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Teacher Educators' Perception and Practices of Differentiated Instruction in Ethiopian Secondary Teacher Education

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Abstract

Educators have agreed that learners in any classroom are typified by a wide variety of individual differences. To accommodate these differences, teachers are supposed to use differentiated instruction. However, the adaptation of curriculum and instruction to the diversity of these students often undertaken with difficulty and teachers are using a "one-size-fits-all" instructional approach. This may be a result of failure of teacher education programs to expose trainee teachers to differentiated instruction through classroom teaching and modeling. The main purpose of this research was therefore to investigate teacher educators' perception and practices of differentiated instruction in Ethiopian secondary teacher education. To this end, a qualitative case study method was employed. Data were analyzed thematically and the findings revealed that though majority of the participants were familiar with the concept differentiated instruction, its application is a mystery to many of them. They were not actively engaged in implementing differentiated instruction.

Keywords: Diversity, Differentiated instruction, learning profile, modeling

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Introduction

Background of the study

Current educational trends all over the world reflect significant changes in student populations (Roy, Guay & Valois, 2012; Subban, 2006) and in any given classrooms' students are becoming increasingly diverse (Tomlinson, 2004; Tomlinson & McTighe, 2006). In all classrooms no two individual students are exactly alike. They are different in many variables. In terms of academic ability, cultural and ethnic background, socio-economic status, learning profile, and interests, each student is unique (Tomlinson, Brimijoin, & Narvaez, 2008; Santangelo & Tomlinson, 2012).

Teaching these days emphasizes diversity and recognizing that each student has his or her own set of unique strengths, needs, interests and learning styles. As a result of this, educators are expected to provide opportunities for these diverse students in an equitable way, to help them achieve their full potential in all aspects of development. Thus, schools and educators more than ever, are faced with the problems of how to address differences or meet needs of individual learners, and how to help them achieve their maximum potential (Rodriguez, 2012).

It is believed and assumed that educators accommodate students' diversity by adapting their instruction in the way to better meet the different abilities, personalities and learning styles of their students (Levy, 2008). Unfortunately, this assumption is generally not reflected in teachers' planning, teaching and evaluating (Levy, 2008). In many schools of the world a large number of students who have diversified needs, interests and readiness are learning together the same lesson in one classroom by the same method-one-size-fits-all (Santangelo & Tomlinson, 2012; Tomlinson & McTighe, 2006). All children in schools are treated as if they are variants of the same individual (Stavroula et al., 2011). This "one-size-fits-all" instructional approach used in many classrooms does not provide best possible learning opportunities for such diverse student populations. As a result, classrooms are filled with disengaged, bored, and unsuccessful students.

In order to create an educational environment which is beneficial for all students with different intelligences and styles, the instructional approaches and strategies are to be changed to fit all the students. According to Yatvin (2004), differentiated instruction has become a model that educational systems are recommending for implementation to provide teaching that is adapted to the interest and learning needs of each student in the classroom.

As Tomlinson (2001) advocated, differentiated instruction is a purposeful and mindful act of planning and teaching to address the diverse needs of students. It is an approach to teaching essential content in a way that addresses the varied learning needs of students, with the intention of maximizing the potential of each learner (Tomlinson, 2001). It is a process of proactively modifying curricula, teaching methods, learning activities and assessments to meet the diverse needs of students and thereby to maximize access to, motivation for and efficiency of learning (Subban, 2006; Tomlinson, 1999).

Differentiated instruction is indisputably a very useful pedagogical principle in education. It is an instructional process that has a great potential to positively impact learning by offering teachers a means to provide instruction to a diverse student population in today's classroom situations. Recognizing students' individual strengths and needs, and teaching them accordingly, is the essence of "good teaching." When teachers differentiate according to student readiness, benefits result for achievement, study habits, social interaction, cooperation, attitude toward school, self-worth, motivation and engagement (Tomlinson et al., 2003; Tomlinson & McTighe, 2006).

In order to give each child equitable, appropriate and quality education, teachers need to differentiate their instruction. This new innovative way of delivering instruction that enable diverse students learn by making adaptations to key learning variables will help teachers meet

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the needs of all students.

Although it is widely accepted that teachers have to adjust the curriculum and instruction in order to cater for the developmental needs and capabilities of all students, the complete implementation of differentiated instruction in daily practice is still lacking and remains a challenge (Ruys, Defruyt, Rots, & Aelterman 2013). Many research findings indicate that a significant number of teachers adopt a uniform and one-size-fits-all teaching approach for all students (Tomlinson, Moon, & Callahan, 1998; Guild 2001), thus failing to design courses that reflect student diversity (Subban, 2006). The cause of this problem lays in teacher education (Holloway, 2000; Tomlinson, 1999), as teacher educators are incapable of fully preparing student teachers for the hard and complex reality of teaching (Goodlad, 1990; Korthagen, 2001; Korthagen, Loughran, & Russell 2006). This study, therefore, focuses on assessing teacher educators' perception and use of differentiated instruction and their role in preparing student teachers for differentiated instruction at Bahir Dar University

Statement of the problem

Today's educational systems are experiencing greater diversity in the classrooms (Tomlinson, 2005). It is normal to find students with different socio-cultural backgrounds, different mother tongue languages, learning disabilities as well as learning exceptionalities as part of the student population in the 21st century classrooms. Generally, no two students enter a classroom with the same abilities, experiences, and needs. Children of the same age who are in the same grade have a varied reading abilities, varied interests and experiences with the content being studied, and different levels of skills for thinking critically and creatively as well as in communicating via writing and speaking. Children rarely come to any class ready for learning at the identical rate and at the same level of complexity (Roberts and Inman, 2013).

Though the belief that learners learn differently has now turned to a common sensual view, notions such as one-size-fits-all instruction based on age-grade groupings, whole-class lecture teaching, and lock step progress continue to be regarded as the norm even in today's revolutionized pedagogical world (Hess, 1999; Sizer, 1999). Many teachers use a one-size-fits-all instructional approach. They take all of their students down the same path, learning the same content and yielding the same projects and assessments (Tomlinson, 2000).

Unfortunately, the "one-size-fits-all" instructional approach used in many classrooms does not provide optimum learning opportunities for such diverse student populations. The result is alarming; classrooms are filled with disengaged, bored, and unsuccessful students.

In order to create kind of educational space which is beneficial for all students with different intelligences and styles, the teaching methods are to be changed to fit all the students. According to Yatvin (2004), differentiated instruction has become a model that educational systems are recommending for implementation to provide teaching that is tailored to the learning needs of each student in the classroom.

If schools are to be successful in providing all their students fair, equal, and significant opportunities to obtain a high-quality education, teachers should consider differentiating instruction. Ruys, Defruyt, Rots, & Aelterman (2013) have noted that although it is widely accepted that schools should adjust their curriculum in order to cater for the developmental needs and capabilities of all students, the complete implementation of differentiated instruction in daily practice is still lacking and remains a challenge.

In primary and secondary schools of the Ethiopia also, a large number of students who have diversified interests, readiness, learning profiles, and backgrounds are learning together the same lesson in one classroom by the same method (Joshi & Verspoor, 2013). Research results revealed that our teachers are teaching using a one-size-fits-all approach (Joshi & Verspoor, 2013; Tesfaye, 2014). They teach every child the same material in the same way, and measure each child's performance by the same standards. Generally, they are unable to correctly

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implement differentiated instruction as an effective pedagogical practice (Alavinia&Farhady, 2012; Florian & Black-Hawkins, 2011; Kosko& Wilkins, 2009; Muir, Beswick, & Williamson, 2010) and they experience difficulty in integrating content, process, and product differentiation in their classrooms (Joseph, 2013). This difficulty may be a result of the failure of teacher training institutions to expose prospective teachers to differentiated instruction through classroom teaching and modeling (Holloway, 2000; Tomlinson, 1999). Research suggests that many teacher education programs face the challenge to better prepare future teachers to cater students' diversity that they are likely to encounter in today's classroom. Consequently, there is growing pressure on teacher educators to provide diversity experiences for student teachers to help them develop knowledge and skills of differentiation (Hardy, 2014).

In teacher education institutions, many instructors teach and assess every student without paying attention to students' diversity (Chesley& Jordan, 2012). In addition, trainee teachers seldom experienced differentiated instruction in their teacher preparation programs and they were almost never encouraged to differentiate to see multi-tasking classrooms. Candidates experience "Do as I say, not as I do" preparation (Wideen, Mayer-Smith, & Moon, 1998 in Santangelo and Tomlinson, 2012). As a result of this, many teachers lack training in ways that ensure all students opportunities to actively participate and profit from classroom instruction (Rock et.al 2008; Tomlinson et.al, 2003).

According to Cooper et al. (2008), providing teacher candidates with knowledge and skills to meet the diverse needs of students becomes an essential component of teacher preparation programs. Hence, teacher preparation programs must provide opportunities for trainee teacher to implement differentiated instruction in the field and education professors in teacher preparation institutions have a responsibility to model appropriate differentiated instruction to novice teachers (Brimijoin 2002). This is because, lack of teacher preparation to address student diversity is due, in part, to the failure of faculty in teacher preparation programs to adequately model and integrate recommended strategies within their own teaching (Elksmin, 2001; Whitaker, 2001 cited in Sands and Barker, 2004).

As the teacher educator is in a position to have a strong impact on the student-teachers' views of teaching, Modelling is an important aspect of methodology that should be used (Lunenberg et al. 2007). This implies that teacher educators must fully realize, "*how they teach may speak more loudly than what they teach*" (Russell, 1998, p.2). As slogans 'Teach as you preach' and 'Walk your talk' are popular among teacher educators, they should be good models of the kind of teaching they are trying to promote, in order to support their student teachers' learning.

Despite the popularity of these slogans, student teachers often do not learn a great deal from the model behaviour demonstrated by their teacher educators (Wubbels, Korthagen, &Broekman, 1997). It is clear from the literature that *congruent teaching* is not self-evident in teacher education (Swennen et.al 2008). There is a serious doubt about the competence teacher educators to serve as role models(Lunenberg, Korthagn and Swennen 2007). This study, therefore, focuses on assessing the perception and practice of teacher educators at Bahir Dar university and the role of teacher education in preparing student teachers for differentiated instruction – in particular, through congruent teaching.

Purpose of the study

The purpose of this qualitative case study was to better understand how Teacher educators are differentiating instruction in their teacher preparation programs. Differentiating Instruction (DI) has become a seemingly "hot topic" in education. Since teachers are expected to differentiate instruction in order to accommodate the needs of diverse learners, the researcher wanted to know how differentiated instruction was being used as a teaching method, analyzed how teacher educators in the college of educational and behavioral sciences were teaching the use of differentiated instruction to future teachers or teacher candidates, and determined if instructors were modeling differentiated instruction in their teacher education courses.

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Research Questions

This study examines the following questions in order to address the stated purpose of the research:

1. How do teacher educators in Bahr Dar University conceptualize differentiated instruction?
2. Do teacher educators feel adequately prepared to respond to academic diversity among candidates?
3. To what extent teacher educators in Bahir Dar University implement components of differentiated instruction? How frequent are teachers practicing the different instructional strategies in their classrooms?
4. How do teacher educators in pre-service teacher education program demonstrate the practicing or modeling of differentiated instruction? How do teacher educators employ differentiation strategies to model it for trainee teachers?
5. What factors are augmenting or deterring the implementation of differentiated instruction and its major strategies in order to differentiate classroom instructions?

Significance of the Study

The researcher aims at exploring the trend to which teacher educators' use and modeled differentiated instruction in pre-service teachers' preparation program. Differentiated Instruction, which refers to instructional strategies designed to meet the needs of diverse learners, has been accepted as an important pedagogical skill. Universities and schools have committed many resources to foster implementation of instructional strategies that can address diversity.

In Higher Education Institutions that are the training centers of primary and secondary school teachers, diverse students are living and learning together. Nevertheless, differentiated instruction is not readily implemented in many colleges and universities, despite evidence supporting learning gains and other benefits in all grade levels (Chamberlin & Powers, 2010). Teaching is becoming more challenging as student populations become more culturally, socially, and academically diverse (Pham, 2012) and many teachers seem to be applying a one-size-fits-all approach to education. This study, therefore, can help the in-service and pre-service teacher education institution teachers and principals in providing the different instructional strategies of differentiated instruction so as to address the diversified interests, readiness and learning profiles of higher education institution students

Generally, this study is important for three distinct groups of people. First, Instructors in teacher education institutes could use this study to help pre-service teacher education students learn and practice effective strategies for use in their classroom. Second, the pr-service teachers could use this study to learn about differentiated instruction and the significance of this instructional approach would have in their classroom to address the diverse needs of learners. Third, this study encouraged better instructional practices by university faculty teaching in a pre-service teacher education program in meeting the needs of their own students.

Scope of the study

By collecting data through interviews for this case study teacher educators, were able to express their knowledge and personal experiences with differentiation; all teacher educators who participated were from one department (teacher education and curriculum studies department) of Bahir Dar University. The scope of the study was limited only to teacher educators at this one Department. All participants were volunteers. The data collection process involved interviews. In this study, I examined teacher educators' knowledge, use, and modeling behavior of differentiated instruction; therefore, even though student teachers may have strong opinions

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about their personal learning processes, the boundary of delimitation set for this study included a focus on teacher educators only.

Research Design and Methodology

Methodology

The research methodology used in this study was qualitative approach. This particular method was employed for the following reasons.

1. As the focus of phenomenology is on the understanding concept of phenomenon (Amare, 2004), this study looks at relations with systems or cultures in a particular setting or group and understanding of the social settings not necessarily making predictions about those settings.
2. Qualitative research methodology is the one that can explore actors' definition and how people act which gives meaning to their own lives, Eyles (1998:207) cited in Stroh (2000).
3. Quantitative research methodology is effective in measuring of amount, frequency, quantity and intensity of something that could easily gather that data in the form of numbers but it fails to research on the qualities of phenomena and process meanings of social environment.

Therefore, this study is intended to investigate holistically in order to derive a comprehensive meaning from the undergoing research in its natural setting (Best and Kahn 1999).

Due to the fact that qualitative researchers are sensitive to the social and historical content in which the data were collected and the very nature of the in-depth, detailed description of events and the like makes qualitative research so powerful (Best and Kahn, 1999). This study employed qualitative research methodology in relation to the research questions, and subject of the study. Therefore, to become experienced with the phenomena under study, I have got qualitative research methodology compatible to my study rather than quantitative research methodology.

Design of the study

Out of various types of qualitative research designs case study design has been applied in this research case studies become particularly useful where one needs to understand some particular situation in great depth and when one can identify cases rich in information,

The major aim of this study is to investigate teacher educators' conceptions and practices of differentiated instruction in training teachers. To realize this, a case study has been employed.

Merriam (1988) stated that, case study is particularly suitable for dealing with critical problems of practice and extending the knowledge base of various aspects of education. She further stated that case study can be utilized to get an intensive and holistic description for a single instance, phenomenon or social institution. A qualitative design with a collective case study approach was used to examine the perceptions of teacher educators using differentiated instruction.

Participants

A purposeful sample of seven participants ranging from Lecturer to associate professor was identified. The seven participants included in this study had between 13 to 35 years of teaching experience. Of the seven participants, three were lecturers, three were assistance professor, and one was associate professor. All of the nine participants were male teacher educators.

Data Gathering Tools

In this case study research, semi-structured interview was used as data gathering instruments. In

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addition, the researchers will consult relevant reference books, and internet sources to support the findings of the study. An in-depth interview was utilized on one-to-one bases using semi-structured question supported by tape-recorder in order to get detail information from teacher educators about their perception and knowledge of differentiated instruction, their practice of differentiated instruction in teacher education program to model it to candidate teachers. These individual interviews were preferred for the very fact that they were relatively easier to arrange in a mutually convenient time only for one participant and the investigator.

The researcher conducted a semi-structured interview lasting about one hour with each participant. Before administering it, content and face validity of the interview protocol was evaluated by senior teacher educators who have experience on differentiated instruction. Suggested revisions were taken into account from each member on the panel and changes were incorporated into the final protocol. This interview included 17 open-ended questions that sought to tease out each participant's professional background, general knowledge and use of differentiated instruction.

Method of Data Analysis

A qualitative study encompasses multiple steps for data analysis. Ratliff (2008) stated analysis can be done simultaneously as the data collection is conducted. All of the interviews were audio taped to provide an exact account of each participant's responses and then transcribed verbatim. Data were analyzed using hand coding to identify emerging themes.

Once the data were gathered, I printed and read each transcription in its entirety several times to obtain a general view of the participant's thoughts relating to differentiated instruction. Key words and phrases were highlighted as they appeared within the conversations. Afterwards, each interview was coded individually. Then, each observation was coded. Once all documents were coded, similarities were identified, and from the codes, a list of themes emerged. Findings were written in a narrative form that was rich in detail and description. These details provided the reader with an accurate view of the perceptions of the participants regarding differentiated instruction and how it is employed in their classrooms.

Evidence of Quality/Trustworthiness

Based on the works of Guba, Shento (2004) revealed four criteria qualitative researchers should adhere to when addressing trustworthiness in their study. Credibility, transferability, dependability, and confirmability are the four criteria that will ensure the trustworthiness of the study. To achieve credibility, Shento (2004) advised the study should accurately measure what is stated by the researcher. Other methods to enhance trustworthiness included verbatim quotes and reflexivity (examination of biases and bracketed them so that findings were only guided by the collected data).

In order to meet the criteria of credibility, several steps were taken. When collecting data, interviews were audio taped and later transcribed so that no data would be lost or missed. After coding member checking was used, participants were made to judge if the data that was recorded represented personal perceptions in an accurate manner.

Data Presentation, Analysis and Interpretation

In this chapter the findings of the data analysis and their interpretations are presented.

The purpose of this qualitative, case study was to explore the perception and practice of teacher educators at Bahir Dar University and their role in preparing student teachers for differentiated instruction. The major research questions that guided this study were:

1. How do teacher educators in Bahr Dar University conceptualize differentiated instruction?

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2. Do teacher educators feel adequately prepared to respond to academic diversity among candidates?
3. To what extent teacher educators in Bahir Dar University implement components of differentiated instruction? How frequent are teachers practicing the different instructional strategies in their classrooms?
4. How do teacher educators in pre-service teacher education program demonstrate the practicing or modeling of differentiated instruction? How do teacher Educators employ differentiation strategies to model it for trainee teachers?
5. What factors are augmenting or deterring the implementation of differentiated instruction and its major strategies in order to differentiate classroom instructions?

To answer these research questions, participants were asked 16 interview items that focused on themes of diversity, methodology and training in differentiated instruction, knowledge and concept and perceptions of differentiated instruction, teacher educators' competence in implementing and modeling differentiated instruction, strategies to meet diverse student needs and challenges faced to implement differentiated instruction were forwarded. Upon collecting the completed responses, I sorted the questions into theme, and then typed each response by theme to look for further themes, or trends in data. During data analysis of participants' open-ended responses, nine themes emerged out of the questions themselves, and the participants' responses. The findings from participants' responses have been summarized by theme below.

Recognizing the presence of diversity

Participants were asked questions that focused on their recognition regarding the presence of diversity in their classroom. All of the participants recognize the presence of diversity in their classroom. Bisenebit (pseudo name) for example, said "*diversity is a common phenomenon in our classroom today as students differ in their styles of learning, in their readiness to learn, in their interest, cultural and linguistic background etc*"

Using pre-assessment to guide differentiated instruction

Pre-assessment is one of the pieces that drive differentiated instruction. Assessment in a variety of forms provides information about where each student is concerning the chosen topic. Teacher educators were asked whether they conduct pre-assessment in order to guide their instruction and to address students' diversity. Responses from all teacher educators indicated that not much is being done to assess each student's learning profile characteristics, learning style, learning preferences, or grouping orientation before they plan units of instruction. For example, Eshetu (pseudo name) noted "*I never pre-assess students to guide my instruction by placing students into groups according to their levels.*"

Bisenebit replied "*Throughout my career as teacher educator, I never conduct pre-assessment. Instead, I teach courses with no consideration of their entry behavior.*"

Different literature indicated that pre-assessment is an important area for teachers to focus on (Santangelo & Tomlinson 2012). If time is not taken to really get to know the learners through pre-assessments, how will their true differences become known? If we want learners to be responsive to our teaching, we need to start with looking how our teaching can be responsive to the learners themselves.

Concept of differentiated instruction

In the interview the researcher asked teacher educators to define Differentiated Instruction.

The participants shared similarities in their definitions of differentiated instruction.

Bisenebit stated,

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I think it's just meeting the needs of each individual learner whether it be helping those that are struggling, doing different things to catch them up or the ones that are advanced, giving them things so they're not sitting around bored, letting them do enrichment activities and just learn at a higher level to extend what they already know.

Eshetu stated, “*Meeting the individual need, multiple learning styles of the individual child.*” Adefris elaborated, “*I think differentiated instruction is when you present the opportunity for students to learn according to preferences that they use to help maximize their learning benefits.*” Furthermore, Bedilu added, “*Okay, I believe it's creating different tasks for kids so they can fully grasp concepts in different ways. They don't all have to be taught the same exact instruction at the same time.*” Finally, Yibeltal defined Differentiated instruction as, “*Teaching to students according to their thought process and in the way that they learn.*”

These definitions are almost in line with Tomlinson's definition that stated differentiated instruction as “*Doing whatever it takes to ensure that struggling and advanced learners, students with varied cultural heritages, and children with different background experiences all grow as much as they possibly can each day, each week, and throughout the year*”

Teacher educators training and efficacy to effectively implement differentiated instruction

Participants were asked questions that focused on their training and any other professional development they had done in the area of meeting diverse needs and differentiation.

The questions that were asked were:

1. Have you had any training or Professional Development on Differentiated Instruction?
2. Do you have confidence in your ability to identify and address the various needs of student?
3. Do you feel comfortable and confident in your knowledge of differentiated instruction and ways to successfully implement it in your classroom?

Teacher responses for these questions were very straightforward. Of the 7 teacher educators that replied to the first question noted above, 6 replied with a “no” and 1 teacher educator indicated that he had some training. Yibeltal commented, “*We were taught to adjust accordingly to needs and interests of students. (My teacher preparation) gave me a lot of ideas about how to differentiate, (but it was) sometimes too much information to process.*”

He further noted that he had “a little” and that they “touched on diversity (different learning styles, ability levels, etc.) but always addressed them with ‘whole class’ solutions.”

Bedilu noted “*I have never had any training about differentiated instruction both in the pre-service and in-service training.*”

They haven't learnt differentiated instruction in undergraduate and perhaps graduate classes at any university. Some of the research participant stated that it is through their personal reading and through the discussion they have had with colleague professors they came to know the term differentiated instruction.

The theme of little to no training was also found in the second question, which asked teachers if they had taken any professional development in the area.

Regarding the implementation of differentiated instruction in their teaching, all teacher educator involved in the study affirmed that they do not employ this innovative instructional strategy. They replied, as they did not have adequate training on the area they lack the skills and confidence to try to implement differentiated instruction.

Though understanding what differentiated instruction is and how to implement it successfully in

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diverse classroom is a necessary for all teacher educators, they did not better trained in differentiated instruction, which meets the needs of all learners regardless of their difference. As a result of this, participants affirmed that they did not differentiate their instruction instead they teach all the students the same content using same instructional strategy for all (one size-fits-all approach) were dominantly applied.

Teacher educators modeling of differentiated instruction

The other overarching theme identified during analysis was teacher educators modeling of the implementation of differentiated instruction. The vast majority of participating teacher educators reported that they are not feeling prepared and confident to differentiate instruction and to model it to trainee teachers. Bedilu noted *“we are not role model for trainee teachers in using differentiated instruction. As far as my knowledge is concerned no any teacher educator in our college that can apply differentiated instruction and modeled it.”* This result is congruent with the research results of (Holloway, 2000) which claims teacher education programs are not preparing future teachers for the inevitable increasing diversity of students, rarely instructing them in how to differentiate instruction. As a result of that, many teachers lack training in ways that ensure all students opportunities to actively participate and profit from classroom instruction (Rock et al., 2008; Tomlinson et al., 2003).

In order for teacher educators to bring significant change on the profession, they must successfully model appropriate behaviors in the way those behaviors to be observed, adjusted, replicated, internalized, and applied appropriately to learners of all levels and styles. Effective modeling of desired practices is at the heart of successful teacher education programs at pre-service and in-service levels. Researchers such as Tomlinson(1999) and Darling Hammond(2005) have acknowledged that teacher education programs should be helping future teachers mold practice that are responding to the needs today's culture, including teaching strategies for working with diverse children. However, studies by Holloway (2000) and Smith (2006) have shown that the universities are failing in their preparation of teachers in the area of differentiated instruction.

Challenges Teacher educators faced to implement differentiated instruction

The final research question of this study focused on perceived barriers of differentiation. Participants discussed resources, class sizes, time and diverse student populations as barriers to fully implementing differentiated instruction. Several authors (Reis et al., 2011; Blecker & Boakes, 2010; Harris & Brown, 2009; Goddard et al., 2010; Aldridge, Fraser, Bell, & Dorman, 2012; Ertmer & Ottenbreit-Leftwich, 2010) shared evidence that teachers consider differentiated instruction as ineffective or challenging to implement on a day-to-day basis due to complications with time management and lack of administrative support.

Yibeltal a research participant confirmed by stating *“I would say lack of knowledge, lack of resource and time are those factors that highly deter us not to use differentiated instruction.”* Bedilu a research Participant also stated, *“The professional development is also an issue; we can talk differentiated instruction, but I don't think a lot of teachers out there even understand what it looks like and how to do it unless they see it. Professional development is the key to the understanding and doing it every day.”*

Overall, participants chose lack of knowledge and skills, time, and class size as the barrier to effectively implementing differentiated instruction.

Implications of the Findings

Given that majority of participants' perceived definition of differentiated instruction closely matches what is found in current research, the implication is that teachers understand what differentiated instruction entails. It is possible that misconceptions do not actually exist in regard to a definition of differentiated instruction. It is also possible that opposition to using the

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strategy does not stem from misunderstanding.

Although some teacher educators are familiar with the term differentiated instruction, the concept of application is still a mystery to many of them. The teacher educators participated in this study was not actively engaged in implementing differentiated instruction, because of the many obstacles they faced. Providing a professional development for all of the teacher educators would help in taking away the mystery of differentiated instruction and provide a clear understanding of the concept and its practical application in the classroom.

If teacher educators effectively implement differentiated instruction in training teachers, teachers will change the delivery of traditional instruction to delivering instruction using differentiated instruction and as a result of this students will get the most benefits, academically. Differentiated instruction can instill a new excitement and passion for learning to all students. Being on the receiving end of differentiated instruction, low-level learners will find consistent success within the classroom. On-level learners will be challenged to exceed beyond basic expectations and may find themselves more excited about learning than they were in the past. Gifted students will no longer be left to learn on their own to stagnate at their current level; differentiated instruction will provide enrichment opportunities to further accelerate their learning. In addition to the students, teachers may also benefit from the study. The new approach to teaching will yield higher test scores on state standardized tests and have more engaged students in their classrooms. Implementing differentiated instruction throughout the county may further accelerate our student outcomes.

Teacher education is more complex today because teacher educators "...must prepare teachers for schooling as it should be, while enabling them to cope with schooling as it is" (Darling-Hammond, 2006, p. 40). Teacher education programs must address pervasive teacher beliefs, create environments for efficacious learning, and provide opportunities for beginning teachers to practice what and how they are expected to teach (Edwards, Carr, & Siegel, 2006; Johnson, 2010; Tomlinson et al., 2003). Today, teacher preparation programs have the additional responsibility of equipping beginning teachers with the knowledge and strategy base to meet the unique needs of each student while ensuring high levels of achievement. The recommendations derived from this research may serve to inform teacher preparation programs, educational leaders university management and teacher educators to explore training opportunities. Furthermore, teacher educators may use this study to gain insight of their personal perceptions on differentiation, identify differentiated materials, and commit to improved pedagogical practices that focus on its versatility in classrooms; teacher educators may consider the participants' experiences with differentiation and change their own existing classroom environments. These participants enlightened other educators to be reflective and examine their own pedagogical practices. Differentiated instruction is about teachers designing interactions, lessons, and opportunities for students throughout the school day. Student teachers will benefit by being better prepared to make a difference in their world. This study helped narrow gaps in the literature about teacher educators' perceptions of differentiated instruction and its practice in teacher education institutes.

Recommendations for Further Study

In order to be able to generalize the findings within all teacher education universities, it is recommended that further study should expand this study by including more teacher education universities and colleges, and more teacher educators as participant. In addition, data could be divided according to years of experience in the classroom to develop a case study; this case study could use both qualitative and quantitative research methods for a greater in-depth look at teacher perceptions and experiences with differentiation; an expanded data collection period throughout one school year would be a recommended strategy for future research.

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References

- Alavinia, P., & Farhady, S. (2012). Using differentiated instruction to teach vocabulary in mixed ability classes with a focus on multiple intelligences and learning styles. *International Journal of Applied Science and Technology*, 2(4), 72-82. Retrieved from http://www.ijastnet.com/journals/Vol_2_No_4_April_2012/11.pdf
- Anderson, K. (2007). Tips for teaching: Differentiating instruction to include all students. *Preventing School Failure*, (51)3.
- Best, J. and Kahn, J. (1999). *Research Introduction* (7th ed). New Delhi Printice Hall of India Private Limited
- Blanton, M. (1998). *Prospective teachers emerging pedagogical content knowledge during the professional semester* (Unpublished doctoral dissertation). North Carolina State University, Raleigh.
- Borja, Laura; Sandy T. Soto; Tatiana X. Sanchez (2015). Differentiating Instruction for EFL Learners. *International Journal of Humanities and Social Science*. Vol. 5, No. 8(1)
- 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, doi:10.1093/teamat/hrq006
- Cooper, J. E., Kurtts, S., Baber, C. R. & Vallecorsa, A. (2008). A model for examining teacher preparation curricula for inclusion. *Teacher Education Quarterly* 35(4), 155-176.
- Dawit, M. (2008). Reflections on teacher education system overhaul (TESO) program in Ethiopia: Promises, pitfalls and propositions. *Journal of Educational Change*, 9, 281-304.
- Edwards, C. J., Carr, S., & Siegel, W. (2006). Influences of experiences and training on effective teaching practices to meet the needs of diverse learners in schools. *Education*, 126(3), 580-592.
- Ernest, J. M., Thompson, S. E., Heckaman, K. A., Hull, K., & Yates, J. (2011). Effects and social validity of differentiated instruction on student outcomes for special educators. *Journal Of The International Association Of Special Education*, 12(1), 33-41. Retrieved from ERIC database. (ED EJ947842)
- Florian, L., & Black-Hawkins, K. (2011). Exploring exclusive pedagogy. *British Education Research Journal*, 37(5), 813-828. doi: 10.1080/01411926.2010.501096
- Gardner, H. (2011). *Frames of mind: The theory of multiple intelligences*. New York: NY: Basic Books.
- Goddard, Y., Neumerski, C., Goddard, R., Sallous, S., & Berebitsky, D. (2010). A multilevel principals' instructional support and group norms for instruction in elementary schools. *The Elementary School Journal*, 111(2), 336-357.
- Goodlad, J. (1990). *Teachers for our nation's schools*. San Francisco: Jossey Bass
- Grigorenko, E. L., & Sternberg, R. J. (1997). Styles of thinking, abilities, and academic performance. *Exceptional children*, 63(3), 295-312. doi:10.1177/001440299706300301
- Hall, T. (2002). *Differentiated instruction*. Retrieved from <http://www.cast.org/system/galleries/download/>

***Teacher Educators' Perception and Practices of Differentiated Instruction in Ethiopian
Secondary Teacher Education***

ncac/DifInstruc.pdf

- Hall, T. (2009). *Differentiated instruction and implications for UDL implementation*. National Center on Accessing the General Curriculum. Wakefield, MA: Author.
- Heacox, D. (2002). *Differentiating instruction in the regular classroom: How to reach and teach all learners, Grades 3–12*. Minneapolis, MN: Free Spirit.
- Hardy, Stascia R. (2014). *Embracing a Diverse Curriculum in University Teacher Preparation Programs*. Electronic Theses & Dissertations.
- Hess, M. A. (1999). *Teaching in mixed-ability classrooms*. Retrieved August 8, 2002, from: <http://www.weac.org/kids/1998-99/march99/differ.htm>
- Joseph, Stephen. (2013). Differentiating Instruction: Experiences of Pre-Service and In-Service Trained Teachers. *Caribbean Curriculum* Vol. 20, 2013, 31-51: Retrieved from <http://www.uwinspace.sta.uwi.edu/>
- Korthagen, Fred (2001). *Linking practice and theory: The pedagogy of realistic teacher education*. Paper presented at the Annual Meeting of the American Educational Research Association, Seattle
- Kosko, K., & Wilkins, J. (2009). General educators' in-service training and their self-perceived ability to adopt instruction for students with IEPs. *The Professional Educator*, 33(2), 1-12.
- Levy, H. M., (2008). Meeting the needs of all students through differentiated instruction: Helping every child reach and exceed standards. *Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 81(4), 161-164. Retrieved from Education Source database. (Accession No. EJ789449)
- Lunenburg, M., Korthagen, F., and Swennen, A., 2007. *The teacher educator as a role model*. *Teaching and teacher education*, 23 (5), 586–601.
- Pham, H.L. (2012). Differentiated instruction and the need to integrate teaching and practice. *Journal of College Teaching & Learning*, 9(1), 13-20. Retrieved from Education Research Complete database
- Riddle, E. M., & Dabbagh, N. (1999). *Lev Vygotsky's social development theory*. Retrieved from <http://chd.gse.gmu.edu/immersion/knowledgebase/theorists/constructivism/vygotsky.htm>
- Roberts, J. L., & Inman, T. F. (2007). *Strategies for differentiating instruction: Best practices for the classroom*. Waco, TX: Prufrock Press
- Rodriguez, A. (2012). *Analysis of Elementary School Teachers' Knowledge and Use of Differentiated Instruction*. Dissertations.
- Roy, A., Guay, F. & Valois, P. (2013) Teaching to address diverse learning needs: development and validation of a Differentiated Instruction Scale, *International Journal of Inclusive Education*, 45, 17(11), 1186-1204: <http://dx.doi.org/10.1080/13603116.2012.743604>
- Ruys I, Stijn Defruyt, Isabel Rots & Antonia Aelterman (2013) Differentiated instruction in teacher education: A case study of congruent teaching, *Teachers and Teaching: theory and practice*, 19:1, 93-107, DOI: [10.1080/13540602.2013.744201](http://dx.doi.org/10.1080/13540602.2013.744201)
- Santangelo, T. & Tomlinson, C. (2012) Teacher Educators' Perceptions and Use of Differentiated Instruction Practices: An Exploratory Investigation, *Action in Teacher Education*, 34:4, 309-327. from <http://dx.doi.org/10.1080/01626620.2012.717032>
- Servilio, K.L., (2009). You get to choose! Motivating students to read through

***Teacher Educators' Perception and Practices of Differentiated Instruction in Ethiopian
Secondary Teacher Education***

differentiated instruction. *Teaching Exceptional Children Plus*, 5(5), 2-11

- Shento, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education For Information*, 22(2), 63-75. Retrieved from Education Research Complete database. (Accession No.13857302)
- Sizer, T. (1999). No two are quite alike. *Educational Leadership*, 57(1), 6-11.
- Smit, R. & Humpert, W. (2012). Differentiated instruction in small schools. *Teaching and Teacher Education*, 28, 1152 - 1162
- Stavroula, V., Leonidas, K., and Mary, K. (2011). *Investigating the Impact of Differentiated Instruction in Mixed Ability Classrooms: It's impact on the Quality and Equity Dimensions of Education Effectiveness*. Paper presented at the International Congress for School Effectiveness and Improvement. January, 2011. Cyprus
- Stradling, B. & Saunders, L. (1993). Differentiation in practice: Responding to the needs of all pupils. *Educational Research*, 35 (2), 127-137.
- Sternberg, R. J. (1985). *Beyond IQ: A triarchic theory of human intelligence*. New York, NY: Cambridge University Press.
- Sternberg, R. J., Torff, B., & Grigorenko, E. L. (1998). Teaching triarchically improves school achievement. *Journal of Educational Psychology*, 90(3), 374-384. doi:10.1037/0022-0663.90.3.374
- Subban, P. (2006). Differentiated instruction: A research basis. *International Education Journal*, 2006, 7(7), 935-947. from <http://iej.com.au>
- Swennen, Anja; Lunenberg, Mieke and Korthagen, Fred (2008) Preach what you teach! Teacher educators and congruent teaching, *Teachers and Teaching: theory and practice* Vol. 14, Nos. 5-6
- Tesfaye, S. (2014). Teacher preparation in Ethiopia: a critical analysis of reforms, *Cambridge Journal of Education*, 44(1), 113-145, doi:10.1080/0305764x.2013.860080
- Tobin, R. & Tippett, C. D. (2013). Possibilities and Potential Barriers: Learning to Plan for Differentiated Instruction in Elementary Science. *International Journal of Science and Mathematics Education*
- Tomlinson, C. (2012, March 25). *Learning style: What we know, what we don't know, what we need to know - and what we should do*. Lecture presented at ASCD Annual Conference in PA, Philadelphia
- Tomlinson, C. (2010). *Carol Ann Tomlinson on Learning Styles*. Alexandria, VA: Association of Supervision and Curriculum Development.
- Tomlinson, C. A., (2009) Intersections between differentiation and literacy instruction: Shared principles worth sharing. *The NERA Journal*, 45(1), 28-33
- Tomlinson, C. A., (2001a). *How to differentiate instruction in mixed-ability classrooms*. (2nd Ed.) Alexandria, VA: ASCD.
- Tomlinson, C. A. (2000, b). *Differentiation of instruction in the elementary grades*. ERIC Digest. ERIC Clearinghouse on Elementary and Early Childhood Education.
- Tomlinson, C. A. (2005). Grading and differentiation: Paradox or good practice? *Theory into Practice*, 44 (3).
- Tomlinson, C. A. (1999). *The differentiated classroom: Responding to the needs of all learners*. Alexandria, VA: ASCD.
-

***Teacher Educators' Perception and Practices of Differentiated Instruction in Ethiopian
Secondary Teacher Education***

- Tomlinson, C. A. (2000). Reconcilable Differences? Standards-Based Teaching and Differentiation. *Educational Leadership*, 58 (1)
- Tomlinson, C., & Allan, S. D. (2000). *Leadership in differentiating schools and classrooms*. Alexandria, VA: Association of Supervision and Curriculum Development
- Tomlinson, C. A., Brighton, C., Hertberg, H., Callahan, C. M., Moon, T., & Brimijoin K., Conover, L.A. & Reynolds, T. (2003). Differentiating instruction in response to student readiness, interest, and learning profile in academically diverse classrooms: A review of the literature. *Journal for the Education of the Gifted*, 27 (2/3), 119-45.
- Tomlinson, C., & Kalbfleisch, M. L. (1998). Teach me, teach my brain: A call for differentiated classrooms. *Educational Leadership*, 56(3), 52-55. (EJ575232)
- Tomlinson, C. A. & McTighe, J. (2006). *Integrated differentiated instruction and understanding by design*. Alexandria, Virginia: Association for Supervision and Curriculum Development.
- Tomlinson, C. A. (1999). *The differentiated classroom: Responding to the needs of all learners*. Alexandria, Virginia: Association for Supervision and Curriculum Development
- Tomlinson, C.A., Brimijoin, K., & Narvaez, L. (2008). *The differentiated school*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Tomlinson, C. A., & George, P. S. (2004). Teaching high ability learners in an authentic middle school. *Middle School Journal*, 35(5), 7-11
- Tomlinson, C. A., Moon, T. R., & Callahan, C. M. (1998). How well are we addressing academic diversity in the middle school? *Middle School Journal*, 29(3), 3-11.
- Tomlinson, C.A., & McTighe, J. (2006). *Integrating differentiated instruction and understanding by design*. Alexandria, VA: Association for Supervision of Curriculum Development.
- Tomlinson, C. A., & Imbeau, M. B. (2010). *Leading and managing a differentiated classroom*. Alexandria, Virginia: Association for Supervision of Curriculum Development.
- UNESCO (2013). *Assessment of Teacher Training and Development Needs to Ensure Education For All (EFA)*. Needs Assessment Report, Ethiopia
- Vygotsky, L. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Whipple, Kerri (2012). *Differentiated instruction: A survey of teacher understanding and implementation in a south east Massachusetts school district*. Doctoral Dissertation
- Wubbels, T., Korthagen, F., & Broekman, H. (1997). Preparing teachers for realistic mathematics education. *Educational Studies in Mathematics*, 32, 1-28.
- Yatvin, J. (2004). *A room with a differentiated view: How to serve all children as individual learners*. Portsmouth, NH: Heinemann.