

Assessing the Impact of Differentiated Instruction on English Reading Proficiency in Ethiopian Secondary Schools: The Pretest-Posttest Study among Teachers in Dire Daw

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Keywords

Differentiated Instruction, Reading Proficiency, Teacher Development, Professional Training, Ethiopian Secondary Schools

Abstract

The previous study showed that the major stumbling block to effectively teaching reading skills is teachers' culture of banking on a centrally controlled, one-size-fits-all curriculum. This study investigates the impacts of differentiated instruction training (DIT) on English reading proficiency among high school teachers in Dire Dawa. DIT was intended to serve as an action plan to modernize and improve the traditional method. Using the pretest-posttest design, the research involved 157 teachers and analyzed changes in reading proficiency following a six-week intervention. The results showed a significant improvement in reading proficiency, with teachers with higher educational qualifications and more teaching experience showing slightly greater gains. Qualitative feedback indicated enhanced engagement and confidence in reading tasks among teachers, particularly those with extensive experience. These results highlight differentiated instruction training as a useful professional development tool that can meet teachers' diverse instructional needs and improve overall effectiveness. The study suggests adjusting support based on educators' expertise levels and incorporating differentiated training into continuous professional development programs to maximize results.

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Introduction

The quality of English language instruction is pivotal in shaping students' literacy skills, especially in multilingual societies such as Ethiopia, where English serves as a medium of instruction in secondary schools (Wondimu, 2021). Differentiated instruction, a pedagogical approach tailored to individual student needs, has gained traction as a way to improve learning outcomes. However, implementing differentiated instruction in Ethiopian secondary schools faces challenges, as teachers struggle to adapt their instruction to diverse student abilities and needs (Taye & Abebe, 2019). This study examines the impact of differentiated instruction on students' English reading proficiency at selected secondary schools in Dire Dawa, Ethiopia.

Background of the Study

Students in the same classroom often differ in their previous knowledge, motivation, learning pace, and language abilities. These differences require instructional approaches that enable teachers to respond effectively to individual learning needs. Differentiated instruction is based on the idea that effective teaching should account for learner variation rather than expecting all students to learn the same way.

Differentiated instruction provides teachers with opportunities to modify teaching strategies, learning activities, and assessment methods based on students' needs. By using strategies such as flexible grouping, adjusted tasks, and feedback, teachers can create learning environments that support diverse learners.

In English language learning, reading proficiency is an important skill because it enables learners to understand academic texts and develop their language competence. Because students have different levels of English proficiency, applying the same instructional methods to all learners may not effectively address their learning difficulties.

In Ethiopia, English has an important position in education because it serves as a medium of instruction at secondary and higher education levels. However, English language teaching faces challenges related to classroom diversity, teaching resources, and instructional practices. These challenges may affect students' ability to develop adequate reading skills (Mengesha, 2020).

Therefore, examining the role of differentiated instruction in improving English reading proficiency is important for enhancing language teaching practices in secondary schools.

Statement of the Problem

Despite the proven benefits of differentiated instruction in fostering literacy skills, Ethiopian secondary schools often lack the resources, teacher training, and institutional support needed to implement this approach effectively (Taye & Abebe, 2019). In English reading classes, uniform teaching methods may not support students who need additional help or alternative learning activities. Consequently, some learners may struggle to understand texts, build vocabulary, and improve their reading skills.

Furthermore, limited teacher preparation, inadequate resources, and other instructional challenges may prevent the effective application of differentiated instruction strategies. As a result, students may not receive the support they need to improve their English reading proficiency.

Given the significance of English proficiency for students' future opportunities, investigating the effectiveness of differentiated instruction is timely and necessary (Wondimu, 2021).

Objectives of the Study

This study seeks to evaluate the impact of differentiated instruction on English reading proficiency in selected secondary schools in Dire Dawa, Ethiopia.

Specific objectives

1. To assess the current practices of differentiated instruction in English reading classes.
2. To determine the effectiveness of differentiated instruction in improving students' reading comprehension scores.
3. To identify the challenges teachers face in implementing differentiated instruction strategies.
4. To provide recommendations for enhancing differentiated instruction in Ethiopian secondary schools.

Significance of the Study

The findings of this study could inform educational policy and teacher training programs in Ethiopia, particularly for English language instruction. By highlighting the effectiveness of differentiated instruction in improving reading comprehension, the study may encourage educational stakeholders to strengthen professional development and resource support for differentiated learning approaches.

Moreover, the study may offer valuable insights for teachers seeking to improve their instructional practices to address diverse student needs, ultimately contributing to improved literacy skills and academic achievement in Ethiopian secondary schools (Mengesha, 2020; Haile, 2021).

Methods

This study employed a quantitative research approach to examine the effect of differentiated instruction on students' English reading proficiency in selected secondary schools in Dire Dawa, Ethiopia. The quantitative approach was selected because the study aimed to measure changes in reading proficiency through numerical data collected before and after implementing differentiated instruction strategies.

According to Creswell (2018), quantitative research enables researchers to examine relationships between variables by collecting and analyzing measurable data. In this study, teachers' reading proficiency scores were compared before and after the intervention to determine whether differentiated instruction improved performance.

Research Design

A quasi-experimental one-group pretest-posttest design was employed to examine the impact of differentiated instruction on English reading proficiency. This design was chosen because it allowed the researcher to measure participants' performance before and after exposure to differentiated instruction practices.

At the beginning of the study, participants completed a reading proficiency pretest to establish their initial performance level. After the intervention period, the same participants completed a posttest to determine whether their reading proficiency improved.

As Shadish et al. (2002) explain, quasi-experimental designs are useful in educational settings where random assignment of participants is difficult. Although the design does not involve a separate control group, it provides evidence about changes that occur after an intervention.

Research Setting

The study was conducted in selected secondary schools in Dire Dawa City Administration, Ethiopia. The study area was selected because English language instruction plays an important role in secondary education, and teachers experience diverse classroom conditions that require appropriate instructional approaches.

Population of the Study

The study's target population included all secondary school English teachers in selected secondary schools within the Dire Dawa City Administration. The study selected English teachers because their instructional practices directly influence students' reading skill development. The study focused on teachers who regularly teach English reading lessons and implemented differentiated instruction activities during the study period.

Sample Size and Sampling Technique

The study involved 157 secondary school English teachers selected from 21 secondary schools in Dire Dawa. The participants were selected using purposive sampling because the study required teachers with direct experience teaching English reading who could participate in the intervention. Purposive sampling is appropriate when researchers select participants based on specific characteristics related to the study's objectives (Etikan et al., 2016). The selected teachers represented different educational backgrounds and teaching experiences, which helped provide a broader understanding of differentiated instruction's effectiveness.

Data Collection Instruments

The study employed two primary data collection instruments:

- (i) *A reading comprehension test* was administered before and after the intervention. The test measured participants' reading comprehension, vocabulary knowledge, and critical analysis skills. The pretest determined teachers' initial reading proficiency levels, while the posttest was administered after implementing differentiated instruction strategies to identify changes in performance. Experts in English education reviewed the instrument to ensure content validity and suitability for the participants' level (Gay et al., 2012).
- (ii) *Teacher Reflection and Feedback Forms*: Teachers provided reflective feedback on their experiences with differentiated instruction, including challenges encountered and strategies they found beneficial. This information captured teachers' perceptions and provided a more comprehensive understanding of how the intervention influenced their reading proficiency. Reflective feedback forms are valuable in educational research because they help contextualize quantitative findings and enrich data analysis (Merriam & Tisdell, 2015). Merriam and Tisdell (2015) note that reflective feedback can deepen understanding of participants' experiences and support interpretation of quantitative findings.

Data Collection Procedure

Data collection was conducted over eight weeks. During the first week, participants completed the pretest to identify their baseline reading proficiency. This was followed by a six-week intervention period in which participants introduced and practiced differentiated instruction strategies. The strategies included:

- flexible grouping

- adapted reading activities
- level-based tasks
- individualized feedback

At the end of the intervention period, participants completed the posttest. The researchers also collected reflection and feedback forms throughout the process to capture teachers' experiences.

Data Analysis

The researchers analyzed quantitative pretest and posttest scores using a paired-sample t-test to determine whether reading proficiency changed significantly after the differentiated instruction intervention. Descriptive statistics, including the mean and standard deviation, summarized participant performance before and after the intervention. The researchers analyzed qualitative feedback using thematic analysis to identify common themes related to participants' experiences with differentiated instruction. These findings provided additional context for interpreting the quantitative results (Pallant, 2020).

Ethical Considerations

The study obtained ethical approval from the relevant educational authority in Dire Dawa. The researchers secured informed consent from all participating teachers before data collection began. Participation was voluntary, and the study maintained participants' confidentiality throughout. Participants were informed about the study's purpose, the procedures involved, and their right to withdraw at any time without penalty (Israel, 2015).

Results

This chapter presents the study's findings on the effect of differentiated instruction on English reading proficiency among secondary school English teachers in Dire Dawa, Ethiopia.

A total of 157 English teachers from 21 secondary schools participated in the study. The participants represented both urban and rural schools within the Dire Dawa Administration. The demographic characteristics of participants were considered important because teachers' educational background and teaching experience may influence their response to instructional interventions.

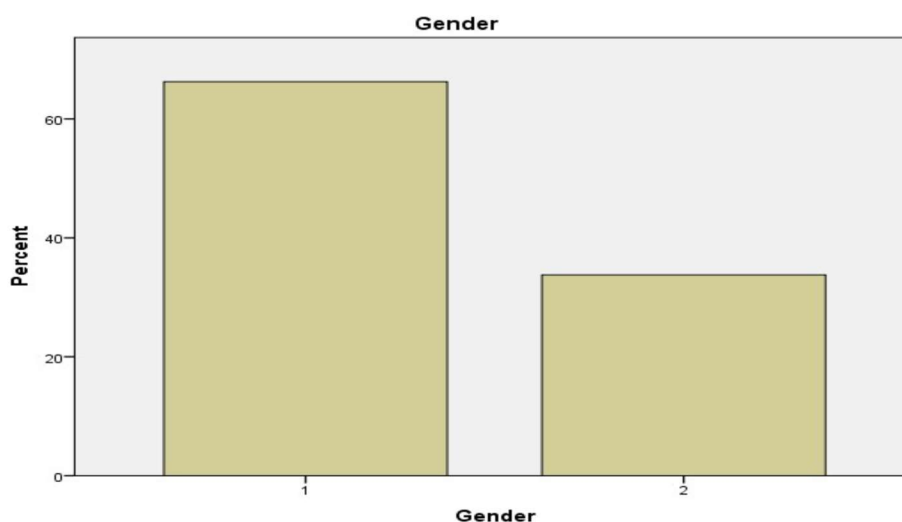


Figure 1. Gender variation of teachers (1 = male and 2 = female)

Regarding educational qualifications, 144 teachers held a bachelor's degree, while 13 held a master's degree.

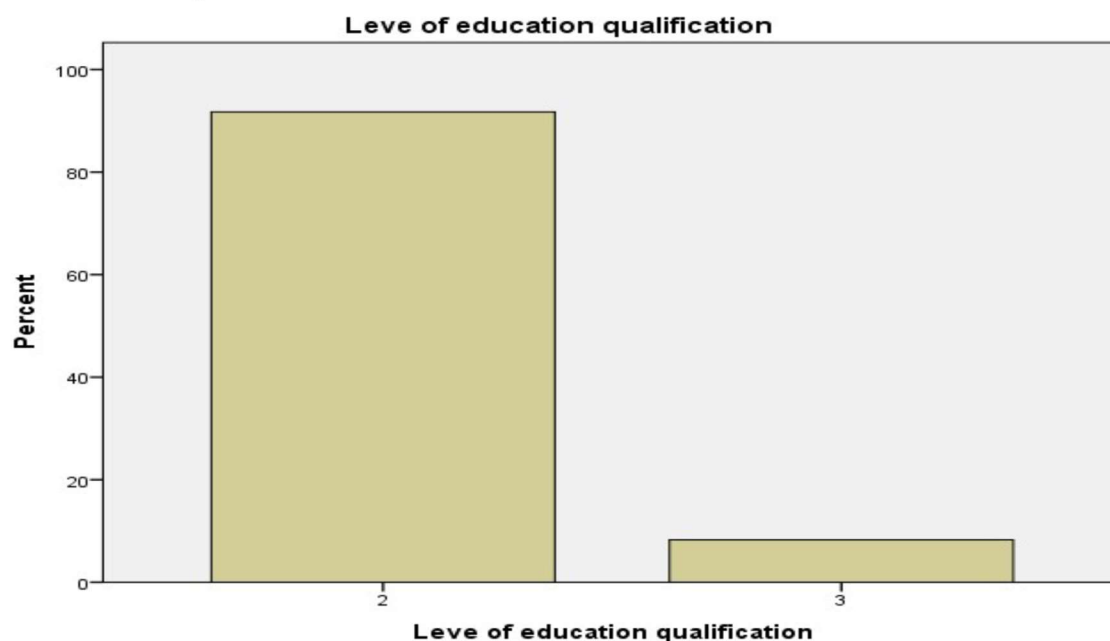


Figure 2. Distribution of teachers by educational qualification (2 = BA; 3 = MA).

Participants' teaching experience ranged from 1 year to more than 15 years. Of the 157 teachers, 8 had 1–4 years of teaching experience, 38 had 5–9 years, 40 had 10–15 years, and 71 had more than 15 years, as shown in Table 1.

Table 1
Distribution of Teachers by Teaching Experience

<i>Teaching Experience</i>	<i>Frequency</i>	<i>Percentage (%)</i>
1–4 years	8	5.1
5–9 years	38	24.2
10–15 years	40	25.5
15 years and above	71	45.2
Total	157	100.0

These demographics were considered when interpreting results, as they may influence proficiency and responsiveness to instructional methods (Robinson et al., 2014).

Reading Proficiency Scores

The mean pretest reading score for all teachers was 63.5 (SD = 9.2), increasing to 71.4 (SD = 8.6) after the six-week intervention. A paired-sample t-test indicated that this increase was statistically significant, $t(156) = 8.47, p < .001$. Analysis by demographic characteristics showed no significant differences in improvement between male and female teachers or across teaching experience levels. However, teachers with master's degrees demonstrated slightly greater gains than those with bachelor's degrees, suggesting that higher educational attainment may enhance responsiveness to differentiated instruction approaches (Desimone & Garet, 2015).

Teacher Reflections on Differentiated Instruction

Qualitative feedback from teacher reflections indicated positive experiences with differentiated instruction, with teachers frequently mentioning increased confidence and engagement in reading tasks. Teachers with longer teaching experience (10+ years) were more likely to value differentiated instruction as a professional development tool, noting its potential applicability in classroom settings (Merriam & Tisdell, 2015). Some less experienced teachers reported challenges in adapting to the new strategies, possibly due to limited exposure to varied instructional methods in their early teaching careers.

Discussion

The statistically significant improvement in reading proficiency aligns with prior research on differentiated instruction's effectiveness in enhancing language skills (Tomlinson & Imbeau, 2010). Teachers with higher education levels and experience demonstrated marginally greater gains, which may reflect their adaptability and readiness to adopt new instructional practices (Darling-Hammond et al., 2017). This finding suggests that differentiated instruction boosts reading proficiency and is particularly effective for experienced teachers, who can integrate these strategies more fluidly into their professional practice.

The demographic data revealed several noteworthy patterns. While male and female teachers benefited from the intervention, those with advanced educational qualifications (Master's degree) displayed slightly higher proficiency gains. This aligns with research suggesting that teachers with higher education levels may be better able to adopt innovative instructional methods (Robinson et al., 2014). Similarly, teachers with more experience (over 10 years) were more likely to value the reflective aspects of differentiated instruction, suggesting that professional maturity may deepen engagement with new instructional practices.

The study's results underscore the potential of differentiated instruction as a valuable component of professional development, particularly for teachers with diverse experience levels and educational backgrounds. Tailoring training to accommodate varying degrees of familiarity with differentiated instruction can enhance engagement and effectiveness. Specifically, programs might consider offering additional support for less experienced teachers to help them adapt to and implement differentiated instruction confidently (Desimone & Garet, 2015).

The findings indicate that differentiated instruction contributed to improved reading proficiency among high school teachers in Dire Dawa. The results suggest that differentiated instruction may be a useful approach for supporting professional development among teachers with varying levels of experience and educational backgrounds. Further research is recommended to examine the long-term effects of differentiated instruction on teaching practices and student outcomes.

Conclusion and Recommendations

The study evaluated the impact of differentiated instruction on the English reading proficiency of high school English teachers in Dire Dawa, Ethiopia, and found that the approach significantly improved teachers' reading performance. The results show that after the six-week intervention, teachers' reading proficiency increased significantly, indicating that differentiated instruction is an effective strategy for improving instructors' reading abilities. Teachers of varied experience levels, educational backgrounds, and demographic

characteristics generally benefited from the intervention, though those with Master's degrees and longer teaching experience showed slightly greater gains.

Qualitative feedback also demonstrated that differentiated instruction boosted teachers' engagement and confidence, with seasoned educators more readily adapting the approach to their professional practice.

These results highlight differentiated instruction as a valuable professional development tool. By improving teachers' reading proficiency and engagement, differentiated instruction can contribute to their instructional effectiveness, ultimately benefiting student outcomes.

The study underscores the importance of targeted training in differentiated instruction to equip teachers with adaptable skills that address diverse classroom learning needs.

Based on the findings of the study, the following recommendations are proposed:

Schools and educational administrators in Dire Dawa should integrate differentiated instruction strategies into regular teacher training and professional development programs. Emphasizing personalized, flexible instructional approaches can improve teachers' reading proficiency and strengthen their ability to address diverse learning needs effectively.

Professional development activities should accommodate teachers with varying levels of experience and educational backgrounds. Differentiated support during training can maximize learning outcomes and ensure all participants benefit from the program.

Successfully implementing differentiated instruction requires sustained support beyond initial training sessions. Schools and educational stakeholders should provide adequate instructional resources, mentoring opportunities, and follow-up training to help teachers effectively apply differentiated instructional practices in their classrooms.

Teachers should be encouraged to engage in reflective practices to evaluate how differentiated instruction supports their professional growth and classroom performance. Regular feedback mechanisms, such as peer observations, coaching sessions, and self-assessment activities, can foster continuous improvement and professional learning.

In conclusion, the findings suggest that incorporating differentiated instruction into professional development programs can significantly enhance English reading proficiency and instructional effectiveness among teachers. By addressing educators' diverse learning needs, experiences, and abilities, differentiated instruction promotes more effective professional growth and lifelong learning. Therefore, educational institutions in Dire Dawa and similar contexts should consider adopting differentiated instructional approaches to create more inclusive, responsive, and effective learning environments that ultimately benefit both teachers and students.

Disclosure Statement

No potential conflict of interest was reported by the author(s).

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