Narrowing the Achievement Gap: Motivation, Engagement, and Self-Efficacy Matter
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ABSTRACT

This paper reports some of the findings of a two-year mixed methods longitudinal study in a high-poverty junior school in Dublin, Ireland, which was successful in significantly raising children's literacy achievement in reading, writing, and spelling and in enhancing their motivation, engagement, ability to self-regulate learning, and sense of self-efficacy. Critical factors in the success of the intervention were the dual emphasis on both the cognitive and affective dimensions of literacy developed through a meaning-oriented approach to instruction and the multifaceted professional development programme provided to teachers. Changes made to the instructional programme are described with reference to the research on motivation, engagement, and self-efficacy in literacy.

Just seeing the progress so far and the kids’ response to it, they are really engaged in a way I have not really seen them before. (Bridget, class teacher)

He kind of reads the sports part in the back of the paper, and last year he wouldn’t even think of reading . . . (Joan, Parent Group 4)

I’d read for about an hour. . . . but when I am with my Mam I do read for two hours cause she does be getting into the book as well! (Mary, child)

The magnitude of the literacy achievement gap between children in high-poverty schools and their more affluent peers is well documented (Eivers, Shiel, & Shortt, 2004; Department for Children, Schools and Families (DCSF, 2010). In the past decade, policy initiatives such as the No Child Left Behind Act in the United States (NCLB, 2000), the National Literacy Strategy in the United Kingdom (DCSF, 2010), and Delivering Equality of Opportunity in Schools in Ireland (DES, 2005) have been focused on narrowing this gap with a view to ultimately closing it. Initiatives such as these have tended to be rather prescriptive in nature and accompanied by target setting and high-stakes testing. The main focus has been on ensuring that cognitive skills, particularly those identified by the National Reading Panel in 2000 (NICHHD, 2000) (phonemic awareness, phonics, fluency, vocabulary, comprehension) and writing, are prioritised in literacy programmes, while far less attention has been paid to the affective factors that research has indicated are also critical mediators in the learning process. Children's levels of motivation, engagement, and sense of self-efficacy are instrumental in determining the extent to which they will engage in literacy activities both inside and outside of school and, as such, exert a powerful influence on their academic achievement.

This concentration on the cognitive dimensions of literacy has not yielded the desired results, at least on a national level. While literacy achievement in the United Kingdom has risen nationally, a gap of about 20 points exists between the percentage of children in disadvantaged and non-disadvantaged schools achieving the minimum level expected for seven-year-olds (DCSF, 2010). In the United States, an independent review of the effects of the NCLB, concluded that despite the fact that time spent on the essential skills had increased, there was not a statistically significant increase in children's reading comprehension or in the proportion of children reading at or above grade level (Gamse, Bloom, Kemple, & Jacob, 2008). In Ireland, DES is currently being evaluated, so it is unclear if it will be any more successful in raising achievement than previous initiatives.

This article reports on some of the findings of a two-year longitudinal study in Dublin, Ireland, which was successful in significantly raising the literacy achievement of the children in a high-poverty school that collaborated with the researcher, a teacher educator (Kennedy, 2008). A critical factor in the success of the intervention was the attention paid to both the cognitive and affective dimensions of literacy and, as noted in the opening quotes by teacher, parent, and child participants, students were now engaged in literacy in ways not seen before in this school or community. The study was broad in scope, drawing on the findings of a wide range of national and international literature on topics that include schools that are effective in teaching literacy (e.g., Designs for Change, 1998), exemplary teachers of literacy (e.g., Pressley, Allington, Wharton-McDonald, Collins Block, & Mandel Morrow, 2001), literacy pedagogy (NICHHD, 2000; Pressley, 2001), change processes (e.g., Guskey, 1986), and professional development (e.g., Garet, Porter, Desimone, Birman, & Yoon, 2001). While the current study had a wide range of successful outcomes in relation to the school, the teachers, the children, and the parents, this paper addresses the motivational, engagement, and self-efficacy aspects of the research. It begins with an overview of the literature that influenced the literacy programme, which was designed to not only develop literacy skills to a high level but to do so in ways that enhanced children's motivation and engagement, while also cultivating their sense of self-efficacy. A description of the research design, along with the research-based changes made to the instructional programme follows. Next, findings in relation to children's cognitive and affective development are presented.
Finally, the lessons to be drawn from this intervention and their implications for future policy in addressing underachievement in literacy are considered.

WHAT RESEARCH HAS TO SAY

Influence of Motivation, Engagement, and Self-Efficacy on Literacy Development

Motivation and engagement have long been highlighted as key factors in children's academic development and more recently have been the focus of renewed interest in the field of reading. Levels of motivation have been found to predict achievement (Baker & Wigfield, 1999); therefore, finding ways to enhance motivation and engagement in literacy is critical in interventions that seek to close the achievement gap.

There is a variety of definitions of motivation and engagement reported in the literature, and indeed the terms are often used interchangeably. In a major review of the literature, Fredericks, Blumenfeld, and Paris (2004) argued for a comprehensive definition that captures the full range of the construct. They propose the use of the term engagement as a “meta” construct to encompass the behavioural, emotional, and cognitive, all major dimensions of the construct, all of which are key to successful learning and critical to success in literacy.

Behavioural engagement is defined as the level of participation and involvement that a child invests in a given activity. It includes aspects such as effort, concentration, persistence, and verbal contributions in class. Emotional engagement refers to children's affective response to learning activities and includes the range of emotions (e.g., interest, boredom, anxiety, happiness, sense of belonging) that the school and classroom context can engender in the learner. Cognitive engagement encompasses elements such as the motivation to learn (intrinsic versus extrinsic), the setting of goals for learning (mastery versus performance), the harnessing of metacognitive strategies (e.g., planning, rehearsal, monitoring, and evaluating) in pursuit of these goals, and sustaining the effort required to realise them. Lutz, Guthrie, and Davis (2006) suggest the need for a fourth dimension. They argue for the broadening of the construct to include “social engagement” (p. 11) in order to capture the importance of the social nature of learning and its impact on learners.

Allied to the construct of engagement is the concept of self-efficacy. Motivation to engage with academic tasks is influenced by beliefs about self-efficacy, defined by Bandura (1995) as follows:

Perceived self-efficacy refers to beliefs in one’s capabilities to organize and execute the courses of action required to manage prospective situations. Efficacy beliefs influence how people think, feel, motivate themselves and act. (p. 2)

This is in line with expectancy-value theory espoused by Eccles et al., (1983), which advances the notion that in addition to the value an individual places on the activity or the perceived attractiveness or reward for doing the activity, the extent to which the learner feels competent to complete it is instrumental in determining the levels of engagement and effort.

Each of the dimensions of engagement is important for literacy development. Research indicates that highly engaged readers are intrinsically motivated, tend to have a strong sense of self-efficacy, and have higher levels of reading achievement than those who read less avidly or who are extrinsically motivated. They set mastery goals and read for their own purposes and the pure enjoyment of the activity (Guthrie, McRae, & Lutz Klauda, 2007). Because they attach importance to the activity, they read widely and frequently. They delve into books on topics of particular interest, and take pleasure in conversations about books as well as in giving and receiving recommendations for future reading. Engaged readers have an appetite for challenge; they gain satisfaction from solving intricate plots and developing a deep understanding of complex concepts. Their positive self-concept enables them to persist with challenging tasks, confident that they possess the necessary skills and strategies to be successful. They often experience what Csikszentmihalyi (1978, in Wigfield & Guthrie, 1997) calls “flow experience” (p. 3), a loss of awareness of time passing as they lose themselves in a story or become absorbed in a challenging task. All children have a right to classroom experiences that enable them to develop these attributes and dispositions, which are key to developing reading as a life-long habit.

This body of research has major implications for the conceptualisation and instruction of literacy, and when considered alongside the research on large-scale studies of effective teachers of literacy (e.g., Pressley et al., 2001; Knapp et al., 1995) and studies centred on the identification of the characteristics of teachers exceptionally gifted in motivating children to read and write (e.g., Pressley et al., 2003), can help to illuminate practices that are necessary for developing highly motivating and engaging classrooms and ultimately high levels of achievement.

Creating Classrooms that Promote Reading and Writing as Engagement

Highly motivating and engaging classrooms share a number of key characteristics that work in synergistic ways to impact positively on children’s motivation, engagement, sense of self-efficacy, and achievement levels.

A print-rich environment. Creating a truly print-rich classroom environment is critical and communicates to children that literacy is a meaning-making activity. Such classrooms are “suffused with literacy richness” (Knapp et al., 1995, p. 69) and filled with a wide range (typically 500) of high-quality children’s literature (Lipson, Mosenthal, Mekkelson, & Russ, 2004) on a variety of levels ranging from easy to challenging. As well as access to a wide range of genres likely to appeal to their interests, children need frequent opportunities to select and read books that are “just right” (Calkins, 2001, p. 122), those they can read with a high rate of success. Reading with accuracy, fluency, and expression gives children opportunities to comprehend the texts and to “integrate
complex skills and strategies into an automatic, independent reading process" (Allington, 2002, p. 743). Such successful experiences with print are likely to contribute to children's sense of self-efficacy as well as their interest in reading.

Choice and control. Self-selection of books for independent reading has been found to be critical to the development of highly motivated readers. In motivational studies of first, third, and fifth graders, 80% of children reported that the books they had self-selected from classroom libraries were the ones they enjoyed most (Gambrell, 1996). Self-selection allows children to develop the kind of involvement and curiosity characteristic of intrinsically motivated readers (Guthrie, 1996). Teachers can be explicit role models for children by demonstrating how to select books and how to search out new authors and genres (Gambrell, 1996; Cremin, 2010).

Giving children genuine choice and the control to direct their learning (Jeffrey & Woods, 2003; Turner & Paris, 1995) has a positive impact not only on their motivation but also on their creativity, agency, and self-concept. It also gives them ownership over their learning and encourages them to assume responsibility for the successful completion of the task (Turner & Paris, 1995; Walker, 2003). The power of choice extends to the writing workshop where autonomy and agency are fostered when children self-select topics (Graves, 1994; Calkins, 1986). Creativity is nurtured as they learn to look inward, drawing upon their own unique experiences for inspiration. Self-concept is enhanced as children discover their own "voice," which Graves (1994) has suggested is the "imprint of the self on the writing" (p. 227). Likewise, Andrews (1989, p. 21, cited in Grainger, Gouch, & Lambirth, 2005) notes, "like a fingerprint [voice] reveals identity" (p. 196). Autonomy can also be supported through the provision of open-ended tasks in response to reading that are relevant, authentic, and have an optimal level of challenge for the learner. Optimal challenge is associated with high levels of behavioural, emotional, and cognitive engagement (Fredericks et al., 2004) and can enhance self-belief as learners successfully complete the task.

Social context. Providing opportunities for collaboration and social interaction in literacy have also been found to enhance cognition, foster intrinsic motivation, and increase achievement (e.g., Almasi, 1995; Guthrie et al., 2007). Writing workshop provides many opportunities for children to interact socially—for example, in discussing their writing topics; collaborating with writing partners in drafting, revising, and editing a piece of work; and responding to peers in share sessions. As Guthrie and Anderson (1999) suggest: "when students can talk to each other about their writing, they learn an acute sense of audience and authorship" (p. 36).

In reading workshops, teachers can promote dialogue and collaboration by providing opportunities for pairs or small groups of children to engage in higher-order discussions of texts before, during, and after reading to question, explain, defend opinions, evaluate, and engage with text at a deep level strengthening students' conceptual learning and aesthetic responses (Lutz et al., 2006; Calkins, 2001). Building in opportunities for children to recommend books to each other and to discuss personal reading promotes wide and frequent reading (Gambrell, 1996), fosters greater involvement in and curiosity about books, and contributes to a sense of belonging to a community of readers.

A metacognitive approach to strategy instruction fosters collaboration, success, and self-efficacy. Children's self-confidence and successful mastery of tasks can be fostered through the use of instructional techniques such as the gradual release of responsibility model (Pearson & Gallagher, 1983). In this model, responsibility for a task is handed over to a child only after demonstrations and collaborative guided practices in which their efforts are scaffolded by the teacher or a peer. Demonstrations through think-alouds are explicit and provide the "vicarious experiences" (Bandura, 1995, p. 4) that enable children to see themselves as potential doers of the skill/strategy being demonstrated. This overt modeling of strategies is supported by many years of classroom research (Duke & Pearson, 2002; Pressley et al., 1992) and ensures the teacher is providing instruction within the child's "zone of proximal development" (Vygotsky, 1978, p. 87).

Paris, Lipson, and Wixson (1994) suggest that metacognitively aware readers possess knowledge of strategies on three levels. They can name the strategy (declarative) and describe how to carry it out (procedural), but most importantly, they know when and why the strategy is used (conditional). This last level indicates that learners have achieved self-regulation in that they can choose to activate the use of the strategy in independent activities when needed, a characteristic of cognitively engaged learners. Teaching strategies in word-identification, comprehension, and writing to the conditional level gives children control over their learning, fosters independence, and builds academic resilience and feelings of self-worth as children apply multiple strategies successfully to increasingly challenging tasks.

In the classrooms of highly effective teachers of literacy (e.g., Taylor, Pearson, Peterson, & Rodriguez, 2003), children are encouraged to reflect on the strategies they used and how these strategies actually helped them in their reading and writing, thus developing their metacognitive awareness and helping them to monitor their understanding. This focus is of particular benefit to lower achievers. Having children explain how they solved problems serves to model thinking and self-regulating behaviors for their peers and develops their independence as learners. Having children set mastery goals and monitor their success in achieving them increases their self-belief. As Bandura (1995) points out, "successes build a robust belief in one's personal efficacy" (p. 3).

Classroom models that enhance motivation and self-efficacy. There are several classroom models that incorporate the lessons from this body of research into classroom frameworks that are designed to enhance achievement as well as engagement. One such model is the implementation of daily reading and writing workshops (e.g., Graves, 1994; Calkins, 2001) that also allow for the development
of high levels of intrinsic motivation and the cultivation of children's self-efficacy. Central to this approach is the provision of daily blocks of time, conferring a value on literacy as a worthwhile activity. Through these workshops children discover that reading and writing are ultimately meaning-making activities that are purposeful, pleasurable, and fulfilling and begin to understand that literacy is a tool to be used to explore, amuse, create, learn, discover, and pursue personal goals and interests. Within the structured workshops teachers provide for autonomy, choice, social interaction, collaboration, and metacognitive strategy instruction. The main focus is on deep exploration of a wide range of authentic texts in reading workshops and in creating such texts in writing workshops. A deep and thoughtful engagement is fostered contributing to the development of reading and writing as life-long habits.

A specific classroom model that has been widely reported in the literature is Concept Oriented Reading Instruction (CORI) (e.g., Guthrie & Anderson, 1999; Lutz et al., 2006) which aims to increase students’ reading comprehension in Grades 3 to 5 by increasing their reading engagement. CORI is built around the motivational constructs described earlier (intrinsic motivation, perceived autonomy, self-efficacy, collaboration, and pursuit of mastery goals) and is aligned with instructional practices designed to cultivate their development. The classroom programme (Guthrie et al., 2007) seeks to a) ensure relevance for the learner—for example, children’s involvement in text is fostered as they read to satisfy curiosity about a given topic of interest to them (to foster intrinsic motivation); b) provide for student choice in, for example, texts, topics, and partner work (to increase perceived autonomy); c) build in success—for example, many texts at different levels on the topic under investigation and tasks with optimal challenge (to enhance self-efficacy); d) support collaboration—for example, children work in groups and pairs during 60—90—minute blocks of time (to enhance social engagement ); and e) support conceptual learning through thematic inquiry-based science units linked to student interests (to pursue mastery goals). Meta-analyses of 11 CORI experimental or quasi-experimental studies (Guthrie et al., 2007) (some lasting 12 weeks and some 24 weeks) indicate that CORI is successful in building motivation and enhancing comprehension. When CORI participants were compared with control groups on post-test measures moderate effect sizes (d) were found for variables related to motivation (e.g., curiosity:.47; preference for challenge:.31; self-efficacy beliefs:.49) across six of the studies. Cognitive benefits were greater showing effect sizes of .91 on both standardised tests of reading achievement and experimenter designed tests. While CORI shows much promise in building motivation and achievement in the upper elementary grades, one limitation is its sole focus on science-based thematic units. Because the fiction texts must link with the non-fiction texts, the children’s exposure to a range of literature may be limited if CORI is used throughout the year.

While providing a motivating and engaging learning experience on a daily basis is clearly complex and demanding, it is vital for promoting self-efficacy, enhancing achievement, and nurturing young readers and writers who possess both the skill and the will to read and write. Yet, research indicates that this kind of instruction is not often provided for children in most schools (Pressley, 2001) and even less so in high-poverty schools (Knapp et al., 1995).

The Nature of Instruction in High-poverty Schools

Duke (2001) has argued that literacy curricula operate along socioeconomic lines, and this finding explains some of the underachievement experienced by children in high-poverty schools. Her examination of the literacy experiences offered to children in 10 low and 10 high socio-economic schools highlighted important qualitative differences in literacy experiences between the two types of school. On average, children in high-poverty schools encountered fewer print-rich environments including fewer classroom displays and limited availability and breadth of materials in the classroom library. They were less likely to be provided with opportunities to use the library, choose texts to read, read connected text in class, or experience literacy integrated across the curriculum. In contrast to their more affluent peers, they spent more time engaged in lower-level skill development such as copying from the board, dictation exercises, and worksheet completion rather than on writing activities that allowed them a degree of choice, control, creativity, authorship, and an audience other than the teacher.

Further evidence of differences in literacy provision for children in high-poverty schools comes from the large-scale study conducted by Knapp et al. (1995). They investigated the kinds of instruction and academic tasks students experienced, the materials used, and the ways in which teachers motivated and engaged pupils. They found that differences in achievement were related to the level of meaning-oriented instruction that children experienced. The children who were in the classrooms classified as providing a high level of meaning-oriented instruction, as described earlier, performed at a statistically significantly higher level in reading and writing than the children in classrooms classified as providing low or moderate emphasis. Children in these classrooms also acquired the basic skills as well as the children in the skills-oriented classrooms, illustrating that even in areas of high-poverty where children often struggle with basic skills, a meaning-oriented approach can be superior to a basic skills approach, with the added benefit of being more intellectually challenging and stimulating.

Knapp et al. (1995) contends that this kind of approach “runs counter to strongly held beliefs about instruction for high-poverty children” (p. 142), and that the focus in meaning-oriented classrooms conveyed very different ideas to students as to the purposes or functions of reading and writing. It seems that the “Matthew effects” (Stanovich, 1986, p. 380) comes into play here, as children who spend their time on low-level skill work rather than on more cognitively challenging activities such as those afforded their more affluent and high achieving peers are placed at a serious disadvantage. Teachers who subscribe to a
skills-oriented focus to instruction may be unwittingly contribut-
ing to low levels of achievement in high-poverty schools due to
the perception (and the earlier research base, e.g., Brophy &
Good, 1986) that these children need instruction that always pro-
ceeds from the simple to the complex.

RESEARCH DESIGN

A Triangulation Multilevel Design, as described by Creswell and
Plano-Clark (2007), allowed for the examination of the range of
home, school, and classroom factors that can interact with and
impact on literacy achievement in disadvantaged settings. The pur-
pose of the triangulation design is "to obtain different but comple-
mentary data on the same topic" (Morse, 1991, cited in Creswell
& Plano-Clark, 2007, p. 62). Following consultation with the
whole staff, it was decided to begin the intervention with the four
First classes (56 children: 25 boys, 31 girls, aged between 6 and 7
years), their classroom teachers, the five Special Education Teach-
ers (SET), and their parents. At the end of Year 1 the decision was
made to continue the intervention with these children into Second
class and to begin to extend the intervention to other classes in the
school. A rich range of data—both qualitative and quantitative—
was gathered throughout the two years of the study. The research
drew on the perspectives of teachers, children, and parents and
documented the actual change process.

Quantitative data included responses to an initial questionnaire
to the staff of the whole school to determine current literacy prac-
tices within the school and the teachers’ perspectives on the chal-
 persely they were grappling with daily; the tracking of achievement
data pre-, mid-, and post-intervention (results of standardized
tests of reading and spelling for all 56 children in the study, none
of whom were excluded on the basis of learning disabilities); and
the rating of writing samples.

Qualitative data included initial, medial, and final individual
interviews with classroom teachers (4) and children (N = 20: a
mixture of high, middle, low achieving students selected on the
basis of baseline data); group interviews with Special Education
Team (4 teachers, end of each year), and group interviews with
the parents of the children interviewed (end of study); observa-
tions of teaching (beginning, middle, end of study); and digital
recordings of professional development sessions (fortnightly
on average throughout the study). Interviews with children were con-
ducted to investigate their attitudes toward literacy at home and
school, perceptions of themselves as readers and writers, strategy
knowledge, and ability to self-regulate learning.

DATA ANALYSIS

Repeated measures MANOVA and post-hoc tests, corrected for
multiple comparisons, were conducted to determine if differ-
cences in the children's achievement over time were statistically
significant. Differences were evaluated using Cohen's (1988)
effect size statistic (d). Correlations were run to examine the
relationships between selected scales. Glaser and Strauss’ (1967)
“constant comparative method” was used for qualitative data
analysis. A discovery or inductive approach was utilised in the
early data analysis in order to "discover a large array of potentially
important experiences, concepts, ideas, themes etc. . . . in what
people have said to you, in what you have observed" (Maykut &
Morehouse, 1994, p. 132). Next, data were analysed deductively
(testing of theories and hypotheses) to determine to what extent
they converged with explanations and phenomena identified in
the literature review. An overall interpretation was made by com-
bining all the data sources, which were examined abductively
("uncovering and relying on the best of a set of explanations for
understanding one's results") (Burke Johnson & Onwuegbuzie,
2004, p. 17). The use of a triangulation design allowed for cross
checking of findings across different sources of information
derived across the levels, leading to a verification of findings and
contributing to their trustworthiness. For example, evidence of
changes in children’s motivation, engagement, and academic
resilience was found from a number of sources: interviews with
the children, individual and group interviews with the teachers,
interviews with the parents, and observations of lessons.

IMPLEMENTING THE CHANGE PROCESS

Building a Professional Learning Community

Using a change model (Kennedy, 2008) adapted from the work of
Loucks-Horsley, Love, Stiles, Mundry, and Hewson (2003) and
Guskey (1986), the researcher worked closely with the classroom
teachers and support teachers over two school years with increasing
levels of intensity. The intervention was designed to give them
an opportunity a) to enhance and consolidate their expertise by
becoming informed about the research base, and b) to enable
them to use the information to design a coherent, effective, and
cognitively challenging systematic balanced literacy framework
suitable for their own particular context. It was hypothesized that
such a framework could be successful not only in raising achieve-
ment but in motivating and engaging children by capitalising on
their interests while also building their metacognitive awareness
and their creativity and agency.

Adopting a collaborative and investigative stance, researcher
and teachers worked collaboratively to effect changes to the
instructional programme based on children’s demonstrated needs
as evidenced by formative and summative data. Effectiveness was
monitored in the light of the children’s subsequent cognitive and
affective performance. Change was introduced incrementally over
five phases. A new element was only added upon achieving suc-
B essful outcomes on the previous aspect of the introduced change.
Building early success into the change programme was critical to
the subsequent success of the intervention as it not only cemented
commitment to the change process but, also, built teachers’ own
self-efficacy in their ability to address challenges and dramatically
improve achievement.

A research-based multi-faceted professional development pro-
gramme was provided to support teachers in the change process
(see Kennedy, 2008). The professional development sought to put the processes of “comprehension, reasoning, transformation and reflection” (Shulman, 1987, p. 13) into action. It began by supporting teachers in understanding the research base and the theory and philosophy underpinning the methodologies shared with them. The goal was to honour teacher autonomy (Au, Raphael, & Mooney, 2008) and to encourage teachers to use the research base “to provide the grounds for their choices and actions” (Shulman, 1987, p. 13). In line with the research base, professional development was customised and delivered primarily on-site (Garet et al., 2001) and drew on constructivist principles (Thompson & Zeuli, 1999; Kinnucan-Welsch, Rosemary, & Grogan, 2006). In addition, it was grounded in the pedagogy and content skills of literacy (Shulman, 1987) and non-evaluative observations of teaching (da Costa, 1993) leading to the development of the school as a professional learning community (Hord, 2008).

Changes to the Instructional Programme

Time allocation for literacy. A ninety-minute daily uninterrupted block of instructional time was gradually put in place over the course of the first year of the study and retained in the second year. This allowed for implementation of reading and writing workshops (e.g., Graves, 1994; Calkins, 2001) whereby children were meaningfully engaged in the acts of reading and writing, constructing their own interpretations of authentic texts, and creating their own texts. Teachers cited this daily consistent and predictable schedule as being a critical part of the change process. Children and parents noticed this priority and value on literacy, and it served to further heighten motivation. A “push-in collaborative-model” (Taylor, Pearson, Clark, & Walpole, 1999, p. 29) whereby the SET team came into the classroom and worked on the classroom teacher’s literacy programme three days a week brought cohesion to the literacy programme. It also allowed for acceleration and differentiation of instruction to take place as children’s needs were met in the rotation of activities that occurred within these blocks.

Metacognitive approach to strategy instruction. A high premium was placed on teaching children a range of word-identification, comprehension, and writing strategies over the course of the two years (NICHD, 2000; Duke & Pearson, 2002). Implementing the gradual release of responsibility model (Pearson & Gallagher, 1983), teachers explicitly modelled and demonstrated strategies within a think-aloud approach that illuminated the use of the strategy by making visible the invisible thought processes of expert readers and writers. Children were sometimes grouped by ability but also had opportunities to work cooperatively in pairs and small mixed-ability groups. This collaboration nurtured social interaction and enhanced motivation. Adopting the role of coach, teachers observed the children as they engaged with the strategies and scaffolded their efforts. They documented who had a secure knowledge of the strategy and who needed more support, and they used this information to inform future lessons. Children were encouraged to name and describe each strategy, to implement it appropriately, and to reflect on when to use it and why it was important to know, thus building their metacognitive awareness to the declarative, procedural, and conditional levels (Paris et al., 1994). They were encouraged to employ multiple strategies in a flexible manner and to view them as tools to help them solve problems in their independent work (Pressley, 2002). This enabled the students to develop independence and to persist at tasks that they found difficult while reinforcing positive self-efficacy as they experienced success in achieving at appropriately challenging tasks (Vygotsky, 1978).

Reading workshop. As children with high levels of intrinsic engagement tend to read nearly three times as much as children who score low on this measure (Wigfield & Guthrie, 1997), teachers worked hard to promote reading as a desirable activity. The basal reader was replaced by a wide range of levelled texts in Year 1 that included a broader variety of high-quality fiction and non-fiction books as children developed more confidence. Children were matched to texts at an instructional level, and through the use of formative assessment measures (e.g., running records) a dynamic and flexible grouping model (Fountas & Pinnell, 1996) was used to ensure that the students were operating within their “zone of proximal development” (Vygotsky, 1978). Teachers reported that it was challenging to keep children in the correct groupings all of the time, particularly in the early stages as various children made leaps at different times and needed to move groups accordingly. Children were encouraged to read widely as research has shown that “children who read even ten minutes a day outside of school, experience substantially higher rates of vocabulary growth between 2nd–5th grade than children who do little or no reading” (Anderson & Nagy, 1992, p. 11). They were encouraged to choose a “just right” book (Calkins, 2001, p. 122) and to take a book home to share nightly with their families in addition to the text that they were reading in their reading group. This was hugely significant in building children’s confidence, persistence, intrinsic motivation, and engagement in and helping them to develop a personal taste in reading. There was systematic attention to the essential skills of reading (NICHD, 2000), which was as important as attention to the affective dimensions of literacy since raising levels of self-efficacy without teaching the requisite literacy skills will not raise achievement (Schunk, 2003).

Writing workshop. The daily block of time for the writing workshop allowed for deep engagement and provided opportunities for these young writers “to talk, to read, to play, to imagine and inhabit, to dream, ponder and share ideas as well as to draft and reconstruct” (Grainger et al., 2005, p. 23). The focus was firmly on helping the emerging writer to develop creativity as well as skills. The latter were kept in perspective and taught in meaningful authentic ways through demonstrations and conferences as children engaged in the act of writing and demonstrated a need and readiness for the skill. They were taught how to write in a variety of genres and how
to generate ideas, draft, revise, edit, have a go at spelling unknown words, and publish their work. The social dimension of learning was recognised (Guthrie & Anderson, 1999; Allington, 2002), and children often worked with writing partners at various stages of the process that scaffolded and encouraged the more reluctant writers while also appealing to the higher achievers. Having the time to write and the choice of topic facilitated children in entering into “a constant state of composition” (Graves, 1994, p. 104) whereby they invested thinking time both inside and outside school. The writing workshop became a forum for children to “demonstrate their creativity, individuality, voice and verve” (Grainger et al., 2005, p. 1) and was therefore an important contributor to the enhancement of children’s motivation and engagement in literacy.

Word work. A strong word study programme ensured that children developed their word-attack and spelling skills and were able to see the purpose to learning these skills as they applied them daily in the context of reading and writing activities. An explicit systematic sequential phonics programme was devised that included a blend of synthetic and analytic phonics as recommended in the literature (NICHD, 2000; Torgerson, Brooks, & Hall, 2006). Attention was also paid to the development of a sight vocabulary for high-frequency words that were taught daily in an interactive, fast-paced, multi-sensory manner with concrete hands-on activities using magnetic letters/whiteboards. Curiosity and interest in words were cultivated through a “word consciousness” approach (Graves & Watts-Taffe, 2002, p. 150), and as children were reading or listening to high quality literature they were encouraged to notice “rich, precise, interesting and inventive use of words” (Graves & Watts-Taffe, 2002, p. 150) and to use them orally and in writing.

Oral language development. Research suggests that children in high-poverty schools require explicit support in acquiring the “literate style” of language required in school (Cregan, 2007, p. 5). Therefore, a high priority was placed on oral responses to reading and writing in lessons, giving children the opportunity to engage in real conversations about what they were reading and writing, just as real readers and writers do. As Lucy Calkins (2001) reminds us, “teaching reading then is like teaching living” (p. 15), so students were taught how to listen, respond, question, debate, agree and disagree, and have the confidence to do so, all of which are key life skills. In reading and writing workshops children were explicitly taught how to engage in the art of conversation (make eye contact, take turns in the conversation, listen critically, piggyback on each other’s responses, and ask genuine questions of each other).

RESULTS

Findings on Children’s Motivation, Engagement, and Self-Efficacy

Interviews with the children, their parents and teachers, and observations of classrooms during literacy instruction provided ample evidence for the many affective changes in the children including: enhanced motivation and engagement; greater understanding of the value of literacy strategies; and increased independence, resilience, and persistence at academic tasks. The findings also included evidence that children perceived themselves as real readers and writers both inside and outside of school, and that literacy development in the home environment was also enhanced.

Greater motivation and engagement in school and at home. Teachers were of the opinion that a number of interacting factors had contributed to the dramatic increases observed in children’s motivation and engagement in reading and writing both in and out of school. These included: the wide availability of new books in a broad range of genres; the emphasis on developing children’s taste in reading; the priority on reading and writing workshops in class where children chose books and writing topics; explicit attention to the skills of reading and writing through meaningful activities (NICHD, 2000); the social dimension of literacy, including small group and paired work; and enhanced parental interest. The wide range of books was instrumental in developing “curiosity” and “involvement” (Wigfield & Guthrie, 1997, p. 7)—two constructs associated with intrinsic motivation to read. This is evident in the following comment by a class teacher, which illustrates that for some children motivation to read is heavily influenced by the desire to learn about a particular topic:

Sam again, another boy, I think his motivation for reading has just really soared. He’s the one I keep thinking of with non-fiction. You know as soon as I started that, he just took off with it, and he nearly carried the rest of them on and motivated them . . . the way he verbalised his enthusiasm for reading was great as well. He’d just say: “I love reading” (Geraldine, class teacher/final interview)

Children could articulate their preferences for particular authors and genres and express reasons for their choices:

Because it’s all about the same family all the time, the Gaskitts, I think Gus and Gloria are always being very good, and they always get surprised somehow in the story. (Mary, child/final interview)

Parents, too, spoke at length about their children’s reading volume, their particular interests, and the influence of these improvements on siblings:

He is very interested in the planets, for a small little fella. I do be left looking at him sometimes! Where did he get that from? And he is able to tell me about how the moon and the earth align and what way it works. (Parent, Focus Group 6)

I think the way Dylan is after being taught is coming down onto Mark, and he is robbing his books to read. The one that is in First class is trying to out-do the one that’s in Second class! (Parent, Focus Group 2)
There was also strong evidence that children were choosing to write outside of school as well as in school. They reported writing stories, non-fiction, cards and letters:

I write princess stories, and last Christmas I wrote my Mammy a story, and I wrapped it up as a Christmas present. And I got her a bunch of flowers when she wasn’t well, and I wrote her a story when she was in hospital. (Madeline, child/final interview)

Moreover, some children who had initially exhibited a reluctance to engage were now more motivated:

There are lots of little things along the way that strike you, you know when you saw Peter suddenly beginning to write out of being so resistant and John so into . . . we did poetry very briefly for about a week or two and what he wrote! I think they will benefit, for the rest of their lives regardless of how it goes. Cause all of them have come out with a sense that they are authors. (Bridget, class teacher/final interview)

Teachers attributed the changes in writing motivation and engagement to the daily writing workshop and the element of choice afforded the children. Research also notes these as being important factors (Graves, 1994; Jeffrey & Woods, 1997):

I suppose the consistency, like we were doing it every day, it wasn’t like writing workshop was a once off, it wasn’t like oh we will do it one week, and we don’t do it the next week. (Emer, class teacher/final interview)

The social context continued to be an important mediator for children, and many thrived on the collaborative writing partnerships that teachers encouraged in response to the personalities and needs of particular children, some of whom needed to be nurtured and coaxed along while others just fed on the energy of collaborative creativity:

Sometimes me and Sue work together with writing and doing our own book . . . then putting them together and it will be a longer book and more interesting . . . And then after that me and Mary are going to do a book together called “The Haunted House” and “The Haunted Boy and Girl.” (Linda, child/final interview)

It particularly helped the learning style which likes to think aloud and interact, those kids as well, that need, say like Sean for example, that need to feel a point of connection before they engage in anything, that did a lot for him, that’s what he needs to get going at all, you know. (Bridget, class teacher/final interview)

Greater strategic knowledge, academic resilience, and persistence. Gains were also apparent in children’s knowledge of problem-solving strategies, which helped them engage more actively with reading, writing, and spelling activities. Teachers reported that this knowledge had given children increased independence and persistence in undertaking challenging academic tasks, whereas children at the start of the study were more likely to ask for help or give up when they encountered difficulties:

It was great . . . if they were stuck they could say I need whatever word clarified rather than like I can think of before “I can’t do it, it’s too hard.” (Julie, Special Education teacher/first group interview)

Their reading skills and also the whole language of their reading and consciousness about reading . . . there’s loads of processes going on . . . they have a selection of strategies they can lean on. (Mary, classroom teacher/final interview)

The thinking strategies also helped the children become more self-regulated, and they began to notice when they did not comprehend, whereas prior to the study they would not have noticed. As Molly, a SET teacher, observed:

Yes, they have the strategies and they know how to apply them and they know why they do such a thing, so that does lead to independence, doesn’t it? (Molly, Special Education teacher/final focus group interview)

In addition, the metacognitive emphasis on strategy instruction empowered children and enhanced their feelings of self-efficacy as they began to realise that they had strategies at their disposal to overcome challenges encountered:

You could use your tryout pad, or sound it across, and you can ask the Teacher for a little bit of help, or else you could think if there is the an A sound or a magic e cause there is always a vowel . . . (Noreen/final interview)

The dual emphasis on skills and strategies was important because high levels of self-efficacy on their own are of less value if important skill and strategy knowledge are lacking (Schunk, 2003). There was evidence that children now welcomed a challenge and knew that to build their stamina in literacy they needed to stretch themselves:

Read loads of books with hard words in them, not easy, cause if you read easy words you wouldn’t be able to become a good reader. (Sharon, child/final interview)

Findings in Relation to Children’s Achievement

Student gains in achievement were tracked throughout the study (pre-, mid-, and post-test) using a range of standardised and non-standardised measures. Therefore, it was possible to establish broad links between changes in children’s affective development and changes in their achievement. These findings are summarised below.

Reading. By the end of the two years of the study, the numbers of children performing below the 10th percentile had been reduced by three quarters, and there were now 20% performing above the 80th percentile (there were no children at this level at the start of the study) on the Drumcondra Sentence Reading Test (Educational Research Centre, 2002), a nationally standardized reading test (national average = 100; standard deviation = 15). The students’
average score improved from 82 score points in February of first grade to 98 in June of second grade—a significant increase of over one standard deviation (t = 10.2; df = 52, p < .001) (Kennedy, 2008). Effect sizes [Cohen’s (d)] were considered to be large (1.29), indicating that progress was substantive. Had the programme not been implemented children would have been expected to hold their own but not make the substantial gains that they achieved in this study. In fact, almost 12% of the children who presented with very low achievement at the outset made exceptional progress and were performing in the top quintile at the end of the study.

Spelling and writing. Children also made large statistically significant gains in spelling and writing, again with large effect sizes. Performance on the Drumcondra Primary Spelling Test (Educational Research Centre, 2004), a nationally standardized spelling test also with grade level norms (national average = 100; standard deviation = 15), increased from 94 in February of second grade to 101 in June of second grade—a significant improvement of just under one-half of a standard deviation (t = 8.1, df = 53, p < .001) indicating comparability with national norms. A majority of students scored at Below Level 1 on the Criterion Writing Scale (Wilson, 2002) at the beginning of the intervention, indicating that most of their writing was at a semi-phonetic stage of development (Gentry, 1982). By the end of the study, the majority scored at level 2A, the level expected of average students in Grade 2, indicating that they could write an expressive story with acceptable sentence structure and with most words spelt correctly while 41% were performing above expectation (level 3).

There was certainly a cohort of children who made slow and uneven progress including those with less stable home backgrounds, severe special educational needs, and very poor attendance. This was true even with the additional support offered to them in the form of Reading Recovery, Resource Teaching, or Learning Support, in addition to the enhanced classroom programme for literacy provided in the context of the current study. Nevertheless, a quality classroom programme, offered in the context of a school-wide balanced literacy framework, such as the one advanced in this study, can make a major contribution to a reduction in the numbers of children requiring intensive and individualised support.

CONCLUSIONS AND IMPLICATIONS

Clearly, there were many factors at work in this study that contributed to the impressive gains achieved in both children’s cognitive and affective literacy development. These included the meaning-oriented focus in the balanced literacy framework adopted by the teachers, which provided opportunities for children to engage in wide reading and writing much of it self-directed according to interests; the use of the gradual release of responsibility model in strategy instruction, which scaffolded children’s metacognitive knowledge and self-regulatory use of strategies; the social dimension of learning, which was promoted through challenging collaborative work in reading and writing workshops where children had time to engage at a deep level; and the fostering of successful literacy experiences in workshops and activities. The extended allocation of time to literacy activities, the involvement of the special education team in the classroom programme, and support and encouragement from parents also conferred a value and priority on literacy.

Together, these conditions conveyed to children that composing a literate life for themselves was important and could benefit them on a personal level, not just in the short term but in their future lives. Over time this served to enhance intrinsic motivation and promote feelings of self-efficacy amongst students, which in turn helped them to make real gains in reading, writing, and spelling. These conditions and results were made possible in part by the professional development provided to teachers. Knowing they now had the expertise to rise to challenges helped the teachers to see themselves as critical decision-makers (Hall, 2002) and powerful enablers who could effect change. Seeing the rise in achievement and the children’s evolution into real readers, writers, and thinkers developed teachers’ confidence and self-efficacy and led them to set even higher expectations for the children they served. It is likely that a synergistic relationship existed between the teachers’ and the children’s sense of self-efficacy, and development in one supported and strengthened development in the other.

If education is to be the so-called “great equalizer” in closing the literacy achievement gap, we need to make transparent to high-poverty school professionals the benefits and necessity of ensuring a dual emphasis on children’s affective and cognitive development through a meaning-oriented approach. A cognitively challenging systematic responsive balanced literacy framework has the potential to not only raise achievement but to do so in ways that capture children’s imagination, develops their creativity and agency, and build their long-term motivation for reading and writing.

References


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