

*Assessing Economics Preservice Teachers' Lesson Planning Through the Lens of Differentiated Instruction*

Beatrice Ngulube, Tshwane University of Technology, South Africa

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**Abstract**

Differentiated learning has been identified as an effective pedagogical philosophy that guides lesson preparation so that educators can teach effectively in inclusive classrooms. The purpose of the study is to find out if preservice teachers can prepare lessons that cater for diverse learners. A qualitative research approach was utilized to investigate preservice teachers' knowledge of differentiated instruction in the context of economics teaching and learning. The researcher collected data through content analysis and focus group face-to-face interviews. A total of 18 preservice teachers' lesson plans were analyzed to determine whether lesson objectives and lesson activities were differentiated. The results indicate that most of the preservice teachers are not able to plan lessons for differentiated classrooms. The recommendation is that teacher education should equip pre-service teachers entering the workforce with effective differentiation instruction and inclusive pedagogy to meet the needs of diverse learner populations. Educators should have the necessary abilities, knowledge, and dispositions to meet the needs of all learners in mainstream classrooms.

Keywords: Economics, Preservice Teachers, Lesson Planning, Differentiated Instruction

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## **Background and Introduction**

Research has found that differentiated instruction caters for learner diversity and that “one-size-fits-all instruction” does not work effectively due to learner differences in preferences and background knowledge, even if they are of the same age (Pham, 2012; Tomlinson, 2017). This is supported by D’Intino and Wang (2021), who argue that differentiated learning is an effective way of addressing the various learning, cultural, ethnic, and socio-economic differences within mainstream classrooms. Due to its numerous benefits, differentiated instruction has become the central focus of teachers’ education across the globe, South Africa included. Today’s learning environment is more diverse, more inclusive, and more capped into technology than ever before (Tomlinson, 2014). The need for equity through the adoption of inclusive education has led to the development of a slogan centered on “education for all/no child should be left behind”. This call or slogan can only be fulfilled if the teaching strategies used in the learning environment embrace all learners regardless of their socio-economic background or ethnicity.

The purpose of this research article is to determine whether preservice teachers can prepare lessons that cater for diverse learners. This initiative is critical, bearing in mind the need for inclusiveness since the learning environment is affected by globalization and immigration. As a result, teachers entering the workforce are supposed to be equipped with effective differentiation instruction and inclusive pedagogy to meet the needs of diverse learner populations (Baxter, 2013; Black & William, 1998). Teacher education must prepare student teachers with teaching skills which will enable them to teach effectively in diverse classrooms. There is neurodiversity in schools, which requires newly qualified teachers to be aware of and be able to handle such environments (Cook, 2024). Pre-service teachers should be highly prepared to pay attention to learners who display, for instance, hyperactive or autism spectrum disorder or other learning disabilities (D’Intino & Wang, 2021). A similar technique was used by D’Intino and Wang (2021), who reviewed and evaluated the professional preparation that Canadian elementary school teachers are offered in their university programs regarding inclusive education and differentiated instruction.

In this research “differentiated instruction is defined as a pedagogical philosophy for modern-day teachers that guides lesson planning so that instruction can better account for the various characteristics and learning needs of all the students in the classroom” (Bukhari, 2019; Tomlinson, 2014, p 669). Differentiated instruction can further be described as a methodical and elastic approach which can be interpreted into various forms of instructional practices such as flexible and ability grouping activities, tiered lessons, anchored instruction, flipped learning, and authentic assessment (Kaur et al., 2019; Ramli & Nurahimah, 2020).

Several countries have accentuated the prominence of inclusive learning classrooms for learners and juveniles (Bondie & Zusho, 2018; Hardy & Woodcock, 2015). The study is significant because it has implications for curriculum designers, policymakers, universities, school administrators, parents and teachers.

For effective teaching, educators need to be completely aware of learners’ intellectual development and readiness levels for the use of proper instructional methods and strategies (Pham, 2012). Differentiated instruction should guide educators when planning the content to teach. This will lead to the formulation of differentiated questions, knowledge, and practical skills that certainly benefit learners to cope with the given content. The learning styles theory recommends that diverse students have different methods of learning, and instructional

methodologies ought to respond to varied learning styles to maximize academic performance (Dunn, 2000).

Differentiated instruction is recognized as an accumulation of many theories and practices linked to effective teaching and its relation to student success. Students vary according to readiness, capability, motivation, background and interest (Variacion et al., 2021). Therefore, differentiated learning requires planning for numerous modalities of instruction and evaluation to accommodate learner differentiation (Gafforov & Abdulkhay, 2022). Consequently, differentiated instruction gives all students an opportunity to improve their academic performance (Richards & Omdal, 2007). Furthermore, differentiated instruction has also been linked to improved reading scores for elementary school students (Reis et al., 2011) and middle school students (Little et al., 2014). In addition, differentiated instruction was found to improve literacy scores and to be effective in reducing achievement gaps between learners from high and low socioeconomic backgrounds (Valiandes, 2015) and improve outcomes in mathematics for elementary school students (Prast et al., 2018).

Like any other strategy, differentiated instruction has its own limitations. Some challenges that significantly limit the use of differentiated instruction approaches include high learner-teacher ratios in the learning environment, lack of availability of learning equipment and instruments, classroom layouts not being suitable for differentiated instruction, and the amount of planning time and effort that is required for effective differentiation according to interest, readiness, and ability (Aldossari, 2018). However, even if there are challenges, differentiated instruction is nonetheless the most widely considered approach due to limited options for teaching diverse learners in the classroom (Bajrami, 2013). Therefore, it is important for teachers to be given rich learning opportunities to master the techniques of using differentiated instruction since it is an important pedagogical skill. Preservice teachers should be fully prepared for the challenges of the classroom. Research should assist in bringing insights to provide conceptual and pedagogical tools to advance understanding of the barriers to inclusive practice in schools and increase teachers' capacity to embrace a more inclusive pedagogical approach (Cook, 2024).

Teachers should be able to prepare lessons that accommodate student differences and scaffold their progress (Salleh et al., 2022). More importantly, teachers should be conscious of creating inclusive learning by adopting the notion of differentiated instruction (DI) (Salleh et al., 2022). Therefore, the need to understand various learners' needs in class should be emphasized in lesson preparation. The differentiation of lesson objectives and class activities is one of the best ways of diagnosing learners' needs while the lesson is in process because the pedagogical purpose of assessment is to monitor and inform both teaching and learning to stimulate change when needed (Remesal, 2011). Activities are important because they can improve academic performance, and they need to be differentiated to suit the learner's needs. Class activities should be differentiated because they enable learners to understand the content since they are aligned with learning objectives or learning goals. Diverse learners are expected to interact and work together as they develop knowledge of new content.

With appropriate planning, teachers can differentiate activities to meet the needs of a variety of learners effectively. Student teachers need to know how to use differentiated assessments in today's inclusive classrooms. Three elements of the curriculum that can be differentiated are content, process, and products, as identified by Tomlinson (2017). This research focuses on activities which are given when the lesson is in progress as part of formative assessment. The researchers looked at 18 lesson plans to determine if activities were differentiated. This

was done to see how trainee teachers differentiate class activities. The variation seen in a differentiated classroom is most frequently reflected in the way students gain access to important learning. Furthermore, meaningful pre-assessment naturally leads to functional and successful differentiation. Teacher education should prepare preservice teachers for the complexities of today's classrooms (Goodnough, 2010).

Although there have been a growing number of studies investigating the use of differentiated instruction in subjects such as chemistry, physics and mathematics, there is a scarcity of research focusing on the challenges of practicing differentiated lesson planning in economics classrooms, especially how overcrowded these classrooms may be. Past studies in differentiated classrooms revealed that teachers faced various challenges, such as scarcity of resources, lack of time, larger class sizes, and a lack of support, knowledge and training that prevented them from practicing (Aldossari, 2018; Lavania & Nor 2020; Salleh et al., 2022; Shareefa et al., 2019). The following section presents research methods adopted for this study.

## **Methodology**

This study used a qualitative content analysis approach research method where 18 lesson plans were analyzed. Several social science researchers have used variations of qualitative content analysis partly because it is a multifaceted or flexible methodology for analyzing content across many social science research frameworks (Serafini, 2015; Serafini & Reid, 2023). The utilization of content analysis is most often associated with an interpretivist paradigm and has been seen as the answer to the narrow parameters associated with traditional, quantitative approaches to content analysis (Elo & Kyngas, 2008, as cited in Serafini & Reid, 2023). Researchers have used content analysis as a form of analysis for investigating textual or linguistically based data in qualitative social science research studies (Kohlbacher, 2005). Additionally, earlier researchers like Abrahamson (1983, as cited in Serafini & Reid, 2023) argue that qualitative content analysis can be successfully used to study any kind of communication materials effectively, including narrative responses, open-ended survey questions, interviews, printed media such as articles, and books or manuals.

Lesson plans were analyzed to determine whether activities were differentiated. Content analysis was further validated and complemented with focus group interviews. A total of 24 final-year economics pre-service teachers were interviewed in groups of eight. Interview questions were structured for uniformity and an in-depth understanding of the phenomenon. Interview questions allowed both the researchers and participants to explore perceptions of differentiated instruction. The responses of the participants were audio recorded and were later transcribed verbatim and were manually written.

## **Data Analysis**

Two different sets of data were analyzed, namely lesson plan analysis, referred to in this study as content analysis, and interview data, which was collected through focus group interviews.

## **Content Analysis**

Teachers are supposed to deliver quality lessons using differentiated assessment practices that positively enhance the cognitive understanding of diverse learners (Porta et al., 2022;

Westbroek et al., 2020). Different activities embrace different learners with different learning styles, and this immediately impacts student learning. Table 1 presents the number of lesson plans analyzed for this study. The researcher investigated if final-year pre-service teachers used a variety of activities to cater for the varied skills and tastes of the learners. The 18 lesson plans analyzed were collected from 102 students who planned lesson plans in groups. These groups had a membership which varied from four to seven members. Student teachers prepared lesson plans from selected Grade 12 economics topics to prepare a one-hour lesson with four different activities. The selected topics would enable different activities such as explanations, role plays, educative game videos, poster presentations, data projection and graphical presentations. These are some of the multiple modes of activities the researcher hoped the final-year pre-service teachers would include in their lesson plans. These activities are the most appropriate ones for the selected Grade 12 topics. Similar activities were also so suggested by Koshy (2013) in a study titled “Differentiated assessment activities: customizing to support learning.”

Table 1: Analyzed Lesson Plans

Group	Number of students	Number of activities	Types of Activities					
			Explanation activities	Roleplay	Games videos	Posters	Data projection	Graphs
1	7	4	4	0	0	0	0	0
2	6	4	3	0	0	0	0	1
3	7	4	4	0	0	0	0	0
4	7	4	3	0	0	0	0	1
5	7	4	4	0	0	0	0	0
6	4	4	4	0	0	0	0	0
7	5	4	3	0	0	0	0	1
8	4	4	3	0	0	0	0	1
9	6	4	4	0	0	0	0	0
10	5	4	4	0	0	0	0	0
11	7	4	4	0	0	0	0	0
12	4	4	4	0	0	0	0	0
13	5	4	4	0	0	0	0	0
14	7	4	4	0	0	0	0	0
15	5	4	4	0	0	0	0	0
16	5	4	4	0	0	0	0	0
17	6	4	4	0	0	0	0	0
18	5	4	4	0	0	0	0	0
Total	102	72	68	0	0	0	0	4
%			94.4 %	0%	0%	0%	0%	5.6%

The lesson plans were examined in terms of differentiated activities used while the lessons were in progress. The data analyzed from the lesson plans revealed that student teachers were not able to differentiate activities to cater for diverse learners. The activities which required explanations and definitions of terms were 68 out of 72, or 94.4% of the activities. Only four activities (about 5.6%) required graphical presentations. Most of the activities analyzed were explanation activities which catered for those who were verbally oriented. This is of great concern because the newly qualified teachers seem not to have grasped the need to accommodate diverse learners in the classrooms (Hudson, 2013). There is a serious need to vary methodology, activities and assessment tools for effective management of knowledge acquisition for the teeming population admitted into the learning environment in our modern society.

Teacher education should be intentional in preparing student teachers for inclusive classrooms. The use of posters is not just pictorial but provides visual presentations of simple, brief and well-articulated summaries of written works to stimulate an audience (Aduradola & Akeredolu-Ale, 2013). This type of activity can stimulate learners who understand pictures and visual presentations better. Learning environments require active learner participation and attendance to ensure effective knowledge dissemination (Haelermans, 2022; König et al., 2020; Kyttälä et al., 2022). Educators should try to vary activities to embrace learners with different learning styles and understanding levels and not just use one type of activity repeatedly; this becomes monotonous, and learners might lose interest in the subject and learning in general (Hardy & Woodcock, 2015; Serafini, 2015).

## **Interview Data**

The following three questions were asked:

1. What is differentiation instruction?
2. Explain how you prepare lessons that cater for diverse learners.
3. Explain why it is important for teachers to differentiate lesson activities.

## **Interview Data Analysis**

Four focus group interviews were conducted in a comfortable and relaxing manner. The students knew each other well, and they happened to assist in selecting who to interview, so they were quite comfortable with each other. Structured interviews were conducted to investigate pre-service teachers' understanding of differentiated instruction. The interviews were audio recorded and later transcribed for analysis purposes. The information gathered from the interviews was analyzed thematically. Three key themes emerged from the data collection: the definition of differentiated instruction, differentiated lesson preparation and the importance of differentiated lesson activities. Interview data was analyzed according to these three themes.

## **Findings**

The findings are presented in three categories according to the themes formulated by the researcher.

### **Theme 1: The definitions of differentiated instruction**

All the participants were asked about the meaning of differentiated instruction. One of the participants responded by saying: "*Differentiated instruction is when teachers change their lesson to help other students to learn in a way that works best for them, using a variety of teaching methods.*"

The response given by this participant shows that differentiated instruction is not fully understood. Several participants gave responses similar to the one above. Most pre-service teachers think that differentiated instruction is all about treating learners with learning disabilities differently. This participant views differentiated instruction as a way of segregating learners using different teaching methods. Learners should not be segregated in the mainstream classrooms but should be taught inclusively.

A participant responded as follows: *“It is the ability to teach in a manner that accommodate[s] learners with different abilities and learning styles.”* Several participants provided similar responses.

Such revelations indicate that some pre-service teachers are aware of the demands of differentiated instruction. It is indeed soothing that some teachers can teach inclusively in mainstream classrooms.

#### Theme 2: Differentiated lesson preparation

One of the participants responded as follows: *“I use enhancing media that will improve participation and concentration of learners. I use practical examples and [can] be loud when presenting a lesson.”*

According to this participant, teaching inclusively is when the teacher uses media and is audible in class. There is a danger here of only catering for one type of learner and ignoring the rest. There are disparities when it comes to planning inclusive lesson plans. Pre-service teachers are not clear on how to prepare for diverse learners.

#### Theme 3: The importance of differentiating lesson activities

This is how one of the participants responded: *“So that the teacher will see whether the lesson activities did cover the lesson objectives as it is the goal of a teacher to achieve lesson activities can be used to achieve lesson objectives.”*

This participant’s response gives an indication that the participants do not know the importance of differentiated lesson activities and that they are critical in an inclusive learning environment.

### **Discussion and Results**

Data analysis highlights the need for empowering student teachers with the knowledge and skills of how to prepare lessons for differentiated learning and how to teach in diverse classrooms. In support, Coady, Harper and De Jong (2016) alluded that mainstream teachers throughout the world are increasingly expected to differentiate instruction for learners with diverse learning needs. Universities as learning and knowledge organizations, especially regarding teacher education, should produce teachers who are able to apply differentiated instruction effectively in inclusive classrooms. Differentiated instruction should include strategies like making alterations of the instructional content, process, and product; and enhancing collaboration and autonomy in the learning environment (Pham 2012). Furthermore, teacher education should encourage and accept the productive, innovative practices initiated by pedagogy to produce teachers who can best assess students’ needs (Koshy, 2013). More importantly, there should be a conceptual framework that leads to a disconnect between coursework and field experiences in the initial teacher education curriculum (Walton & Rusznyak, 2020). Walton and Rusznyak (2020) further explain that the development of a conceptual framework for teacher education can show benefits, particularly in terms of the development of positive attitudes and self-efficacy for pre-service teachers.

Preservice teachers do not have the ability to differentiate class activities, which is a concern because one-size-fits-all methods of teaching are failing most of the learners. The learning

environment is becoming more culturally, socially, and academically diverse (Pham, 2012). This is a clear indication that the knowledge of differentiated instruction is no longer an option, it is a necessary skill which should be possessed by all teachers. Teachers need to be fully aware of their learners' cognitive development and readiness levels for the use of appropriate instructional techniques and strategies since learners perceive, organize, and retain information differently. It is of great importance for teachers to use modern, diverse, and flexible strategies to vary lesson activities to increase learner engagement and understanding (Fousteri & Foti, 2024). Student teachers are uninformed regarding the importance of differentiated activities because the explanation given by most of the participants and lesson analysis indicate that they do not utilize differentiated activities. Research has indicated that one of the most cited barriers to inclusive education is insufficient teacher education that empowers teachers to be able to respond to learner diversity (Walton & Rusznyak, 2020). More importantly, teacher education should implement an activity theory in the framework of differentiated teaching and assessment (Little et al., 2014; Mitsi & Papaspyrou, 2017; Moosa & Shareefa, 2019; Porta et al., 2022).

## **Conclusion**

The aim of the study was to investigate if economics preservice teachers can differentiate class activities to enhance understanding and cater for learners with diverse learning abilities. Clearly, economics preservice teachers do not have a full understanding of differentiated instruction when it comes to differentiated activities. The lesson plans reviewed showed that student teachers are only capable of giving class activities in one specific way. This makes their activities monotonous and exclusive. The recommendation is that teacher education should respond to the demand that student teachers or newly qualified teachers be given all the necessary skills and tools to teach inclusively. Achieving an inclusive education system in education is not something which should be taken for granted but it is one that is pivotal to creating equitable learning opportunities for all learners in the mainstream classrooms. Initial teacher education is vital in the quest to realise uncontested differentiated teaching. To achieve this initiative, teacher education should develop a differentiated instruction conceptual framework that links content courses with teaching practice courses.

The study, however, was only limited to economics preservice teachers, which made it difficult to generalize.



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**Contact email:** ngulubeb@tut.ac.za