### **Advisory Note on Initial Teacher Education (ITE)**

(12)

# What knowledge and skills do teachers need to teach reading?

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We South Africans are a truly perverse lot, and no more strongly does this national characteristic exhibit than in the field of teacher education. On one hand, we put young people, during their most receptive school-leaving years, through four years of a full-time Bachelor of Education (B.Ed) study, during which time they can do no better than master 50% of the primary school maths curriculum (much of which they knew anyway) and fail to learn how to teach reading. The Minimum Requirements for Teacher Education Qualifications (MRTEQ) states unequivocally that all teachers of grades 1–6 learners should know how to teach mathematics, languages and the art of reading. Clearly, these teachers, through no fault of their own, are not equipped to teach the primary school curriculum. Then, we take these qualified but incompetent teachers and, for the rest of their lives, we spend hundreds of millions on in-service training (CPD) annually playing catch-up!

Up to 4 or 5 years ago, everyone seemed to know about the poor preparation of our graduate teachers, except the constituency responsible for the situation, the university Education Faculties and Schools of Education. Thankfully the situation is changing, with teacher educators beginning to wake up to the enormity of the task they are currently not addressing anywhere near adequately. A first question in constructing an appropriate curriculum for teacher preparation is to describe the kinds of knowledge and skills required to teach reading effectively, which is what I attempt to do below.

Disciplinary or subject content knowledge is the conceptual spine of any subject. In the case of reading comprehension a teacher can be said to have mastery of the discipline if she is able to provide appropriate answers to items at all four levels of the PIRLS Framework (Table 1). The second type of knowledge required for good teaching is pedagogical content knowledge (PCK), which includes an understanding of how reading should be taught. It includes understanding both how to diagnose the reasons why a struggling learner is unable to read, and how to remediate such blockages. Finally, it is one thing to know how to teach but quite another being able to teach effectively with real children in actual classrooms. A teacher who possesses pedagogical competence is able to mobilise disciplinary knowledge and PCK into a set of classroom routines through which learners learn to climb the PIRLS ladder of reading comprehension. How much and what kinds of disciplinary knowledge and PCK do teachers require in order to teach effectively? I examine this question in terms of the PIRLS Assessment Framework which identifies a number of reading literacy processes at four levels of cognitive complexity (Table 1).

Table 1: Four levels of reading comprehension in the PIRLS Framework

International Benchmark	Processes of reading comprehension	SA Scores (%)		
		Teachers (using SACMEQ 2007, see Taylor, forthcoming)	Learners (using PIRLS 2016)	International Median (%)
Advanced (AIB)	Evaluate and critique content and textual elements	36%	0%	10%
High (HIB)	Interpret and integrate ideas and information	37%	2%	47%
Intermediate (IIB)	Make straightforward inferences	54%	8%	82%
Low (LIB)	Locate and retrieve explicitly stated information	73%	22%	96%

#### Prereading: the importance of oral proficiency

Although the ability to speak is almost ubiquitous, the speech resources of children become inequitably distributed as they grow. This is where middle-class advantage begins: from birth, educated parents continuously speak to their children in certain ways, systematically building their oral cognitive academic literacy proficiency (CALP), thus enabling them to make a smooth transition to the higher levels of reading ability. Less well-educated parents tend to speak mainly in basic interpersonal communication (BIC) mode. Teachers cannot do much about what linguistic resources their charges bring to school, but they can apply themselves to building learners' vocabulary at pre-school and early grade levels, such as reading aloud to the class daily, explaining key words, and leading class discussions which develop learners' syntactic repertoires. Success with such routines requires teachers to know the lists of high frequency words to be learnt at each reading level in the relevant language, how to source the books and stories containing these words, formulating appropriate explanations, keeping track of words taught, and assessing student progress.

#### Low International Benchmark (LIB): Locate information explicitly stated

Reading at the LIB requires an immediate understanding of the text. Little or no inferring or interpreting is involved. Reading tasks that may exemplify this type of text processing include identifying information; looking for specific ideas, words or phrases; identifying the setting of a story (e.g., time, place); and finding the main idea. In the area of disciplinary knowledge, evidence from SACMEQ teacher tests indicate that about a quarter of SA Grade 6 teachers do not function competently at this level.

Regarding the PCK that may help teachers to guide their learners onto the LIB, research indicates that acquiring the ability to recognise words requires practice with letters and sounds from kindergarten and continuing into the early grades, with explicit instruction and practice in spelling-sound correspondences and strategies for focusing on print in identifying unknown words. An explicit focus on learning key phonemes as tools to assist in recognising words is important. The oral word-building repertoires described above are continued and extended into writing. The teacher needs to be skilled at quick assessment of key skills and able to diagnose blockages and devise remedial exercises during the course of her daily routine.

#### Intermediate International Benchmark (IIB): Make Straightforward Inferences

Attainment of the IIB is dependent on readers constructing meaning from text, making inferences about ideas or information not explicitly stated. Regarding the disciplinary knowledge required by teachers to assist their learners to attain the IIB, nearly half of SA Grade 6 language teachers are not adept at this level, and we would not expect early grade teachers to be any better educated.

The PCK demands of teachers at this level would be to focus oral and written exercises around more challenging cognitive tasks involving inference, generalisation, main point of a text and relationships between characters. A systematic study of selected literature has been demonstrated to develop comprehension skills. Leading classroom exercises of this kind would require teachers to select suitable texts, and set tasks at the appropriate level and, most important, to assess and explain to learners the appropriateness of their answers. Since these processes depend on the teacher's own linguistic competence, the higher learners progress up the Framework the more important teacher disciplinary knowledge is in formulating effective classroom strategies.

#### High International Benchmark (HIB): Interpret and Integrate Ideas and Information

As readers interpret and integrate ideas and information in the text, they make connections that are not only implicit, but that may be open to some interpretation based on their own perspective. Just over one-third of SACMEQ Grade 6 language teachers exhibit proficiency at this level, severely inhibiting the ability of most teachers to convey to learners these levels of textual meaning.

## Advanced International Benchmark (AIB): Examine and Evaluate Content, Language, and Textual Elements

As readers examine and evaluate the content, language, and elements of the text, the focus shifts from constructing meaning to critically considering the text itself. The teacher's own disciplinary knowledge becomes paramount in enabling her to point out how any text uses syntactical and rhetorical devices to convey meaning.

#### Conclusion

Given the focus of attention and long hours of study required to adequately master an ordered body of knowledge, acquiring a solid foundation of disciplinary knowledge is best done during the intensive period of full-time study afforded by Initial Teacher Education (ITE). On the other hand, pedagogical competence is best honed in the classroom once teachers enter service. The theoretical considerations and empirical evidence which contribute to the development of PCK are also best encountered systematically during ITE, but they immediately become subject to confirmation, refutation and elaboration once tested in the classroom. All of this requires that, in order for teachers to maintain a productive relationship between pedagogical theory and practice, they are not only highly competent in disciplinary knowledge and PCK, but also schooled in a research approach to their own teaching.

#### References

Biemiller, A. (2012). Teaching vocabulary in the primary grades: Vocabulary instruction needed. In Baumann, J. and Kame'enui, E. (Eds.) Reading Vocabulary: Research to Practice (Second). Guilford Press.

Mullis, I., Martin, M., Foy, P., & Hooper, M. (2017). PIRLS 2016: International Results in Reading. TIMSS & PIRLS International Study Center.

Mullis, I., Martin, M., Kennedy, A., Trong, K., & Sainsbury, M. (2009). PIRLS 2011 Assessment Framework. International Association for the Evaluation of Educational Achievement.

Snow, C., & Juel, C. (2005). Teaching Children to Read: What Do We Know about How to Do It? In Snowling, M. and Hulme, C. (Eds). The Science of Reading: A Handbook. (pp. 501–520). Blackwell Publishing Ltd.

Taylor, N. (forthcoming). The PIRLS Assessment Framework: Implications for teacher education, in van Staden, S. (Ed.) Tracking changes in reading literacy achievement over time: A developing context perspective. Leiden: Brill Publishers.