondary environments: Benefits, challenges, and future directions. *Int. J. Teach. Learn. Higher Educ.* 20(3), 307-323. in prpubl*EfJoMa*
- Strogilos V, Tragoulia E, Avramidis E, Voulagka A, Papanikolaou V (2017). Understanding the development of differentiated instruction for students with and without disabilities in co-taught classrooms, Disability and Society http://www.tandfonline.com/doi/abs/10.1080/09687599.2017.1352488
- Suleyman C (2019). Can Differentiated Instruction Create an Inclusive Classroom with Diverse Learners in an Elementary School Setting? *J. Educ. Practice* www.iiste.org ISSN 2222-1735 (Paper) ISSN 2222-288X (Online) DOI: 10.7176/JEP Vol.10, No.6
- Tomlinson CA (2000). What is different instruction in Callahan C. M and Hertberg-Davis H. L. (2012) fundamentals of gifted education considering multiple perspective (pp 287-300) London Routledge
- Turner WD, Solis OJ, Kincade DH (2017). Differentiating Instruction for Large
- UNESCO (2001). UNESCO. (1994). The Salamanca Statement and Framework for Action on Special needs
- UNESCO.(2001). The open file of inclusive education. Paris: UNESCO
- United Nations(2006). Convention on the Rights of Persons with Disabilities. New York: United Nations.
- Walton E (2017). Inclusive education in initial teacher education in South Africa: practical or Professional knowledge? J. Educ. (67), 101-128