

RESEARCH AREA & SOURCE	DESCRIPTION & MAIN FINDINGS / ARGUMENTS
<p><b>Leadership</b></p> <p><i>School Leadership and Management</i> 24, 267 - 286</p>	<p><b>Johnson, B. (2004) Local school micropolitical agency: an antidote to new managerialism.</b></p> <p>This is a set of case studies of leadership teams in 5 different schools. The schools selected had all been part of a voluntary school reform project in South Australia called 'The School-based Research and Reform Project'. Schools participating in this project had been encouraged to establish a leadership team comprising teachers, coordinators and senior administrators to engage in reform projects in the school. The use of data from action research was also encouraged. In the current study, 5 schools showing evidence of successful innovation were chosen from the original 39 schools. Case studies were conducted of these schools focusing on the micropolitical strategies employed by the leadership teams as part of their reform projects.</p> <p><b>Main Findings:</b></p> <ul style="list-style-type: none"> <li>• Six micropolitical strategies used by project leadership teams were identified from the data: distributed leadership, establishing moral purpose, finding space, using 'evidence', negotiating operational details and dealing with resistance.</li> <li>• Distributed Leadership - all schools had established teams with representation from teachers and administrators. Specific team members were often co-opted for various reasons. Once teams were in place they operated with flat leadership structures and little evidence of positional power being used to control.</li> <li>• Moral Purpose - Teams used moral arguments about doing things better for students to support their programs. These provided a non-negotiable rationale for reform and functioned as a subtle form of control within the school, which replaced the need for explicit hierarchies of power to some extent.</li> <li>• Finding Space - Teams tended to synthesize and summarize the current commitments of staff to provide an overview of the 'extra work'. Some whittled these down to establish priorities. Others synthesized them under a common purpose so that all activities were connected.</li> <li>• Using 'Evidence' – data obtained from action research was used to demonstrate the need for reforms. The use of such data often had the effect of silencing those staff members who claimed to 'know' what students and parents wanted, but had no evidence to back their claims.</li> <li>• Negotiating Operational Details – Most teams rejected strategic planning and linear approaches to change, preferring to negotiate the details of programs in a more evolutionary way that viewed teachers as possessing the knowledge and skills to collectively develop the project over time in response to more abstract moral purposes. Much negotiation of detail took place over food and wine.</li> <li>• Dealing with Resistance - some resistance was confronted, some embraced and some resisters were encourage to move on from the school. Few concrete strategies are listed.</li> </ul>

	<p><b>In general the study highlights the possibilities of:</b></p> <ul style="list-style-type: none"> <li>• <b>achieving reform using distributed leadership, rather than hierarchical management power</b></li> <li>• <b>using key values to drive reform in place of leader inspired ‘visions of reform’</b></li> <li>• <b>using non-linear, evolutionary planning processes as an alternative to traditional strategic planning approaches</b></li> <li>• <b>using local action research as a driving force for reform</b></li> </ul>
<p><b>Curriculum Implementation</b></p> <p><i>Jackson, P. (Ed.) Handbook of Research on Curriculum.</i></p> <p>New York: Macmillan.</p>	<p><b>Snyder, J., Bolin, F. &amp; Zumwalt, K. (1992) Curriculum Implementation.</b></p> <p>This is a meta-analysis of curriculum implementation studies.</p> <p><b>Main Findings:</b></p> <ul style="list-style-type: none"> <li>• Researchers have taken varying perspectives on curriculum implementation. These can be grouped into three categories - Fidelity (where researchers want to investigate the degree to which a curriculum has been implemented and the factors which have assisted or inhibited implementation), Mutual Adaptation (where the researchers are interested in the way that a curriculum is adapted as it is implemented in response to local contextual conditions) and Curriculum Enactment (where the focus is on how curriculum is enacted in a particular classroom context as a process of interaction between students and teachers).</li> <li>• The three perspectives should be seen as falling along a continuum from pure fidelity to pure enactment.</li> <li>• Fidelity-oriented researchers have rarely, if ever, found a situation where a curriculum was implemented with 100% fidelity to the original plan.</li> <li>• The Rand study, which first coined the term mutual adaptation investigated many curriculum projects and found no examples of complete fidelity. In all instances where they considered implementation to have been successful, some degree of mutual adaptation had taken place.</li> <li>• In a mutual adaptation study undertaken by Popkewitz, Tabachnick and Wehlage, the belief systems of teachers were found to play a vital role. They found that the degree of implementation was affected by how well the ideology on which the curriculum innovation was based matched the teachers’ ideology.</li> <li>• A study by Bird found that if the process of implementation allows for sufficient experimentation, then the product will become something new, which he terms ‘mutual accomplishment’. During the process of experimentation teachers clarify both the goals of the program and their own goals.</li> <li>• A curriculum enactment perspective study undertaken by Bussis, Chittenden and Amarel distinguished between surface curriculum (the classroom activities) and deep curriculum (the rationale for those activities). They found that if the deep curriculum of the proposed innovation matched that of the teacher then eventually the teacher would begin to make connections between the new activities to be implemented and their own deep curriculum structures. Essentially, this means that a curriculum only requiring changes in the ‘what’ of curriculum for a given teacher is more easily implemented than one which requires changes in the ‘why’.</li> </ul>

	<ul style="list-style-type: none"> <li>• Snyder et al. summarize the enactment research as suggesting that influences from outside the classroom which are controlling tend to have a negative effect on the teacher's willingness / ability to enact curriculum effectively. Outside influences perceived by the teacher to be tools to support the development of teacher knowledge and skills can have a positive influence.</li> <li>• Enactment researchers leave vague the questions of just which enactment experiences lead to desirable outcomes for students and the question of who gets to decide what is appropriate.</li> </ul>
<p><b>Teaching Strategies Literacy</b></p> <p><i>Cambridge Journal of Education</i> 37, 249 - 262</p>	<p><b>Yandell, J. (2007). Investigating literacy practices within the secondary English classroom, or where is the text in this class?</b></p> <p>– This article is an analysis of a lesson observation where 12 – 13 year old students in London were studying Shakespeare's <i>Julius Caesar</i>. The author contrasts the kind of approaches advocated in the British National Curriculum with ideas taken from Vygotsky and Bakhtin.</p> <p><b>Main Arguments</b></p> <ul style="list-style-type: none"> <li>• The British National Curriculum advocates an interpretation of Vygotsky's zone of proximal development which is built on the idea of teacher's modeling 'correct' writing and students being given tasks which never allow them to make 'big' mistakes as their small mistakes are corrected along the way. The approach can be summarized into a four-step process: 1. Demonstration, 2. Joint activity 3. Supported activity 4. Individual activity. It is based on compliance with rules and elimination of error and in the view of the author can lead to disruptive behavior by students who do not feel included by this "monologic teacher script"</li> <li>• The alternative is described in the form of a lesson observation where activities are used that allow for multiple voices and perspectives to be heard and acknowledged as valid in the classroom (Bakhtin's heteroglossia). The students in the class enjoy reading <i>Julius Caesar</i> to a great extent because of the way their voices are included in the interpretation and the way their cultural and background knowledges are referenced.</li> <li>• The observed lesson was possible partly because of the relationship built up over time by the classroom teacher which included expectations that students listen to each other and respect all viewpoints. Examples of modeling of this by the teacher are given</li> <li>• Making a text accessible does not require dumbing down.</li> </ul>
<p><b>School Structures</b></p> <p><i>Science Daily</i>, September 15, 2007</p>	<p><b>Grouping Kids By Ability Harms Education, Two Studies Show</b></p> <p>This article summarizes two studies, both from the University of Sussex, about the effects of ability grouping. One of the studies followed 700 teenage students in the US over four years.</p> <p><b>Main Findings:</b></p> <ul style="list-style-type: none"> <li>• Students from lower socio-economic backgrounds are more likely to be placed in low ability classes regardless of prior achievement</li> <li>• Students placed in low ability classes quickly learned to view themselves as unsuccessful and often developed anti-school values</li> <li>• Students in mixed-ability classes outperformed those grouped by ability</li> <li>• An approach involving giving students shared responsibility for each other's learning led to significant improvement in achievement of both high and low achieving students</li> </ul>

	<ul style="list-style-type: none"> <li>Despite the prevalent belief that higher ability students are disadvantaged by mixed groupings, the higher ability students were the ones who benefited most from mixed groupings as the opportunities to help other students caused them to learn the material in greater depth.</li> </ul>
<p><b>Teaching Strategies / Study Methods / Curriculum Development</b></p> <p><i>Science Daily, August 29, 2007</i></p>	<p><b>Back To School: Cramming Doesn't Work In The Long Term</b></p> <p>These studies looked at timing in learning, particularly at the phenomena of “overlearning” where students keep studying material beyond having mastered it and “massing”, where study of a topic is concentrated into a single period of time.</p> <p><b>Main Findings:</b></p> <ul style="list-style-type: none"> <li>In a vocabulary learning exercise, one group of students went through the list of words 5 times and a second group kept drilling up to 10 times (by which time they had had at least 3 perfect run throughs). On a test one week later those who had had the extra drilling performed better. Four weeks later the benefit of overlearning had completely disappeared.</li> <li>In a second piece of research, two study sessions on the same topic were separated by a period between five minutes and six months. A final test was given six months after the end of the second period. Students performed much better on the test if the break lasted at least a month.</li> <li>These two experiments were with rote learning but similar effects were found with more abstract learning.</li> <li>The researchers say that most textbooks are organized to encourage both overlearning and massing.</li> </ul>
<p><b>Teaching Strategies – Literacy / Brain Research</b></p> <p><i>Psychological Science in the Public Interest</i></p>	<p><b>Rayner, K., Foorman, B., Perfetti, C., Pesetsky, D. &amp; Seidenberg, M. (2001) How Psychological Science Informs The Teaching of Reading.</b></p> <p>This is a meta-analysis of research into reading, covering many aspects of research including cognitive psychology and neuroscience, modeling, laboratory and classroom research.</p> <p><b>Main Findings:</b></p> <ul style="list-style-type: none"> <li>Learning to read can be described as a modification of the mental lexicon so that it becomes print addressable.</li> </ul> <p><b>Phonological Awareness</b></p> <ul style="list-style-type: none"> <li>Reading depends on phonological awareness – a child who cannot identify an abstract phoneme (such as /d/), will have trouble associating it with a specific grapheme (such as the letter <i>d</i>). Reading also depends on an understanding of word meanings.</li> <li>Studies suggest that instruction can bring gains in phonological awareness.</li> <li>The relationship between phonological awareness and reading skill is reciprocal. A basic understanding may be a prerequisite for learning to read, but the awareness develops through reading and it is likely to not develop beyond a certain point through speech alone.</li> <li>Except in extreme cases, there seems to be no relationship between IQ and the ability to learn to read.</li> <li>In first attempts at reading, children associate features of print with spoken word names – often these are selective parts of the printed</li> </ul>

word (such as its first letter). Graphic-phonological decoding comes later. Some theories of learning to read see these as two distinct stages.

- Increased proficiency in reading depends on a child's ability to make increasingly adaptive use of the alphabetic principle of mapping sounds to graphemes. A major learning mechanism for this appears to be phonological recoding, where children recode spellings into pronunciation. Opportunities to do this come from such activities as reading aloud to parents or teachers.
- Reading is improved mainly through practice. Central among the skills that improve through practice is knowledge of individual words. Through practice, words move from the functional lexicon (where they can be read with effort) to the autonomous lexicon (where they can be read with minimal effort).
- Practice also increases a child's lexical-orthographic knowledge (the letters that form a printed word). Lexical-orthographic knowledge (reflected in tasks that assess spelling) is correlated with phonological knowledge, but each makes a unique contribution to reading achievement.
- Greater reading experience correlates with better comprehension, spelling and vocabulary skills.
- There is a large body of evidence to suggest that phonological information plays an important role in word reading, even among highly skilled readers. The implication is that achievement in reading depends in part on learning to use phonological information efficiently.
- A considerable body of research supports the hypothesis that the main contributor to dyslexia is a lack of phonological awareness (awareness of the individual sounds which make up the language), which means that there is no base knowledge to map the graphic symbols for sounds onto.

### **Reading Comprehension**

- Reading comprehension involves two skills: the application of nonlinguistic (conceptual) knowledge and the application of general language comprehension to written texts.
- Previous theories hypothesized that readers engaged in a guessing game, attempting to predict what the next word in a text would be. This would mean that context was paramount in comprehension.
- Eye movement studies have shown this guessing game hypothesis to be untrue.
- Reicher and Wheeler showed that all letters in a word are processed when reading as opposed to recognizing words as wholes. However, it appears that skilled readers do not process the letters serially (letter-by-letter). In short words at least it seems that letters are processed in parallel. The implication is that memorizing the shapes of words (as is done when teaching sight words or in the whole-word approaches to reading) may help get children started with reading, but is not enough for development to continue.
- High correlations between written and spoken language comprehension in adults indicate that much of what is important to reading comprehension is general to language and not specific to reading. There is very surprisingly little documentation of pure reading comprehension deficits accompanied by high levels of word-identification and listening comprehension skills.

- The caveat to the above correlation between written and spoken language comprehension is that written text is that the research as done using the same texts and therefore ignores the significant differences between the construction of written and spoken texts - therefore instruction on the specific differences may be helpful.
- Skilled readers monitor for comprehension as they read.
- Research with both children and adults suggests that syntactic parsing problems can arise from processing limitations rather than from problems with the syntax itself. In fact – working memory factors may play a large role in differences in reading comprehension. (The authors do not develop this further, but one implication of this, I believe, is that instruction in how to break complex syntax down into manageable chunks may be helpful. Halliday’s functional grammar can be particularly helpful here)
- When reading, all meanings of a word may initially be activated. Skilled readers quickly suppress inappropriate meanings, but unskilled readers appear not to do this efficiently. This appears not to be a question of failing to use contextual cues, but rather that unskilled reader’s mental representations contain insufficient or unreliable knowledge of word forms and meanings. The result is comprehension failure.
- Reading comprehension can also become problematic when readers fail to make inferences, but this failure seems to also extend to spoken language and is not a unique problem with an individual’s reading ability.

#### **Cognitive Neuroscience**

- Reading can effect brain development. Thicker callosal connective fibers between parietal lobes have been found in literate adults when compared with illiterate adults.
- After interventions to shift dyslexics from whole-word strategies to phonological strategies activation patterns in the brain changed. There is an implication that neuronal connectivity remains plastic into adulthood.

#### **Connectionist Models**

- These models posit that words are not represented as entries in a mental lexicon but rather as patterns of activation over units encoding orthographic, phonological and semantic information. Learning adjusts the weights on the basis of experience. The models have been used test hypotheses relating to various aspects of reading ability.
- Many believe that reading which relies on phonological recoding cannot be efficient because of the irregularities in letter – sound correspondences in English. A connectionist model trialed by Seidenberg and McClelland found that both words with regular and irregular phoneme – grapheme mappings could be learned this way. This is because regular words and exceptions differ only in the degree to which their spelling-sound correspondences overlap with those of other words. Learning to read the word *have* benefits from exposure to overlapping words such as *had, has and hive*.
- There has been a debate about whether words are recognized visually ( by direct mapping between orthographic patterns and meanings) or via phonology. Connectionist models have shown that performance is most efficient using both, rather than either in

isolation. The problem seems to be solved by cooperation of both techniques.

- The implication of connectionist models for instruction have not yet been explored in depth.

### **Teaching Reading**

- Some approaches to teaching reading assume that reading ability can be acquired naturally just as speaking ability can. Learning to read is not a natural act, however. Written text is a fairly recent development in human society and some language groups never developed writing. Every child must be taught the symbols that make up their writing system.
- Chall analyzed 22 programs, classroom observations and reviews of published studies and concluded that children who received emphasis on decoding or phonics tended to have higher achievement in the first three grades than children who didn't.
- The NRP report was meta-analysis of reading instruction research. Its conclusions were that (a) systematic phonics instruction produces significant benefits for students in kindergarten through Grade 6. (b) the impact of phonics is strongest in kindergarten and Grade One (c) phonics must be integrated with instruction in phonological awareness, fluency and comprehension.
- A study conducted by the U.S. Office of Education between 1964 and 1967 found that the classroom approaches which produce superior achievement emphasized (a) systematic phonics (b) reading for meaning in vocabulary-controlled text (c) writing.
- Evans and Carr compared classrooms which had a focus on phonics drills and applications with classrooms that focused on individual students creating their own books of stories and banks of words. The decoding group scored higher on year-end reading tests.
- Recently, the combination of literature-based instruction with traditional basal reading instruction has been found to be more powerful than traditional instruction alone.
- Foorman, Francis, Novy and Liberman found that students in the first three grades with more letter-sound instruction improved faster in reading and spelling than students with less letter-sound instruction.
- Other studies support the findings that explicit instruction in phonics is beneficial. This seem to be particularly the case for children at risk for reading failure.
- Phonics is an ad hoc system of 90 or so rules, but there are as many as 500 spelling-sound connections that must be learning in English. Self-teaching is hypothesized as the mechanism by which children continue their reading development.

### **Two inescapable conclusions**

- **Phonological awareness and ability to map sounds to letter strings are both essential to reading and instruction in these seems essential. Students must learn the alphabetic principle and direct instruction in this area seems to be more effective than programs that do not include direct instruction.**
- **The reading wars between phonics and whole language are not productive. The most beneficial instruction includes phonics as well as activities with literature that develop children's enthusiasm for reading.**

