

Interactive Teaching Strategies As Intervention For The Teaching Of Learners With Articulation Gaps During Phase Transition

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ABSTRACT

The purpose of the study was to investigate the implications of learner articulation gaps during phase transition with special reference to grade 4 class. The study used qualitative research approach. A case study design was followed in the study. The study employed interpretive research paradigm. Sample consisted of 12 participants which was drawn from grade 4 teachers, principals, and departmental heads. The study used interviews, lesson observations, and document analysis as means of data collection techniques. Thematic data analysis approach was employed in the study. The study used Kolb's experiential learning theory as the theoretical framework. This study revealed that grade 4 teachers were impeded from applying interactive teaching approaches because of large or overcrowded classes amid the drastic changes that take place in the grade. It came out from the study that teachers were not able to assist learners to overcome the transition. Hence this study recommends the review of LoLT in the foundation phase of township schools, introduction of subject teaching in grade 3, the review of teacher-pupil ration to enhance the application of various interactive teaching approaches in grade 4, and the development of phase transition model. The suggested recommendations are intended to mitigate or address the articulation gaps experienced by learners so as to improve learner academic performance in grade 4.

Keywords: Implications, Articulation Gaps, Phase Transition, Experiential Learning, Interactive Teaching and Learning, Cooperative Learning.

1. INTRODUCTION

Grade 4 teachers are faced with many challenges that ultimately affect their performance and the academic performance of the learners they teach. Hu (2005), Hu (2007), Nunan (2003) and Nur (2003) report that there is severe worldwide shortage of teachers who have been trained to teach English in primary schools (Copland, Garton, & Burns, 2013: 740). Researchers such as George (2009), Navarro (2008), O'Brien, (2011), Reeves (2006), Short and Fitzsimmons (2007) posit that inadequate in-service and pre-service training is a major hindrance for the teachers of English second language learners to teach the language effectively (Khong & Saito, 2013). This according to Copland, Garton, and Burns (2013) results in learners being taught by teachers with inadequate skills to teach English in primary schools with schools in poor or rural areas most acutely affected. Evans and Clerghorn (2012) share the same sentiments that teachers in rural schools have inadequate English proficiency (Evans, 2018: 7). Copland et al., cited by Ahn (2011), Chatage (2009), Khuchah (2009) and Littlewood (2007) believe that low teacher English proficiency level and lack of confidence in their ability are potential challenges of teachers of primary schools (Copland et al., 2013: 741). These assertions imply that in the context of this study, where learners in township schools transit from African language medium of instruction to English, the challenges become more pronounced. This situation is compounded by the inability of teachers to apply different forms of interactive teaching strategies because of large or overcrowded classrooms. Ho (2003), Shamim (2012) and Wedgwood (2007) concur that large classes impede teachers from applying learner-centered approach as teachers are unable to monitor individual learners (Copland et al., 2013).

2. BACKGROUND OF THE STUDY

There is a concern that grade 4 learners in South Africa cannot read with comprehension (PIRLS: 2021). Accordingly, 130 million children in the whole world were reaching grade 4 with lack of basic reading and Maths skills (World Education Forum: 2017). PIRLS (2016) reports that the reading ability of grade 4 learners in South Africa was below the international centre point even if the assessment was relatively easier than their counterparts from other countries.

The chief executive officer of the Save the Children International posit that there is a remarkable decline in South African grade 4 learner performance in Maths as revealed by the Diagnostic Report on Quality Education (2014). The report is based on the Annual National Assessment (ANA) cycle (DBE: 2015). Recently, PIRLS (2021) has found that 81% of grade 4 learners in South Africa are unable to read for meaning (DBE: 2023). Human and Knoetze (2023) reiterate that the inability of 81% of South African grade 4 learners to read for meaning means that 8 out of 10 learners in grade 4 cannot read with understanding. With South Africa at 288 score points when tested in 11 official languages, PIRLS (2021) shows that South African grade 4 learners perform far much below the international centre point of 500 (DBE:2023). However, the highest performing language tests as revealed by the report were Afrikaans at 387 score points, and English at 382 while the lowest score points of 216 and 211 for Sepedi and Setswana respectively were realised (DBE, 2023:4). Generally, learners who were tested in English and Afrikaans performed better than the learners who were tested in African languages (DBE, 2023:4). It was also revealed from PIRLS 2021 that Limpopo province has only outperformed North West province with the former province reaching 244 score points and the latter at position number last with 232 score points (DBE, 2023:5).

In the interview with News Africa on the 27 May 2023, Professor Metcalfe reiterated that the decline in the ability of learners to read with understanding was reported in schools characterised by poor socio-economic backgrounds. In the context of this study which was conducted in Pietersburg circuit of the Limpopo province, schools that were characterised by poor socio-economic backgrounds were township schools. These are the schools that, unlike city schools that used English instruction from grade R throughout, used Sepedi in the foundation phase and transit to English medium of instruction in grade 4. In extrapolating Professor Metcalfe's view, the reading ability of learners in township schools is likely to be lower than their counterparts from the city schools. Parents think that the use of English as LoLT from the foundation phase can improve academic performance of learners. This view is supported by Kretzer and Kaschula (2019) who have found that parents prefer their children to learn through English medium as they believe this would accord them enough exposure to the language. However, Copland et al. (2013) believe that poor learner academic performance results from learners being taught by teachers with inadequate teaching skills.

RESEARCH METHODOLOGY

This study followed interpretive research paradigm as the researcher investigated the phenomenon under study from the views of the participants. The qualitative research approach was also followed in this study with interviews, document analysis and classroom observations employed as data collection techniques to understand and explore the experiences of participants in relation to the phenomenon under study. The phenomenon under investigation was the implications of learner articulation gaps during phase transition, that is, the transition from grade 3 to grade 4 in particular.

THEORETICAL FRAMEWORK

This study is fundamentally based on Kolb's (1974) experiential learning theory. Kolb (1974) is of the view that the gaining of any new knowledge is normally facilitated by experiential learning. The author postulates that learning proceeds through a four stage process which he calls experiential learning cycle. Kolb's experiential learning cycle theory takes into cognizance the importance of concrete experience, reflective observation, abstract conceptualization and active experimentation in any learning process. Kolb believes everyone goes through the four stages in the acquisition of new knowledge. He argues that the stages complement one another in the learning process and that no stage functions independently (Malatji & Singh, 2018: 97). Malatji and Signh (2018) maintain that in the process of learning, one can enter at any stage of the cycle and follow the logical sequence. Experiential learning cycle theory suggests that in the process of learning, concrete experience takes precedence, followed by observation and reflection, which will trigger the formulation of abstract conceptualization that will be tested by creating new experiences which Kolb calls concrete experimentation. In his book, with the title "Experiential learning: Experience as the source of learning and development", Kolb (1984) views experience as a source of learning and development.

Kolb (1974) introduces learning styles as integral to experiential learning cycle theory. He believes that every individual person prefers his or her learning style depending on factors such as basic individual cognitive ability, educational experience and social circumstances (Malatji & Signh, 2018: 97). Kolb further argues that learners can be categorized as divergers, assimilators, convergers and accommodators. Each category prefers to use a particular learning style during the learning process. The diagram that represents Kolb's model of sequential learning styles with each learning strategy constituted by a combination of two styles is shown later in this paper. According to Kolb's model, diverging learning style relates to watching and feeling, assimilating goes with watching and thinking, converging with thinking and doing, and lastly, accommodating is related to

doing and feeling (Malatji & Singh, 2018: 98-99). Malatji and Singh (2018) elucidate Kolb's learning styles as follows:

Divergent students

Students who use or prefer diverging learning style are sensitive and prefer to watch rather than do. These types of individuals like to collect information and in solving problems, they normally use their imagination. According to Malatji and Singh (2018), students using diverging learning style are good in situations that require idea generation. Such people prefer to work in groups, have good listening skills and prefer to get personal feedback. They are also imaginative, emotional and arts oriented. Thus, in teaching Mathematics and English as L2, cooperative learning and other forms of teaching strategies that accord learners to work in groups will facilitate learning for those learners who prefer diverging learning style.

Assimilating students

Students who prefer assimilating learning style regard ideas and concepts as more important than people. Their learning becomes swiftly effective through good and clear explanations as opposed to practical experience. They are more interested in logical theories and abstract concepts. It is important for teachers to introduce theories and concepts to the learners who prefer assimilating learning style, with good and clear explanation and give them opportunity to analyze and explore for themselves through reading (Malatji & Singh, 2018: 99).

Convergent students

Students with converging learning style are good in translating ideas and theories into practical application. They are more comfortable in dealing with technical tasks and are able to easily solve problems. Malatji and Singh (2018) are of the view that people who prefer this learning style require opportunities for experimentation of new ideas and working with practical applications. In the teaching of Mathematics and English, teachers need to give learners tasks that are technical at times, and also provide learners with opportunities to experiment with new ideas and apply them to practical situations.

Accommodating students

Malatji and Singh (2018) argue that learners who are comfortable with accommodating learning style are naturally 'hands-on'. Such people like to carry out plans drawn by others. This means that they tend to rely on others for information, rather than executing a task based on their analysis. People who prefer this kind of learning style are critical thinkers and analytic in nature. A greater proportion of the general population is comprised of people with accommodating learning style. It is therefore necessary that in teaching Mathematics and English language, the lesson needs to be as informative as possible whilst learners get the opportunity to analyze and think critically about what is taught to them. The experiential learning theory with its four stages of learning cycle together with different learning styles are modeled by Kolb (1974) in the diagram below:

DISCUSSION OF FINDINGS

The findings of the study are based on research questions, document analysis and lesson observations as presented below.

• Findings from research questions

Do you experience challenges in teaching learners in grade 4?

All participants who took part in the study indicated that they did experience challenges in grade 4 and that such challenges were complex in the grade. They all agreed that learners got overwhelmed by the drastic transition that takes place in grade 4.

What kind of challenges do you face in teaching learners in grade 4?

All participants from township primary schools cited the change of LoLT from Sepedi to English as major challenge because learners could not understand them when taught in English. Participants from city schools did mention that learners experienced no challenge in understanding English as LoLT except for learners who came from other schools that used a different language and were admitted in grade 4. The majority of participants have stated that grade 4 learners had a discipline problem. The participants attributed lack of discipline to overcrowded or large classes and poor parental involvement in the discipline of learners. Some participants claimed that some of the parents defended their children during disciplinary proceedings.

The other challenge the participant cited was inability of the grade 4 learners to differentiate among teachers and subjects and were therefore mixing subjects in books. Many participants said that learners in grade 4 could not read and write. The participants thought that foundation phase teachers did not do enough to teach learners the reading and writing skills and that learners came to grade 4 unprepared for the class. This view is consistent with PIRLS report which indicates that the reading ability of grade 4 learners in South Africa is below the international centre point even when the learners were assessed through a relatively easier assessment criterion as compared to their counterparts from other countries (PIRLS, 2016). The 2016 PIRLS report has also shown a remarkable decline in South African grade 4 learner performance in Maths as revealed by the Diagnostic Report on Quality Education (2014). According to 2021 PIRLS report, 81% of grade 4 learners in South Africa cannot read with comprehension.

Some participants suggested that the time allocated for languages, particularly English and Mathematics, should be increased as they argued that the daily period does not suffice for the activities required for the two subjects. Almost all participants indicated that grade 4 learners were overwhelmed by the transition they face in the grade and suggested that something must be done about it.

How can the challenges faced by learners with articulation gaps during phase transition be addressed?

This study revealed that the allocation of experienced and qualified teachers, who also know the HL of learners where possible, would improve performance in grade 4. Copland et al., (2013), Ahn (2011), Chatage (2009), Khuchah (2009) and Littlewood (2007) are of the view that low teacher English proficiency level and lack of confidence in their ability are potential challenges of teachers of primary schools (Copland et al., 2013: 741). According to the participants in this study, the aim of allocating teachers who know the HL of learners is to ensure that teachers would be able to explain the concept to the learners who do not understand it when English is used as LoLT. This study has revealed that schools took some measures to address the reading and writing challenges learners had in grade 4. It came out from the study that schools conducted extra lessons aimed at improving the reading and writing skills of learners and for the improvement in Mathematics only as the target subjects. The study has however revealed that some grade 4 teachers did not know how to teach learners the reading skills. Researchers such as Boykin and Noguera (2011) warned that phonics-based reading programmes, smart boards and computer-based, learning programmes and scripted curricular, as common teaching strategies, are what they term 'quick-fix' reforms that promise much but yield less results. In an attempt to address the problem of reading faced by South African learners, National Reading Coalition (NRC) pronounces a campaign to encourage young children to read more African language stories as stated by Dr Govender in an interview with eNCA conducted on the 19 of July 2022.

It was also found in the study that the time allocated for the teaching of languages and Maths was not sufficient, even though they were offered on a daily basis as per CAPS (2011) requirements. The participants in the study thought that if the contact time for English and Mathematics was sufficient, it would afford them the opportunity to teach all the required skills as per CAPS document. This study has however revealed that time allocation for both Maths and English is greater than the time allocated for other subjects, as shown in the CAPS document.

The study has also revealed that teachers were not content with teacher-pupil ratio of 1:40 as recommended by the South African Department of Basic Education (DoE, 2010). Cortes, Moussa and Weinstein (2012: 25), and Marais (2016: 2) posit that overcrowded classrooms are the common factors that lead to didactic neglect, which according to them, refers to inability of the teachers to pay enough attention to individual learners during the lesson (West & Meier, 2020). According to Vander Ark (2002: 57), smaller classes promote the use of differentiated instruction, improved classroom management and teacher morale (West & Meier, 2020). This study has found that smaller classes provide allowance for higher-quality learning opportunities, development of teacher-learner relationships, more individualized and learner-centric instruction, increased teacher morale, and less learner misbehaviour (Hattie, 2005: 387; Chingos, 2013: 413 in Kohler, 2020).

According to the participants in this study, the ratio of 1:40 needs to be reviewed especially in grade 4 as a transitional class. When classes are small, the academic performance of learners improves (West & Meier, 2020). It is generally argued that the simplest and effective way to improve learner performance is through the reduction of class size (Kohler, 2020). The participants in the study argued that the departmental teacher-pupil ratio of 1:40 does not accord them an opportunity to apply different types of teaching methods and to have one-on-one interaction with learners. The lowest teacher-pupil ratio suggested by the participants was 1:20, the average ratio was 1:30 while the highest suggested ratio was 1:35. However, Barbara et al., (2000: 146-147) concluded that smaller classes of learners below 20 are able to obtain better academic performance (West & Meier, 2020). No participant in the study supported a teacher-pupil ratio of 1:40 as prescribed by the Limpopo Department of Basic Education. Researchers such as Meier and Marais (2012: 117) contend that the teacher-pupil ratio above 1:25 is unacceptable (West & Meier, 2020).

Regarding the transition from class teaching applied in the foundation phase to subject teaching in grade 4, coupled with an increase in the number of subjects, the study found that teachers used strategies such as the use of colour codes assigned to particular subjects, allocating best teachers in grade 4 and using name tags with colours associated with particular subjects. The use of different colours for subjects were intended to mitigate the challenge of mixing subjects in books.

This study has further revealed that teachers in city based schools encouraged learners to use English as a medium of communication even when they were outside of their classrooms. This idea is consistent with Krashen's (1981) view that L2 acquisition is spontaneously taking place when learners communicate informally in the target language. Colombo (2012:17) agrees that the language that is used on the playgrounds, at hallways and during lunch where there is no formal teaching and learning is acquired quite quickly (Colombo, 2012:6). *Which teaching methods are most appropriate in teaching learners with articulation gaps during phase transition?*

The study has found that teachers new that interactive teaching methods would yield better results in teaching learners with articulation gaps. Participants mentioned the use of charts pasted on walls, question and answer method and the drill method as strategies that promote interactions between learners and teachers. However, this study has revealed that the majority of teachers, particularly in township schools could not apply interactive teaching strategies with minimal application of such approaches by teachers in the city schools. This

was because of large and overcrowded grade 4 classes in city schools and township schools respectively such that only a few learners got the opportunity to interact with teachers.

Senthamarai (2018: 36) posits that interactive teaching first involves facilitator and learners. Senthamarai (2018) is of the view that through interactive teaching, learners are among others, encouraged to participate in the learning process. According to Senthamaria, during interactive teaching, questions are used to stimulate discussions, transferable and independent learning are inculcated among learners, and that teaching aids are used to gain and retain attention of learners during the learning process. Knapen (2018) concurs that interactive teaching has to do with instruction that causes learners to be actively involved with their learning process. In Knapen's view, interactive teaching approach involves teacher-student interaction, student-student interaction, the use of audio, visuals, video, and hands-on demonstrations and exercises actively performed by learners. According to Orekhov and Orekhovu (2015), modern education system is not solely about the transfer of body of knowledge by the teachers to the learners but should be designed in such a way that it contributes to the development of cognitive activity, self-reliance, creativity, productive thinking among learners in the classroom. Orekhov VI and Orekhovu (2015) postulate that teachers, in addition to their ability to design a lesson which promotes interactive teaching and learning method, they need to know how to create a pedagogical environment which supports interactive learning. Some of the interactive learning strategies include, but are not limited to the creation of learning stations, gallery walk, gamification, peer instruction, cooperative learning, jigsaw, inquiry-based learning, project-based learning, problem based learning, et cetera.

The role of Cooperative learning to address learner articulation gap

Cooperative learning is defined as student-centered, instructor-facilitated instructional strategy whereby small group of students is responsible for its own learning and the learning of the individual members of the group (Lam, 2013: 1). According to Slavin (1996), a key element of cooperative learning is group or team work and team goals (Lam, 2013: 1). Johnson and Johnson (1999) concur that cooperative learning is realized when learners jointly work together to accomplish shared learning goals (Johnson, Johnson & Stanne, 2000: 2). Lam (2013: 1) cites Kagan (1989) who indicates that the role of the teacher in cooperative learning is to create social interaction structures and designs learning activities for the learners. This accords students with an opportunity to interact with each other in the group to acquire and practice the elements of the subject matter as Lam (2013: 1) puts it.

Johnson, Johnson and Stanne (2000) postulate that cooperative learning approach is widely used in education centers because it bears three important qualities. The first quality is based on theory, second is that it is validated by research, and thirdly, that cooperative learning approach is operationalized into clear procedures to be followed by teachers (Johnson, Johnson & Stanne, 2000: 2). Almuslimi (2018) categorically states the roles of teachers and learners when applying cooperative learning strategy. Starting with teacher roles, Almuslimi (2018: 45) mentions 16 responsibilities of the teacher for a successful cooperative learning style. The first five roles are for the teacher to determine the instructional objectives, decide on the group size, divides students into groups, prepares the classroom, and to plan the educational materials that will foster self-dependence (Almuslimi, 2018: 45). Other roles of the teacher as mentioned by Almuslimi (2018: 46) include assigning of roles to group members to ensure dependence, ensures cooperation among groups, determines required learner conducts to achieve lesson goals, and to evaluate the performance and learning of individual groups.

The role of Jigsaw to address learner Articulation Gap

Jigsaw learning approach helps students to logically conduct scientific research and to capacitate them on how to manage continuous learning (Chung, 2014: 166). According to Chung (2014), jigsaw is one of the cooperative learning techniques. Foldnes (2016) and Zhang et al., (2015) view jigsaw learning as a strategy that is used to promote cooperative learning (Susanti & Subekti, 2020: 103). Slavin (2011) describes jigsaw grouping as one type of cooperative learning in which teachers divide learners into small groups to work together and assist one another to learn academic content (Chung, 2014: 167). Abed, Sameer, Kasim and Otman (2019) reiterate that jigsaw is a kind of cooperative learning strategy, but argue that each individual learner in a group needs a piece of information related to the task given to the group. This means that for cooperative learning approach to be optimally effective, no learner is expected to be passive, but all members of the group must be actively engaged on the assignment.

Aydin and Biyikli (2017) state the importance of monitoring the effectiveness of the jigsaw learning strategy by making sure that all team members in each group are fully engaged (Abed, Sameer, Kasim & Otman, 2019: 2). According to Sulisworo, Ishafit and Firdausy (2016), when applying jigsaw strategy, team leaders from groups need to rotate from one team to the other to meet learners of the new teams, to learn the same content they dealt with in their original groups and bring feedback to the teams they are leading (Abed, Sameer, Kasim & Otman, 2019: 2). According to Meng (2010), every learner in individual groups is assigned a piece of material to work on, and from each group, learners who study the same part of material come together to form 'expert group' to discuss and internalize the material. Expert group dismantles for members to go back to their original groups, each member with rich information of the piece of work he or she is assigned to do. This means that going back to the original groups, each member of the group is an expert in a particular piece of work. Then all

group members report back to the original group as experts to cover the whole material that has to be learnt. At the end of the assignment, all members in each group are assessed on the whole material (Meng, 2010: 502)

The role of Gamification to address learner articulation gaps

Gamification is defined by Kapp (2012) as the activity by which game-based mechanics, aesthetics and game thinking are used to engage learners, motivate action, promote learning and solve problems. Giang (2013) cites Zichermann who believes that game mechanics improves the ability to learn new skills by 40% (Kiryakova, Angelova & Yordanova,). Giang (2013) views gamification as a teaching strategy in which game-like elements are included in learning to increase student engagement and learning. The author asserts that gamification promotes curiosity and experimentation, encourages a positive attitude to failure and supports individualized learning according to the ability and pace of the learner. According to Zainuddin, Kai Wah Chu, Shujahat and Perera (2020), gamification improves a student's sense of autonomy, competence and relatedness culminating from intrinsic motivation. Csikszentmihalyi (2017) believes that gamification promotes active engagement and effective learning (Zainuddin et al., 2020). The authors argue that gamified learning enforces scaffolding roles and recognizes individualized learning and social interaction.

Therefore, for the purpose of this study, interactive teaching and learning approach becomes one of the key methods English teachers need to consider when it comes to the teaching of learners with articulation gaps. This approach is not only good for grade 4, but also in the foundation phase and other grades beyond grade 4 as well. Knapen (2018) reiterates that student-student interactions and teacher-student interactions are forms of interactive teaching approach with bilingualism playing a pivotal role when it comes to the teaching of English as second language. This point of view is critical in this study because in the event that learners do not understand the concept to be acquired in English as medium of instruction, the teacher can use the HL of the learner to clarify. The same strategy can apply if learners are divided into groups with learners having high levels of proficiency in English and the HL are evenly distributed across the groups. Such learners would be able to clarify where others do not understand the concept in English in the individual group.

CONCLUSION

This study has revealed that grade 4 classes in the Pietersburg circuit schools are either large or overcrowded. This, therefore, implies that it becomes difficult for teachers to apply Kolb's (1974) Experiential Learning Theory and interactive teaching approaches because of constrained learning space. Kolb's experiential cycle comprises divergent students, assimilating students, convergent students and accommodating students that require distinctive opportunities which large or overcrowded classrooms cannot provide. The same applies to interactive teaching strategies such as the jigsaw, peer instruction, group discussions and gamification that require enough space. Therefore, the researcher concludes that Kolb's Experiential Learning Theory is not applicable in grade 4 of the Pietersburg circuit and that teachers are denied the opportunity to apply differentiated teaching strategies because of large or overcrowded classrooms.

RECOMMENDATIONS

The recommendations as presented below are intended to address research questions and accomplish research objectives. These recommendations are basically informed by the findings of this study. However, the recommendations as presented below are in the main, based on the responses of the participants during interviews and classroom observations conducted by the researcher. The recommendations are aligned to Kolb's Experiential Learning Theory, and to the promotion of interactive teaching approach. The following recommendations are suggested:

- Reduction of class size and review of teacher-pupil ratio model to create a positive learning environment that promotes and supports interactive teaching and learning.
- Allocation of most experienced and qualified teachers to grade 4 as a transitional class.
- Training grade 4 teachers on the application of interactive teaching approaches such as gallery walk, peer instruction, jigsaw, gamification and other forms of cooperative learning methods.
- Effective monitoring and support on the implementation of the recommendations.

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