Grade 10 teachers' perceptions of their application of socio-cultural and multiple intelligences on English second language learners

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ABSTRACT

In multilingual or multi-cultural settings, teachers must be sensitive to the diverse intelligence of learners for teaching and learning to have impact and be beneficial to them. Low performance and the resultant academic failure among high school learners specifically in South Africa, and inability to manage diverse learning abilities have necessitated the search for a unique way to accommodate the learning differences found in the classroom. The study focused on learners' differences and supports implementation of differentiated instruction. Fewer studies exist on English Second Language (ESL) rural high school teachers' perceptions of the application of socio-cultural and multiple intelligences, and on the diverse ESL learners taught to ascertain the scope of the need for teacher training in differentiated instruction in rural South Africa. Data were drawn from fifty teachers in grade ten using a questionnaire. The study revealed that it is challenging for teachers to determine learners' intelligences and emotional needs. Sixty-six percent (n=33) of the teachers agreed to accommodate students of different learning abilities, 34% (n=17) considered learners' gender differences, and 62% (n=31) considered learners' cultural backgrounds and adopted group learning. The study mainly recommends training and supervision on the strategies for gender differences and accommodation for diverse learning abilities.

Keywords: differentiated instruction, implementation, learning, teachers, socio-cultural, multiple intelligences.

1. Introduction

Applying a conventional approach to teaching and learning obstructs learners' academic development, especially where there are diverse learning abilities and needs (de Jesus, 2012). Implementing differentiated instruction that considers diverse learning differences is vital in the classroom where there are learners from different socio-cultural and geographical backgrounds and those who lack English language skills (De Jager, 2019). Despite the global nature of the importance of differentiated instruction in accommodating diverse intelligences and learners from diverse socio-cultural backgrounds, studies have shown that many teachers still find it difficult to implement the approach in daily classroom practice because of a lack of adequate knowledge and awareness (Holloway, 2000; Hall, Strangman & Meyer 2003; Burton, 2003; De Jager 2016).

According to Wu (2017), rural school teachers deal with a diversity of learners in schools. They find it difficult to acquire all the necessary skills needed to accommodate diverse learning abilities. Furthermore, rural teachers have acquired differentiated instruction skills that consider learners in special education, their interest and preferences (Wu, 2017). However, these rural school teachers find it difficult to adjust learning materials to the learning needs of the gifted. DI is a viable strategy for the learning needs of gifted rural learners and those with learning disabilities (Weinlein, 2019). According to Redding & Wallberg (2012), rural school learners are exposed to lower quality education, experience inadequate implementation of varied instructional approaches, and have insufficient learning materials. These problems necessitate a study on rural school teachers' perceptions of their application of socio-cultural and multiple intelligences in classroom practices, to understand the type of training needed for teachers to be equipped in classroom teaching and learning.

In the United States, differentiated instruction was mostly practiced in middle schools because learners' differences were more noticeable at this level (Logan, 2011). This shows that learners at any level of study could be assisted through a differentiated instructional approach. In Ethiopia, about 96.55% of the primary school teachers that enrolled for a diploma at the Bahir Dar University were not aware of differentiated instruction, and their perception and practice of DI were below average (Melesse, 2015). In a recent study, De Jager (2019) used a qualitative and quantitative study to determine if a biometric fingerprint device could be used to correctly record and improve active class participation among student teachers in a higher education institution. The results of the quantitative study revealed that when biometric fingerprint scanning was implemented to encourage the active involvement of student teachers in differentiated instruction, the number of student teachers who were actively involved in discussions increased by 18% in the third semester. The qualitative study was on the student teachers' reflections on training experiences in differentiated instruction and improvements. The results revealed that the student teachers needed practical experience on a variety of teaching and learning contexts as well as a conducive learning environment if differentiated instruction activities would be effectively implemented.

De Jager (2019) further revealed that an effective implementation of differentiated instruction that accommodates learners' needs could be a long-lasting solution for eradicating low academic performances in South Africa, improving personal academic interest, and developing learners who need assistance. The findings of de Jager study gave credence to differentiated instruction. However, it focused on student teachers at a university in urban South Africa.

DI assists in teaching skills and helps teachers adopt different teaching strategies that could create an active learning environment for all learners, thus modifying the curriculum (Tomlinson, 2014). This, Tomlinson further indicates, would motivate learners' interest, readiness and create active participation as well as interaction in class. Winstone & Millward (2012) state that the interaction between teachers and learners, and learners and their peers allow them to pass through their zone of proximal development. This starts from what they can currently do and moves to what they could do through interacting with others and through supervision. The zone of proximal development is the distance between the knowledge a learner has, and the knowledge acquired under the supervision of knowledgeable adults or peers (Shabani, Khatib & Ebadi, 2010). Supervision by a knowledgeable adult shapes the learner to become an independent learner in the future.

According to Holli (2008), differentiated instruction creates an alternative for students with diverse learning needs, and meets each student's needs. Turkey, Yenmez & Özpınar (2017) observed that introducing differentiated instruction in teacher pre-service training enhanced teacher awareness, adoption, and effective implementation of the approach in classroom activities. In the literature, Gomaa (2014) explored the effect of differentiated instruction using multiple intelligences and examined the attitude of middle science school students with learning disabilities in Egypt. The study allowed the students to employ seven intelligences, including visual, kinaesthetic, musical, linguistic, logical, interpersonal, and intrapersonal intelligences in the experimental group. The experimental group was found to be more effective than the control group that was taught traditionally (Gomaa, 2014). Wang, Bruce & Hughes (2011) studied the application of a socio-cultural approach to information literacy research and curricular design in the Australian higher education. They found that socio-cultural theory was beneficial to understanding the research through dialogue and interactions. Specifically, it created a student-centred approach because students could express their perspectives and listen to the views of group members (Wang, Bruce and Hughes, 2011). Hence, the study by Wang et al. (2011) aimed to enhance the effective implementation of differentiated instruction among teachers and achieve maximum learning and academic development among diverse learners.

Teaching English as a Second Language incorporates theoretical knowledge and practical skills (Kartchava, Gatbonton, Ammar & Trofimovich, 2020). Research in this field has emphasised the importance of differentiating teaching and learning methods to meet the diverse needs of multi-cultural learners in the classroom (de Jager, 2019). Investigating differentiated instruction and applying socio-cultural and multiple intelligences are important in enhancing effective learning and teaching. According to Lemon (2004), there is poor academic performance in the Eastern Cape province, and this affects Matric Examination results and the

development of the learning skills of students (John, 2019; Siyepu, 2013; & Pretorius, 2002). Therefore, for the implementation of DI in English second language learning, socio-cultural and multiple intelligences need to be examined. The current study supports accommodating learners' differences through a differentiated instructional approach among ESL rural high school teachers in Alice and Fort Beaufort, in the Eastern Cape province of South Africa.

Most studies have focused on English second language and the implementation of differentiated instruction (Wang, Many & Krumenaker, 2008; Iyer, 2015; Kjellström, 2017; Suprayogi, Valck & Godwin, 2017; Whitley, Gooderham, Duquette, Orders & Cousins, 2019) and secondary school education (Smale-Jocobs, Meijer, Helms-Lorenz & Maulana, 2019). For example, in a recent study, Noble (2019) reports that Chinese learners make common errors in English pronunciations, writing, and reading because of the interference of their first language (cross-linguistic influence). To achieve maximum academic success in ESL, ESL teachers must have language proficiency in the phonetics and phonology of their first language and that of the English language (Gao & Deng, 2009; Bian, 2013). Nel and Muller (2010) indicate that learners find it difficult to assimilate a second language because of the influence of the first language, which calls for teachers' observation to understand learners' profiles and intelligences. Poor language proficiency may be attributed to the influence of the first language on second language learning, which also creates difficulty for the learners and calls for the implementation of DI strategies. With the implementation of differentiated instruction, ESL teachers could pair learners who have poor English language proficiency with those with better proficiency, use various teaching aids, use visual learning, give assignments, and evaluate learners to assist them overcome language transfer. Merilainen (2010) submits that to overcome negative language transfer, Finnish students were exposed to frequent contact with English language learning, which helped to develop their English vocabulary.

Nair, Krishnasamy and de Mello (2017) state that poor pronunciation makes it difficult for people to understand a speaker regardless of how accurate the speaker could be. The ability of teachers to develop their teaching skills and knowledge, and their capacity to improve learning skills involve implementing differentiated instruction. This is done by using different teaching aids like pictures, charts, graphic organisers, films, and other sources of information, considering gender differences and learning profiles. English second language teachers who use differentiated instruction in their classes could benefit learners in reading, writing, speaking, listening, and pronunciation. The major challenge faced by English second language learners in South Africa is pronunciation and reading (Pretorius, 2002). This is especially true in rural classrooms where lack of learning materials and presence of large numbers of learners exist, making it almost impossible for teachers to accommodate learning needs, such as learner-preferred mode of learning, and different levels of understanding and intelligences (John, 2019).

2. Differentiated instruction

This section gives further insight into what differentiated instruction is. Differentiated instruction is an approach that supports the differences which exist among learners. It is an effective strategy in classroom teaching and learning (Schwab, Sharma & Hoffmann, 2022). Differentiated instruction combines suitable content (what is taught), process (how teaching is done), and product (how learners demonstrate what has been taught) with the learners' current levels of readiness, interest, and preferred mode of learning (Tomlinson, 2014). Accordingly, "this requires teachers to provide variation in learning avenues in terms of acquiring knowledge or information through teaching materials and assessment measures that are developed based on learners' preferences" (Kamarulzaman, Azman & Zahidi, 2015:347). Differentiated instruction is an educational approach that transforms instruction into an active, satisfying self-regulated and effective method based on students' needs and characteristics (Valiandes & Neophytou, 2018). Differentiated instruction is not a new approach in classroom teaching and learning. However, some teachers still find it challenging to implement it in classroom practice. In the year 1996, the South African government established a bill of rights, and it states that under no circumstance should any learner be denied quality education, including learners in the rural schools. Differentiated instruction is suited to address this because it makes it possible for instruction to benefit students who have a wide range of learning abilities, and its implementation involves the alteration of content, instruction, and assessment to meet the needs of learners (Neber, Finsterwald & Urban, 2001; George, 2005).

2.1 Socio-cultural theory

As stated earlier, differentiated instruction supports differences among learners who have different learning needs. Socio-cultural theory is suitable for the implementation of differentiated instruction. This is because socio-cultural theory focuses on the importance of social and cultural background in cognitive development. The theory was originally proposed based on the work of a Russian psychologist called Vygotsky (1962, 1978). Vygotsky believed that human activities take place in a social setting, are facilitated by language, and can be understood when explored in their historical development. This theory identified how learners could reach their zone of proximal development, how teachers could monitor learners' private speech during learning, and how infants could learn through make-believe play with peers involved in harmonised socio-dramatic roles

2.2 Scaffolding through differentiated instruction

Scaffolding helps build confidence and develops independent learning by systematically building on students' learning experience and knowledge as they are introduced to new learning skills (Fathi, 2020). Burner Wood Ross and Vygotsky introduced scaffolding in the 1970s to support socio-cultural theory. Ainsa (2017) and Winstone & Millward (2012) describe scaffolding as planned support delivered to students to help them attain a developed academic

level and to continue at that level after the support has been removed. This planned teaching support gives opportunities for teachers to plan learning strategies that will assist students in finding areas they need to improve in their academic accomplishments. The above definition implies that scaffolding that focuses on learners' previous experience helps students to develop concepts they did not know before. To scaffold efficiently, the teacher changes teaching practice and facilitates techniques to effectively explain concepts that will help the learner to reach their actual developmental level (Harland, 2003). The teacher and the organised learning techniques serve as a facilitating agent to learners' interaction with the environment (Kouzulin, Gindis, Ageyev & Miller, 2003). Radford, Bosanquet, Webster & Blatchford (2015) state that scaffolding is implemented by simplifying a task to get learners' interest; while retaining the interest, the teacher moves to a more difficult task that develops learners' knowledge. This suggests that ESL teachers' understanding of learners' profiles such as intelligences and learning styles is vital for effective scaffolding and appropriate teaching instructions that accommodate learners in their classes.

2.3   Multiple-intelligences

Multiple-intelligences involve collaborative communication between individuals and learners' inward reflection of life involvements to acquire new knowledge. The relation between multiple-intelligence and sociocultural theory is that both focus on learners and their learning differences. Howard Gardner proposed the multiple intelligence theory in the 1980s in the book titled "Frames of Mind'' (Gardner, 1983). According to Campbell, Campbell & Dickenson (2004), intelligences are tools for creating, learning, and problem-solving. Rattanavich (2013:3) highlights multiple intelligences as:

(1) Linguistic/verbal intelligence: the application of language expression.

(2) Logical-mathematical intelligence involves the ability to calculate and solve difficult mathematical problems and to think logically.

(3) Spatial-visual intelligence: the ability to organise visual information and to create meaningful imagination.

(4) Kinaesthetic intelligence: involves movements such as creating and doing things and expressing ideas through touching.

(5) Musical intelligence: the ability to recognise and compose musical tones, pitches and rhythm.

(6) Personal intelligence: it includes inter-personal and intra- personal intelligences. Inter-personal intelligence involves the ability to understand others' feelings and intentions, and interact with them adequately.

(7) Intrapersonal intelligence is the knowledge of understanding, planning and directing one's motivation and attitude in an adequate way.

(8) Naturalist intelligence, involves observing and classifying natural things within our environment and the ability to distinguish between natural and artificial things.

Rattanavich (2013) conducted a comparative study on intelligences that relates to English language skills namely, reading, listening-speaking and writing. The study also focused on the effects of multiple intelligences on the teaching of English to Thai undergraduate teacher-students through cross-curricular thematic instruction. The study's finding showed that the experimental group's performance was higher during and after the experiment in the English language skills such as reading, listening-speaking and writing than that of the control groups. This is because teachers developed their teaching skills using multiple intelligences which were beneficial to the experimental group in gaining more experience in English language skills. McKenzie (1999) used the multiple intelligences inventory and a cued-recall vocabulary test to measure participants' recalling of lexical items in a second language. The study pointed out that students ability and knowledge to remember dictionary words in a second language are associated with their linguistic intelligence.

The current study sought to enhance the effective implementation of differentiated instruction among teachers to achieve maximum learning among varied learners. Therefore, core instructional approaches such as socio-cultural and multiple intelligences were investigated as shown in Figure 1 below. Most studies have focused on institutions of higher learning (Turner, Solis & Kincade, 2017; Evans-Hellman & Haney, 2017; De Jager, 2019). Some have focused on metropolitan secondary schools (De Jager 2016 & 2013; Williams, Olivier & Pienaar, 2009) and some on elementary schools (Marishane, Marishane & Mahlo, 2015; Melesse, 2015), but none on rural high school teachers.
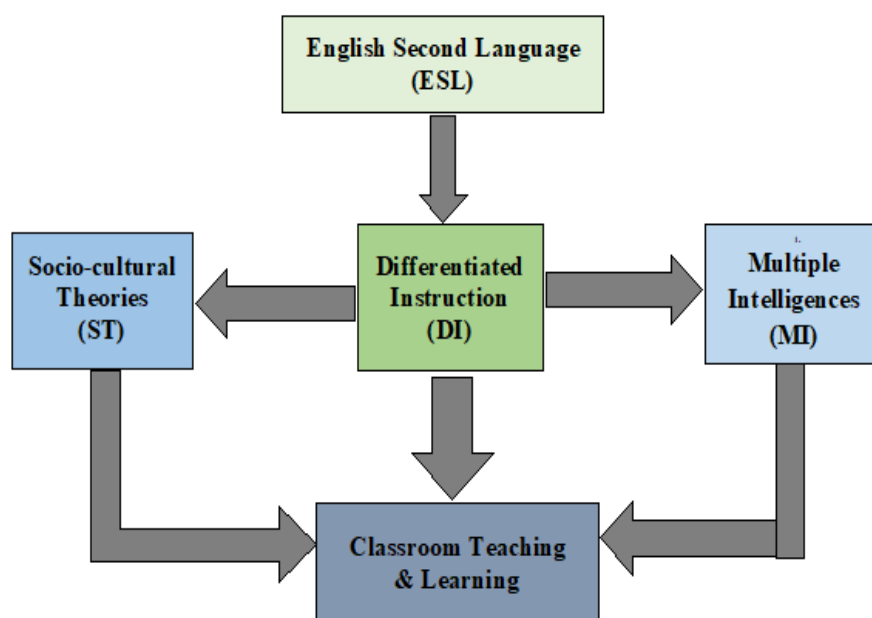

Figure 1: Conceptual framework

2.4   Conceptual framework

Despite the global importance of differentiated instruction (DI) in exposing learners to excellent instruction as well as accommodating various learning abilities and intelligences, teachers still find it difficult to implement the approach. This is because teachers lack quality experience for adequate implementation of DI strategies, a factor that motivated this study. The present study focuses on ESL teachers' perceptions regarding their consideration of socio-cultural and multiple intelligences in the classroom and the support these render to differentiated instruction, as there is limited research to assist ESL rural high school teachers. Hence, this study aimed at enhancing effective implementation of differentiated instruction among ESL teachers in order to achieve maximum learning among diverse learners.

3. Materials and methods

To ascertain the scope of the need for teacher training in differentiated instruction in rural South Africa, this study adopted a systematic and investigative approach to English second language (ESL) teachers' perception of the application of socio-cultural and multiple intelligences. A quantitative method and a descriptive semi-structured survey questionnaire were employed (De Jager, 2016; Dixon, Yssel, McConnell & Hardin, 2014). A quantitative approach was used in this study that involved 10 rural public high schools in the Amathole District of the Eastern Cape province. The questionnaire was administered to respondents who were willing to participate, and all the participants were assured of confidentiality and anonymity. The study focused on Grade 10 ESL high school teachers, creating room for a replica of this study among primary school teachers, other grades' teachers, and those teaching in other ten official languages in South Africa. Hence, the core instructional theories that dealt with learners' differences such as socio-cultural and multiple intelligences and teacher responses to using DI in their classes, were investigated.

3.1   Research design

The study employed a quantitative method to examine grade 10 teachers' perceptions of the application of socio-cultural and multiple intelligences on English second language learners using a descriptive research design (De Neve, Devos & Tuytens 2015; Dixon et al 2014). A semi-structured questionnaire was employed. The sample involved 10 schools and 50 ESL grade 10 high school teachers in the selected rural public schools. The researchers went to the Department of Education in Amathole district where a record of all the secondary schools in the municipality was made available. More than twenty schools in the district were identified. Out of these schools, we randomly selected 10 schools for this research, which are considered to represent the entire secondary school population. All the schools were given pseudonyms, and the participants were purposively selected and distributed using variables that included nationality, gender, and years of teaching experience. Of all the respondents, 88.0% were South African, and 12.0% were non-South African. Gender distribution between male and female

teachers was equal. 24.0% of the respondents had 1-4 years of teaching experience, while 12.0% had 5-8 years, and 16.0% had 9-12 years of experience. Furthermore, 6.0% had 13-20 years of teaching experience, and 42.0% of the respondents had 21 years and above of teaching experience.

3.2   Data collection

The questionnaires were distributed and collected during the survey period. The data collected from the teachers were analysed. Seventy (70) questionnaires were produced, and the questionnaires were administered to fifty (50) teachers. Twenty additional questionnaires were administered, in case of incomplete or mishandling of any of the questionnaires. The target population was fifty (50) English as a Second Language grade 10 public high school teachers in Alice and Fort Beaufort. This included five (5) public schools from Alice and five (5) from Fort Beaufort in Amathole District. The teachers were selected using a non-probability sampling approach, which involved selecting the group of participants and the schools that fit into the study being investigated. These teachers were ESL teachers in Grade 10, and participation was voluntary. Variations in responses to the questionnaire were divided into parts, namely sections A and B. On one hand, Section A constituted the biographical data of the respondents, which were all identified using pseudonyms to ensure confidentiality and anonymity. On the other hand, section B constituted the major questions using a range of frequencies comprising Always, Often, Sometimes, Rarely, and Never. The questionnaire used had closed-ended questions, and respondents were required to tick the appropriate spaces provided. The data collected from the participants were analysed using tables and frequencies.

3.3   Ethical considerations

Ethical clearance was obtained from the University of Fort Hare's Research Ethics Committee Permission to conduct research in selected schools in the Eastern Cape was obtained from the Department of Education's district offices. Informed consent of the participants was sought, and the nature of the study and technical words were explained clearly to the respondents. The respondents were informed of the academic purpose of the study and confidentiality of the research data was preserved through using pseudonyms.

4. Discussion

The range of frequency showed the total number of respondents and their percentages. The frequency comprised Always, Often, Sometimes, Rarely, and Never, which are the metrics used for measuring the threshold. The study revealed the magnitude of the differences between the number of teachers developing learners' knowledge and the number of teachers who implemented instruction based on gender differences. Findings from this study revealed that 66% (n=33) of the teachers often practiced DI in their classroom and that 34% (n=17) of them only considered learners' gender differences when implementing DI to learners of various

developmental abilities. However, 62% of the teachers considered group learning and accommodated varied learning abilities and cultural backgrounds. In addition, 52% of the teachers indicated that they needed training on determining intelligences and emotional difficulties or needs. Furthermore, 46% of the respondents stated that they preferred the traditional method of teaching to differentiated instruction, which necessitates training and awareness.

The following is a detailed discussion and analysis of the responses to the questionnaire:

Question 1: *Do you differentiate instruction to students of different ability levels in class?*

On the above question, the result shows that a higher number of teachers (66%) often practice DI in their classrooms. According to Gomaa (2014), teachers could differentiate instruction based on different intelligences. Studies have shown that teachers may use private speech, make-believe play, zone of proximal development, curriculum compacting and scaffolding to develop learners' knowledge at different levels (Harland 2003; Bodrova, 2008; Feigenbaum, 2009; Renzulli, 2015).

Question 2: *Do you consider intelligences and emotional needs during classroom teaching?*

The findings indicate that 52% of the teachers rarely consider learners' varied intelligences and emotional needs. The implication is that some teachers do not always consider intelligences and emotional needs during teaching and learning. Responses may suggest that they might not have the strategies or they are not trained to consider their learners' intelligences and emotional needs. Pozas, Letzel & Schneider (2020) submit that students have varied learning abilities, and state that this calls for effective implementation of DI. While Tomlinson (2015) suggests training teachers on how to efficiently adjust to learning needs, such as understanding learners' different intelligences and their emotional needs, understanding learners' interest, readiness and learning profiles also assists in catering for different learning abilities that exist in the classroom. The findings suggested that ESL teachers in grade 10 need consistent training on the strategies needed to accommodate learners with different learning intelligences and emotional difficulties or needs.

Question 3: *This sought to find out if teachers evaluated and improved each student's abilities after giving assignments and classwork.*

The findings indicate that 48% of the teachers evaluated learners' level of understanding after giving them assignments and classwork. This shows that not all teachers evaluated and examined their learners' assignments and classwork. Reese (2011) supports the use of classroom evaluation because evaluation and reflection are vital in differentiating instruction, which assists teachers in assessing knowledge. Ismajli & Imami-Morina (2018) found that teachers had difficulties using evaluation in their classes due to a lack of expertise in organising DI. The results show that 48% of the teachers assessed their learners' level of understanding through giving them assignments and classwork, which implies that teachers need to improve

on their evaluation, and that more emphasis needs to be made on the benefits of classroom evaluation for learners.

Question 4: *Do you know how to differentiate instruction based on cultural background?*

Teachers' responses to the above question indicate that 62% of the teachers often encouraged group learning and accommodated diverse learning abilities. Findings from this study showed support for diverse learning abilities. Berger, Girardet, Vaudroz & Crahay (2018) state that a lack of classroom management could prevent a lack of support to group learning and accommodating varied learning abilities. The implication is that even though teachers encouraged diverse learners, teachers should be skilled in classroom management.

Question 5: *Do you know how to differentiate instruction based on social background?*

The results show that 62% of the teachers had acquired the skills and often considered their learners' social background. The results suggest a need for teachers to improve on differentiating instruction that considers learners' social background. This can be done by grouping or pairing learners and by giving different examples from their existing backgrounds. Shahriar & Syed (2017) state that teachers must approach learning based on social life experiences to improve the positive learning culture of students. Walqui (2006) opined that students learn when they are individually involved through conversational interaction. Subsequently, Mulalic, Shah & Ahmad (2009) have proved that students approach learning based on their different social backgrounds. The way they assimilate knowledge and understand learning may be affected by their cultural differences.

Question 6: *Do you accommodate every learner in the classroom by assessing their abilities and individualising instruction?*

The results show that 48% of the teachers often accommodated their learners by assessing different learning abilities and by individualising instruction. According to George & George (2016), to accommodate every learner, teachers must have a good rapport with their students, know their learning profiles, use the scaffolding approach, and engage students by using active and interesting learning materials, including challenging lessons, especially for intelligent learners.

Question 7: *Do you implement instruction based on gender differences?*

Only a few (34%) teachers indicated that they often considered gender differences. Maheshwari (2016) and Garber, Hyatt & Boya (2017) hold that there are many differences seen among male and female learners that could affect their learning. This is supported by the study of Aliakbari & and Haghighi (2014), who examined the effectiveness of differentiated instruction in supporting Iranian learners in gender education. They established that the female learners of the experimental group performed better than the males in the post-test. These disparities found in gender will help the teachers to be conscious of their learners and recognise that male and female learners of the same age bracket have different developmental abilities and that they are

likely to differ from one another. These attributes must be taken into consideration during teaching and learning.

Question 8: *Do you encounter difficulties differentiating instruction in your classes?*

A substantial number (46%) of the participants indicated that they often encountered difficulties during DI implementation and teaching based on varied intelligences. These findings support Melesse (2015), who also found that teachers in Ethiopia found it difficult to differentiate instruction based on students' needs; instead they preferred to teach using a teacher-centred approach because it was easy to adopt. Similarly, Gregory and Chapman (2007) note that even qualified and trained teachers still preferred using the teacher-centred approach in their classes. Findings from their study encourage the use of learner-centred approach because learners actively used the learning materials. The findings encourage peer-to-peer learning.

Question 9: *Do you have the ability to adjust to a student's difficulty level?*

As indicated, only 48% of the teachers had a personal ability to adjust to the student's difficulty level. The study established that because only 48% of the teachers adjusted to each student's difficulty level, there is a need for sensitisation and effective implementation of DI among the teachers (Oktan & Çağanağa, 2015).

Question 10: *Do you have learning centres/stations in your school where learners with different intelligences could perform various tasks on their own?*

The results show that 28% of the respondents stated that their schools rarely had centres where learners could perform their learning tasks. According to Michelle (2019), a learning centre allows teachers to create a variety of learning activities that focus on interests, needs, and readiness. Learning centre activities should be based on what is being taught. In addition, during the learning activities, teachers should make sure learners understand their learning instructions.

Question 11: *Are there a variety of books and learning materials that help to differentiate instruction for diverse learners?*

The results show that only 30% of the teachers often had books and learning materials that aid differentiated instruction. The lack of varied textbooks in South African high schools was as a result of negligence with regard to buying textbooks and other learning materials (South African Human Rights Commission, 2014). The South African Human Rights Commission (SAHRC) further reported that the late purchase of textbooks and learning materials by school authorities, lack of funds, and large numbers of learners in schools negatively affected the implementation of DI. Bušljeta (2013) suggests that using varied learning materials and resources makes learning more informative, interesting, and helps to develop an intensive lesson.

Question 12: *Were you trained on how to adopt and reflect on various differentiated instruction strategies for your learners?*

As indicated in the results, 48% of the teachers stated that they rarely received training on how to adopt and reflect on DI strategies that would assist learners with different abilities. Duane (2011) and Valiandes & Neophytou (2018) report that the implementation of DI has its challenges which are associated with using difficult and varied teaching skills. These challenges involved restricted time to prepare for the lesson, a large number of learners to control, too much workload, lack of resources, diversity in ethnicity, varied socio-economic backgrounds, application of technology in teaching, and teaching students that lack English proficiency. Teachers' preparation to educate diverse learners who have various intelligences and learning abilities requires teachers to have experience in various teaching approaches, and the implementation of these strategies may support differentiated instruction in the classroom (Duane, 2011).

Table 2 below is a simple frequency summary of the of participants' responses to the items constituting the questionnaire used in the study:

Table 2: Performance of respondents

S/N	Question	Teachers using DI (%)	Teachers neutral (%)	Teachers not using DI (%)
1.	Q1	94	4	2
2.	Q2	14	4	82
3.	Q3	94	2	4
4.	Q4	90	10	0
5.	Q5	90	10	0
6.	Q6	86	12	2
7.	Q7	46	8	46
8.	Q8	66	18	16
9.	Q9	76	18	6
10.	Q10	38	10	52
11.	Q11	60	14	26
12.	Q12	26	12	62

The results from Table 2 above were categorised into "Teachers using DI", "Teachers neutral" and "Teachers not using DI". Those who responded with Always and Often were regarded as teachers using DI, while teachers who responded with Sometimes were considered to be Neutral, and those who responded with Rarely and Never were regarded as not using DI. Therefore, there were three camps of use. The first is that of teachers who were using DI. These

showed knowledge of the application of differentiated instruction that accommodates learning abilities. The second is of teachers who were Neutral, which could mean indifferent. The teachers in this category need knowledge and exposure to DI implementation. The last camp is of teachers who were not using DI. These needed help through training and guidance on accommodating learning differences. According to Shareefa, Moosa, Zin, Abdullah & Jawawi (2019), teachers' perceptions have implications for DI implementation.

The totals for "Always" and "Often" were added as teachers using DI, while teachers who responded with "Sometimes" were identified as neutral, and those who responded with "Rarely" and "Never" were added and regarded as teachers not using DI. The scores for the teachers using DI were 47, 7, 47, 45, 45, 43, 23 33, 38, 19, 30, 13. The scores for those who opted for Neutral were 2, 2, 1,5, 5, 6,4, 9, 9, 5, 7, 6; and the scores for those not using DI were 1, 42, 2, 0, 0,1, 23, 8, 3, 26, 13, 31 respectively. In a situation where teachers scored above 10% (n=5) in the Neutral category, this could signify that ESL teachers needed training on the application of differentiated instruction that would enhance learners' multiple intelligences and cater for their diverse socio-cultural backgrounds.

5. Conclusion

The application of differentiated instruction is very important in the rural South African schools, because of its ability to accommodate learners with different learning needs. This study investigated ESL teachers' perceptions of their application of DI to teacher-student interaction in the classroom.

The study used teacher responses to determine how often teachers used DI in their classes. The results show that in general, teachers need support on the necessary strategies to consider learners' gender differences in their classes. They need help through training and guidance on accommodating learning differences. Potentially, this could help improve the academic performance of learners and help prevent learners from dropping out of school.

The present study was limited in one way. This is that it used a small number of participants from only ten (10) rural public high schools in the Amathole District of the Eastern Cape province. This limits the extent to which its findings can be generalized.

6. Recommendations

The study recommends that teachers be trained through seminars and conferences to equip them with the skills and knowledge needed to implement the DI approach. Teachers need knowledge on how to implement instruction based on students' gender differences. Therefore, changing teachers' perceptions on how to easily implement differentiated instruction rather than using conventional approaches in teaching and learning is very important among high school teachers. The provision of learning centres in schools by the Department of Education

and school authorities, through which students can perform various tasks on their own, would be important. Hence, this study recommends that teachers acquire the knowledge and have the understanding of accommodating diverse learning abilities in their classes. Since this study focused on teachers' perceptions of their application of socio-cultural and multiple intelligences on English second language learners, we suggest that a research study be explored on ESL learner results over time comparing the results of teachers who regularly use DI and those who do not.

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