

Reading strategy instruction and teacher change: implications for teacher training

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I report on teacher change in the context of a reading strategy instruction intervention. Reading Strategy Instruction (RSI) was implemented by three teachers, new to the concept, over a period of 15 weeks. Observations of these teachers showed that a multitude of factors affect the uptake of RSI as part of everyday teaching practice, and that teachers seem to move through distinct phases in their uptake of RSI. The article focuses on teachers' reaction to RSI and highlights a number of issues that are important to the implementation of RSI, not the least of which is that a clear need exists for changes to in-service teacher training and support and pre-service teacher training. In an effort to address these training issues the article contains specific recommendations for pre-service teacher training in particular.

Keywords: reading strategy instruction, reading strategy instruction framework, teacher change, teacher development phases, teacher training

Introduction

Comprehension and Reading Strategy Instruction

South Africa's current school curriculum places a high premium on literacy as a means to both personal development and the nation's economic prosperity. However, despite the good intentions of the curriculum it would seem that literacy objectives are not being met. In the last Grade 6 Intermediate Phase Systemic Evaluation (IPSE) 63% of learners scored at the 'Not Achieved' level in the Language of Learning and Teaching (LoLT) tasks (Department of Education, 2005:78). In the Languages Learning Area, learners scored 51% for the Reading and Viewing learning outcome, and only 31% for the Thinking and Reasoning outcome. Of particular interest in the Languages Learning Area scores is the fact that learners achieved an average of 49% in multiple choice questions, but an average of only 31% for open-ended questions, thereby indicating that where questions do not allow some form of recognition of meaning (as is possible to a degree in multiple choice questions), learners lack sufficient *understanding* and struggle to formulate their own answers. The IPSE results for content sub jets exhibit the same trend: for Natural Science, learners scored the lowest (35%) in Learning Outcome 1 (Scientific Investigations) which focuses on evaluating and communicating findings. The report describes this result as "probably the result of difficulties experienced in communicating and grasping intended meanings" (Department of Education, 2005:93). Calfee (2009:xiii) states that "the capacity to explain one's thinking is critically important in school tasks"; the IPSE results seem to indicate that constructing meaning from a text is a problem amongst South African learners. Dixon and Peake (2008:74) point out that "if we are failing to teach children to comprehend what they are reading [...] then critical [thinking] is unlikely to be part of the pedagogical practices of many teachers".

Research has shown that comprehension “can be increased significantly when it is taught explicitly” (Paris & Hamilton, 2009:49). Pressley (2001) states that “[t]he case is very strong that teaching [...] students to use a repertoire of [reading] comprehension strategies increases their comprehension of text” while Snow (2002:32) states that “because meaning does not exist in text but must be constructed from the text by the reader, instruction of how to use reading strategies is necessary to improve comprehension”. Numerous studies have shown the benefits of comprehension strategy instruction. For example, studies show that reading strategy instruction not only improves comprehension (Palincsar & Brown (1984), Dole, Duffy, Roehler & Pearson (1991), Guthrie (2002), Stahl (2004), Scharlach (2008), Spörer, Brunstein & Kieschke (2009)), but also that it benefits other areas related to reading, such as self control and regulating while reading (Haller, Child & Walberg, 1988; Paris, Wixson & Palincsar, 1986), metacognitive strategies in L2 test performance of low-ability groups (Purpura, 1998) and improved decoding abilities (Van den Bos, Brand-Gruwel & Aarnoutse, 1998). Wigfield, Guthrie, Perencevich, Taboada, Klauda, McRae & Barbosa (2008) showed that combining strategy instruction with other reading instruction methods also has value.

However, despite evidence of the benefits of reading instruction, it seems that teachers seldom teach reading strategies explicitly in South African schools, thereby depriving learners of the strategies they need to think about the process of meaning making when they encounter texts (Klapwijk & Van der Walt, 2011:27). Furthermore, it seems that little, if any, formal comprehension instruction exists in schools. Where comprehension *is* taught teachers generally claim that they are still not sure how to teach comprehension (Liang & Dole, 2006:742-743) and are often not aware of existing comprehension instructional frameworks for teaching.

Teachers and Reading Strategy Instruction

Teachers continue to adopt and implement new instructional practices and curricula on almost a daily basis. And yet, as Priestley (2011) and Swanepoel (2009) point out, initiatives aimed at the implementation of educational change fail regularly, often because teachers’ role in the change process is underestimated. With specific reference to Reading Strategy Instruction (RSI), research indicates that teachers change with some difficulty — they seem to feel that comprehension-strategy instruction “takes a great deal of classroom time” and that they require a “great deal of support to understand and implement comprehension-strategies instruction” (Pressley & Beard El-Dinary, 1997). Block & Duffy (2008:28) state that in teaching strategies as part of comprehension instruction, teachers seem to “begin in a state of either confusion or rejection before taking conscious control”. Research further indicates that while ample attention is paid to the professional development of teachers for teaching reading, little, if any, attention is paid to the professional development of *comprehension instruction* and teachers and coaching literature continue to focus on general reading instruction (Sailors, 2008:647). In fact, Sailors (2008:653) claims that there are no studies about the professional development of teachers and comprehension instruction, and new teachers still enter schools “with the understanding of how to teach comprehension [...] based on how they were taught to read”.

Generally research shows that for teachers to make sustainable changes to their instructional methods new implementations must adhere to specific principles, and importantly, must provide evidence that they produce results. Sailors (2008:646) confirms that teachers “need proof that the topics and practices [...] actually work on their students”. Convincing teachers that a new methodology is worth implementing based on research evidence may not necessarily be enough to ensure its sustained implementation. Teachers need specific evidence that a new

method ‘works’; they need evidence that the method makes a difference to their learners.

Research on teacher change increasingly seems to emphasise the cultural and situational factors and processes of social interaction and collaboration in teacher education and change, and an increasing acknowledgement that the “actual impact of teacher change and take-up of innovations is diluted by all of the other factors that support or hinder teachers from making change” (Smith & Gillespie, 2007:226). ‘Other factors’ could include teaching in culturally diverse settings and needing knowledge of and addressing issues such as bilingualism and second-language development, the role of the first language and culture in learning, and how teachers’ own and learners’ attitudes and beliefs about language and culture affect learning (Clair & Adger, 1999).

In view of the fact that change in educational practice is rarely successful and the fact that teachers find the implementation of RSI difficult, it follows logically that the implementation of RSI will require intensive teacher development and probably require considerable change in their instructional methods and approaches. This article reports on an intervention which sought to implement RSI in a collaborative and sustained fashion in order to determine how teachers took on RSI and what changes, if any, were required of them to do so.

Method

The study utilised a mixed-method methodology design. Quantitative as well as qualitative data were gathered, separated by an intervention. Quantitative data served to provide a baseline profile of learners’ reading-related abilities before the start of the intervention. The results were then compared with measurements taken after the intervention to provide proof of whether teachers’ change efforts had produced results in their learners.¹ This article focuses only on the qualitative phase of the research which was aimed at capturing the participating teachers’ change (or lack thereof) during the RSI implementation process based on the RSI framework. Data were gathered through classroom observations, unstructured interviews and obtaining samples of learners’ work. This yielded rich, in-depth information about how teachers took on RSI, and what factors influenced them in the process.

Participants

Four teachers and their learners from Grades 4 to 6 at a primary school in a low-SES community participated in the research. All teachers were educated to diploma or undergraduate degree level and taught English Home Language (EHL) classes. The Grade 5 level contained two EHL classes during the research year, which enabled the use of a control group and experimental group in the Grade 5 classes to provide a comparison of quantitative data gathered before and after the intervention. A total of 163 learners participated in this research. Of the 163 learners, 128 received the research intervention, while the balance of 35 learners comprised the control group. Learners were left in their allocated grade classes to ensure their routines were not upset and that they received instruction from their own teachers.

Teacher training

The study utilised a collaborative implementation approach, which meant that teachers received an initial half-day information session and, upon mutual agreement, were then given a week to prepare for their first lessons. After the week’s preparation they proceeded to implement RSI in collaboration with the researcher. The information session provided background knowledge of reading strategies, clarified their value and place in reading comprehension

instruction, and explained how to incorporate RSI into daily teaching. Teachers were given a booklet containing basic information about the intervention strategies, examples of lesson plans, sample hand-outs and a laminated RSI checklist. The checklist subdivided the strategies into *Before Reading*, *During Reading* and *After Reading* categories as per the RSI framework used in the research (see Figure 1), ensuring that teachers had the ‘safety’ of some structure when commencing RSI. Classroom observations were based on an assessment schedule which in turn was based on the teacher checklist.

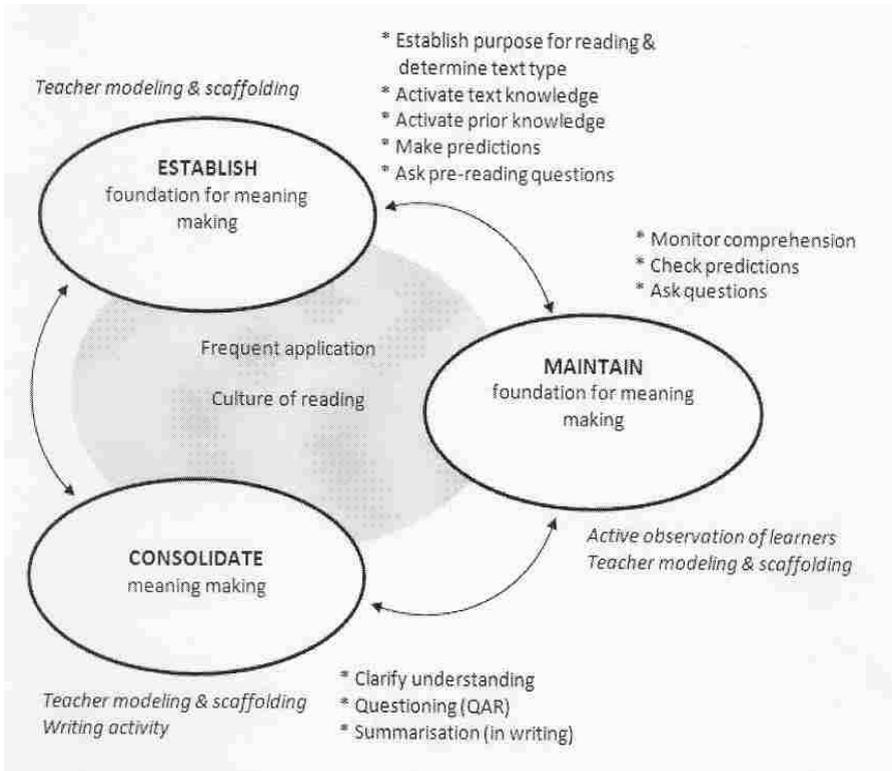


Figure 1 Reading strategy instruction framework (Klapwijk, 2011)

Data gathering

Data were gathered over a total of two school terms through weekly visits to the school, unstructured interviews (one on one) with participating teachers, informal group meetings with teachers and both formal and unstructured classroom observations. In the end 18 formally recorded classroom observations from three participating teachers were used as observational data. Samples of work from learners in the experimental group were taken at intervals during the research intervention to determine whether progress was being made in the use of reading strategies.

RSI framework

The reading strategies used in the intervention formed part of the RSI framework on which the research was based.² The framework is displayed in Figure 1.

The strategies were included because they provided teachers with sufficient structure and guidance for attempting RSI (RSI was a new concept at the school), and because they were deemed to address all phases of the reading process. However, while this study utilized the Before, During and After ‘categorisation’ of the reading process, the phases are merely used as a grouping guideline for the purposes of this study; the phases are not regarded as a finite view of the reading process. In fact, as is clear from Figure 1, the phases are deemed to be a recursive and interdependent part of the reading and reading comprehension process. In essence the *Before Reading* strategies aimed to create a foundation for meaning making in the *During Reading* and *After Reading* phases by enabling learners to ‘unlock’ their own socio-cultural schemata.

Findings

The data analysis returned two main results: (1) teachers’ uptake of RSI was influenced by pre-existing factors, and (2) teachers seemed to move through distinct phases in their uptake of RSI.

Pre-existing factors

Nine pre-existing factors seemed to influence how and to what extent teachers took on RSI, namely: school attendance; language of learning and teaching; multilingual classes; administrative burden; class size; learner literacy levels; teacher expectations; reading resources, reading culture and teaching of reading (LoLT); and lastly teacher knowledge.

These nine factors represent issues that existed at the school before the start of the intervention, and which could arguably exist at the majority of South African schools, albeit to a different extent. These pre-existing factors are not the focus of this article, but warrant mentioning because they acknowledge the presence of issues that can support or hinder teachers from making the change/s required by innovations and have the ability to dilute the actual impact of teacher change and take-up of innovations (Smith & Gillespie, 2007; Clair & Adger, 1999). It could also be argued that addressing the pre-existing factors (to the extent that they occur in individual schools) could lead to improved RSI implementation in general. The discussion of teacher development phases should, therefore, be read against the background of the pre-existing factors.

Teacher development phases

Anderson (1997:362) states that whether teachers progress through different concerns and behavioural changes during new implementations “should neither be assumed nor categorically dismissed”. Block & Duffy (2008:28) are of the opinion that teachers “progress in distinct stages in learning to teach comprehension”. The data showed that, from the initial information session to the last classroom observation, teachers’ reaction to and uptake of RSI seemed to be characterised by different phases of development. The following four distinct phases emerged from the data, namely: (1) expectation, (2) implementation, (3) experimentation, and finally (4) independence. Each phase was characterised by specific actions and reactions from teachers, and each phase seemed to represent a broad category that showed development over time.

The four phases were labelled with names that most accurately described teachers' actions and changes (where this occurred) during each specific phase. The four phases are discussed briefly here, followed by recommendations for teacher training.

Expectation phase

The Expectation phase comprised the period from initial contact with the principal and teachers at the research school to the end of the information session. The phase was characterised by an awareness of the necessity for change. During discussions at the information session all teachers expressed a concern about their learners' ability to read, and more importantly, understand what they are reading. They concurred that there was an urgent need for an intervention to address these issues. At the same time it seemed that teachers had unrealistic expectations of such an intervention. They wanted a quick fix — a solution that would provide fast answers and rapid improvement of learners' comprehension skills. When it became clear that the intervention would, at least initially, require additional work and a considerable investment in time before results would start to show, some teachers became disillusioned, even to the point where those who were not officially required to participate in the study withdrew from the intervention.

In general the Expectation phase proved to be delicate yet definitive. Faced with knowledge of what the intervention required, teachers either decided to continue (accept change) or to withdraw (reject change). There seemed to be a link between teachers' withdrawal and some of the pre-existing factors at the school. The more overt link seemed to be that teachers viewed RSI lesson preparation as an addition to their existing administrative burden. It also seemed that, having seen what was required for RSI, they experienced self-doubt about their existing knowledge and ability to participate in the intervention. More worrying, however, was the impression given by some teachers that their expectations of learners were not high enough to warrant participation — in other words, they seemed to assume their learners would not be able to cope with the intervention content.

Implementation phase

The Implementation phase was characterised by teachers' first attempts at RSI and a growing awareness that change to their instructional methods was required. Teachers showed uncertainty and seemed to lack confidence, which manifested in an over-reliance on the checklist and the use of 'distancing vocabulary' when referring to elements of the intervention. For example, in reference to monitoring comprehension a teacher said:

"And when you are reading anything I give you, you must ask yourself if you understand what you are reading and all that stuff"

Teachers also seemed concerned with doing things the 'right' or 'wrong' way, resulting in regular 'checks' with the researcher. Examples include:

"OK, am I on the right track?" (Teacher 1);

"So I guess it's OK if I continue with the questions now?" (Teacher 2);

"How's it going so far?" (Teacher 3).

While it is normal for teachers to feel some pressure when observed by an outsider, their extreme concern seemed to indicate that they were not in the habit of viewing new implementations as collaborative learning opportunities, but rather as pressure to 'get it right'.

Teachers' instruction during the Implementation phase was also characterised by a need to control their learners' responses, a need that seemed to be motivated by two things: (1) the

fact that providing predominantly teacher-led instruction was their default teaching style, and (2) to compensate for learners' possible 'wrong' answers during observations.³ Control of responses ranged from slightly punitive styles to complete control of the lesson discussion. Teachers' tight control of learner responses sometimes obstructed their attempts at implementing RSI principles. For example, the Activating Prior Knowledge strategy requires a free-flowing, two-way discussion between teacher and learners to enable learners to activate their own existing knowledge of a topic in preparation for the meaning-making process — something that is difficult to achieve if learners' responses are too tightly controlled.

Generally the end of the Implementation phase, at least for the teachers in this study, was characterised by one of two responses: remaining in the Implementation phase, or progressing naturally to the Experimentation phase.

Experimentation phase

This phase was characterised by instances of change (or lack thereof) brought about by experimentation with RSI through its continued and increased application. Teachers reacted differently to increased RSI. Reactions ranged from change in teachers' confidence to teach RSI, change in teachers' insight into the links between the curriculum and reading strategies and change in teachers' interaction with and knowledge of texts. The Experimentation phase was characterised by teachers' explicit attempts at experimenting with each strategy. While some teachers presented a single lesson on, for example, questioning, and then moved immediately to summarisation in a next lesson, others, in particular Teacher 3 (Grade 5 Experimental group), presented multiple lessons about a single strategy in a scaffolded manner. In order for teachers to 'fit the pieces into a cohesive whole' in strategy instruction, it seemed the ideal way to teach the strategies was to adopt a more 'skill-like' approach to strategies: teach one strategy or strategy concept at a time and repeat instruction until it became automatic (for both teachers and learners) before moving on to the next concept; using the same text for more than one lesson so that learners can apply unfamiliar strategy/concepts to a familiar text; ensuring that learners understand a new strategy in its entirety before expecting them to apply it independently. In essence, effective strategy instruction meant *repetition* and *practice*.

It must be emphasised that although the Experimentation phase showed that RSI was possible with commitment and sufficient practice, its effectiveness clearly seemed to be affected by some of the pre-existing factors, such as class size, learner literacy levels combined with teacher knowledge, the quality of literature available combined with sufficient exposure to reading and the frequency of RSI.

Overall, the Experimentation phase was the phase during which teachers gained deeper insight into RSI as a process through its repeated instruction. This seemed to bring a few realisations: that RSI is a long-term process, that although an initial 'skill-like' approach is required to teach the basics of each strategy, the strategies need to "unite to become a single comprehension process" (Block & Duffy, 2008:31), and that this requires additional knowledge, preparation and support. Observations also showed that specific knowledge of language and text seemed to be required for effective RSI, which in turn raised some questions: What can be considered 'sufficient basic knowledge' for RSI, and (how) can it be measured beforehand? How do multilingual classes impact on this 'basic' knowledge, particularly where teachers are providing instruction in a second or third language?

Three of the four teachers in this study remained in the Experimentation phase, mostly through lack of time to implement increased RSI, while one of them persisted and showed that

the independent application of RSI is possible through sustained effort and continued support.

Independence phase

The Independence phase was characterised by an increased recognition of links between intervention strategies and the curriculum, the expansion of RSI to other subjects, a decreased need for support and encouragement, the expression of interest in teaching more strategies, a growing use of reading strategy discourse, shortened lesson preparation as experience and knowledge increased and autonomy (unassisted performance). The Independence phase sometimes overlapped with the Experimentation phase, because teachers seemed to reach independence in individual strategies at different times. Teacher 3 was the only teacher who progressed to the Independence phase in her implementation of specific strategies. The extract below provides an example of independence in her *Before Reading* activities through the use of the Activating Prior Knowledge (APK) strategy.

T: *Look at the topic ... the name of the ... of the* [interrupts herself to discipline a child].
Right. Look at the topic, the subject, the subject of the story. What can you tell me about that subject, the name of the story? Anything you can tell me about "The Wooden Bowl". What can you tell me about it?

T: *Brenda?*

L: *It was a bowl, miss.*

T: *But what can you tell me about the bowl? Anything you know about a bowl.*
 [Learner attempts to say something without putting his hand up]

T: *Why you shouting out?*

T: *Melissa?*

L: *You can eat out of a bowl, miss.*

T: *You can eat out of a bowl, nice. You can eat out of a bowl. What else can you tell me about a bowl?*

T: *Lionel?*

L: *Nice decorations on it, miss.*

T: *OK, you find nice decorations on a bowl. Patterns on a bowl. Xander?*

L: *Different kinds of bowls*

T: *You get different kinds of bowls. What about shape?*

L: *You get round bowls.*

T: *You get round bowls. A bowl can be round. Chris?*

L: *You can wash bowls.*

T: *Yes, you can wash bowls. Come, what else can you tell me about a bowl? What is it made of?*

L: *Clay, miss*

T: *You get bowls made out of clay*

L: *Plastic*

T: *You get plastic bowls. Daniel?*

L: *Ceramic*

T: *You get ceramic*

L: *Glass bowls*

T: *Now what is this specific bowl made of?*

T: *Charlene?*

L: *Wood, miss.*

T: *It's made out of wood. Right. Let's read through the story.* [Starts to read the text out loud to the class].

Although the teacher's use of the APK strategy shows room for improvement, it is a considerable improvement to before the intervention when she had merely announced the title of the text and proceeded to read it. Teacher 3 also implemented RSI principles in her Afrikaans language lessons early on during the intervention. However, while she became comfortable to the point of the independent use of certain strategies, she remained in an experimental stage with others.

Summary of findings

The strategies that seemed easiest for teachers to take on were establishing the Purpose for Reading, Activating Prior Knowledge, reminding learners to check their understanding (Monitoring), Clarification (checking understanding after reading) and teaching Question types. Contrary to expectations the technical aspects of RSI (such as question types, summarising texts) which were new to teachers did not prove to be the difficult aspects in taking on RSI. Instead, aspects related to teachers' existing knowledge about language and texts seemed to be the main stumbling block. Text-related issues such as identifying the text as fiction or non-fiction, and identifying the text genre, were aspects that both teachers and learners seemed to struggle with. It also took considerable time and practice for the teachers to realise that the intervention strategies were not separate entities but rather interdependent entities that formed an interrelated whole in teaching comprehension — and even then not all teachers made this connection.

In general, and taking the pre-existing factors into consideration, it is fair to say that teachers' uptake of RSI was most strongly characterised and affected by the following:

- Teachers' existing knowledge of language and texts — the better this knowledge was, or the faster a teacher developed it, the quicker their adjustment to and progress in RSI seemed to be
- Level of lesson preparation — the deeper teachers' interaction with a text was during preparation, the faster they internalised strategy concepts
- Willingness to change and ask for support — the amount of support used seemed to have a direct influence on the quality and quantity of RSI as well as the changes that occurred in teachers and their instructional methods
- Class size — the bigger the class, the more difficult RSI-related activities seemed to be, such as free-flowing discussions to activate learners' existing knowledge
- Learner literacy levels — where levels were low, RSI needed to be simplified considerably (smaller steps, more practice) and the depth of text interaction seemed lower
- Frequency of RSI — more was better, both for teachers and learners.

In summary, the results that emerged from the qualitative phase of this study showed that teachers move through developmental phases in their implementation of RSI for various reasons: because change naturally occurs in phases and because change, once accepted, highlights strengths and weaknesses in existing methodologies and knowledge — which in turn requires more change. The section that follows will put the RSI implementation issues identified from the teacher development phases into the context of recommendations for improved teacher training and support.

Recommendations for teacher training

Based on observations performed in this study a few issues seem evident about teacher support

in terms of new implementations: (1) training and development of teachers should be explicit and place new methodologies in the context of the curriculum as a whole, (2) teachers require sustained post-implementation support and collaboration (as opposed to critical observation) to ensure sustained change, (3) a clear link must be created with what teachers are already doing in their classrooms by integrating new methodologies meaningfully into life at the school (Torff & Byrnes, 2011), (4) the duration of the intervention is critical and should only be considered complete once sustained change in teachers' practices and learners' outcomes is visible (i.e. teachers show a clear indication of being able to move to the Independent phase), and (5) teachers should be treated as collaborators to alleviate the pressure they feel about being observed during evaluation of new implementations.

In view of these five points and the discussion of the observed teacher development phases, the following recommendations for teacher training and pre-service teacher education courses are proposed.

Explicit Reading Comprehension Instruction in teacher-training courses

A closer look at the Revised National Curriculum Statement and in-service as well as pre-service teacher training confirms that while teachers are trained to teach reading, very little, if any, focus is placed on training them how to teach comprehension. With the growing trend towards English as language of instruction for multilingual, non-English first language learners, the need to equip learners with ways of constructing meaning from texts becomes ever more crucial.

This article recommends the inclusion of explicit comprehension instruction (which would include RSI) as part of teaching in general and teaching reading in particular at teacher training institutions. However, it should be emphasised that including reading comprehension in teacher-training courses should not be restricted to pre-service *language* teachers, but should apply to *all* pre-service teachers, irrespective of their specialisation. McCardle and Miller (2009:39) state that

“all teachers can play a role in addressing the literacy needs of their students, including those in content area classrooms. Although content area teachers will not be literacy teachers *per se* ... these teachers can support the literacy needs of their students in learning content-specific vocabulary and comprehension of content material”.

Considering how many schools apply the practice of shared lesson planning for subjects within a grade, it becomes even more important that teachers of all subjects learn to include comprehension instruction principles in their lesson preparation.

Include research component in PRESET, INSET and professional development courses

McCardle and Miller (2009:21) state that although the need for improved literacy skills has been noted “for many decades” the push for “evidence-based practices in literacy is relatively recent”. Yet, while research about research-recommended teaching methods is on the increase, the results of such research often do not reach in-service teachers, and neither do they seem to be disseminated to pre-service teachers in a sustainable manner. Walsh, Glaser and Wilcox (2006) criticise teacher training institutions for not including sufficient information and direction about research-proven methods and theory in their reading courses, using broad course objectives which include vague terms about language and/or teaching approaches in their course outcomes. It is questionable whether inexperienced student teachers can be

expected to promote and practice evidence-based methodologies if they are not taught explicitly and are not given some exposure to some form of research themselves. Including a research component in undergraduate student-teacher courses could serve to unlock awareness of research in student teachers. At an immediate level it could serve to make undergraduate students more aware of and open to the value of evidence-based methods; on a long-term level, it could lead to a shift in attitude towards evidence-based methods in schools as these students enter schools as teachers, and perhaps even raise the level of interest in postgraduate studies. INSET and teacher development courses have the advantage that teachers may already have experienced problems with some aspect of teaching and are more willing to attempt classroom-based investigations, whether on their own (Rossouw, 2009) or by participating in researcher driven projects.

Strengthen multilingual teaching principles in teacher-training courses

Observations during this study showed that teachers in general seem to have little tolerance for and understanding of learners who do not speak the language of instruction; in fact, some research teachers openly questioned the presence of learners in their classes based on their home language. On the basis of the perception that English is the language required for 'success' many schools seem to default to using English as LoLT and do not seem to expect teachers to learn or apply the principles of multilingual teaching. Gebhard (2010:797) points out that although educational policies make provision for the needs of English language learners, the goals set out in these policies have been "undercut by a lack of attention to teachers' professional development and commitment to quality native-language instruction" which meant that "many teachers have had little or no preparation for providing the assistance that second language learners need to understand how academic language works".

This recommendation specifically states that multilingual teaching principles should be *strengthened*, because it would be unfair to say that no awareness of the importance of the effect on teaching exists. There are South African teacher training institutions that offer elective postgraduate courses in multilingual education, and such courses should become a prerequisite part of every teacher training qualification at *undergraduate* level. In this regard Van der Walt (2010) calls for a more overt focus on strategies for learning in more than one language, while Tatar and Horenczyk (2003:405) state that "teacher training at all levels should provide teachers with knowledge of — and experience with — cultural diversity", and Nel (1992) calls for a "commitment to change and innovation" at pre-service teacher level in order to bring about positive effects in multicultural education.

Conclusion

Research confirms that teacher change is inevitable; it is multifaceted, complex and on-going. Richardson et al. (1991:579) are of the opinion that "genuine changes will come about when teachers think differently about what is going on in their classrooms, and are provided with the practices to match the different ways of thinking". Richardson (1998) adds that teachers are needed who "approach their work with a change orientation: an orientation that suggests constant reflection, evaluation and experimentation" which enables them to "alter curricula on the basis of new knowledge and ways of knowing ... and to change methods when research indicates more effective practice".

However, even if teachers do approach their work with a change orientation, reflection and experimentation, this study confirms what existing research has already pointed out: RSI

is not easy to implement, RSI is time consuming, teachers do not take on RSI easily, teachers require time to adjust to the changes required by RSI, RSI needs adequate post-implementation support and teachers seem to need basic knowledge of language and text to enable more effective RSI. Ultimately the challenge lies in how teacher support can be provided in a realistic and practical manner, taking into account that neither researchers nor curriculum advisers can be deployed at individual schools for long periods of time. A possible solution for sustained teacher support could be to develop so-called ‘champions’ in schools — teachers who have been trained to be RSI specialists and can offer on-site support to their colleagues. Another solution could be to link schools to training institutions to ensure on-going exchanges between teachers, student teachers and researchers — a collaboration that could, over time, begin to address the gap that at times seems to exist between classroom teaching and research.

Notes

1. See Klapwijk & Van der Walt (2011) for details of the quantitative data analysis as well as results of the effect of the intervention on participating learners.
2. It must be emphasised that the RSI framework itself is not the focus of this article; rather teachers’ response to the implementation of the strategies contained in the framework is the focus.
3. The average class size at the research school was around 35–40 learners. Therefore a third, more practical reason for teachers’ need to control responses was merely their attempt to keep noise levels down.

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