Researching Caped Crusaders:
The Boys Flying High Project in Early Literacy at Camp Hill

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Boys at Camp Hill Infants State School have not yet learned to fail. Their superior performances in reading, writing and numeracy on The Year 2 Diagnostic Net in relation to State averages for Year 2 children generally, and for other boys particularly, are indicative of a sturdy resistance to factors seemingly inflicting their peers across the State and nationally. Newspapers, TV and radio, sensitive to public interest in the phenomenon, have interviewed the school’s children, teachers, principal and university associates, all of whom speak positively about this result and the learning environment in which the boys have done so well. In this presentation, the principal, a critical friend and his critical colleague consider recent research of the management practices used at the school, pedagogical adaptations made to better suit boys, how Camp Hill SIS’s boys appear to become engaged in the education process, and how school and home sustain boys’ interest in learning.

Introduction
The relationship between early literacy and the many different factors that are involved in its achievement has long been a source of interest to societies generally, and to its educators and researchers, particularly. Fascination, confusion and concerns persist despite a huge volume of scholarly report – perhaps because of it, or because of selective ways in which we have incorporated it into teaching and parenting practices.

For example, there is damaging confusion in what to do about the inconsistencies that exist in the English orthography system. This system has a weak sound-to-letter relationship with 26 alphabetic characters assigned to the task of representing at least 44 phonemes that children and those around them regularly and easily combine into speech. This situation contrasts with other languages like Spanish (Cressy, 1978) where the correspondences are strong (30 graphemes for 30 phonemes), and may have resulted when the spoken form changed from Old English, but spelling did not (Bradley, 1969). Whatever the reason, practitioners who have followed a lead that oral language holds the key to children’s proficiency in written language have often concentrated on sound-to-
letter and sound-to-word relationships with their pedagogy. They will be disappointed with Hammill's (2004) recent findings from a meta-analysis of over 450 studies into what best describes and predicts success in reading. His work indicated that oral language is a minor variable in children's success. Most of the research literature that he reviewed underscores the importance of youngsters' experience, familiarity and skills with print-based materials.

Hammill's (2004) finding contrasts a strong and recent tradition in Western education typified by Stanovich's (1992) studies and theorizing to highlight young children's capacities in dealing with phonemic analysis (reducing oral language into its fundamental within-word units) and in applying the alphabetic principle (mapping these "sound units" as "text units" and vice-versa). Perhaps many of the studies analysed by Hammill had not followed Stanovich's insistence that these two elements are essentially a twosome and must be treated as such when teaching programs are designed and implemented.

But, this remains only an exemplification of how research and practice can be mutually informing or misleading. As Hammill (2004) observed, the many research investigations he examined had been:

"...Studies of theoretical questions about the nature of reading; they were trying to discover and train abilities that they believed were prerequisites for learning to read; or, they were attempting to identify predictors of reading failure that could be used in screening efforts to find children who have reading problems or who are at risk for developing them (p. 453).

We agree with Hammill's contention that

"...By most standards, all that theorizing and searching has been unsuccessful. Large numbers of children continue to experience reading failure in school, and national interest in reading and reading problems as a societal concern has intensified recently (p. 453)."

The current study

In Australia, this societal interest is reflected in federal and state initiatives such as The Boys' Education Lighthouse Schools Programme (2001–). This programme is part of the Australian Government's national response to relative differences in early achievement with boys underperforming in literacy.

Table 1

<table>
<thead>
<tr>
<th>YEAR</th>
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<tr>
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The Camp Hill Infants State School designed a project, *Boys Flying High*, funded by Education Queensland to investigate the situated knowledge that resulted from the study of an Infants State School in Queensland, Australia where for the past three years the achievements of young children in reading, writing and numeracy have been high. Data presented in Table 1, above, shows that boys’ performances at the School had improved to a point of virtual equality with girls by 2002, and these gains have been maintained. Particularly, we sought in collaboration with teaching staff at the School and researchers to examine the many different factors thought to be involved in the relationship between early literacy success and boys’ achievement.

We embedded the project in equity principles outlined in the *Framework for Students at Educational Risk*, *Literate Futures* and the *Queensland School Reform Longitudinal Study (QSRLS)*. In addition, the project employed as reflective and data-gathering tools the EQ initiative, Productive Pedagogies, a theoretical framework enabling teachers to reflect critically on their practice, and the QSRLS instrument.

All students at Camp Hill Infants State School are included in the annual statewide assessment of youngsters’ competence in early reading, writing and numeracy, except for students ascertained Level 6 Intellectual Impairment. The procedure called, The Year 2 Diagnostic Net seeks to indicate which children throughout Queensland require additional support in literacy and numeracy if they are to progress at expected levels. For example, approximately 9% of those whose results are shown in Table 1 for Year 2003 were ascertained Level 5 Intellectual Impairment and Levels 5 & 6 Autism Spectrum Disorder. The percentage for Year 2004 is 3.4%.

### Table 2

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TBA – the State data for 2004 will be available in October

### Table 3

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<td>2000</td>
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The substantively significant between-schools advantage for all students at Camp Hill Infants State School and particularly for its boys has been further demonstrated in the series of tables above (Tables 2–4). While results for boys at the School have improved over the past three years, this is not the case statewide where typically more boys than girls have presented as needing additional literacy support, and incidence rates have remained relatively stable.

In synopsis, the current study aimed to tease out the underpinnings of the phenomenon identified above, examining the management practices used, how teachers adapt teaching methods to better suit boys, how boys become involved in the education process, and how school and home sustain an interest in learning.

Method

Participants
Children across years P–2 (n=32), teachers (n=12), and parents (n=28) of Camp Hill Infants State School constituted the sample. All participants volunteered for the study.

Instruments
Semi-structured questionnaires were designed for teachers and parents, and as a framework document to guide interviews with students. These began with a brief, general account of the high standard of children’s performances at the school over the past three years, and noted that of boys particularly. Parents were invited to comment on this in light of what they considered to be happening with their own and other children at home and at school. In a complementary way, teaching staff were asked to respond by reflecting on their practices at school and on their understandings of what was happening in the children’s homes.

Two additional instruments were used to collect observations from teachers. The first was the Queensland School Reform Longitudinal Study (QSRLS) survey, an instrument useful in framing and gathering observations of classroom practices in Productive Pedagogies categories. Teachers received professional development to support their knowledge about this instrument and its application. The second was an observational framework for peer evaluation of teaching, jointly constructed by teaching staff.
Procedure
The project was implemented in four phases as follows:

**Phase 1. Gaining support of the school community**
Breakfast meetings were held with staff, members of the community and Griffith University about possibilities and preferences for the project. A description of the project, its purposes and how we intended to go about it, was included in the School Community Newsletter to garner support.

The first author addressed teachers, parents and members of the wider community in relation to latest research on boys and education and outlined the intended project. The Parent Questionnaire was designed and implemented. Data were gathered and analysed.

**Phase 2. Exploring school and classroom pedagogy**
Staff received professional development on Productive Pedagogy and the QSRLS Scoring Manual. Teachers conducted classrooms observations of literacy and numeracy lessons to rate peers on elements of Productive Pedagogy using the QSRLS Scoring Manual. They made anecdotal records on connections between teaching and management strategies and outcomes, noting positive accommodations to include students with special needs. The Teacher Questionnaire was designed and implemented. Data were gathered and analysed.

School practices (e.g., intervention provision) were documented. Data from observations and questionnaire were collated, analysed and presented to staff. Staff had substantive conversations around their observation experiences and on Parent Survey data to inform each other of practices.

**Phase 3. Exploring student perspectives**
The Student Interview Framework was designed and implemented. Students were interviewed about their perceptions of reading, writing and numeracy, activities and interactions they enjoy at school, home and other places; activities and interactions they enjoy with parents, teachers and friends. Data were gathered and analysed.

**Phase 4. Informing the school community**
Findings from Phases 1–3 were reported to the school community, who then participated in reviewing the educational rationale and philosophy of the School, and its resources for maintaining excellence in the literacy performances of students. Findings were used to lead pedagogical and management discussions in the teaching of literacy and numeracy with staff.

Results
Because of space restrictions on this publication, the following is an overview only of data from the project. A fuller representation is made in an internal document of Camp Hill Infants State School (CHISS) as a report of project (Bartlett, 2004).

**Student data**
A total of 32 students at CHISS answered questions about their reading, writing, and number work. Nearly all children (90%) readily identified someone as a "good reader",
although this typically was a peer (75%) rather than teacher, parent or adult figure. Most (86%) also considered themselves good readers though they were unsure how they got to be so. Children did not easily identify "reading/writing at school" in specific or "reading/writing at home" in specific terms.

While about half in the sample offered no response on several of the other questions including what happened after they had read well, those who responded to the "consequences" issue said either that they were praised (50%) or that they felt happy (20%). There was no clear response clustering in relation to writing. Generally, their responses to various questions about doing well included that re-reading was not highly rated as learning tool, and various reading strategies were not rated as useful at home. That many students did not answer questions related to reading strategies and feelings about reading well, may reflect difficulties with the instrument, or particular developmental stages in cognition and/or language where young children in experimental conditions were not yet ready to respond to cues as presented.

Students nominated practicing writing or writing stories as the preferred strategy in response to various questions about writing. They nominated counting and mental arithmetic as preferred strategies in response to various questions about numbers.

Teacher data

Aspects of teaching style
A selection of CHSIS teachers was asked to comment on the teaching styles of fellow teachers by using a combination of tick boxes and open-ended comments across a range of 20 items, loosely ordered in terms of recognition of difference, connectedness, intellectual quality, and supportive classroom environment.

Tick-box responses
Responses were analysed by computing the frequency of responses (as a percentage) to four categories associated with these two tasks.

Recognition of difference: More than 90% of teachers observed evidence of peers teaching to group identity and active citizenship. In contrast, response rates were at chance levels when commenting on whether non-dominant cultural knowledge appeared to be used and valued in their practices.

Connectedness: More than 90% of teachers observed evidence of peers' knowledge integration, uses of children's background knowledge, and orienting curriculum on problem-bases.

Intellectual quality: All teachers observed evidence of higher-order thinking being targeted and celebrated, and more than 90% observed evidence of peers working directly in developing children's deep understanding, substantive conversation, and knowledge as problematic.

Supportive classroom environment: More than 90% of teachers observed evidence of social support, academic engagement, and self-regulation throughout the observed lessons.

Teachers were also asked to make open-ended comments on a list of 16 personal pedagogy items. More than 70% observed evidence of every one of the 20 response categories related to teaching style except for that related to cultural knowledge explicitly, where response rates fell to chance levels.
Open-ended comments
The automated text-analysis software, Leximancer, was used to analyse open-ended responses of the CHSIS teachers in relation to the general categories discussed above.

The resultant clustering of terms indicated that teachers made statements about the lesson in relation to students on one hand versus the teacher on the other. The term students was associated with terms such as activities, encouraged, discussion, and ideas. The term teacher was spatially associated with terms such as work, words, groups, and expectation.

Talk about questioning differentiated between the contexts for questioning (language, maths, class) and the presumed outcomes (knowledge, life, think, understanding). Teachers also described questioning in terms of child versus children. The term child was associated with book, understanding, think, knowledge, and life. The term children was spatially associated with terms such as group, questions, language, class, and maths.

One way to interpret this is that teacher talk about others' teaching styles during a lesson centered on what activities their peers had generated for students and on what outcomes children achieved.

Personal pedagogy
Teachers were asked also to comment on the personal pedagogy of a peer during observations of that teacher in terms of 16 questions related to starting points for a lesson, managing children's engagement, sensitivity to children, catering for children's learning styles, and teaching moves aimed at children's cognitive processing of content.

Tick-box responses
As previously, the following sections summarise responses in terms of computed frequency across five broad categories.

Starting points: Most teachers (90%) observed the peer using her/his voice in deliberate ways, and independently of content focus, to create a starting point for a lesson. Typically, shifts in pitch, intonation and volume were used in some combination to do this.

Managing engagement: More than 70% of teachers observed evidence of the peer changing children's positions, altering the physical environment, and using lots of verbal motivation throughout a lesson. This was seen as part of the teacher's method to promote children's protracted engagement with lesson content.

Sensitivity to children: More than 70% of teachers recorded the peer using wait time, redirecting answers, and listening as examples of their own engagement with the support needs of individual children within class groups.

Catering for learning styles: Teacher responses were at chance levels for the two items.

Cognitive moves: More than 70% of teachers noted that the peer under observation deliberately attempted to draw children's attention to the processing aspects of learnerly behaviour. This seems to have been nested most commonly in specific aspects of teachers' work, such as when an observed peer activated children's prior knowledge, questioned ways a child had produced an outcome, or constructed classroom talk and general learning environment. It was recorded also where the peer was explicit in their instructions on a task and/or expectations of what would result as a child approached and completed it. Additionally, it was observed in sections where the peer explained and provided for choice in framing children's answers and responding to them.
Summary comments
CHSIS teachers were particularly likely to comment on a peer's strategic use of voice and of moves he/she took to establish and maintain children's understanding and engagement with the learning task. They were inclined to comment on how the peer deliberately moved on children's cognitive engagement and less likely to comment on the peer's accounting for children's learning styles per se.

Open-ended comments
The automated text-analysis software, Leximancer, was used to analyse open-ended responses from the CHSIS teachers relating to the pedagogic categories discussed above.

The resultant clustering of terms indicated that teachers made statements about the lesson or activity in terms of individual children (the child) that focus on the use of voice and classroom resources versus statements about children that focus on the group, work, and questioning. It is also possible to discriminate between statements about questions that focus on the teacher, learning, variety, activities, and time versus statements about answers that focus on instructions, clear, and groups.

One way to interpret these clusters of terms is that these teachers view personal pedagogy in terms of its effect on an individual child rather than on children in general, or in terms of a flow of questions and answers that position teacher and child in expert and novice roles.

Teacher responses to questions about literacy
Teachers commented on questions related to literacy generally and to boys' literacy specifically. Leximancer was used to analyse their comments.

The resultant clustering of terms indicated that CHSIS teachers had centered their responses on the interests of children (interests, children) on one hand versus contexts for learning on the other (reading, read, students, and variety).

In making statements about boys (and girls) these teachers distinguished contexts for literacy and the school that contrasted learning experiences (real, learning, experiences) with the agencies for these experiences (teachers, parents, home, child, support).

These clusters of terms suggest that teachers see home life as importantly intertwined with school in a support of children's learning. Their statements about teachers are distinct from those about children or learning experiences indicating a construction of teaching as an activity to learn about the interests of children and to bring these together with existing contexts or as new context when facilitating the children's growth through learning. Interestingly, these existing contexts include parents. Teachers see home as mutually supporting school in learning activities – in contrast with the clustering by parents reported below.

Parent data
The verbal utterances of 28 CHSIS parents in relation to questions about literacy and boys' literacy specifically clustered in ways indicating that CHSIS parents made statements about boys in relation to support for learning (support, learn) versus general school activities (children, school activities, teachers, teacher, learning).

They also distinguished between home life (child, parents, home) and a variety of activities associated with learning (books, games, read, reading, encouraging, numeracy).
These clusters of terms suggest that parents see amongst distinctions between home life and school life, the types of learning activities or contexts for learning that each provides. Support at home for learning is conceptualised differently, perhaps suggesting that teachers at CHISS continue with those things that they have been doing and that are assumed to align with children's consistent success, while parents play more informal roles in this respect. This is an area that needs further investigation.

Discussion
As stated above, this study hoped to identify the management practices used, how teachers adapt teaching methods to better suit boys, how boys become involved in the education process, and how the school and home sustain their interest in learning.

Management practices used & the adaptation of teaching methods to suit boys
An examination of Year 2 test results and anecdotal evidence supports a conclusion that management practices and the adaptation of teaching methods by teachers at CHSIS have successfully established and maintained the interest of boys in learning.

Examination of teachers' judgments of their peers indicates that teachers employ variety and flexibility of elements in teaching style and personal pedagogy, with the latter slightly narrower. Of particular interest in relation to teaching styles is the tendency of teachers to see the lesson in terms of the major players (what children are doing as students; what they are doing as teachers) and the form and content of teaching and learning. This is a clear representation of their view of the profession and of their peers as professionals. Significantly, the term, 'work' is closest to the origin point of the two axes, indicating its central position in the teachers' thinking.

The tendency to distinguish in open-ended comments between child and children, and between questions and answers, is interesting in terms of personal pedagogy. These distinctions go to the heart of the approach to personal pedagogy at CHSIS. Teachers have a prototype view of "child" which is adapted to suit the interests they discover about any one of their children in providing a school-based experience in learning. They also see questions as a means to an end, serving as traffic signs along the learning pathway to answers that reflect intellectual quality in the "work" done by their students.

There is a high level of interest (as evidenced in the percentage of comments) about use of voice, coupled with the lower levels of interest in the more mechanical aspects of classroom management, including routines, removal of distractions, and proximity of children. It may be that teachers found some of these labels for personal pedagogy unhelpful, hence avoiding them in ascriptions of what they were observing in each other's work. It may also be that the evident lack of teacher interest in these micro-categories of classroom management provides a rationale for the superior achievement of literacy by CHSIS boys. That is, the willingness of teachers to focus on higher-level aspects of teaching and learning as opposed to the orderliness of the classroom setting is beneficial to students, notably the more restless boys.

How school and home sustain children's interest in learning
Text analysis of teacher and parent talk at CHSIS suggests that the two groups agree in noting the high achievement of literacy by boys, but differ on how this happens. Both
distinguish between learning activities and the contexts for learning in similar ways. But, they differ about whether the home is the primary context for supporting this learning. Teachers see parents, teachers, and support as synonymous, whereas parents view teachers and support as synonymous, but distinct from parental contribution.

How boys become involved in the education process
While video footage (e.g., the velvet capes) provides exemplars of how teachers at CHSIS have adapted teaching methods to better suit boys, the survey of 32 children was not highly revealing of the involvement of boys in the education process. One reason for this might be that the questions selected for this purpose did not prompt students to address these issues. Another is that there are no differences in what happens at school that are discernible to boys at this age.

Conclusions
This study has identified the concomitants of literacy for boys at CHSIS as revealed in the perceptions of students, teachers and students. The jigsaw comes together as a testable conclusion that:

Where children recognise good reading and writing through identifying peers who can do both well, and identify themselves as good readers and writers, where they are reinforced for performing well; where teachers deliberately research children's interests and harness this information in the selection of resources and the application of pedagogy; and, where parents value and support their children's literacy development albeit without consciously aping what they believe happens for the same purposes at school – then a school environment will exist where children in the early years of education will be successful in acquiring and demonstrating reading, writing and number.

The study has raised more questions than it has answered and there is need to use the opportunity provided by this case study of a successful educational experience to conduct a broader scale investigation.

The current phase of this study has focussed on the performance of boys at CHSIS in regard to reading literacy. There might be some value in considering the extent to which both boys and girls are performing across the range of literacies, and to track the pathways taken to further achievement as CHISS continue life’s education through middle schooling and beyond.

References

1 Responses to Other and a redundant version of activating prior knowledge omitted.