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District Officials' Assumptions about Teacher Learning and Change: Hindering Factors to Curriculum Reform Implementation in South Africa

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Abstract

This paper intends to shed light on the issue of non-implementation of new curriculum reforms by exploring how district officials' understandings of teacher learning and change process can shape the outcomes of the curriculum implementation. This will be done by examining the officials' assumptions about teacher learning and change, their source and impact in the reform implementation process in a district in South Africa. The paper argues that district officials' assumptions influence the nature of the support they give teachers, for they become the lenses for viewing and engaging with teachers. These assumptions, the paper shows, also contribute to shaping the reform implementation or non-implementation process. In conclusion, it is recommended that officials enhance their communication channels and work rapport with teachers as these will facilitate their understanding of the various issues confronting teaching and impacting reform implementation.

Keywords: Teacher learning, Teacher change, New reforms, Reform implementation, Professional development, Assumptions

1. Introduction

In recent years, exploration of the unsuccessful implementation of new curriculum reforms has enjoyed considerable attention. The literature draws attention to a range of issues related to the importance of teachers' beliefs, the learning and understanding of their work, and the resultant change process. Recent work on development contexts highlights external and internal cultural, political, economic and social issues (Chisholm and Leyendecker, 2008; Mohammed & Harlech-Jones, 2008; Tabulawa, 2003; Jansen, 2002). This paper intends to shed further light on these issues by exploring the reasons for the non-implementation of the Revised National Curriculum Statement by district officials and teachers in one school district in South Africa. By means of a focused analysis of these reasons it attempts to indicate how district officials' understandings of teacher learning and change process can shape the outcomes of the curriculum implementation.

The paper draws attention to a relatively unexplored area in South Africa, the landscape of and the role played by district officials' assumptions about teacher learning and changes. Whereas Jansen (2002) argues that the non-implementation of reforms results from policy-making and planning that does not accommodate and clearly delineate the policy implementation plan, Tabulawa (2003) looks at cultural clashes, and Chisholm and Leyendecker (2008) examine the national and local relationships in explaining non-change. Mohammed and Harlech-Jones (2008), by contrast, explore the reasons for sub-optimal implementation, including planners who do not consult with those who have to implement their plans and who ignore research that has a bearing on their projects. This paper aims to expand on this work by examining the contextual interactions and understandings that give rise to the non-implementation of curriculum reforms.

By considering district officials' assumptions about teacher learning and change that compound the challenge of non-implementation of new curriculum reforms, this paper anticipates to contribute to the ongoing debate. It focuses on (1) the school district officials' assumptions about teacher learning and change, and their sources; and (2) the impact of these assumptions on teacher learning and change (Note) during the implementation of the new curriculum reform. Understanding these issues is critical because district officials play a fundamental role in the success of local implementation of new mandates and reforms. Among the essential roles they play is to ensure that teachers at the local level comprehend the new policies through providing a vision, interpretation, focus, and policy coordination (Corcoran, Fuhrman, and Belcher, 2001). Furthermore, they are vital institutional actors in educational reforms (Rorrer, Skrla and Scheurich, 2008), and the major players in capacity building for the teachers. Though this paper reports on one school district only, the findings speak to a myriad of issues contributing to the country's curriculum reform challenges. They contribute to an understanding of teachers' professional development and the new curriculum reforms by identifying some of the elements responsible for the failure or the slow progress in reforming South African education, and also by noting that teachers are not the only source to be blamed.

The paper begins by presenting a literature review that forms the basis for the analysis of the interviews. This is followed by a brief overview of the recent curriculum reforms in South Africa. Next, we provide the context of the study which sets the background critical for understanding the discussion of the paper. This part is followed by the methodology section and the findings that emerged from the data analysis. In discussing these findings the paper argues that some district officials hold assumptions that negatively impact on teacher learning and change and the implementation of curriculum reforms. These become lenses for viewing, and a guiding mechanism in engaging with teachers, thereby influencing the nature of the support district officials eventually give them. Lastly, conclusions and recommendations are drawn from the study.

2. Theoretical Framework

This paper is premised on five key ideas, *firstly,* the imperative of ongoing teacher learning and understanding of new curriculum reforms, since efforts to improve the education system depend on their ability to translate them into classroom practice (Smith & Desimone, 2003; Spillane & Callahan, 2000). This learning and understanding has commonly been facilitated through teacher professional development, viewed as the key vehicle in the curriculum reform process. As also shown in other professions (nursing, medicine, and police) ongoing professional development is essential in enhancing individual's potential. Teacher professional development, as Knight (2002: p.230) asserts, "is never ending, like a religious struggle to escape sin." He notes that professional development is essential "if education is to be good enough to enable national stock of human capital to be continually renewed and becomes one prerequisite for national competitiveness in times when wealth follows knowing (p: 230)." Nonetheless, the process of assisting teachers to understand the new reforms is not a "walk in the park" as it is clouded with numerous challenging complexities.

Secondly, research shows that teacher learning and change (Note 2) are the two most complex and challenging components of teacher development (Sikes, 1992; Fullan, 1982) that usually influence the undulation of most new educational reforms. Some of the reasons why teacher learning and change has been difficult or very slow in most cases have also been highlighted (Hargreaves, 2005; Sikes, 1992; Fullan, 1982). Hargreaves (2005) asserts that when educational change occurs or is attempted, teachers do not all respond in the same way. Hargreaves attributes this difference in response to several factors including personal orientation to change and teachers' gender. However, the most common and significant influences as he notes, are teachers' age as well as their stage of career. This different response is also highlighted by Sikes (1992) who argues that these influences include not wanting to risk changing their own practice, which is rooted in practical knowledge that spans the course of their careers. Sikes continues that it becomes especially difficult if this knowledge has proven workable in what teachers perceive as satisfying ways. Similar observation about how some teachers "resist change" are also made by Zimmerman (2006), who found that most of the teachers who were likely to resist changes were veteran teachers. Zimmerman contends that habit is a related barrier to teacher changing their practice, since it is easier to continue with the old ways of doing things than learning or developing new skills. Nevertheless, Dent and Goldberg (1999) argue against the belief that people resist change and

view it as unproductive within organizations. They argue that it is time that people dispense with the 'phrase resistance to change' and find more useful and appropriate models for describing what the phrase has come to mean. Above all, learning as Lemke (2001) declares, whether of a new phenomena or changing one's mind, is not simply a matter of rational decision-making but a social process with social consequences.

The socio-cultural perspective views learning and change to occur in the context of participation in the real world. It asserts that learning is not only cognitive, but also contextually situated and intrinsic to the context within which, and with which the individual interacts (Jurasaite-Harbison and Rex, 2010). Supporting this idea are Rogan and Grayson (2003) who assert that the process of change is context-specific and usually plays out differently in each and every school. Similar observations are also highlighted by Bantwini (2010) who found that some South African teachers' prior knowledge and assumptions about reforms and their daily challenges play a critical role in informing their learning and change process. Bantwini contends that teachers attach their meanings to the new reforms that result in limited or non-implementation of the new curriculum. Accordingly, teacher development processes as Pennington (1995) states, is meta-stable systems of context-interactive change involving a continual cycle of innovative behavior and adjustment to circumstances. Pennington argues that "teacher change and development require awareness of the need for change – or at least of the desirability of experimentation – and of available alternatives (Pennington, 1995:705)." She contends that a teacher's awareness and knowledge of alternatives is colored by the teacher's experience and philosophy of teaching, which act as a psychological barrier, frame, or selective filtering mechanism. Knight (2002) proposes that professional development should therefore enhance collective capability, since it is a social matter and not merely an individual one.

Thirdly, as Clarke and Hollingsworth (2002:947) argue, "If we are to facilitate the professional development of teachers, we must understand the process by which teachers grow professionally and the conditions that support and promote that growth." The process of teacher growth is often made complicated by the diverse needs that individual teachers possess. These needs necessitate teachers' sustained and ongoing professional development. In order to help teachers change their practice, Borko and Putnam (1995) note that we must help them to expand, enrich, and elaborate their knowledge systems. However, this on its own is not sufficient; we need to consider that teachers working in developing or underdeveloped countries face challenges that are different from those of teachers working in developed countries (Johnson, Monk, and Hodges, 2000). Bantwini's (2010) study is one example that shows some difficulties faced by teachers from underdeveloped countries. These teachers have different perspectives about their work and curriculum reforms and have a different set of professional developmental needs from teachers in developed countries (Johnson et al., 2000). Also, teachers' levels of professionalism play a critical role in their learning and change; Van Driel *et al.* (2001) mention that experienced teachers develop an integrated set of knowledge and beliefs that are consistent with how they act in practice. The way learning occurs as Knight (2002) maintains, also vary with the level of interaction involved; and therefore attempts to bring about the desired change needs to be appropriate to

the type of interaction.

Fourthly, the complexity of teacher learning and change demands an examination of all the issues that potentially could have an impact on teachers' understanding and mediation of curriculum reforms, including district officials' theories about teacher learning and change. According to Spillane (2002), district officials' theories about teacher learning merit attention when it comes to classroom implementation of new reforms. These theories of teacher learning and instructional change, as Spillane (2002:409) notes, "often differ dramatically among district officials: they fall into various categories such as behaviorist, situated, and cognitive." The need to understand district officials' assumptions about teacher learning and change is also driven by the powerful role they play in the local implementation of instructional reforms, which includes ensuring quality teaching and learning, effective assessment, increased learner performance and achievement, to mention but a few (Anderson, 2003; Iver, Abele & Elizabeth, 2003), and hence the need for the reported study.

Fifthly, despite the unanimous view on the significance of teacher professional development, Webster-Wright (2009) contends that many professional development (PD) experiences across professions still seem predicated on the assumption that learning consists of discrete finite episodes with a beginning and end. This has led to an increasing critique of PD across national and professional boundaries with many calls to re-evaluate its practice (Webster-Wright, 2009). She highlights the challenges with the conceptualization of PD and furthers argues that the experiences of learning especially continuing professional learning are still poorly understood. Based on a literature review Webster-Wright conducted, she argues that it is through challenging implicit assumptions and questioning the taken for granted practices that professional learning can lead to changes in practice. This paper also intends to reveal some of these assumptions about teacher learning and practices and discuss their shortcomings in the implementation process of curriculum reforms.

3. Recent Curriculum Reforms in South Africa

Since the dawn of the democratic era (1994), the South African government has engaged in various educational changes intended to redress the social injustices committed by the Apartheid regime, which used education as a tool to perpetuate its discriminatory agenda. Three curriculum changes have occurred since, initiated and facilitated by the new government of unity. Teachers, just like the general public, were invited to make comments on the drafts. However, most of them, just like the majority of South Africans hardly participate in these processes due to communication challenges. Moreover, some scholars viewed these education reforms as "political symbols" marking the shift from the different epochs and cautioned about their later impact, since they ignored the socio and cultural realities in the country (Jansen, 2002).

The first wave of the education reforms focused on the cleansing of the syllabi from the most racist language and the most controversial and outdated content (Jansen, 1998; Chisholm, 2005). This process set a foundation for a single national core syllabus with curriculum decision made in a participatory and representative manner.

This process was followed by the launch of Curriculum 2005 (C2005) in March 1997. Curriculum 2005, driven by the principles of Outcomes-Based Education (OBE), was adopted from various countries like Australia, Canada, New Zealand, and in certain states in the USA. It was launched with the hope of addressing the educational disparities resulting from the previous education system that had divided the country's citizenry according to their racial backgrounds. It was undergirded by social values such as peace, prosperity, non-sexism, non-racialism and democracy, which are also enshrined in the South African Constitution (1996). Fiske and Ladd (2004) describe OBE as an instructional method in which curriculum planners define the general knowledge, skills, and values that learners should acquire. Curriculum 2005 was characterized by a paradigm shift from content-based teaching and learning to outcomes based one (Cross, Mungadi & Rouhani, 2002: p.178). The curriculum was also underpinned by the integration of education and training and forms the foundation of the new South African curriculum.

Due to challenges in the classroom implementation of C2005, the then Minister of Education, Professor Kader Asmal, appointed a team in 2000 to review the structure and design of the curriculum (Chisholm, 2005; Department of Education, 2000). The Review Committee recommended that the curriculum be strengthened by streamlining its design features, simplifying its language, aligning curriculum and assessment, and improving teacher orientation and training, learner support materials and provincial support (DoE, 2000). Based on the recommendations, C2005 was revised by a task team appointed by the education minister and the Revised National Curriculum Statement (RNCS) was launched in 2002, marking a third wave.

RNCS builds on the vision and values of the South African Constitution and keeps intact the principles, purposes and thrust of Curriculum 2005 and affirms the commitment to Outcomes-Based Education (p.4). It is characterized by integration of knowledge, skills and values that occurs within and across learning areas, balanced with conceptual progression from grade to grade within a learning area (Department of Education, 2000). It has three curriculum design features; the critical and developmental outcomes, learning outcomes and assessment standards. The assessment standards in RNCS describe the level at which learners should achieve and are grade specific.

4. The context of the study

This paper reports on district officials' assumptions about primary school teacher learning and change during the process of implementation of the Revised National Curriculum Statement in a large school district in the Eastern Cape Province (EC) in 2006. The Eastern Cape is the second largest province in South Africa and is one of the poorest provinces in the country, with a poverty rate of 67.4% (Cosser, Akoojee, Annecke, Arends, Badroodien, Bhorat, Kraak, Kruss, Letseka, Mabizela, Majeke, McGrath and Paterson 2004). Its *per capita* GDP is less than half of the national average, lower than all the other provinces except one, Limpopo Province (Lemon, 2004: 274). The high poverty rate has been attributed to the unemployment rate, which is about 54.6%. This poverty status is the result of the country's history having been marked by apartheid policies, which located the majority of the black

population in the Ciskei and Transkei homelands - rural areas with a relatively low level of urbanization. According to the socio-economic and demographic profile of the Eastern Cape Department of Social Development, the EC is demographically dominated by Africans, who comprise 87.5% of the population, followed by Coloreds, at 7.4% (Cosser, *et al*., 2004).

After 1994 school districts became a new feature of the decentralization of the management of education tasked with the responsibility of ensuring the day-to-day smooth operation of the schools. Currently, the province and its school districts and schools are still confronted with several challenges, ranging from a lack of suitable physical infrastructure for learning to a lack of teaching and learning resources that will enhance the implementation of new reforms in classrooms, teachers with inadequate science content knowledge and pedagogical content knowledge, to low learner achievement scores (Lemon, 2004; Cosser *et al.*, 2004). The vast majority of schools in this province are public schools (government-funded) with school-based governance structures and a financing system increasingly oriented towards site-based management (Lemon, 2004). The nature of teacher training provided under the apartheid regime contributed to the challenges faced by teachers (including inadequate knowledge of Science). In describing the plight of the province Lemon (2004) notes that EC received a particularly complicated inheritance from the apartheid regime, with complex administrative restructuring aggravated by low staff caliber. Because of these setbacks the province has been performing badly and ranks low in education achievement (Cosser *et al*., 2004).

5. Methodology

The data used in this paper was part of a large study that focused on the relationship between professional development and teachers' classroom needs. The participants were primary school science education teachers (grades 1-6) from 39 schools and district officials. This study was undertaken four years after the launch of RNCS – by which stage most districts in the province had already introduced teachers from grades 1 to 6 to the new curriculum. Teachers from these grades were expected to have started implementing the curriculum in their classrooms during fieldwork. The schools where these teachers came from were sampled with the assistance of district officials who are knowledgeable about them. The criteria was that the recommended schools should be in a certainly proximity in order to avoid researchers from travelling long distances as most of the rural schools are far apart from each other; whereas the sampled teachers from each grade level were required to possess varied teaching experiences. Consequently, about 90% of the teachers who completed the questionnaire have been teaching for more than five years while 6% have taught for less than five years; 6% did not indicate their teaching experience. These were all female teachers (although we did not intend to have the same gender), whose ages ranged from 30 to more than 60 years; and most of them (63%) did not major in Science education. The teachers who taught Science without having majored in claimed to have been asked by their principals to help out while the school waited for a Science teacher. Teachers noted that they had been waiting five to eight years, still hoping to have qualified Science teachers. Moreover, most of these teachers were teaching more than two subjects at different grade and phase levels, which left them overloaded, finding it difficult to cope with their work.

A questionnaire and interviews were used to gather data for the study. These instruments helped the research team to develop a comprehensive understanding of the issues under investigation. The questionnaire used a simple descriptive approach in order to describe the characteristics of the sample at a single point in time (Mertens, 1998). It was also used to identify the teachers to be interviewed. For the purpose of this paper, results from the questionnaire received little attention and only the demographic information is used. Semi-structured in-depth interviews lasting between 50-60 minutes were conducted with fourteen volunteer teachers from schools that completed the questionnaire. The interviews were tape recorded with teachers' permission and later transcribed verbatim. The criterion for approaching these teachers was based on teaching experience in the district, age, and willingness to participate in the interview. All these teachers were interviewed before the district officials and the logic behind interviewing the district officials last was that we wanted to obtain the teachers' perspectives on their professional development in the district – considered a suitable way of filling the gaps in information regarding teachers' professional development in the district. It was also meant to elicit responses regarding some of the concerns highlighted by teachers about their professional development and to triangulate some of the claims that teachers might have made during the interviews with those of district officials. Miller and Crabtree (1999) state that "depth interviews are a powerful qualitative research tool when the focus of inquiry is narrow; the respondents represent a clearly defined and homogeneous bounded unit with an already known context; the respondents are familiar and comfortable with the interview as a means of communication, and the goal is to generate themes and narratives" (p. 90).

However, this paper focuses on two key issues: the district officials' assumptions about teacher learning and change and their sources, as well as the impact of these assumptions on teacher learning and change during a new reform process. It focuses on four members of the district office, selected based on their relevance and experience about the district issues, crucial for the study. One of these officials was a Curriculum Advisor for the Natural Sciences at the Intermediate Phase level (grades 4-6), one a Curriculum Advisor for Mathematics at the Intermediate Phase, one for the Social Sciences at the Intermediate Phase, and one for the Foundation Phase (Kindergarten to grade 3). The Natural Sciences Curriculum Advisor had been working at the Intermediate Phase level for three years. Prior to this, he was a high school teacher. Throughout his teaching career he taught Agriculture. As a Science Subject Advisor, he was also an Agriculture Science Subject Advisor. The Mathematics Curriculum Advisor had been a Subject Advisor for more than 15 years in the same district. During weekends he worked as part-time lecturer at one of the local universities, teaching mathematics to in-service teachers. The Social Science Curriculum Advisor was a former teacher education lecturer who joined the Curriculum section after the college at which she had taught was closed down, and she had filled the position for three years by the time of the study. The Foundation Phase level Curriculum Advisor had been in that position for three years. She was also a former pre-service lecturer at a local College of Education. When the college was closed as part of the restructuring of colleges and universities in the country, she became a Foundation Phase Subject Advisor.

These four members of the district office were responsible for the professional development of teachers, which involved planning, conducting in-service workshops, school monitoring and assessment in the district, as well as helping teachers with various issues pertaining to the learning areas they taught and with professional growth. In addition, the Deputy Director Chief Education Specialist in the curriculum division was also interviewed. She had been the Deputy Director Chief Education Specialist in the General Education and Training Band in the district curriculum division for three years and was coordinating the Foundation Phase through the Senior Phase programs, concurrently undertaking school monitoring and continuous assessment and providing support. The Curriculum Advisors from the Foundation, the Intermediate and the Senior Phases reported directly to her, while she reported directly to the Director of the Curriculum Division. She was previously a teacher for eighteen years, and was a Subject Advisor before being promoted to her current position.

These district officials were each interviewed for 50-80 minutes using semi-structured interviews. Boyce and Neale (2006) argue that in-depth interviews are useful when you want detailed information about a person's thoughts and behavior or want to explore new issues in depth. Interviews offer, as Hargreaves (2005) contends, an approach that gives access to personal experiences, some flexibility in responding to, and probing of people's account of it and an initial opportunity to identify patterns of similarity and experiences. Supporting these notions about interviews is McNamara (1999) who states that interviews are particularly useful for getting the story behind a participant's experiences as they can provide in-depth information around a topic. The district officials' interviews were tape-recorded with their permission and later transcribed verbatim.

The data coding and analysis followed an iterative process, as recommended by Miles and Huberman (1994). They describe various steps that include reading and affixing codes to the transcript notes while noting reflections or other remarks in the margins; sorting and sifting through these materials to identify similar phrases, relationships between variables, patterns, themes, distinct differences between subgroups and common sequences; isolating these patterns and processes, commonalities and differences; while gradually elaborating a small set of generalizations that cover the consistencies and; confronting those generalizations with a formalized body of knowledge in the form of constructs (p. 9). During this process, the research questions were used to inform the emerging issues from the data, which are discussed below. The authors acknowledge that since this study was undertaken in one school district this may not warrant generalization about schools districts in the South African context. However, we believe that the paper has significant lessons and recommendations for those who deal with teachers, policy makers and the field of education in general.

Pseudonyms are used throughout the paper to protect the identity of the school district, district officials, the schools and the teachers.

6. Findings

6.1 Teachers resist change and learning

Interviews with the district officials highlighted some of the assumptions they had about

teacher learning and change in their school district. Evident from the conversations was that their (district officials) opinions were crucial to planning the professional development of teachers. One of the common beliefs was that teachers in their districts were resisting learning new phenomena and were resisting change. In this case the new phenomenon was the newly Revised National Curriculum Statement underpinned by the principles of Outcomes-Based Education, which is an achievement-oriented activity-based and student-centered education process. The change that was expected from the teachers was a shift from content-based teaching and learning to an outcome-based one, from fundamental pedagogic to progressive learner teaching and learning strategies (Cross, Mungadi and Rouhani, 2002). Teachers' resistance to learning and change was perceived as a major issue in the challenges the district officials were experiencing with teachers when it came to Curriculum 2005 and the Revised National Curriculum Statement. According to the district officials, teachers resisted anything that would challenge their comfort zone and that suggested thinking along other lines. Mr. McIntosh, a Natural Science Intermediate Phase Curriculum Advisor, noted that the majority of teachers in the district would pretend to want to learn, while they were actually not interested in doing so. In his opinion, learning was measured by the classroom implementation of the information, and not merely by accepting what teachers tell you:

> You know the tendency is that in some schools, okay…. with some teachers let me put it that way. You know I have been long involved with teacher training especially in the lower levels. You know, there you have a group of teachers who are still young, young and active, some are old teachers, especially those who are about to retire, they resist change and also the young ones resist change. Everybody resists change and the people like to be in their comfort zone, they don't like this…., and in most of my workshops I try and expose them to this that …, the tendency is that… even myself that there are changes now and then it's human, but here we are employed, we have a service to do and we are using tax payers' money. I try to motivate them as to why we have to serve such changes and so on. But I say, it's human to resist change even if change is for the better, they would keep on resisting (McIntosh, 2006).

According to McIntosh both novices and veteran teachers alike were resisting change. The change referred to was the implementation in the classrooms of what the teachers had learnt in workshops, in this case, the classroom implementation of RNCS. In trying to understand the origins of teacher resistance that Mr. McIntosh was concerned about, further probing led to another revelation:

> Okay, eh…., generally teachers take time to learn, okay, as I have said, they resist change, but some really do learn, do accept change, but generally speaking the majority do not want to learn. They do not want to change and in most of the cases they appear to want to learn. But now learning is a process, they listen to you, yes…. they take in what you are telling them…. whatever, it does not mean learning has taken place.

From the excerpt above it appears that Mr. McIntosh must have realized something regarding

his earlier generalization about teachers and the learning process and then decided to acknowledge those few teachers who did learn something from their workshops on professional development. Nonetheless, it was evident that the notion that teachers were resistant towards change was very striking for him because he continuously emphasized it, using such terms as “the majority”. What was also evident was that he courted a certain philosophy about how the learning and change process should proceed. He viewed learning not merely as the attentive listening that teachers usually portray during a workshop but as a process that takes time and is not merely a once-off event. He believed that the evidence of teacher learning is prevalent in the actual implementation of what teachers have learned during workshops. He believed that this is how one would/should measure that teachers have learned something from a workshop. During the interview he mentioned that at that stage there was a lack of evidence of the implementation of the Revised National Curriculum Statement in schools, which he believed indicated teachers’ resistance towards change.

6.2 Teachers perspectives regarding reform classroom implementation

It is important to ask where the district officials’ notion of teacher resistance originates. Also, is such resistance a common behavior, or was it triggered by something else? Highlighting some of the teachers’ perspectives that emerged during the interviews would help shed light on the issue. Several teachers mentioned during interviews with them that they did not understand the Revised National Curriculum Statement.

> …sir what is discouraging with this RNCS is that I do not understand it… it’s not that there is anything wrong with it, but the problem is that I am still not quite clear, you see. I need more time in order to understand… (Teacher 1)

A number of other reasons were cited, including the short time frames in their orientation towards the RNCS. This was accompanied by a lack of classroom follow-up and support from their district officials.

> Subject advisors should visit our schools. We need to know what they expect of us. Even with classroom visits there should be monitoring. I am not talking about one visit like in our school last year. I think monitoring is encouraging and it helps one to develop. (Teacher 2)

Most of the interviewed teachers expressed the need for support and clarity on the new curriculum in order to understand it well; something that was claimed to be missing:

> …You will find that sometimes we attend a workshop just like the RNCS workshop for three days, and then they don’t use students to demonstrate that you can teach students this way, you can apply this and that in this way… (Teacher 3)

> I want more time Mr. Bisha, I want them to sit down with me and tell me that Mrs. Tania this is what we are saying. (Teacher 4)

Most teachers cited the lack of understanding of the new reforms as a cause for not yet

having implemented the curriculum in their classrooms, as was expected and stipulated by the RNCS policy document (2002). This lack of understanding of the reforms accounted for the problems the teachers experienced in comprehending the way the curriculum was set and its implications, as well as their unfamiliarity with the new teaching approaches and the methods suggested by the new curriculum policy. Complicating teachers' challenges was also the workshop facilitation approach used by the district officials.

> …What we do in these workshops is that we peruse the files that come from the government and then they (district officials) will ask us to plan a learning program that goes this way and that way. Fine we will plan it, but there is no one at the end who will say fine teachers now that you have done it this way you were supposed to have done this other way. They just ask us to put our ideas and they will ask the other groups to comments on our ideas, there is never a final decision from them that this is what you were supposed to do. As a result of this you will find that a lesson plan for grade one in my school will not be the same with a lesson plan for grade one in the neighboring school… schools in the same cluster and district… (Teacher 3).

What also emerged was that some teachers did not receive orientation in the Revised National Curriculum Statement at all. These teachers revealed that a number of Intermediate Phase (grade 4-6) Science teachers had not yet been introduced to RNCS. This was due to a dispute between the district office and one of the teachers unions in the district. This particular teacher union had made certain demands to which the district office had not responded. Consequently, the teachers union instructed its members to boycott the Intermediate Phase orientation to RNCS that was taking place, as a way to catalyze the district decision-making process with regard to its demands. This claim by teachers was later confirmed by the district officials and the teacher union executive official, who was later interviewed on the matter.

Questioned about the school district's intentions for teachers who did not receive training and if they thought teachers who did not receive orientation in RNCS would suffer in implementing the new curriculum, the district officials said:

> That's why I am saying it is a pity. The only plan is that they will join when we train these other teachers [Senior Phase teachers]. The only difference is that after they leave the orientation workshop they have to go and implement the new curriculum immediately. That's the only difference because with the teachers we train for grade 8 they will be implementing next year [2007] and grade 9 in 2008 (Dejavu, 2006).
>
> The thing is, most of them [teachers] are grade 7 teachers, who were highly affected by that (boycott of the orientation). The same teachers are also grade 8 and 9 teachers. So with the coming training they will also join. We discussed it at length… (Maybell, 2006).
>
> I won't say they would suffer and I won't say they would not suffer compared to those [who received orientation] because some of those who have been trained are still struggling in implementing…, maybe those…. if they are exposed to this RNCS in the senior phase teacher training upcoming, maybe they will catch-up (McIntosh, 2006).

The district officials believed they had a plan in place to resolve the issue of teachers who did not receive training. However, this plan appears to have been ill-considered – the pros and cons of orientating two phase levels together, the senior phase (grade 7-9) and the intermediate phase level, not having received careful consideration. The findings indicate that district officials were content that eventually these teachers would also receive orientation in the new curriculum. Also evident was that issues pertaining to teachers' needs at different professional levels were hardly considered, despite the pleas that teachers claimed to have made for direction. Moreover, the district officials' uncertainty in regard to the implementation of the curriculum by teachers who did not receive orientation in RNCS concurred with their notion that teachers were resisting learning and change.

In juxtaposing, on the one hand, teachers' claims that they still lacked a clear understanding of the RNCS and that some teachers had not yet been introduced to it with, on the other, district officials' beliefs that the majority of teachers were resisting learning and change, it becomes clear that there was a problem in the district. It was also clear from district officials' responses about teachers who were not yet oriented to the RNCS that the magnitude of the challenges was not understood. To claim that teachers were resisting change appears as an assumption based on a lack of understanding of the real issues behind the observable behavior. This assumption caused the officials not to probe the deep underlying challenges in their district. This revelation also emerged from one example cited by the Natural Science Curriculum Advisors as purportedly showing that teachers were resisting change, that recently teachers had been invited to a workshop which focused on various learner assessment forms. Prior to attending the workshop, teachers were asked to bring along their learner assessment files as evidence of their having conducted learner assessment. Quite a number of teachers failed to bring the required documents. These teachers were asked to bring them the next time, which also did not happen. Ironically, no further follow-up was made as to the reasons these teachers did not produce the required documents.

6.3 The new curriculum reform, easy to comprehend

In a quest to understand the fundamental reasons for why the district officials believed that teachers were resisting change, the researcher probed further. It emerged that some of the district officials could not understand why teachers were struggling to understand the new curriculum reforms. Their argument was that the new curriculum reforms were "easy" to comprehend because they were a "streamlined" version of the previous curriculum (Curriculum 2005). The district officials thought that since the new curriculum, the Revised National Curriculum Statement, was a "streamlined" and simplified version of Curriculum 2005, teachers should experience no problem in comprehending it. They believed that the previous curriculum was difficult to understand, mainly because of the terminology used, which they said was new to most of the teachers. Also, the curriculum was perceived as overloaded, causing difficulties in classroom implementation. Now that the new RNCS has been launched, they thought teachers would easily understand it. For example:

> You know, in Curriculum 2005 teachers did not know exactly what to teach, and that is why we say this was not clear. So this RNCS has got the assessment standards and

> learning standards and these tell the teacher exactly what to teach. So we give the teacher the policy document, everything is there and clear. It starts from grade R-9, that is the General Education and Training band (Popper, 2006).

Apparently, the district officials compared the new curriculum (RNCS) to the old C2005, and therefore concluded that teachers would easily comprehend it. Also, the fact that the RNCS had refined learning outcomes was itself viewed as one of the reasons why teachers would not have problems with the curriculum. Furthermore the officials made an assumption that since teachers were given the policy documents they were supposed to understand the curriculum policy inside it. Asked what the teachers' attitudes were towards the RNCS, the district officials replied,

> You know this curriculum (RNCS), it's not a new curriculum but a revised one… that they have to be trained on this in no time and this has to be changed or revised… as I have indicated they resist, why do we have to? Some would even complain and say, 'You are keeping us out of the class'…although what they are doing in the class is not the policy, to put it in that way (McIntosh, 2006).

> In this district I cannot say it's moving better or not, no. So far we are still having problems. My problem is that teachers seemed to be unmotivated; I would not say that there is really progress now or say people are teaching or people are doing this or that, no. We still have to work here. Maybe after this phase two, maybe I can tell you because I am talking about the Foundation phase, maybe after doing classroom management we will see a change, but so far things are not going well (Popper, 2006).

From the above quotations it is evident that the district officials equated "teacher training" with "teacher learning". It appears that these two concepts were used as meaning the same thing, which is likely to result in taking for granted the complexity of learning versus the training process. Also, the lack of understanding of teachers' positions with regard to the RNCS limited the chances of their being given the necessary help. The Foundation Phase (grades 1-3) Subject Advisor even believed that teachers at her phase level were implementing the new curriculum in their classrooms. However, this belief was speculative because she stated in the interview that she had not visited teachers' classrooms. Further probing revealed that her beliefs were based on the learners' portfolios that some teachers had shown her. This district official could not substantiate her claim except to indicate that the books and timetables were in place. Nevertheless, she also indicated that other schools did not have learner portfolios and that teachers would just make excuses as to why they did not have them. During the interview it also appeared that her responses focused only on schools that were said to be performing well.

Based on the claim that the RNCS was "easy" for teachers to understand, findings of this study revealed that there were shortcomings in terms of understanding it, both amongst the teachers and as regards the RNCS. For instance, teachers would talk of implementing both C2005 as well as the RNCS when they meant doing group-work. When asked to specify what exactly they were doing to implement the RNCS, they would only mention group-work. This was also evident in the classroom observation the researchers conducted at some of the

schools in the district.

6.4 School District's Professional Culture

What then was the predominant professional culture at the district level? This district hardly had its own organized professional development program, as it depended on the Provincial and National roll-out of new policies.

> The whole year is staggered such that this month you do this and that, and next month you do this and that. There is no flexibility I would say, so we follow the same procedure in right through the other Province. If it is monitoring time you monitor, if it is training time you train, if it is exam time it is exams (Dejavu, 2006).

As also noted in the above excerpt, the roll-out of new policies involved the training of teachers on the Revised National Curriculum Statement (RNCS), school monitoring, and other activities. The school monitoring focused only on lesson planning as teachers were previously in the habit of not developing lesson plans before going to class. During fieldwork, this monitoring had only been done in a few schools because of a shortage of human power. Some of the officials also noted their dissatisfaction about the conducted monitoring.

> I am less than 25% convinced that the monitoring we do it is worth the effort, because it's sort of rehearsed. When you go to this school the others will be singing the same song. To me it's disheartening because if you have said you will monitor for the whole month it will be the same story throughout, whereas if you would have monitored once or twice then you would begin to say you have got the trend of the problem and then you can rectify it by calling these teachers to a training again (Dejavu, 2006)

Adding to the district professional culture was the workshop approach as the only form of professional development, also depending on identified needs. Teachers were expected to call or visit the centre to consult with the Subject Advisor when they had Science questions. The Science Subject Advisor would then decide whether to organize a workshop or not. Despite this approach to professional development, the school district had not organized professional development workshops for two to three years, because of a lack of time and other pressing issues.

7. Discussion

Findings show that several factors affected teacher learning and change during the launch and implementation of new curriculum reforms. These factors included perspectives and assumptions about teacher learning and change held by the district officials. A common assumption was that teachers were resisting change, a belief that was hardly investigated, qualifying it as merely an "assumption". Teachers were never confronted or given the opportunity to explain reasons for their supposed resistance towards change and their grievances about the new curriculum reforms. From this observation we believe that the issue of teacher resistance towards learning and change needs to be carefully explored in order to understand it. For example, what does "teacher resistance" mean? Why are teachers resistant towards change, if they are? Also, were the teachers under investigation resistant to change?

Throughout this paper we will try to interrogate these questions and others, refer to literature in support of the argument and make recommendations for addressing the issues.

During the past decade international studies that discuss teachers' resistance towards change have become common in the field of education (Fullan & Miles, 1992; Gitlin & Margonnis, 1995; Sikes, 1992; Zimmerman, 2006). Some of these studies view the issue of teacher resistance towards change as simply a misinterpretation of the process of change (Fullan & Miles, 1992). They argue that several challenges occur during efforts to change that slow down the process. The slow progress, they argue, has been attributed to resistance by those in charge of the reforms. Johnson (2006) note that change sometimes proves to be a difficult task since the process of successful change involves intensive, collaborative efforts. Thus, blaming resistance for the slow reform deprives one of understanding that individuals faced with a new phenomenon need to assess change for its genuine possibilities and for how it impacts on their self-interest (Fullan, 2001). Likewise, Giroux (1983:108) maintains that "…the notion of resistance points to the need to understand more thoroughly the complex ways in which people mediate and respond to the interface between their own lived experiences and structures of domination and constraint." In reference to both Giroux and Fullan and Miles, we believe that resistance can be viewed as something reasonable that requires the exploration of its underlying source. It is a wake-up call about the complexities involved in the reform process and should not be ignored or treated as nonsensical.

Another set of studies argues that teachers resist change that tries to move them from their comfort zone (Sikes, 1992; Fullan, 2001). The studies further claim that there are mitigating circumstances that lead to this resistance. Sikes (1992) points out that changes which are imposed from outside threaten and can undermine the values and beliefs which make up the teachers' culture. She argues that teachers tend to lose their sense of meaning and direction, their framework of reality, and their confidence in what they do, and they consequently experience confusion and a kind of alienation. Their work is likely to suffer and their commitment decreases. The problem with change as Loucks-Horsley, Hewson, Love and Stiles (1998) insist is that it requires teachers to change their understanding and learn experiences that are much different than the way they initially learned much of what they already know. At the heart of change, as Hargreaves (1994) contends, for most teachers is the issue of whether it is practical. He argues that judging changes by their practicality seems on the surface to amount to measuring abstract theories against the tough test of harsh reality.

The question is, what is meant by "resistance" in this context? Were these teachers actually resistant to change? In this research it is argued that district officials referred to lack of interest shown by teachers in the newly launched reforms as "resistance". There existed a lack of active participation during orientation, and a subsequent lack of lesson planning and of implementation in the classrooms resulting from a myriad of issues with which teachers were grappling. These actions were viewed and interpreted as "resistance" by district officials, despite the lack of teacher assistance and support in the district. Thus it is argued that the belief that teachers were "resistant" towards learning and change was a misinterpretation of their observable behavior. The lack of collaboration between teachers and district officials jeopardized the chances for new policies to be implemented successfully. District officials

also did not understand the critical issues that teachers faced in having to implement the new reforms. Chisholm and Leyendecker (2008) state that the success of curriculum change requires understanding and sharing the meaning of educational change while providing for adaptations in cultural circumstances and the local context, as well as capacity building throughout the system. This was, however, not happening, and resulted in the beliefs professed by the district officials.

Why then would teachers resist new learning and change? Using Giroux (1983) and other's notion of "resistance" and reflecting on the South African context, specifically the district under discussion, one can attribute some reasons for resistance to the history of certain schools, and of the country. In South Africa there are teachers from various racial groups who received their training under different departments of education (Fiske & Ladd, 2004). Some of these teachers, such as in this study, did not receive high-quality training and now suffer insecurity and a lack confidence in their teaching abilities. This state of affairs has also been aggravated by neglect on the part of their district. This neglect includes a lack of follow-up and teacher support in the implementation of the RNCS. Zimmerman (2006) also observed that resistance sometimes might be a result of past experiences. She states that many people feel a sense of security from doing things in familiar ways, and then disrupting the well established patterns could result in a fear of the unknown. Zimmerman also identifies mental models and denial as other potential sources of resistance. She views mental models as the maps that individuals follow to help them not only make sense of their context but also to interpret their reality. These mental models as she argues can promote efficiency and alleviate some anxiety during change. These observations seem to provide a relevant explanation to the situation in the reported study.

The reported study shows that the role and importance of the district officials in supporting their teachers is indisputable. Teachers need to be supported in various ways, including, as far as the teaching of Science Education is concerned, by means of on-going training in use of the correct scientific concepts, models and theories, in how to teach Science in the 21st century and also in the use of classroom resources, and more. The culture of neglect on the part of the district is detrimental to teachers, especially where they are expected to do their best to change an undesirable culture of teaching and learning in schools. It cannot be expected of teachers who have never specialized in the teaching of Science to suddenly become experts without the on-going assistance of district-provided professional development. The teaching of Science is very demanding and requires a thorough understanding of the subject matter. Teachers with poor subject knowledge will, no doubt, contribute to learners' misconceptions. It is imperative that district officials support teachers to ensure that they do their work to the best of their abilities. Johnson (2006) argues that support for teachers implementing reform is needed in order for change to take place. Failure to support them may compound teachers' refusal to change and contribute to their feelings of discontent about new reforms.

In his studies, Spillane (2000; 2002) explains the significant role that district officials play in supporting teachers in understanding new policies to ensure their successful implementation. However, in a study that investigated local theories of teacher change, Spillane (2002)

suggests that district officials who operate from a behaviorist perspective may be cause for concern, as they may not be as effective in supporting teachers' implementation of the new curriculum reforms. Moreover, he maintains that implementation failure at the district level is not solely a consequence of teachers' inability or unwillingness to carry out policy proposals; the district officials are partly to blame. This paper agrees with Spillane's findings, as we also found that the district officials held, and operated from, a behaviorist perspective. The consequence was that officials lost focus and misunderstood teachers' reactions. District officials' actions may result in teachers resisting change because of the fear of the risks associated with changing teaching behavior developed over the course of their careers, and because of their being content with the knowledge they already possess. In this respect teachers may view change as a threat, rather than a challenge intended to sharpen and enhance their learning and teaching skills.

From these findings several key issues can be highlighted. First**,** district officials' assumptions about teacher learning and change may have a negative effect on the new curriculum reform and its implementation. This holds true when these assumptions are not confronted positive ways, with intentions to find constructive solutions. Harboring misguided assumptions is likely to create negative attitudes that open up a chasm between teachers and district officials.

Second**,** the study has shown that the interviewed district officials hardly recognized their assumptions and their roles in the reform process. They did not investigate the reasons for the perceived resistance of teachers. Also, they did not challenge their assumptions in order to ascertain the reasons for them and the possible damage being caused. The problem was identified but nothing was done to remedy it. Rather, they continued with their unproductive assumptions about teachers' resistance to change without taking any action. Flower (1962) as cited by Dent and Golberg (1999) suggest that the solution for those managing change should be to find out what change means from the employee's perspective. It is imperative that district officials find a mechanism to help them discover the origins of teachers' resistance towards new reforms and address them in a productive manner. Quickly labeling teachers as resisting any new learning and change inhibits the district's ability to investigate the underlying causes of the claimed resistance. This, in turn, retards the implementation process of new reforms.

Third**,** the study reveals that the officials ignored the nature of educational and social change that Fullan (1982) suggests must first be understood in terms of sources and purposes. As already mentioned, it is imperative that teacher learning and change be considered as a process that will have ripple effects. It is a process that requires sufficient time for teachers to fully understand it so that it will facilitate the required changes. In the district under investigation it appears that officials expected teachers to quickly master the reforms and immediately show the results of their learning after being taken through the new curriculum. The teachers' failure to implement changes in the classroom was interpreted as resistance towards new learning and change, despite Gitlin's & Margonis's (1995) remark that sufficient time needs to be spent exploring the causes of teacher resistance. Flower further cautions that an employee who is already fully burdened will likely resist change as adding work, as it is

possible in the context under discussion.

Fourth, expectations that change will occur without any challenges are naïve and unrealistic. Franke, Carpenter, Fennema, Ansell and Behrend (1998) conceptualize teacher learning and change not as acquiring a fixed set of teaching skills or learning how to use a particular program of instruction but as changing in ways that provide a basis for continued growth and problem solving, what they call "self-sustaining, generative change." They believe that self-sustaining, generative change

> …does not involve acquiring a set of procedures to implement with fidelity, rather it frequently entails teachers making changes in their basic epistemological perspectives, their knowledge of what it means to learn, as well as their conceptions of classroom practice. It means conceptualizing teachers' change in terms of teachers becoming ongoing learners (Franke et al., 1998:67).

Undoubtedly, if this condition is met, teachers will not display resistance towards change, because of their understanding and the existing support processes. It is imperative, therefore, to take into account teachers' existing knowledge and beliefs, their current classroom practices, as well as their vision of the RNCS. These, and other factors, present a notion of how teacher learning and change will proceed.

Fifth, Peers, Diezmann, and Watters (2003) assert that though a curriculum change can be mandated through new syllabi and associated documents, change of teachers' professional practice is more complex. This paper concurs with this notion. The crux of change, as Fullan (1982) states, is how individuals come to grips with the reality of it. Fullan argues that often we underestimate both what change is and the factors and processes that account for it. His notion appears to be true in regard to this district, for several reasons including that the success of new education reforms depends on the effectiveness of teachers (Boyle, While & Boyle, 2004). Simply training teachers will not permanently change their practice unless their working environment allows for change (Johnson, Monk & Hodges, 2000). Johnson *et al.* (2000) argue that most teachers know more teaching strategies than they actually use. This shows the necessity to support teachers in using those strategies within their classrooms. Guskey (2002) notes that even when presented with evidence from the most carefully designed experimental studies; teachers do not easily alter or discard the practices they have developed and refined in the demanding environments of their own classrooms. Therefore, a provision that supports teachers to transfer new knowledge into the classroom is the recognition that no new program or innovation can be implemented uniformly. Also, without the support from the schools in which they work, teachers are often constrained from using their newly acquired knowledge and skills to benefit learners (Jurasaite-Harbison, 2010; Loucks-Horsley, 1996). Thus, professional development has to support change at the individual, school and district levels.

Sixth, among the issues to be considered during the reform process is that teachers have various and different professional development needs, depending on their teaching level and experiences. Rogan and Grayson (2003) note that failure to take into consideration the different knowledge and skills level of teachers contributes to curriculum implementation

problems. The district officials in this study ignored these differences and assumed that all teachers would respond to the same level of professional development. Some of these teachers did not major in Science but later found themselves teaching Science education. Providing these teachers with the relevant professional development and support they need is crucial. It is essential that district professional development teams consider all these challenges to ensure that they are addressed. Assumptions deprive teachers at various levels of opportunities to build their skills and knowledge. Moreover, support of teachers in their implementation of reforms in the classroom is not in itself sufficient. Such support should be coupled with pressure (Guskey, 2002). According to Guskey (2002), pressure initiates change among those whose self-impetus is not strong, and it also provides the encouragement, motivation, and occasional nudging that many teachers require in order to persist in the challenging tasks that are intrinsic to all change efforts. This pressure should also be accompanied by accountability, where it would be required of teachers to support their classroom actions. Among the causes of reform failure is a lack of assessment and the evaluation thereof (Guskey, 2002). Assessment and evaluation serve to determine whether reform goals are being met. This process provides the knowledge that helps to constantly improve the impact of reforms, and it assists in offering suggestions as to how teachers can be supported to translate their newly acquired knowledge into practice in their classrooms.

8. Conclusion

Various factors including cultural, political, economic, social, among others, impact teacher learning and change during the launch of curriculum reform. The paper has sheds further light on the topic by identifying local interactions, beliefs and understandings that give rise to the non-implementation of curriculum change; which includes assumptions held by district officials about teacher learning and change that negatively impact classroom implementation of the new reforms. This paper concludes that assumptions that teachers are resistant to change are likely to determine the nature of support that teachers will receive from their officials. These assumptions, based on a lack of understanding of why teachers behave the way they do, become a recipe for curriculum reform failure. It is proposed that the “unfounded” assumptions be investigated in order to enhance understanding about whether they hold true or not. District officials should make a concerted effort that teachers implement the reforms in their teaching practices, concurrently ensuring that teacher learning and change and work conditions are attended to on-an-ongoing-basis.

Indisputably, no matter how promising the new policies are on paper they do not guarantee successful teacher learning and change required for the classroom practices. Expecting teachers to easily comprehend curriculum reforms is naïve, and indicates the long way district officials have to traverse in order to achieve the expected changes in the education system. Also, simply training teachers will not permanently change their practices unless their working conditions allow for the desired change. Teachers require time to change and should be persuaded of why they should appropriate them. This paper recommends that schools districts should enhance their communication channels and develop effective working rapport with their teachers; as these will facilitate their understanding of various issues confronting teaching at the ground level. Collaboration with teachers will also give them a better

understanding of the complexities involved in the new curriculum reform implementation and how to efficiently and effectively deal with them. Consequently, this will inform the assumptions harbored about teachers who are not or slow in implementing the reforms in their classrooms.

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Notes

Note 1. By 'teacher learning and change' we imply how teachers make sense of the new curriculum reforms that eventually lead to a change in their classroom practice.

Note 2. This paper refers to "teacher learning," as defined by Linn (2006:2), as a "recursive process where inquiry demands reflective action and reflection raises questions, and each fuels learning. In the same way, as referred to by Fullan (1985:396), "change at individual level is a process whereby individuals alter their ways of thinking and doing." In addition, Fullan views change as a "process of developing new skills and above all, of finding meaning and satisfaction in new ways of doing things." Both learning and change are also viewed as inherently social and cultural activities (Cobb and Yackel, 1996).

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