Spellbound: a case study of prefatory spelling development

Phil Fitzsimmons

University of Wollongong

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Phil Fitzsimmons

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Abstract.

Operating within a Naturalistic Paradigm, this study illuminates the spelling development of one child through the transition from home to school. Observed over an eighteen month period, the subject of the study was the author's son, Tim, who was four years and one month old at the commencement of the project.

A co-researcher was used in the school observation period to negate any adverse reaction by Tim, which would occur by my presence in the classroom.

Data analysis was based on a dualistic approach incorporating the notion of "Grounded Theory" (Glaser and Strauss 1967) and the analytical process termed "Content Analysis" by Stone, Dunphy, Smith and Ogilvie (1966).

The resulting synthesis revealed striking qualitative similarities to the research undertaken by Temple & Gillet (1989). However their research suggests that the learning to spell process occurs within a "ladder model" of sequential progression, while this study revealed the process to be based on a complex grid of recursive and overlapping patterns. The strategies Tim employed, although convoluted, operated in parallel with each other, rather than lower order forms leading directly into the dynamics of the following stages.
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CHAPTER ONE:

INTRODUCTION
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INTRODUCTION

1.1 Purpose of the Project.

The purpose of this inquiry is to illuminate the development of the initial spelling strategies by focusing upon of one particular child during his final preschool year and his first year of school.

1.2 Aim.

Because our beliefs shape our behaviour and therefore directly influence "teachers decisions about language instruction and evaluation" (Rhodes and Shannon 1982, p1), this study seeks to broaden the knowledge base about the kinds of print knowledge children may bring to school and how this knowledge and associated attitudes are affected by a teacher's beliefs and practice.

Thus inferences may be drawn about teacher practice and curriculum, not only in the early years of school but in later stages of development as well, since

"it is through understanding contextual constraints and their relationship to literacy learning that we can identify, tap and develop the necessary resources of literacy instruction and learning. In spite of or despite one's particular theoretical position on language and language learning, a first step towards improved curriculum is recognition of the relationships between instruction and learning." (Deford and Harste 1982, p593)
1.3 **Time Frame.**

This study was conducted over an eighteen month period from January 1989 to June 1990. This incorporated the year prior to the child beginning school and the first six months of kindergarten.

1.4 **Participants.**

The child in focus was the author's son, Tim, who at the beginning of the project was four years and one month old.

The other key informants were Tim's mother, Kate, his pre-school teacher, "Judy", and his kindergarten teacher "Joyce".

1.5 **Sites.**

This study was conducted in two sites, the home and the school. Tim has a younger sister and brother who at the commencement of this study were aged 3 years 1 month, and 1 year 5 months respectively.

At the commencement of the study in the second site Tim was attending a small third class primary school with 240 children attending. It drew children from a middle class socio-economic population.

As stated in the teacher's program (See Appendix 148) there were 29 children in Tim's class, 13 girls and 16 boys. The majority had a good command of the language. Five children were second phase E.S.L. children and two had speech problems.

For the first time in several years the kindergarten intake was 59 children, necessitating the formation of two classes. These were divided according to the age of the children i.e.,
those born between January and December 1984, and those born after December 1984. Tim was placed in the older group and was the second youngest in the class.

1.6 Rationale for the Study.

In formulating this study I was particularly influenced by current trends in education administration and curriculum development; recent media reports denigrating teaching methods which have supposedly lead to declining literacy standards (especially spelling); the completion of long term "traditional" research in my current school which has left staff, parents and pupils with no tangible direction, information or recommendations; and a personal belief, about language learning and corresponding modes of educational research. These trends, actions and beliefs which underpin this study are summarised as follows:

1. Need to challenge present teaching practices and beliefs.

As Bouffler (1988) and Flower (1966) have pointed out, there appears to be little understanding of the learning to spell process. Hence, while teachers may implement a "process writing" approach, different modes, philosophies and theories may be applied to the teaching of spelling. Confusing and conflicting demonstrations may result in creating confusion among the children. Thus this study hopes to shed further light upon the spelling process, to draw out related implications for classroom practice.
2. **Accountability.**

With dramatic restructuring of the N.S.W. education system, schools are becoming increasingly accountable both economically and educationally. As increasing funds are given over to schools, public awareness and concern about the quality and standard of the "3 R's" will also increase. One of the current key judgemental implements parents use is the standard of spelling that their children exhibit. This parental expectation needs addressing on two key points:

a. Increasing parental awareness and expectation require teachers to formulate programs, strategies and instruction that will ensure optimum spelling development.

b. Disspelling several myths in order to provide maximised language and spelling development; these myths include:

i. the importance attached by parents (and teachers) to a child's ability to spell lists of memorised words;

ii. the use of spelling as a general or sole indicator of writing, language or teaching standards;
iii. the nature of spelling itself, and its function and role within the writing process.

As parents are now encouraged to take an active role in the day to day running of schools within the N.S.W. educational system, the more "explicit" teacher beliefs, practices and curriculum development become, the more likely an harmonious relationship will be achieved among educators, administrators and parents. This study seeks to clarify an often misunderstood section of current teaching trends, that is, the teaching of spelling. By revealing and encapsulating one child's reality, teachers and parents alike may choose to transfer the pedagogical inferences drawn from the project to their own school environment.

3. Choice of the Natural Inquiry Paradigm.

Learning to spell is not simply rote memorisation of lists of words; in real life usage, spelling is an integral part of writing. Spelling has no meaning outside of writing, but teachers are often concerned with spelling as a product, not as a part in the writing process. Spelling in fact is a complex language process involving an intricate array of cognitive strategies. In order to chart these multiple facets, what is needed is a "focus on definitions, meanings and descriptions, placing all in context...... based on the
notion of context sensitivity..... with all acts interpreted by
drawing on these larger contexts." (Dabbs 1982, p32)

The alternative is a research design based in the
"rationalistic" paradigm. This would necessitate control
over setting and experimental tasks in order to validate
specific hypotheses. Thus the research would incur
experimenter effects, negation of phenomenal reality
causing genuine failure in being able to transfer, validate
or corroborate the findings in real life situations.
(Rosenthal 1966, Orne 1969, Mischel 1968, Philips 1971.)

With these difficulties in mind, as well as the need to
investigate spelling development in the child's home and
school, a naturalistic mode of inquiry was adopted for this
study.

4. Professional dissatisfaction with"experimental" language
studies.

Burton (1973, p180) states that within the teaching
profession "there has been an abiding uneasiness with
quantitative methods and perhaps with the empirical
approach generally," because as Kantor, Kirby and Goetz
(1981, p294) argue, "experimental inquiry has emphasized
hypothesis testing, control of variables, stripping of
contexts and reductionism, which failed to provide the
professional consumers with any readily interpretable
ongoing and effective data or direction."
Due to the large volume of related but often apparently conflicting literature available to teachers, there is a need to clarify the nature of spelling and how children begin to learn to spell by establishing consistent, supportable and relevant links within a framework of current views on language learning in general. These views are further exposed and discussed in the following chapter.
CHAPTER TWO:

LITERATURE REVIEW
CHAPTER 2
LITERATURE REVIEW

2.1 Introduction.
This literature review seeks to make sense of the profusion of material available by relating it to the current view of language exemplified in the following:

"Our preoccupation with matters of English spelling has a long history. There is no lack of writing on the subject for those who care to read in the area. The problem is that it is often difficult to make sense of the plethora of material available. It is even more difficult to relate it to a consistent view of language...... We need to set aside learned attitudes and assumptions and see spelling as facet of written language."

Bouffler (1987, p86)

Current teaching trends, based on the most up-to-date research, view spelling not only as a facet of writing but as an integral part of language itself. Accepting this notion the following points underpin this review.

1. Optimal language learning in the classroom occurs when the natural conditions of learning, as described by Cambourne (1984), are fostered and developed.
2. Reading, and writing are parallel manifestations of "language", spelling being an integral facet of these two language processes.

2.2 Language, Writing and Spelling.

Children's learning processes, such as learning to spell, evolve through language use, as children gradually re-invent for themselves the linguistic rules adults use. Halliday (1975) describes this as a process of "learning how to mean", with each child having "its own system of meanings" Halliday (1975, p10).

Zutell (1975, p896) argues that research in language acquisition shows conclusively "that children do not learn language through imitation, rather they construct their own rule systems." Zutell (1975) and Forester (1980) maintain that, as with all language activities, writing and spelling develop through a highly personalised "system of meaning." A rule-construction, hypothesis-testing process in which the stages children traverse show "striking similarities with those of learning to speak." (Forester 1980, p187)

Researchers such as Graves (1978), Clay (1982), Feirreio (1978), Duckworth (1979), Henderson (1980) and Bissex (1980) have reached similar conclusions. It appears that from a very early age children begin to develop hypotheses about writing. Simple though they may be, such hypotheses include:

- writing has shapes;
- shapes are separated;
- shapes go in lines.
In reaching these conclusions, children move "across several strands of language learning." (Clay 1982, p69) As Chomsky (1970), Clay (1979), and Graves (1983) point out, there is evidence to suggest that learning in one language strand (e.g., reading, writing) is aided by what is happening in another area.

Clay (1982, p19) puts forward one possible format children use in drawing from their language environment. This format includes:

- trying to organise a theory about written language;
- trying to express their experience in writing;
- exploration of spelling patterns;
- incorporating and developing new language options;
- developing a wide range of language forms.

However, just as children move through individual oral language paths towards adult competency, continually changing and re-inventing new hypotheses, children shift to new hypotheses about writing as the current ones conflict with the written structures they encounter. Children invent and compare their inventions with the writing they are confronted with, developing models that gradually become more elaborate and complex, approximating those of adults (Applebee, 1978; Bartlett, 1981; Chomsky, 1970; Forester, 1980; Duckworth, 1970).
While writing may begin with the forming of print, children search for a strategy to make the print meaningful to not only themselves, but others as well. Spelling approximations are the contextual strategies which initial writing engenders. As Read (1975), Chomsky (1971), and Gentry and Hendersen (1978) explain, young children do not have the pressure of concern with standard spelling. Their main concern is message formulation and so they put all their energies into drawing from their own knowledge, environmental sources or simple invention. Gentry (1987) states that invented spelling is a refining process: the more they write and take risks, the more they are refining their understanding of print, so that

"Learning to spell is a matter of acquiring knowledge rather than habits."

(Gentry and Hendersen 1978, p632)

Children reconstruct their theories about writing and print from many diverse experiences, "seeing print in the environment, putting pencil to paper, thumbing through books and magazines, receiving birthday cards, invitations and letters". Clay (1982, p66)

Chomsky (1970), Bouffler (1987), Dyson (1983), Graves (1978) and Holdaway (1979) have all noted that learning to write, like learning to read, "surely involves forming hypotheses about the relations (direct and indirect) of spelling to pronunciation and changing these hypotheses as new evidence is added, eventually arriving at a system of interpretation that is in accord with the facts." Chomsky (1971, p511). This
hypothesis construction is a highly active process, taking the child far beyond the limits of basic spelling rules often taught in classrooms (Gentry, 1987; Cambourne, 1984b).

Chomsky (1971) has clearly stated characteristics and conditions of learning environments conducive to growth in language ability, particularly in spelling abilities. These are:

1. The maintenance of a supportive climate by caregivers, allowing freedom of expression with meaning clarification as the major goal; being accepting and responsive to the enjoyment of the children's efforts.

2. Respect given to children's efforts which may entail the use of non-standard spelling.

"Invented" or creative spelling is enormously valuable in the confidence which it gives the child in its own expressive capacities.

Chomsky (1970, p501)

3. Developing the idea that the degree to which children experiment, depends very much on the initial reactions of the adults in his/her immediate environment, towards the first attempts at spelling.

These ideas are further explored below, in the context of pre-school writing.
2.3 Pre-School Writing and Spelling.

Pre-eminent amongst those who have investigated preschoolers initial spelling and writing attempts is Read (1970). Strikingly similar to the views of Chomsky (1970), Read observed that children who used invented spelling freely and without inhibition had parents who did not transmit the attitude that spelling was arbitrary and had to be memorised. Moreover, these parents were encouraging by being simply accepting of even what appeared to be poor spelling habits.

Many educators, researchers, administrators and parents have expressed concern that a child's lengthy exposure to and constant initial habits of inventing spelling may lead children to retain misspellings, without reaching the maturity of the adult conventional mode. While Chomsky (1970, p510) argues that there is relatively little evidence available, research by Gentry (1981), Teale (1982) and Valmont (1972), suggests children who are constantly confronted by standard spelling, gradually adjust their hypotheses until conventional spelling is achieved.

Read (1970) reached similar conclusions. He found that children relinquished their private invented spelling whenever demands were made on them to do so. It appears that children do not acquire an attitudinal problem or poor habits in continuing their invented spelling, at the cost of standard spelling.

With each successive developmental step, the spelling approximations are the product of a system of semiotic type representations. Acquiring standard spelling appears to require "replacing principles of representation, not individual spelling."
(Chomsky 1970, p152), Templeton (1980) argues that this replacement of representation reflects changes in the "symbolic primacy in a person's mental dictionary." In other words, spelling information may be accessed, changed and reproduced according to an individual's cognitive word picture or the meaning attached to a group of letters. Likewise, Dyson (1981) points out that a child can therefore regard spelling as having a life of its own.

This difference in perception may account for the findings of Read (1971), Chomsky (1971), Nelson (1974), Zutell (1978) and Hodges (1982), who have all noted that in the initial excursion into the printed world surrounding them, children seemed to regard writing differently from the print they read. Writing was fundamentally expression while reading was simply communication. Chomsky (1971) argues that this difference in perception should be expected and utilised, in that writing should become the "seed bed" of reading. Believing that children should be introduced to the written word through writing rather than reading, as spelling creatively for a period of time before children are ready to read produces a feeling that the written word is something of which that they can claim ownership to, rather than

"something arbitrarily given that he has to decipher. Print becomes primarily a vehicle for self expression. Later, when ready to read, this background and viewpoint very much affect the nature of the task." Chomsky (1971, p513)
2.4 Helping the Developing Speller In the Pre-School Years.

Read (1970, 1971, 1973, 1975) noted that pre-school children who invented their own spelling systems were initially little influenced by the standard system. It appears that these children had a driving need to invent for themselves a personal standard in order to create meaning for themselves and to some extent others.

In his study of twenty-one selected clear cases (with a few marginal ones), Read (1971) found that in each case the child first learned the conventional names of letters of the alphabet and then, with blocks or other movable alphabet toys, began to spell words. Finally, written messages of all kinds were produced, which included stories, letters and poems.

Clearly recognisable writing began at age three-and-a-half, often before the children could read. More importantly, children's own spelling systems persisted well into the first grade, where "they gradually gave way to standard spelling under the influence of formal instruction in reading and writing" (Read, 1971, p3). From this study, Read suggests that all children automatically produce spontaneous spelling, particularly if similar pre-conditions exist, as with this study. These included the existence of the child's interests and abilities, together with the tolerant attitude of parents towards apparently "poor" spelling. More importantly, Read (1971) found that each of these children arrived at roughly the same system, using certain spellings that "seemed implausible to his parents and teachers, but which can be explained in terms of hypotheses about the
children's implicit organisation of English sounds" (Read, 1971, p4).

Read (1971) suggests several generalisations which he believes have had tremendous implications for educators of children in the elementary grades. These include:

a. Pre-school writers are remarkably independent, creating most of their own spellings by trying to represent sounds to the letter names they know. These efforts may occasionally lead to standard spelling, but mostly they do not.

b. The letter names "a", "e", and "i" are used to spell words such as KAM (for "came"), FEL (for "feel") and LIK (for "like"). When children need to spell words that have short vowel sounds, they often choose the letter name (i.e., the long vowel sound), formed in much the same way by the speech organs.

e.g., for the short /e/ sound, the long /a/ sound may be chosen, for example "fell" is written as "FALL". Such spellings seem odd to most adults, simply because they have long learned that "spelling represents the lexical level at which the first vowel of penalty is related to that of penal. To adults this relation has become a perpetual fact, and not always an easy one for beginning students of phonetics to displace" (Read, 1971; p8).

Read (1971) suggests that the misspelling choices are often regarded as errors, when in fact they are quite
plausible if we view them as evidence of children's attempts to use generalisations about the sounds of our language and of the relationships of these sounds to our alphabet. Young children making these kinds of generalisations are not simply memorising sequences of letters but are making attempts to discover and understand relationships which can be used to generate more words or letter groups.

"Such attempts are highly significant given that children's knowledge of such relationships may be more important than the establishment of habits through practice." (Read 1971, p8)

c. A further example of children using sounds which they form and hear is their use of affrication. In particular, Read (1971) found that the children whom he observed seemed to hear the "shh" sounds in words where "tr" and "dr" conventionally would be used. In casting around for letter combinations which they know represent this sound, children also typically use "ch" for "tr" and "j" for "dr". Rather than haphazard attempts, Read (1971) found an underlying sensible system being applied by children: he came to believe that they had a deep underlying understanding of the sounds of our language through their spelling representations of nasals, syllabic segments and alternations. Often viewed as "errors", these attempts represent generalisations children make about
the sounds of our language and the relationships of these sounds to the English alphabet.

Since the seminal work of Read, other researchers such as Zutell (1978), Bissex (1980), Gentry and Henderson (1978), have confirmed the initial spelling attempts described by Read (1971, 1973). Using a methodology of close observation paralleling that of Read (1971), Zutell (1978) also came to the conclusion that children naturally begin to spell by using the most obvious aspect of the speaking-writing interaction, which is the relationship between sounds and letters. Zutell (1978) believes that children are actually more proficient than adults in hearing sounds in words:

"Their spellings often appear strange, not because they are random letters or an indication of poor auditory perception or discrimination, but because adults, as knowledgeable users of the system, have learned to ignore some very real similarities in sounds. (Zutell 1978, p845)

Common examples of this include:

a. "HARE" for "cherry"

Children often use the names of letters as opposed to just letter sounds in trying to represent what they hear. The sound /ch/ is part of the letter's name "ach".

b. "GRIV" for "drive" and "CHRUK" for "truck".

"Many spellers produce such spelling when "d" and "t" precede "r" in the /tr/ and /dr/ beginning blends although
they have no trouble with beginning "t" and "d" otherwise" (Zutell 1978, p844). In the word "drive", children may hear the sound /j/ at the beginning, and the name of the letter "g" is /J/. So "g" is used to spell the beginning of "drive".

The child may spell the beginning of "muck" with a "ch" because the sound /ch/ as in "choke" is often heard at the beginning of that word. Zutell elaborates upon this phenomenon thus:

"Young children have a highly sophisticated intuitive understanding of English phonology and they use this knowledge in their spelling attempts." (Zutell, 1978, p846)

When children do not have to worry about the mechanics of letter formation and standard spellings, they are free to put their energies into the message. Chomsky (1970, p5) maintains that allowing children to invent their own spelling indeed helps them to spell in the conventional way,

"for once you have invented your own spelling system, dealing with the conventional system comes easy. You've got the principle and you have already done a good bit of the intellectual work." Chomsky (1970, p79)
2.5 Implications for the Teacher.

The assertion that children themselves are the key participants in their own learning rather than merely being acted upon has momentous implications for the teaching of spelling. The basic premise that in the development of oral and written language "children learn not as mere imitators but as experimenters," (Bissex, 1980, p197) directly challenges the common teaching practice of memorisation and drill of words.

To advocate this practice is to suggest

"that spelling is arbitrarily related to speech and can only be memorised. This is not true of either standard spelling or the child's own invention." (Read 1971, p33)

The ability to spell grows from an understanding of a system. Spelling correctly may be simply an habitual act for mature writers, but learning to spell, like learning to speak, involves "constructing and revising one's own rules" (Bissex, 1980, p198).

To allow "the construction and revising of rules", both parents and teachers must provide time and materials for the child to participate in real writing experiences. They must also be willing to accept that the child's own efforts will not lead to a continuation of "bad habits" but the development of a system. This spelling system derives largely from an ability to think as well as and an understanding and discovery of underlying patterns and sequences of letters.

Teachers can no longer simply assume that a child approaches reading and writing in the same way "as an
untrained animal approaches a maze, with no discernible prior conception of its structure" (Read, 1971, p33). A child is not an empty vessel waiting to be filled with conventional adult spelling but rather a dynamic force, coming to school with a knowledge of some or even many phonological categories and distinct relationships.

Therefore teachers should aim to foster and encourage the growth of spelling relationships, building upon the already existing predispositions to grasp patterns of meaning (Dyson, 1981, p578). Bean & Bouffler (1987), echoing the work of Read (1971), Bissex (1980) and Gentry (1981), point out that teachers need to develop "meaningful" language settings, settings where language is used in context.

Learning to spell is no different from learning other aspects of language. Children need to be exposed to print in many and varied situations. Also, as Smith (1982), Graves (1978) and Bouffler (1987) point out, children need to have opportunities to use writing in a variety of situations and a variety of purposes: "good spellers are those who from the beginning form a spelling consciousness through purposeful writing." (Gentry, 1981, p380)

However, several researchers, such as Bouffler (1987, p89) and Hodges (1982) translate Gentry's (1981) view of "purposeful writing" and Beers (1974) notion of "sensitivity" into a multi-faceted approach: Markoff (1976) and Bouffler (1987) describe spelling as multi-sensory perception with the learning to spell process being the product of sound, touch, motion and cognition, finally resulting in a feeling, or "intuition" that tells children a misspelt word is wrong. Indeed Markoff (1976), Woodland
finally resulting in a feeling, or "intuition" that tells children a misspelt word is wrong. Indeed Markoff (1976), Woodland (1975), Fehring (1983) and Peters (1967) argue that when children write, they unconsciously utilise a visualisation process interfusing letter shape with the ordering and sequencing of letters, leading to word formation. Woodland (1975, p6) explains that these "abilities improve until the movements are sublimated and only the word is visualised." Teachers can enhance this sensitising process by furnishing demonstrations that show how spelling is undertaken in the writing process or activities such as proof-reading which develop spelling intuitions.

Read (1986) and Feireiro and Teberosky (1982) believe that this visualisation process could be better enhanced through reading. They argue that as we live in a print oriented society wherein children receive many print demonstrations, to be a speller, one has to be a reader; however, simply being a reader does not guarantee good spelling. To have demonstrations of print is not enough, rather one must be "sensitised" to the print, or as Bouffler (1987, p89) puts it, a child has to

"read like a writer, by bringing to the reading situation a writer's sensitivity to spelling..... Spelling is at the interface between reading and writing."

As children learn to read and write, they learn to spell. To support this learning, Smith explains that "the teacher's role is fundamentally to provide an environment in which a child will
Gentry and Henderson (1978), echoing the work of Bissex (1980) and Read (1971), advise parents that they are often too imposing in demanding strict spelling accuracy from beginning writers. Parents should be aware that a teacher may closely scrutinise non-standard spelling and follow a child's spelling errors without bringing unnecessary attention to the errors. They suggest that a teacher who de-emphasizes standard spelling is less concerned with correctness than with understanding the reasoning process that a child may use to arrive at a non-standard spelling. Teachers should respond appropriately by showing children the relationship between spelling meaning and phonology. As well,

"In order to respond to non-standard spelling, the teacher must recognise the transition from one developmental stage to the next." (Gentry and Henderson 1978, p 635)

2.6 Stages Strategies and Sequences.

2.6.1 Stages of Spelling.

Many researchers such as Read (1971), Beers and Henderson (1977), Gentry (1982) and Bolton and Snowball (1985) have found that as children begin to write, the process of learning to spell develops gradually through clearly defined stages, which reflects further cognitive growth. Henderson (1980) and Read (1971) even suggest that when teachers do not allow children to move through these developmental stages, children's growth in understanding of how spelling works may be impeded.
While putting forward stages of development grounded in observational research, Gentry and Henderson (1978) and Graves (1983) note that while these stages may often be clearly defined in children's writing, teachers should not accept without question that fixed stages or sequences apply to all children.

There is ready and widespread support that as with other language learning, spelling gradually develops, providing that the environment is conducive. Furthermore, one piece of writing may display spelling that would fit into several stages. As children move through various stages lower order attempts may linger. Even as children gain control over adult conventions, they may revert to strategies and approximations previously used.

Use of the traditional weekly spelling list does not ensure successful completion of spelling stages because as Read (1971), Bissex (1980) and Gentry (1981, p380) also point out,

"spelling competency does not come from memorising a word list each week for thirty six weeks over a span of eight years. Good spellers are those who from the beginning form a spelling consciousness through purposeful writing."

Both Beers (1980b) and Zutell (1979) also found that children tend to move through cycles of spelling sequences; with each cycle the child "progressively develops more sophisticated strategies for dealing with English orthography" (Zutell, 1979, p71).
strategies for dealing with English orthography" (Zutell, 1979, p71).

Since children appear to exhibit stage-like growth in their active learning about spelling, it follows that phonic drills, and the typical weekly spelling list and testing cycle, are unlikely to encourage and stimulate active participation in developing spelling concepts through writing. Opportunities for children to test or evaluate their own hypotheses about orthography then would become very limited. As Beers (1980), Elkind (1974), Henderson (1981), Furth and Wachs (1974), and Forester (1980) have suggested, children develop cognitive abilities at different rates, and hence different reading, writing and spelling understandings. To lock a class of children into a language or spelling pattern, which intends to have them move through the same content, in the same sequence, fails to take into account how "literacy is practised (and then learned), thereby creating a situation in which the teaching is an inappropriate model for learning." (Holdaway, 1979)

2.6.2 Stages of Thought and Development.

Elkind (1974) suggests that children cannot deal with letters and hence writing until they have attained levels of cognition which allow them to consider more than one dimension of a letter. Conceptualisation of the complex meaning-making process which spelling represents is a high level intellectual undertaking. As Templeton (1980), Furth (1980), and Stever (1980) point out, while pre-school children initially employ whole meaning to single letter elements, these early attempts
are strategic to later development, and far from being random signify the beginning and basis of a highly organised developmental process. With expanding cognition there is a corresponding development of complexity of spelling understanding.

Temple and Gillet (1986) have carefully delineated the increasing orthographic awareness which young children exhibit in their invented spelling program. They have identified and described four developmental stages which are described in the following table.

TABLE 1:
STAGES OF DEVELOPMENT - Temple & Gillet (1989).

1. **Prephonemic Stage.**

   Age Range: older pre-school -- Year 1.

   Characteristics:

   phonemic spelling, with random letters and numerals
   often unreadable, not representing sounds
   usually arranged in horizontal lines
   may contain unbroken lines or
   arranged in word like configurations.
2. **Early Phonemic Stage.**

Age Range: beginning readers Kindergarten, Year 1 some older children.

Characteristics:

Made up entirely of letters, short strings of small words new groups of letters representing whole words although incomplete.

Phonic segmentation begins with some letters used to represent some of the sounds in the words.

Other features include initial consonant use with some final sounds.

3. **Letter name spelling stage.**

Age Range: most first class and many second graders. Typical of beginning readers who can read a little but not yet fluent.

Characteristics:

Still incomplete definite phoneme-grapheme relationships.

Names of letters representing sounds in words as well as sounds of letters.

Some sounds clearly evident in words are systematically omitted (e.g., m's) before consonants, vowels in unstressed syllables.

However more sound features are represented than in earlier stages.

Other characteristics include:

Long vowels used appropriately, but unmarked (as with silent e)
Short vowels substituted by using vowel-letter names or omitted altogether, verb tense and plural endings spelled as they sound.

4. **Transitional Spelling stage.**

**Age Range:** typical of young pupils beyond beginning reading stage and older ones who are still unfluent readers.

**Characteristics:**

Spelling is now nearly complete all phonemes are represented, long and short vowel sounds are generally corrected or typically e.g., HED (head). An awareness of marking systems such as silent letters/consonant doubling but markers are used inappropriately. Text is now readable by others. Several attempts at spelling a word may be undertaken, often a correct form may be abandoned for a misspelling. A awareness of inflectional endings may be revealed but words are often spelled phonemically.

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While Temple and Gillet's (1989) attempt to explain the development of spelling give a much broader and detailed pattern, it is still based on the "ladder model" of language acquisition and instruction. In accordance with this sequential model, the suggestion is that children do not progress to the next stage until they have mastered the previous one(s).
If as Bouffler (1987), Zutell (1975) and Forester (1980) suggest learning to spell shows a markedly similar pattern to learning to speak, then, as Ferreiro (1986) advocates, a more complex model based on recursive assimilation is needed. Also if conflict and tension (Dyson, 1986 and Feirro, 1980) are at the centre of the evolution of writing, spelling development then "cannot be described as a succession of accomplishments. To grow into literacy is not a restful traveling from one stage to another. Many ups and downs are found along the way, the precise meaning of which we need to understand" (Feirreiro, 1986, p48).

While supporting in principle the notion of developmental stages, Dyson (1981) adds a potent warning that researchers and teachers should not assume that all children begin their exploration of writing and spelling in the same way, that in fact there may be a variety of beginnings:

"Writing does not necessarily begin with the understanding of the alphabetic principle. Writing may begin with the selection of an idea, a thought, a thing to put in print, and the discovery of some strategy for making that thought visible. Conversely, writing may begin with the forming of print and the search for some strategy to make print meaningful" (Dyson, 1981, p783).
2.6.3 **Strategies of Spelling.**

Hodges (1982, p288) suggests that not only can we learn how to teach children to spell by observing them grow in spelling ability, but studying how proficient spellers operate can also be of great benefit:

"Observing the strategies used by older, more proficient spellers is another avenue of research that can lead to a fuller description of the nature of spelling." (Hodges, 1982, p288).

The main thrust of Hodges' (1982) research is that proficient spellers draw upon a full range of semantic, syntactic, morphological and phonological information when attempting to spell words that are unfamiliar to them. Resorting to a more "primitive" phoneme-grapheme strategy only when higher-order clues fail to elicit the particular words they are attempting to spell. He points out that proficient spellers have developed their spelling ability as part of the acquisition of written language skills generally. "The development of their spelling ability is governed by cognitive processes that are involved in language development." Hodges (1982, p287)

Proficient spellers, according to Hodges (1982), have the following characteristics:
a. As children develop towards the ability to spell the words they want to use in their writing, they observe and analyse what they see written and what they write themselves, developing their own logical scheme for spelling words at a given time.

b. Proficient spellers appear to know words in many guises e.g., visually, morphemically, phonetically and semantically. They select and use the most potent information needed in determining how to spell unfamiliar words.

c. They have well-developed thinking and language skills.

d. The paths and ways young children take in learning to spell are not necessarily the ways an adult would delineate a linguistic description of English orthography. "They seem to learn to spell by developing an understanding of the total framework of English orthography and the interrelationships among phonological, morphological and other language factors which orthography reflects" (Hodges, 1982, p289).

Rather than simply being exposed to print, Smith (1978) believes that to become proficient spellers, children must have opportunities to develop a "sensitivity" or cognitive "feel" for word construction rather than the traditional phonetic rule-
based approach. Smith (1978) suggests that children become "attuned" through writing, reading and speech. Language is learned through language in use, where as Smith (1982) points out the worst spellers are the "wuns hoo rite fonetically."

Children become proficient in spelling by seeing and hearing language (in all its many forms) in actual use. Perhaps more importantly, good spellers became that way because in their experience there is the absence of any expectation that learning will not take place and that it will be difficult. Learning in this atmosphere creates a paradoxical situation in that children moving to proficiency seem simply unafraid to make mistakes: as Smith (1978 p27) argues, "The more often you want to be right, the more often you must tolerate being wrong."

Risk-taking to sustain meaning is the core element in all successful language and spelling learning. Smith (1978), Peters (1970), Cripps (1977), Nicholson and Schacter (1979), Hanna and Hodges (1963), Elliot (1982), Jackson (1979), and Thomas (1982), while having different opinions on the actual method of acquiring proficiency in spelling, all agree that when young children are writing, "their principal concern is the recording of meaning. Spelling should facilitate not hinder this process" (Bouffler, 1987: p90) Just as successful readers "take risks" using predicting skills, so similar risk-taking predicting-skills are necessary for successful spelling.

However, as Smith (1982) points out, spelling is a different skill from reading. Reading can be described as a process of recognition which involves the perception of minimal cues as the reader makes meaning of print. Not all the letters need to be
noticed or inspected. Spelling however, involves the production of all the letters in words, a process involving the recall and reproduction of letter groups.

Simon and Simon (1973) admit that little is known about this process of recall and reproduction, and this is especially true of young children and their initial attempts at coming to grips with English orthography. As far as older children and adult spellers are concerned, Woodland (1975) maintains that spelling involves visualisation, comparison and imagery. Westwood (1979) believes that auditory skills also play a major role. Simon and Simon (1973) propose that spelling is a matter of generation and testing, while Peters (1975) refers to spelling as "serial probability", that is, the act of selecting from several orthographic representations. Gough (1979) however offers a sobering reminder "that although various people have suggested what happens when we spell, it is more than likely that we differ from each other in the ways, and combinations of ways, we go about the process" (Gough, 1979, p9)

Peters (1967/1970), citing the work of Schonnel (1942) and Hartman (1931), offers advice given by both authors, in that in their earliest experiences, children should be encouraged to perceive whole words and their components. This view appears to be completely opposite to the traditional view of spelling which recognises only one level of graphemic units, "namely the twenty-six letters of the alphabet, which are then recombined in various ways to correspond to phonemes" (Weiss and Venezky, 1973: p199).
This "viewing" of whole words is further endorsed by Peters (1970) who, in studying characteristics of superior spellers, found that proficient spellers seem much better able than poor spellers to recall whole words from memory. Agreeing in principle to the "wholistic" view, Gentry (1987) Hanna and Hodges (1963), and Bouffler (1987) all support Schonnel (1942) in that spelling is more than viewing isolated words and is improved through meaningful involvement in writing. Indeed Bouffler (1987) and Hanna and Hodges (1963) believe that learning to spell lies in the interface between reading and writing. As children write, they alternate between writing and reading or, as Hanna and Hodges (1963, p483) put it, "writers are involved in a two way circuit." Bean and Bouffler (1987, p14) on the basis of their research, believe that teachers should aim at giving young children a "writer's perception... some kind of sensitivity to words in both oral and written contexts. It is through the integration of language activities that children become sensitive to the language demonstrations which surround them."

If, on the other hand, a teacher breaks writing, reading, and spelling down into their individual parts and components, "the teacher ignores how literacy is practiced and therefore learned. "Some children are able to maintain the whole and learn despite the teacher; others accept the teaching model as a way of learning and become its victims."

Teale (1982, p567)
2.7 Conclusions.

As Gentry (1987) and Bean and Bouffler (1987) point out, perhaps one of the most emotive and contentious of all educational issues is the teaching of spelling. In addressing this issue inferences drawn from this review are:

a. In learning to spell children move through a developmental process quite similar to the process for learning oral language. Their progress may proceed through relatively predictable stages. Before school begins many children are actively engaged in constructing their own personal understandings of how spelling and writing

b. Extensive reading and writing experiences help children become good spellers. Immersion in an encoding and decoding process creates the need for children to think about how words are constructed.

c. Memorising lists of words has been found to be an inefficient way of learning to spell. "Spelling has no life of its own except through writing." Bouffler () spelling should not be an isolated lesson but an integral process of the total school day.

d. A spelling program should provide for individual differences in children. Both content and scope of any program should provide a variety of approaches and at
different levels of difficulty to cater for the different developmental stages of the children.

e. An ability to proof-read spelling accurately is an important skill. Instruction in spelling should incorporate proof-reading to help children develop an "intuitive approach" in detecting spelling errors.

f. As Jersild (1955), Prescott (1957), Almy (1974) and Bean and Bouffler (1987) suggest, the only true means of testing beliefs, refining practice and determining success is to carefully observe children in action in the classroom.

But this is a recursive process, "for the teacher who undertakes child study must inevitably also become involved in self study." Jersild (1955, p 24)

If spelling is a discovery process similar to the learning of oral language, as the literature suggests, simple observation in the classroom would not necessarily be able to extricate the overall salient features of this self-construction process. What is needed is an observational process that is highly integrated within the home environment revealing social and cultural constructs. By meshing this observation with the spelling behaviour in the classroom, a genuine totality of experience, beliefs and operational forces could be elucidated. Such a replete observational process is described in the following chapter.
CHAPTER THREE:

METHODOLOGY
CHAPTER 3
METHODOLOGY

3.1 Introduction.

In seeking to illuminate the initial spelling development of a young child successfully capturing the "emic" patterns of perspective and action it is vital that a researcher first carefully delineate the interpretative nature of their own perspective.

The research design of this project is a reflection of the conceptual locus of the key elements in this study, i.e., current research literature; the author's theoretical assumptions concerning language learning and selecting appropriate research modes to investigate this learning; the aim of the study; and the informants and the "real life" settings.

3.2 Rationale.

3.2.1 Author's Underlying Assumptions.

This study's design is based on several theoretical assertions:

i. In language learning, children are active constructors of knowledge.

ii. Long before entry into school children begin to construct their own notions of how written language and spelling works.
iii. Each child's knowledge of how writing and spelling work will be affected by:

a. initial context of the home environment (Heath 1983)

b. the demonstrations provided by environmental print, through television, commercials, labels and signs (Harste, Burke and Woodward 1982: Hiebert 1978).

iv. A child commencing school may encounter significant differences between teacher beliefs and values, and the familiar home environment. The teacher's beliefs about what it is to be a teacher, what it is to be a learner and the nature of writing will influence a learner's attitude to writing. These beliefs will determine the types of learning and writing activities in which both the teacher and learner will become involved, which in turn will determine the extent to which a child's attempts to grow towards conventional adult spelling will be helped or hindered.

v. Since this study seeks to illuminate one child's spelling development from home to school and through the first six months of kindergarten, and not the attainment of predetermined goals or quantifiable outcomes, a mode of inquiry is needed that will accurately chart the multiple facets of "real life" experience.
An investigator, who is able to observe intimately and repeatedly over a prolonged period of time, in a natural setting, should be able to come close to grasping valid meanings of the behaviour and acts in focus.

3.2.2 Choice of the Natural Inquiry Paradigm.

A naturalistic inquiry process seeks to illuminate the total experience of real people functioning, living and communicating in real-life settings. It involves an intense and thorough description of everyday events and experiences; this description is paralleled by reflection upon these events in an attempt to identify the significance of these actions from the various points of view of the individuals involved (Eisner, 1981; Erickson, 1986; Blumer, 1969).

This form of inquiry is not a stock-set methodological package, but rather an adaptable and principled strategy. The choice of research tactics stem not from a research regime or doctrine but from decisions made as to the best available techniques in each individual case. In this style of research, the problem defines the method (Berger and Luckman, 1971; McCall, 1977; Stryker, 1980; Guba and Lincoln, 1985).

3.2.3 Choice of Case Study Methodology.

Describing changes and making connections in the "learning milieu" of the educational and intellectual experiences of young children and school pupils has become one of the chief concerns of "illuminative evaluation." In the past two decades case studies undertaken in the naturalistic paradigm, such as those
undertaken by Halliday (1975), Bissex (1980) and Painter (1984), have become one of the primary sources and methods of educational growth in the language area. This has occurred because, as Walker (1976) and Simons (1980) state, case studies are a step to action, providing insights that may be directly interpreted and put into action by administrators, policy makers and teachers. However, Baghban (1984, p52) puts forward an important constraint in that using case study methodology in language research "it is almost impossible for non-parents to accomplish."

For this reason and the following reasons, a case study was deemed most appropriate:

a. A case study within a family allows the researcher to constantly collect all the multiple reactions of the principal characters without "researcher interference or effects," which occur in conventional experimental methods.

b. In collecting transactions and "linguistic definitions" as they occur and are actually expressed, combined with interaction and negotiation with those involved, reliability and confirmation are significantly enhanced (Macdonald and Walker 1975).
3.2.4 **Participant Observation.**

The core element in case studies is the mode of observation. As inferred from the previous points, the form of observation in this study was participant observation. As Ogbu (1981) and Blumer (1969) state, participant observation is considerably more potent than non-participant observation by a researcher in that:

i. it allows a continuous record of ongoing events, transactions and informal remarks through a wide variety of events;

ii. on site familiarity may provide additional information not apparent from a more formal observation such as interpersonal relations and tacit assumptions.

3.3 **Data Collection.**

3.3.1 **Introduction.**

An overview of data collection and analysis is shown in Figure 1. It should be noted that in this study, data collection and data analysis were interwoven parallel considerations, especially during Phase 2 which took in Tim's first six months of school beginning February 1, 1990, and ending June 30, 1990. During this period, interview sessions with Tim's teacher (marked Interview with Teacher) were not only used as data collection procedures but functioned as data analysis techniques as well. Tim's teacher Joyce was not only an informant but acted as a principle "refiner" of the data collected at home.
3.3.2 Participant Observation.

As Parlett and Hamilton (1983) note, participant observation was also the central pillar of this case study. Being the child's father, I was on hand to not only observe Tim write and spell but was able to reply to his questions concerning spelling and ask him about his spelling products as they occurred. Being more than a simple observer, I was often a "key player" which enabled me to note non-verbal behaviour, continual familial roles and behaviour, on-the-spot contextual information (i.e., historical viewpoints, ongoing family relationships and interaction) and writing/spelling instances as they actually occurred within a completely natural environment.

Being "on the spot" also allowed me to check for parental bias and through instantaneous description using field notes, enabled me to eliminate this bias through later peer debriefing sessions where I was questioned in great detail about specific writing events. Living with the child being observed allowed me to place spelling events in explicit contextual detail (socially, historologically and site description wise), in these debriefing sessions. Recognising that the personal element in observation can never be eliminated (Almy 1974), data were recorded under three distinct headings. Firstly, observations and record of speech transactions. Secondly, contextual detail and thirdly, inferences drawn or questions arising. Thus clearer delineation of the event was achieved as well as separating the "eye of the beholder" syndrome from the observations.
Tim was observed in the home on a first hand basis for eighteen months. Each observable instance where Tim used letters to make meaning was recorded in writing immediately after the spelling event occurred. Detailed description of the site and participants, recurring patterns, a complete running account of the behaviour, hunches, known connections to previous writing, questions which may have been engendered by the spelling event and references to any known literature were recorded.

While spelling was the main focus of this study, all language behaviour which involved use of the print medium was recorded to provide descriptions which may relate to spelling but may not have been initially recognised as such.
FIGURE 1: OVERVIEW AND ORGANISATION OF DATA COLLECTION.

PHASE 1
DATA COLLECTION

"EN SITU" OBSERVATION

Jan 1990 to June 1990

PHASE 2
DATA ORIENTATION

June 1990 - August 1990

PHASE 3
DATA CONCEPTUALISATION

August 1990 - November 1990

GROUNDED THEORY
3.3.3 Use of a Co-Researcher.

While Tim was observed first hand in the home, his spelling and overall language behaviour was observed at school on three separate occasions (each two hours in duration) by a co-researcher, because:

1. My presence in the room would not be regarded by Tim as natural whereas another unknown visitor/observer would be. It is the policy of Tim's school that parents are allowed as helpers for only one hour a week, hence Tim's teacher utilises as many parents as she can. While there are regular helpers, there is also a constant flow of visitors on a regular, "when they can" basis.

Complete acceptance of the co-researcher proved to be the case when the "peer sampler/observer" was able to engage Tim in conversation in a completely informal and friendly manner, noting in great detail Tim's spelling and language activities.

2. A secondary reason for using a co-researcher was the possibility that my presence in the room might cause Tim to retreat linguistically or conversely show off, and therefore not reveal a true picture of his spelling attempts or his attitude to writing. Fully briefed on the focus of the project, the co-researcher's guidelines were to make detailed anecdotal time samples of all of Tim's behaviour within the context of the classroom activity. Each sample
was then typed up and discussed with the teacher relating to details of accuracy and then further discussed with myself. The teacher was again consulted by a further questioning session and inferences drawn were discussed in even greater detail.

3.3.4 Reflective Journal.

At the end of each print encounter, spelling/writing attempt or interview session, in addition to detailed observational accounts, separate summaries, questions and inferences were recorded in a reflective journal. Notes on emerging data connections and categories, methodological "guide" points, analysis structures, theoretical directions, hypothetical jottings and important contextual considerations and intuitions were noted.

During the conceptualisation period and thematising process, this journal acted as a catalyst, where recurring patterns and themes were isolated in the total data pool, as well as providing an escalation device or stepping stone for the follow up interviews.

3.3.5 Interviews with the Pre-school teacher - Judy.

The initial interview session was based on a semi-structured format. It was intended that "Judy" be allowed to talk as freely as possible about any connection she might make concerning the study's focus. However, it soon became apparent to both myself and the informant that only two interviews were needed, the initial interview and a follow up. This was the case because:
a. The centre aimed at giving only one "sight" word to the children i.e., their own name, which was a focus only during the last few months of the year prior to attending school.

b. While the children were read to constantly and there was a great deal of environmental print (for adult reference only), Judy felt the centre played no actual part in this study, other than possibly reinforcing the ability for Tim to read his name.

3.3.6 Interviews with Tim's classroom Teacher - Joyce.

Interviews with Joyce occurred at regular fortnightly intervals over a period of almost six months. The interviews were of two types:

a. Semi-structured - The first three sessions were of this form. The initial session was essentially a negotiation meeting in which I described the purpose of the study and my methodology. Joyce was free to ask questions at any time, which she did, asking what I hoped to get out of the interview sessions and expressing doubt as to her ability to really give any truly valuable help. The next two sessions gradually became focussed towards a more definite line, concerning Joyce's beliefs about language learning, her programme, timetable, language lesson formats and the print experiences both receptive and productive she provided for her class.
It was in these initial interviews that I was able to probe for deeper meaning, pinpoint areas of interest and request greater clarification. While free to wander so as I could form a larger picture of her language program, by the end of the third session we had gradually begun to move towards her influence on Tim in particular and his spelling responses.

b. Structured - From the leads gleamed in the initial contact sessions, the interviews became more focused. Asking specific questions relating to the purpose of the study provided me with not only extra detail but gradually developed into clarification sessions as we worked over my interpretations of the previous sessions. I was also able to share the data collected at home seeking her understanding of its nature as well as testing my hypotheses and assumptions.

As time went on my questions became much more pre-planned, gradually falling into roughly the following hierarchy.

1. Filter questions (sorting out given information). e.g., Why do you recommend the use of flash cards in the home?

2. Interpretive. e.g., How do you know when children have engaged with the demonstration?
3. Suggestive. e.g., Could it be that Tim does not use environmental print?

4. Posing the ideal (testing reaction). e.g., Let's say Mary has begun to write, what do you do to keep this momentum going?

5. Hypothetical. (What if ........... variety.)

6. Devil's advocate (to challenge). e.g., Explain what happens when children refuse to engage with any demonstrations.

7. Argumentative (provoke and divulge hidden information). e.g., How do you possibly know when to give a specific demonstration?

It should be noted that this hierarchy developed as a result of the high degree of rapport and trust which evolved between the author and the teacher. This was unintentional (in the sense of being a specific aim) but an important by-product of this study.
3.4 Data Analysis.

3.4.1 Introduction.

3.4.1.1 Analytical Definition.

The process of analysis used in this study was a syllogistic synthesis of two analytical strategies; these were:

a. The development of "Grounded Theory" through comparative analysis as described by Glaser and Strauss (1967). In summary, grounded theory refers to the hypotheses and concepts generated from the data and systematically worked out in relation to the data during the course of the research. This "systematic working" out of the data is described by Lincoln and Guba (1985, p187) as "successive iterations of four elements, purposive sampling, inductive analysis of the data obtained from the sample, development of grounded theory based on the inductive analysis and the projection of the next steps in a constantly emerging design."

b. The use of "Content Analysis" as described by Stone, Dunphy, Smith and Ogilvie (1966). Firmly rooted in Lincoln and Guba's (1985) notion of inductive analysis, the purpose of "Content Analysis" is to infer the origin, uses and effects of linguistic signs within the behaviour in which they occur.
3.4.1.2 Analytical Process:

Taking the position that these two approaches are complementary, the procedural design described below facilitated the interaction of one with the other and is explained as follows.

3.4.1.2.1 Analytic steps. The analytic steps taken within the procedural overview were:

1. Careful selection of naturally occurring texts (either written artifacts or recorded speech.)

2. Construction of categories within these texts, through inferential analysis, based on careful inspection of the texts as a whole.

3. Application of descriptors.

4. Making a "many-to-few" mapping of the text by collapsing categories.

5. Checking for internal consistency by a triangulation process, checking that categories are relevant and consistent with the texts and conceptual framework of the study.

6. Description and interpretation of the emerging categories, resulting in grounded theory.
3.4.1.2.2 **Construction of categories.** The following diagram typifies phases of category construction occurring throughout the entire data analysis process.

**FIGURE 2: CONSTRUCTION OF CATEGORIES.**

![Diagram illustrating the construction of categories.]

The sum total of all first hand observations in the home environment, observation in the classroom, interviews with relevant stakeholders and reflective journal notes generated an enormous amount of diverse data. As can be seen from this figure, the framework which pulled together and condensed this data was a series of overlapping and interrelated cycles of:
a. Observation, description and consolidation of child data at the homesite and at the schoolsite.

b. Thematization and condensation of this data using the analytical steps previously described.

c. Interview sessions with Tim's teacher when the themes generated from the data bank were discussed and further condensed and consolidated, or eliminated.

As well, additional spelling artifacts were collected, discussed and added to the data bank. This cycle was repeated until the observation period ceased.

This cyclical and very much recursive format can in many ways be compared to the piecing together of a "jigsaw" puzzle. In order to begin such a puzzle, the "player" must have not so much a complete picture but a totality of co-joiners. Just as fitting the connections together requires manipulation, revolving of components and the testing and refitting of possible parts, so the data analysis of this study required similar manipulative dexterity, both of the cognitive and physical kind. It was not however a haphazard, course of conduct, but "a deliberate inquiry process guided by a point of view rather than a reporting process guided by a standard technique." Erickson (1986, p12)
3.4.2 Theme Generation.

3.4.2.1 Theme Generation from the child data.

Over the eighteen month period of data collection in the home sight, almost two hundred pages of raw data were collected. These included artifacts, transcripts of conversations and descriptions of spelling attempts. Although seemingly simplistic, these data were read and re-read several times. However this process was more than reading, it was reading "with the intent of seeing" Denny (1983), or as Cambourne (1987) calls it, "massaging the data."

This initial analytical process focused upon eliminating irrelevant data. With the reading of each dated transcript or description, the question was asked, does this relate to Tim's spelling development in any way? It was at this point that my definition of spelling was broadened because it was quite apparent that there were two types of spelling behaviour described in the data, talk about spelling and spelling embedded in writing.

With this initial elimination process completed, the relevant data were photocopied and each individual section of data was cut out and placed on cards. Placed in sequential, chronological order, they were again read and placed in piles or groups with the selection criteria being an initial intuitive recognition of similarity. This process was repeated several times until I felt that the individual datum in each category was absolutely in the right place. After the initial intuitive sorting process was complete, an analytic title card was written, specifying the nature of the group and what each datum card had in common.
The datum cards were then reviewed, necessitating the shifting of some of these files and the combination of several groups. The analytic title cards were then rewritten, thus forming a definition basis of the properties described in individual cards. A description of each category was then written.

3.4.2.2 Theme Generation from the Interviews.

As can be seen in Figure 2, the interviews had a two-fold purpose. They not only served as a device by which emerging themes from the child data could be confirmed, expanded or eliminated, but in themselves gave valuable insights into the conditions, factors and artifacts produced in the classroom. After each interview, an overall description of what took place was written along with a transcript of salient points. In the following session, this description was checked for accuracy and emerging questions arising from this were also answered. This constant cycle of checking for accuracy and the answering of questions arising from the previous interview, served as a filtering, refining and theme-generating process within itself. The constant "conferencing" cycle helped cut away irrelevant observations and patterns, leaving only the most important categories.
3.4.2.3 **Theme Generation from the Reflective Journal.**

The Reflective Journal acted as a catalyst throughout this study. As inferences were written and later followed up through interview sessions with Tim's teacher and the co-researcher, recurring themes were gradually sifted out and identified.

Questions that arose from the data bank and interview sessions also helped to define and re-define categories emerging from those two sources. The journal acted as a "blank slate" on which the emerging themes were written, investigated, removed or carefully refined. Thus it helped in the overall theme generation process by acting as a triangulation collecting point for interpretation, clarification, justification and correlation between all the data sources.

3.4.3 **Triangulation across methods.**

Triangulation was carried out in this analysis process by correlating and comparing the data derived from the various informants, i.e., the author, the co-researcher and the class teacher. Data derived from the interviews was checked against the co-researcher's observations in the classroom and verification with the teacher. The main purpose of this cross-checking was to substantiate the author's conclusions about the teacher's practices and beliefs relating to the research focus. Tim's spelling activities and behaviour were also checked against the data produced from the interviews.
3.4.4 Grounded Theory.

In order to fully illuminate the learning milieu surrounding the child in focus, the key emergent categories were carefully described. A final draft was also submitted to the teacher for comment. Rather than delineating cause and effect, this "grounded theory" description was a theoretical pastel of the parameters and dynamics of the process in focus, namely a child's spelling development.

The validity and trustworthiness of the entire project and final grounded theory compilation were enhanced and endorsed by a management stratum described in the following section.

3.5 Rigour Audit.

3.5.1 Criteria Overview.

The "trustworthiness" (Guba and Lincoln 1985, p383) of this project was increased and established by requiring the total project to meet the following criteria:

3.5.1.1 Credibility.

This validation force refers to the "internal validity" of the project. It is concerned primarily with construction of the data interpretation and formulation, the underlying focus question being; "Has the research been presented in a credible, realistic and appropriate way?"
3.5.1.2. **Transferability.**

Concerned with "external validity", this operative deals with the possibility of enhancing other situations with the inferences proposed by this study. Primarily judgemental in nature, the representative quality of the data and its presentation was scrutinised so that other investigators may be able to use, transfer or further embellish the findings of this report.

3.5.1.3. **Dependability.**

This trustworthiness criteria deals with the "stability" of the project. The aim of this criteria, as the name suggests, is to establish the reliability of the data, data patterns and interpretations as well as determine and negate irrelevancies or conditions not "online" with the focus.

3.5.1.4. **Confirmability.**

This concern deals with the "confirmability" of the data. It seeks to defuse "a priori" assumptions, false representations, illuminate the evaluative process and clearly delineate crucial amendments and positive focal interests.

3.5.2. **Methods of Ensuring Rigour Corroboration.**

3.5.2.1. **Ensuring Credibility.**

a. Prolonged engagement, "en situ" in the home unencumbered by unnatural distortions, provided extended time to identify salient and atypical
characteristics of contextual and hard core data types. Extensive observation also allowed the exposure and focusing of perceptions, providing plentiful opportunities to identify and prune researcher bias.

b. Member checking. As previously stated, continuous fortnightly interviews were conducted with a major "stakeholder", Tim's teacher. These interviews served not only to provide new data but to validate "factual and interpretive accuracy" (Lincoln and Guba 1986, p373). Member checking in this instance also provided several other services which included:

i. As direct observation of the classroom was not possible, these ongoing informal discussions allowed opportunity for the teacher to correct errors, challenge or confirm interpretations and provide additional information.

ii. These sessions allowed the respondent time to recall salient sections that she felt were important which the researcher may have not placed significant emphasis on.
c. Peer Debriefing. Peer debriefing sessions were carried out through "group discussions" involving members of the current 1990 MEd. (Hons) students. These participants were in every sense the inquirer's peers, all of whom are highly trained educators who know a great deal about the substantive area of the inquiry and methodological issues. Through intense discussion it was decided that their roles and responsibilities were to:

i. Search out and examine aspects of the inquiry that might otherwise remain only implicit in the inquirer's mind.

ii. Play the devil's advocate by becoming protean in nature, keeping the inquirer honest with searching insightful questions and probes.

iii. Question any perceived bias and clarify the bases of interpretation.

iv. Identify and test the emergent working hypotheses. Defense, or "lack of", pointed out theoretical miscues allowing for divergent action. The insights, advice and assistance gained in these instances assisted in the clarity and delineation of an "audit trail" where all methodological steps and decision points could be traced.
v. Provide catharsis opportunities by both sharing and defusing anxieties and stress, as well as providing a "cleansing of judgement," allowing the evolutionary emergence of sensible next steps.

vi. Provide a supportive forum developing a generative process of support and enthusiasm with and for the inquiry.

3.5.2.2 Ensuring Transferability.

While the primary purpose was not strictly the establishment of theory to be removed to another educational area, differing in time, perspective and agenda, this inquiry determined to examine conditions which may facilitate learning or retard the educational process in other spheres. To accomplish this the primary source was "thick description" i.e., the provision of a rich supply of contextual information, able to impart a vicarious experience of the context so that decisions may be made about the transferability of hypotheses to other sites.

3.5.2.3 Ensuring Dependability.

While the previous conditions and informants in themselves enhanced dependability, a methodical "audit trail" leading through all methodological steps and points of decision allowed for the peer debriefing group, as well as key informants, to tap into the project as a whole, leading to a constant inflow of data, advice and cross checks. This cross-checking advisory process was maintained through the following processes:
i. Peer Sampling. A member of the "peer debriefing" forum conducted a series of classroom observation sessions centring upon the child in focus. Prior to and at the conclusion of each session, discussion with the teacher took place to confirm the observations made. Cross-checking with the investigator took place as soon as it was practicable to share the information gleaned and to establish links or areas of contextual differences. These sessions helped to keep the inquiry on line.

ii. Member Checks with the adult "key informants" were undertaken throughout the project and at each stage of data collection, analysis and theory generation phases.

iii. Referential Analysis by a fully qualified peer, with a non-vested interest, was used as a parallel consultative process so that data were able to be analysed independently allowing the testing of interpretations to be critically scrutinised and analysed. This person henceforth not only acted as directional sounding board but provided service of a comparative nature by testing school experiences with her own wealth of knowledge.
iv. Throughout phase three, the total process was reviewed with the two teacher informants being asked to comment on not only the final drafts of their individual portraits but to provide a salient critique of the findings when compared with the data they supplied.

3.5.2.4. Ensuring Confirmability.

This confirmation process or "truth check" was the final triangulation component seeking to meet the criteria of the focus question and methodology format.

This was undertaken as two separate but still co-joint exercises. These were:

a. The reflexive journal, which was thoroughly scrutinised and laid out in parallel with the final amended findings, methodological steps and the data.

A sifting process was used to ensure that all assumptions, biases and prejudices were not erroneously included. This process was one of testing principles, points and interpretations so that the whole paper coalesced from a methodological point of view; seeking to establish a design that could be used in multiple sites so as to establish links and inform other researchers seeking to generate further development in the field.
b. An additional form of meeting the criteria of confirmability was the inclusion of a final peer audit where all the study's findings were traced back through the analytical steps in concert with the original data. Interpretations were tested to see if they were reasonable and meaningful, while the processes used were checked for validity.

3.5.3 **Methodology Epitome.**

In summary the methodology previously described seeks to "ease the tradition of long ignoring the social context of education" (Hymes, 1974). Thus the following findings represent "an experience an individual is having and the meaning his actions have for others .... a seeking out of the themes that will depict this experience and meaning in a vivid and significant way, the creation of an evocative form whose meaning is embedded in the shape of what is expressed." Eisner (1981, p6)
CHAPTER FOUR:

FINDINGS
CHAPTER 4
FINDINGS

"Language arises in the life of the individual through an ongoing exchange of meanings with significant others. A child creates, first his child tongue, then his mother tongue, in interaction with that little coterie of people who constitutes his meaning group. In this sense, language is a product of the social process."

(M. A. K. Halliday, 1978, p1)

4.1 Introduction.

This present study is a description of a linguistic diapason, a vignette detailing the interplay of social forces and cognitive growth leading to the creation of a child's first tongue. However, it is not a description of the child's "first tongue" within the oral mode, but rather the written. It details one child's initial attempts at spelling within the confines "of the little coterie of people who constitute his meaning group", gradually extending out to take in the first few months of school and interaction with another "significant other", the child's first teacher.

Therefore, this chapter has been divided into three sections. First, respondent portraits of the main "significant others" and a brief description of Tim's initial spelling attempts are provided. These are presented so as to "paint" the larger picture, revealing the influences of the "caregivers" and their beliefs about language learning in general and spelling in particular.
Second a Macro-spelling view has been drawn out of the data portraying the overall characteristics of Tim's spelling development. Third and finally, a Micro-spelling view is presented, delineating salient features operating within the Macro-level.

4.2 Respondent Portraits.

4.2.1 Introduction.

This initial section of this chapter provides a "thumbnail sketch" of what Lynd (1958) terms the "historical reality in which a child develops." It is concerned with a brief detailing of the socio-cultural dynamics of Tim's initial small "meaning group", the family, extending out to take in his first teacher thus providing the larger historical socio-cultural matrix in which this study is embedded.

4.2.2 Spelling in the Home Environment.

The germination of this project began in early November 1984. At that time I was finishing off my BEd. with work in language, under the supervision of Dr. Brian Cambourne. The last project in this subject was the processes involved in, and comparison of, teaching reading and writing using a "naturalistic or whole language approach".

My wife, believing she was a relatively slow (and disinterested) reader, became extremely interested in this process and methodology. She was at this time expecting the imminent birth of our first child, Tim. Believing in the importance of truly loving and enjoying reading, she became
determined to implement the natural learning theory in the home, as it applies to learning to read and write.

Another key player in this scenario was a close friend Peter, with whom I had been team teaching for over twelve months. As an E.S.L. teacher, I had worked in Peter's room, using a "process writing" approach to the teaching of language. With each social visit with Peter, as all teachers do, the conversation turned to "shop talk". Together with typing my language assignments and the gleanings from conversations with Peter, Kate gradually decided to immerse our soon to-be-born child in the language of print.

There were several conditions that she decided upon.

a. The baby was to be immersed and given demonstrations of print by simply being read to.

b. These reading experiences were never to be forced.

c. They were always to be enjoyable.

On November 29, 1984, Tim was born. Due to the difficulty of the birth, the learning process involved in dealing with a new child and the tiredness associated with demand breast-feeding, the "reading to" experience did not commence until six weeks after his birth. From this point onward, Tim was read to at least twice a day. Countless hours were also spent in book shops selecting children's books not only for Tim but the other children we planned on having.
It was not until 5/7/85 that I realised that another important factor had reached fruition. Having an "accountancy" background, Kate kept copious notes on not only household items and expenditure, but detailed notes in her own diary of forthcoming events, letters to friends and so on.

In the afternoon of the previously mentioned day while his mother was writing, Tim pulled himself up onto the coffee table grabbed a pen and began to scribble. Immediately Kate called out to me to come and have a look and I managed to take the following photograph.
Not only had Tim been receiving reading-print demonstrations but writing demonstrations as well. To this day when his mother begins to write (which is often) Tim does as well, as can been seen from the photograph below.
It was then that I recognised that this was the beginning of something special and I, too, began to keep a diary of Tim's literacy attempts and demonstrations along with photographic evidence. Tim became deeply engrossed in books: before he could walk, he would often crawl over to the book shelf, grab a book, roll over and look through the pages. Whenever given the opportunity he would also grab pencils or pens and scribble.

Several other people having a great influence on Tim were his grandmother and two close friends Neville and Naomi. Naomi, an avid reader has always had a very special relationship with Tim. Christmas, birthdays and special occasions have always resulted in gifts of books. Even to this day Tim loves nothing more than to sit on Naomi's knee and read with her. Tim's grandmother has also contributed to his love of reading by giving him books and constant encouragement.

As with a lot of children, Tim also began watching the TV programs "Sesame Street", "Play School" and to a lesser extent the "Electric Company" (SBS TV). It was most probably these television shows in combination with the daily print demonstrations he received from his mother, that instigated his first question about the meaning of print. At age two years and seven months, while giving Tim a cuddle he pointed to the letters on my T-shirt and asked "What are those numbers?". I replied that they were letters and that they said "Bali".
He initiated no other questions until five months later when he asked his second question concerning print. He walked up to his mother who was preparing the family dinner and asked, "How do you spell Tim?" His mother reached over to a pad on the kitchen bench and showed him. Seemingly satisfied, he ran off and began playing with his building blocks. His mother then went into the bedroom and came out with another "language present", a set of magnetic letters. These letters immediately produced countless hours of "print play."

The second question, apparently passed over by his mother as natural, left me bewildered, because behind it were two key understandings. Tim knew that:

1. Letters put together make meaning.

2. He had used the word "spell". We had never knowingly used it in our daily reading sessions, but he obviously had an understanding that putting letters together was called "spelling". The magnetic letters were initially simply placed in lines and repetitiously reorganised.

One week later Tim asked his mother to write out his name using those letters. She did so, which then prompted him to ask her to write his sister's name, then "dad", then "mum". This activity using these words, over the space of ten days, gradually began to include other words i.e., "nan", "dog", "Tritchy" (family pet). By the end of the month he could select the initial letter and would then ask for his mother or myself to fill in the others.
Gradually, over a period of a month, he began to try and select the letters for himself. The initial letters in his repertoire of sight words were predominant, but he often attempted the medial as well. Soon after this, he also began attempting to write these words as well. Interestingly enough, he would list the words from left to right across the page. When questioned about what he was doing, he would simply reply, "writing". This cycle lasted for several months.

On 13/10/88, I realised that Tim had become aware of environmental print. At the end of the cycle of afternoon television, "Play School", "Sesame Street" and "Thomas the Tank Engine" I changed channels. On the screen appeared the logo for a local building society the I.M.B. Calling and pointing "Look Dad that says I.M.B." (letter names), I found myself wondering about where had he come into contact with these letters. Once again, most probably they came from television as well as banking excursions with his mother.

This instance seemed to give birth to a whole range of questions and descriptions about environmental print. The same night of 13/10/88 he pulled his plate off the place mat when eating his tea, pointed to the "M" in "Mickey Mouse" printed on the mat and said, "That's in my name as well." This reading of place mats has continued with all our children up until the present day. They have almost turned it into a game and with the end of dinner would become a "look at this" discussion.

On 14/10/88 at 5.45pm, the placemats revealed some of Tim's fairly accurate knowledge of grapho-phonics. The placemats had simple pictures to go with each letter of the
alphabet. He began to point at each letter matching it with the picture name. Beginning with /A/ for apple, he tried as best he could to match the rest. He initially confused "d" with "p" (similar shape), but then said "NO, it's "d" (letter name) for dog, obviously matching the picture.

He then successfully negotiated his way through the rest of the letters until he came to the "v" and "w". Pausing for several seconds he then commented, "If you turn this upside down (referring to the letter "w") it looks like an "m". (letter name)

He then skipped "x" and "y" and continuing on to "z", which he pronounced "Zee". Exactly the same pronunciation as the American version often demonstrated on Sesame Street.

Tim's environmental print awareness and letter knowledge surfaced on 15/10/88. Pulling up in the car to stop at an intersection, Tim asked his mother:

T: What does /s-t-o-p/ (letter names) say?
M: Where's that?
T: On the sign over there.
M: You know what that says.
T: It says stop.
M: Good boy.

That night while watching television with his sister, in an effort to annoy her he ripped a hair tie from her pony tail. Straightening it out and holding it up he exclaimed, "look an /I/.

One of the greatest sources of pleasure for Tim was writing, drawing and scribbling on his blackboard. It was often a very
social occasion as occurred on 16/10/88. Tim and his best friend Ross (who is six weeks older), were writing letters they knew at random across the board. Ross' father Neil asked the boys to write their names.

Ross: I don't know how it starts.

Tim: I'll show you. (writes I on the board and then fills in the other letters, but writes them backwards.)

Both then scribbled over the letters and ran off. Tim used the blackboard constantly, spending endless hours writing letters and drawing. When questioned about what he was doing he simply replied, "just writing." Several times however when writing letters at random, he would ask "What number he had written?" There was at times apparent confusion between the concepts of letters and numbers.

Gradually Tim began to move away from writing letters and words he knew on both the blackboard and his magnetic board. At 7pm on 17/10/88 he was sitting at the breakfast bench having a final drink before bed. He was very quiet and obviously deep in thought. After several minutes he asked:

T: Dad what does /c-h-i-h/ spell? (letter names)
D: Where did you get that from?
T: I don't know, I've seen it somewhere. Guess what it is?
D: Chip.
T: No. It's cheese.
D: Good try, but cheese is spelt, c-h-e-e-s-e.
T: Yer. (answered with rising tone almost seemed an exclamation).

From that night onward, Tim would often initiate a similar game, almost akin to "eye spy". He would say a letter name and I had to guess what object he was thinking of. On 21/10/88 another variation of this game appeared. He began tracing with his index finger and asking what letter he had drawn. When he drew a "w", he also gave me a clue. "When it's upside down, it's like the letter in my name." Obviously besides the letter name, shape was also cue for him as well.

On the following day (22/10/88) Tim was playing with a felt board and felt words. In this instance the aim was to match the picture, which showed an emotion of feeling, with the correct word. Tim immediately grabbed the word "bad", holding it up for us to see, he correctly matched the word with the picture, stating, "That says bad." When asked how he knew that, he simply replied "I don't know, I just know it." This "I just know it" answer has persisted until the present day. It seemed as if he had internalised words and letters so that they had become an automatic response.

During November of 1988, Tim's writing and spelling development entered a new stage. Having been at his grandmother's place for the afternoon, I picked him up in the car to bring him home. On arriving at his grandmother's he told me that he had written a letter for his mum. However, on the way home, he was looking very disconsolate. When questioned as to what was the matter, he replied:
T: This letter says "This is a card for you, I love you very much".
D: That's great.
T: But dad, the letters "A-I-T".
D: What does that say?
T: It says I love you.

He was not very happy about what he had written. He obviously knew they were not the right letters or sequence. However, getting his meaning across was the prime aim. This letter-writing to his mum also has continued up until the present day, with his mother writing similar replies.

Two days later (7/11/88), just prior to picking up my wife at work, Tim was busy writing again. As we left the house he grabbed an empty envelope off my desk and placed the paper inside. Driving along the expressway, he ripped open the envelope and looking very disconsolate, began to talk to himself.

T: There /h/’s (letter name)
    (pause for a few seconds)
    That’s /h/ (letter name) for Harold.
    (my brother in law).

He then put the letter back in the envelope. As soon as Kate got into the car, he promptly presented her with the envelope, explaining "Mum, this card's for you, it says I love you very much, and this is a card for you." Once again recognising that his attempt was not conventional, meaning took priority.
From this letter writing incident, a period of interest in writing began. This period was characterised by looking at what other people were writing and the desire to know and experiment with the initial letter of people's names, places and things. The following morning at 7.30am, while getting the children ready to go to the university creche, I began to write my daughter's name on her milk bottle. Tim was watching me with obvious interest.

T: Dad what are you writing?
   Can I see?
   (show him the name Nikki on the bottle.)
T: Oh, /N/ for Nikki.
   (repeats softly to himself.)

The following day, arriving home at 3.15pm, I found Tim writing the letter "p" over and over again across his blackboard (left to right). On the completion of a letter, he would say a word that began with "p":

T: /P/ for .......pumpkin.
   (writes new letter)
   /P/ for ...penguin.
   /P/ for ... (obvious pause)
   Mum what's another word that starts with /p/? (letter name).
M: Porcupine.
T: Thanks.
At this point he stopped talking out aloud but continued to write the letter "p", pausing for a few seconds and then continuing on.

Arriving home the next day, a similar event was happening. Both Tim and his sister were using the blackboard. Tim was once again engrossed with writing the initial letters of names, talking out aloud to himself.

T: Do an "a".
(talking to himself, writes "A" in upper case letters).

How do you do a "b"?
(letter name, looking puzzled, then writes "B").

I know, I'll write mum's name.
(writes "K", mothers name is Kate.)

Mum, how do you write your name?

M: Honey, will you show him?

I wrote her first name, "K-A-T-E", in upper case letters.

Tim studied this and then ran outside to play.

Throughout the following week Tim asked everyone he came in contact with (friends and relatives) how to spell their name. Writing on his blackboard, cards to his mum or simply writing, he used letters which stood for a particular meaning. An example of this writing letters occurred on the 12/11/88.

T: Dad this "A",
(upper case written, letter name)

for nanny,
(her name is Audrey)

Have a look at this.
(underneath he has written letter in upper case "P/N/M/O")

D: What's that say?
T: Mummy's birthday is on another day.

Not only did he write and ask for initial letters, but he also began to recognise them in books. On the 14/12/88, Tim and his sister were being read to prior to going to bed. It was Tim's favourite story, "David the Shepherd". He knew the whole story off by heart. Coming to the line that read "ping went the stone," Tim interjected with "Dad that's "p" for ping", and then proceeded to find all the /p/ words in the story.

Not only did he begin to write for himself and search for letters in stories being read to him, but he also began to make letters for himself out of absolutely everything. He ate and nibbled cheese and toast into letters. He used cardboard tubes, pencils, blocks, sticks outside in the garden and strips of cloth. Print in the environment also became a ready source of enjoyment and fun in almost every sphere of his waking moments.

On the 23/12/88, "Play School" had been sung in Greek. Tim and his sister immediately began trying to sing, making several obvious mistakes but nevertheless kept on going. It was then that my wife summed up Tim's total language experience thus far. As the children were rolling around trying to sing in Greek, she turned to me and said "In reading, writing, talking or singing they're simply not afraid to have a go, are they?"
4.2.3 Tim's Classroom Teacher.

"I'm happy to let the kids just write"

Joyce 1/3/90.

My initial contact in negotiating entry into Tim's class was made with Tim's teacher Joyce and then with the Principal. Both gave verbal permission quite readily.

First impressions of Joyce's classroom and her initial comments were confusing. Claiming she was traditional and used very formal methods conflicted with the comments she made about the type and amount of writing she allowed the children to attempt, the obvious free writing on the blackboard and the large amount of environmental print in the room, although the year had really just begun; and comments such as the quote introducing this respondent portrait.

Joyce came from a "special education" teacher training perspective and had taught in both secondary and primary schools in her twenty five year career.

Her literacy curriculum centred around:

1. teacher-led workbooks which seek to build visual discrimination, colours, shapes, letters and word sequencing.

2. worksheets which emphasize visual discrimination practice and letter formation.

3. cut, paste, draw and colour worksheets.
4. teacher led reading/phonic lessons.

5. free writing activities, which incorporate individual conference sessions which focus on individual needs.

Joyce commented about her pupils:

"Children are like sponges, they'll soak up work (referring to literacy) as much as you're prepared to give them. They may plateau out, but you've got to be prepared to run behind them, waiting for them to take off again."

Joyce 12/3/90

Although claiming to be formal and traditional several times through the first few interviews, I found that Joyce had developed a programme based on twenty-five years of experience, very much in line with current thought. She implemented the natural conditions of learning (Cambourne 1988). Although she was unaware of contemporary methodology, her whole literacy program centred around a "whole language" approach. She questioned me several times as to why I was investigating "beginning" spelling attempts when she didn't teach spelling. It would take several weeks and much discussion before she realised that she was in fact teaching spelling through reading and writing.
Process writing was a major driving force in Joyce's classroom. Many a time, arriving at 3.15pm, I would find her looking through and organising work for writing. Quite often, although scheduling writing for the morning session, writing and conferencing would continue throughout the whole day, manoeuvring between and through other curriculum areas.

Believing that children will and can only read and write sentences that belong to them, in process writing she allowed the children to write whatever they wanted. Every child in the class was at a different level and stage of writing, spelling and reading. Joyce gave whole class demonstrations of phonic analysis, beginning the year with examples of initial consonants and later vowels, but when writing for themselves the children were allowed to use whatever standard conventions they knew. If they did not know the correct letter or phonic group, they drew a line on the page. During the conference session the children were encouraged to write on the line by guessing or by using environmental print or work they had previously written in class. If they were still unable to fill in the missing phonic segment they were then often encouraged to "letter steal". This involved wandering around the room and searching through the large amount of environmental print, classroom readers, their workbooks and often utilising other children in order to complete the word or words. If at the end of this "word stealing" the child was unable to complete the phonic segment, Joyce would show them.

Joyce believes very much in knowing each individual child's literacy capability in an extremely detailed way. Not only did
she know language idiosyncrasies, sight words, and phonic groups which each child knew or was capable of producing, she was acutely aware of when to back off and leave them room. Likewise, she seemed to know when to give that subtle push to move on and upwards. She literally did "run after each child" coaxing, demanding, encouraging, and demonstrating. In her words,

"If you don't fill the sponge, they dry out completely. Ever tried to get a dry sponge to work, it's almost impossible."

Joyce (Interview 12/3/90)

and,

"I really believe children learn incidentally. You've got to be really receptive to their needs. My room isn't laissez faire, you've got to look for eagerness, expectation and interest in their eyes."

Joyce 21/5/90.

Joyce used reading as a tool for demonstrating writing and the phonic segments children may need to know for both writing and reading. While believing that children need to know initial consonants and then vowels to begin to get their meaning across in some form or conventional way, she openly admitted that she was never sure of what the children would pick up or gleam from her demonstrations. While her program (See Appendix 149) and notes to parents (Appendix 150) reflect a highly structured phonics approach, this was not the case. While it is
true that she programmed and gave these demonstrations, she was in fact highly sensitive to the mood of the class and their particular needs and interests at that time. Highly tuned in to the "teachable moment", countless demonstrations were given, although not directly programmed.

Using the Rigby Reading scheme and the big book approach, Joyce moved in what she termed "cycles of learning".

During a whole class demonstration, the big book was perched on a stand resting on a white board. She read to the class, testing their responsiveness to particular words or phonic groups. Depending on their reaction, she would highlight these, and give further examples of certain letter groups, writing them beside the big book, on the white board. An example of this can be seen in the following photograph.
The initial consonant "P" was a planned demonstration using the Big book Lazy Mary, but the words and phonic groups written on the white board in red were incidental units relating to her fine tuning of the teachable moment.

4.2.4 Respondent Portrait Compendium.

The common denominator between the home and school was the notion of spelling freedom. In both home and school, Tim was free to explore spelling options in his writing. Just as he was given the responsibility for the learning of language in the oral mode, he was also given the responsibility to choose, rummage and reconnoitre (linguistically speaking) his print environment in order to satisfy his writing and spelling needs.

It should be noted, however, that there was a difference between the freedom given at home and that provided at school. At home he was given total freedom to explore spelling choices given constant spelling demonstrations. At school, a similar environment was created, but there was a subtle pressure placed on Tim to begin to conform to conventional adult spelling. This he did quite willingly. The following section is in fact a description of Tim's spelling path from total freedom in the home through to the relative freedom of what Dyson (1984) terms "learning to do school."
4.3 Spelling on the Macro-Level.

4.3.1 Repertoires of Spelling Conception: An Introduction.

Analysis of the data revealed an overall configuration similar to the stages described by Temple and Gillet (1989). This study, however, revealed a matrix of recursive and overlapping components rather than a linear type continuity that is often described in the current literature e.g., Stever (1980) and Forester (1980). This may be a case supporting Dyson's (1981) and Bouffler's (1989) warning against teachers ensuring that all children begin their exploration of writing and spelling in the same way; that, in fact, "there may be a variety of beginnings" (Dyson 1981.)

4.3.2 Stage 1. Tim's Spelling Development.

Tim's "variety of beginnings" through the period of observation can be classified into roughly three stages. They have been given the same nomenclature as used by Temple and Gillet (1989) not because of the one to one correspondence, but because in Tim's case, the majority of Tim's spelling strategies fell into these categories. The stages identified were:


   Lasting twelve months, this stage was predominantly characterised by random letters, numerals and drawings almost identical in nature to that described by Dyson (1986). As Dyson (1986, p 780) suggests,
this period represented a "tension between symbol systems... as they come to invent imaginary worlds solely through letter graphics, without the support of picture graphics and spoken words."

Tim's spelling development shows in more graphic detail a "hysteresis" effect of this cognitive tension. "Hysteresis" is a physical phenomenon chiefly met in magnetic behaviour of materials. When a body is stressed, strain is produced; when this stress is released, strain lags behind in a residual form. Similarly, in Tim's case, not only were there rebus writing forms, two other developing forms were present. These developing forms gradually became dominant subsuming the earlier types. However, in times of stress, when Tim was unable to continue with new strategies, the earlier forms surfaced. Just as young children develop multiple imaginary worlds, with varied voices, so Tim appeared in this initial stage to have created multiple written worlds, constructed from and embedded in their experiential and social worlds.

The oral discourse tools were interwoven with written pictures shapes and gradually sounds. Building from these symbolic means, Tim gradually worked to new spelling as greater control and realisation of print's function storage and recall capacity led to greater differentiation of specific grapheme-phoneme relationships.
Through constant print demonstrations, Tim was constantly confronted with conventional spelling leading to situations wherein he needed to resolve the tension created by a need to capture and show his experience in the maze of squiggles of written text.


During this period the constant print demonstrations and questions continued. The symbolic drawings and letters became refined to the point where single recognisable letters predominated, often representing whole messages. Spelling talk was again important serving to not only invest the graphic symbols with meaning but appears to be an organisor of the print Tim was using. It was during this period that Tim realised that he could not only draw "things", but speech as well. The graphic material became the raw substance from which Tim gradually discovered that the written print system could be used for transmitting speech and as "aide-de-memoire", for recalling and remembering speech.

The changes during this period represent not only strategies of spelling development but the evolution of new print functions meeting Tim's social communicative needs. Manipulation requests and experimenting with "adult-like" writing spelling became an integral part of the home network.
3. Letter-name spelling. April 1990--

During this period Tim began representing more speech sound in print, with a great deal of letter-sound correspondence. As previously stated, this stage revealed not only the developmental manner of spelling learning, and a much higher degree of alphabetic knowledge and characteristics but was also invested with the social energy from home and the ever-present persuasive force of his teacher through further personal manipulation and direct demonstrations. Tim began to rapidly differentiate the boundaries between written, drawn and spoken symbols. While still encouraged by his teacher to use many sources of environmental print Tim was also beginning to liberate himself from these concrete referents. Throughout the latter section of the previous stage and becoming more enhanced through the period, a feeling, or spelling conscience, or sensitisation, had become more entrenched in writing and reading sessions, both at home and school. At school, demonstrations of spelling through intense visual connection sessions were the main focus of all language structures running in parallel with writing. This process in itself is a need for further research because it appears that this teaching methodology manifested itself, in Tim's case at least, in four specific processes.
a. Direct phonemic spelling - based on apparently "stored" sound-symbol association initially supplemented to some degree by simple rules.

b. Direct recall of words - spelling recall directed associated with long term memory. This memory recall appears to be associated with meaning, social experience and pronunciation.

c. Generate-test process - in itself this manifested itself throughout all of these four processes or operated as a single process. It seems to operate as stored sound-symbol or whole word associations combined with the recognition of the need for trial spellings.

d. Morphemic information - this process too seems to operate throughout all of the processes or as a single unit. Simple rules such as the correct use of "ed" or "ing" created or gave access to spelling information.
4.3.3 Stages of Development: A Cognitive Definition.

The most obvious feature of the data gathered was that Tim's writing and spelling development was characterised by a transformation from drawing and single letter labelling (which was meaningless to a reader) to a comparative state of conventional orthographic attempts where meaning could be readily drawn by a reader.

Termed "orthogenetic" by Werner and Kaplan (1963, p7), this transformational process has also been described by various researchers such as Baldwin (1967), Lenneberg (1967), McNeil (1970), Kagan (1972), Clay (1975), and Bissex (1980). This process is described by Werner and Kaplan (1963, p7) as the process by which "all organisms are directed naturally towards a series of transformations-reflecting a tendency to move from a state of relative globality and indifferentedness towards states of increasing differentiation and hierarchic integration". Baldwin (1967, p502) explains this process as "development from the syncretic to the discrete". Syncretic refers to global actions or concepts which gradually separate out into more discrete, identifiably different constituent parts.

4.3.4 Stages of Development: Overall Driving Forces.

Within Tim's learning to spell process, five key sources of "power" emerged.

First, the need to become literate and the need to spell appeared to be as strong as the need to be understood through
talk. The desire to make his message clear through print throughout the entire length of this study was as determined as his need to be understood through the development of talk. However, just as Tim had sometimes found learning to talk frustrating because of his inability to clearly get his message across, so there were times when he felt frustrated and a little annoyed with his spelling. However, these feelings did not deter him, the desire to be understood and to come to grips with the print in his environment far outweighed momentary problems.

Second, learning to spell was always meaning-centred. Despite initial examples where there appeared to be no meaning to either Tim or his intended reader (discussed later in this chapter), overall, putting print on paper was "meaning" directed.

Third, before starting school, Tim was acutely aware that there was a conventional spelling standard. This whole project revolved around Tim's struggle to achieve the conventions of adult spelling. Every spelling composition attempt was a strategy aimed at attempting to achieve mastery over English orthography.

Fourth, throughout the project, spelling was always a tool for writing. Whether through "talk" or an actual writing event, spelling was the tool that enabled print to be encoded and decoded, so as to give meaning to his own thoughts, emotions and immediate environment.

Fifth and finally, the role of the "caregivers" was a vital key to Tim's total spelling development. In fact every point of
description hereafter is underpinned by the support of the "significant others" in Tim's sphere of reference. The key adult players included myself, Tim's mother and his teacher. Their role was crucial because they provided an expectation of success and a climate that engendered spelling and writing. Tim's spelling attempts were never "put down". Rather he was actively encouraged to use whatever strategies he could to spell. Because of this study,, Tim's family members were brought into a close relationship with his teacher. The bond of friendship, sharing of beliefs and ideals and knowledge of how each group operated on a fairly intimate basis only served to strengthen the environment crucial to fostering writing, spelling and reading. Each "significant other" not only supported Tim but each other. Knowledge of their functions and roles, past and present experiences served to mesh the transition from home to school.

4.4 Spelling on the Micro-Level.

4.4.1 Introduction.

Tim's overall spelling development had two parallel and highly convoluted aspects: spelling in the oral mode and spelling within the construction of written text. These two aspects are summarised in Figure 3.
FIGURE 3: SPELLING IN THE ORAL AND WRITTEN MODE.

Talk

Need to be literate

Need to spell

Labels

Talk —— Writing

Questions  Descriptions  Rebus  Alphabetic  Letter-name

For a more complete description and overview, refer to Synthesis of Data Appendices p 172.

4.4.2 Spelling in the Oral Mode.

As Blake, Wright and Waechter (1970, p283) have pointed out, "by four years, children exhibit a great deal of concern for words and meanings, asking questions about the structure of the world around them."
At the commencement of this project, January 1 1989, Tim was most certainly actively engaged in talking about the world around him and vitally concerned with talking about words. From a phenomenological perspective, his use of "oral language" had two levels of scaffolding when engaged with the print medium. These support systems were encoding and decoding. From Tim's point of view, the definition of these two terms was very simplistic. Encoding refers to simply putting letters together. This is an important facet as it symbolises the cognitive notion that letters strung together provides meaning greater than his single letter attempts described in the previous section. Decoding refers to an attempt to extract meaning from a series of letters or in some cases a single letter. While discussed as separate components, these two parallel language aspects were in fact intimately meshed together. Putting letters together, especially when asking questions, involved a syntonous cycle of reproducing letters through "oral linearity" and searching for meaning by asking a decoding question. An example of this can be seen in the initial question (Appendix 4):

"What does I-C-E spell?
" Does it spell ice?"

4.4.2.1 Encoding Print in the Oral Mode.

The driving force behind Tim's encoding was a search for meaning. This "stringing of letters" had several important features:
a. **Linearity.** Just as Tim was aware that writing needed to have letters in sequence to produce meaning, Tim demonstrated that he had an understanding that words were made up of letters when speaking as well. For example, when he struggled in his writing to produce his sister's name, moving from N-K-O-K to N-I-K-I-K-I, finally getting control over the correct spelling N-I-K-K-I, Tim showed an understanding of a spelling strategy which needed a precise match between oral utterances and written graphics of the alphabet used to achieve that match.

b. **Distancing.** While initially very context-dependent (e.g., needing pictures clues as shown in Appendix 59, 5/6/89) where he strung letters together and used a picture to predict meaning, Tim gradually moved to a less context-dependent view. Labelled "distancing" by Werner and Kaplan (1963, p82), reference to immediate objects became less frequent with the oral symbols he began to use, or having similarity to anything in the immediate environment, e.g., when he asked his mother for L-O-L's (lollies Appendix 62 a).

It should be noted that this development of oral spelling was not in successive stages, but appeared to be very much recursive. While Tim gradually gained control over spelling in
the oral mode, the need for a concrete referent gradually diminished, but was not forgotten. Rather, concrete referents appeared to be put on a "cognitive back-shelf" to be retrieved if needed. Towards the end of the project he was able to spell and recognise oral spelling, but when faced with a new situation turned back to the apparently discarded concrete referent strategy.

This return to an earlier mode of functioning, termed "genetic principle of spirality" by Werner and Kaplan (1963, p8), can be seen in Tim's attempts to spell the milk he wanted on his cereal (Appendix 125). In orally transcribing the letters S-O G-O-O-D, he was seen to use the carton as a reference. However his cognitive development at this stage allowed him to rapidly internalise the letters so as he was able to soon reproduce them without using a reference.

If Werner and Kaplan's (1963) principle of development through cognitive spirals is correct, then Temple and Gillet's (1989) spelling development outline provides only a broad picture. If movement through spelling stages is recursive then teachers may have to review current programs and strategies.

c. Strategies. A third set of features which were manifested in Tim's encoding in the oral mode were strategies which he used. In organising the oral segmentation of letters Tim used three basic strategies.
i. One of these strategies was the use of phonological relationships. As previously described, Tim used sound-letter relationships to combine letters to formulate words. However in the case of producing his sister's name, while he was using phoneme-grapheme relationships, he was also given written demonstrations as well. Generally speaking, this was a lower order strategy. While using one-to-one relationships between objects, sounds and letters, e.g., /g/ for garage, (Appendix 6), it appears that the print demonstration he received both orally and in the written form were obviously of such greater complexity than his oversimplifications, that he used this phonological strategy when dealing with initial consonants only. This notion is further validated when Tim started school, where he was encouraged to use a sound-letter correspondence to determine the initial consonant of an unknown word and then to "scrounge" for the rest of the unknown sequence. Here he received countless demonstrations that the sound-letter correspondence was entirely unsafe ground when spelling.

ii. A second strategy used by Tim was the use of visually recalled patterns. Using environmental print as demonstrations (e.g., questioning the spelling of
"on", Appendix 51; and "hand", i.e., "I can spell hand because it's got 'and' in it". Appendix 145b), Tim revealed an ability to recall prior demonstrations of print from memory, as well and transfer them to other situations making spelling corrections.

iii. Finally, another strategy Tim used when orally encoding print was making predictions. For example, Tim orally spelt out the letters in the sign F-A-R-M-L-A-N-D (Appendix 73) and then using a semantic-context generalisation, predicted that the word said grocery shop. This behaviour revealed Tim's understanding of linearity, directionality and that print can be related to a known and whole meaning.

4.4.2.2 Decoding. Print in the Oral Mode.

"In addition to Tim's use of talk to act as an encoding support, he also used talk as a support when decoding print. From the observations of the decoding function of his talk, two aspects were revealed. These were interrogatives and descriptions.

a. Interrogatives.

The most salient feature of the questions Tim asked about spelling was a deep underlying meta-linguistic conceptualisation process. The initial question of this
study, (Appendix 4) "what does I-C-E spell?" and his self-explanatory answer, "ICE" revealed that Tim was most certainly aware of the concept that his oral language had discrete units, i.e., words, and that these words are made up of smaller units called letters. When letters are strung together correctly they produce a collective or collaborative structure that produces meaning.

While his questions have been classified as decoding because they initially were concerned with pulling words apart, these questions always remained paradoxically close to encoding print as well in that they were subtle attempts at reproducing meaning.

This interplay between encoding and decoding is also evident in the questions Tim asked about his written work as well. Always meaning driven, questions like "Does this spell Nikki?" (Appendix 10) shows he was seeking affirmation that his attempt were orthographically correct or similar. These questions also served a function of seeking and gaining information: he became quite content to have his approximation negated and the correct spelling demonstrated. It should be noted that his attempts were never "put down" or categorised as anything less than "a great try". Rather, he was encouraged to take risks, make guesses and use approximations.

This recursive pattern of questioning his own attempts and receiving actual demonstrations, leading to conventional spelling in his writing, can be seen in the developmental process of coming to grips with the spelling
of his sister's name. Before the attempt described by the approximation on the 12/1/89 --N-K-O-K, he knew that his sister's name began with N. He then set about building on that knowledge from the attempt 12/1/89 --N-K-O-K, he had another attempt N-K-I-K-I on the 5/3/89 and went on to move through several other oral-written attempts finally arriving at the conventional spelling on the 8/12/89. Having arrived at this conventional spelling, it remained cognitively fixated and all questions about its spelling ceased.

This questioning about letters, phonic groups and spelling of words, in general, had three phases:

i. Seeking Information: As was observed from Tim's initial questions, he began seeking information about letters, embedded in his print environment. As he became more proficient in recognising and writing letters, his questions gradually shifted into the second phase.

ii. Approximations: This phase roughly started in May (1990) with questions like "Do you spell Disney N-I-E? (14/5)".

iii. Confirming: The third function of asking questions seeking confirmation arose within the second phase and continued within the approximation frame for some time. This third
function differed slightly from the approximation type in that he was gently testing to see if his approximations were matching conventionality as well as directly questioning problems with the sound-letter matching process that he confronted. An example of this occurred during May 18/5/90, where he asked confirmation after his spelling of bus, on 10/6/90 concerning his spelling of Dad as D-E-D and then on 28/6 questions arose about the initial consonant /c/ having a /k/ sound. This cycle of questioning his approximations and seeking confirmation continued at home throughout the study.

In addition to these functions his questions also revealed some conceptual confusion. For example, on 19/12/89 and 30/6/90, Tim confused the concept of letters and numbers, equating one with the other. Mass (1982, p672), citing the work of Clay (1979), Elkonen (1973), Downing and Oliver (1973-74) and Ehri (1979) claims "that children only have a vague notion of what a word is and often confuse it with the terms letter, number and alphabet because they are unable to segment the sounds they hear into discrete words." While this may have been true initially, Tim at this stage was quite well aware of what a word was, that there were pauses between words and that letters made up words to describe meaning. Despite this linguistic awareness, in Tim's case
there were still traces of "cognitive confusion". This has important implications for the teachers of young children, as in Tim's case, despite his linguistic awareness, there was still a need to continue to provide help refining and synthesising words, letters and meaning.

b. Descriptive Labelling.

In this study, "descriptive labelling" is very much synonymous with oral labelling. This labelling was usually associated with a single letter representing a single concept or object, e.g., on 9/1/90 I need a sign, here's a /g/ for garage. This description continued throughout the course of this investigation. At times the tone of Tim's voice and his facial expression tended to suggest that it was almost an interrogative form. e.g., as occurred on the 28/5/89 when he asked /h/ for hippo.

Descriptions in general reflected the cognitive base from which Tim built up confidence to launch into levels of higher orthographic complexity. Used as security and a baseline of simplicity, the single letter equated with an object providing an ever-ready reference. It also provided an area used as a mental sounding board when encountering written referents that did not equate to the grapheme-phoneme principle.
On the 26/5/89 Tim became entangled in the problem of sound letter relationships when encountering the initial consonant /c/ starting the word city, instead of the consonant /s/. However on 30/5/89 while drawing he was mulling this encounter over in his mind and was heard correcting himself "/s/ for city, no it's /c/." Descriptions also played an invaluable insight into the print he was encountering and the detail he was focusing on.

It has been well documented (Dyson 1981, 1986: Harste, Bourke and Woodward, 1982) that young children's worlds evolve primarily through dramatic play, talk and drawing, with writing embedded in those worlds. As Dyson (1986) states, over time children will differentiate the boundaries between the written, drawn and spoken symbols. The following section provides insight into this differentiation process.
4.4.3 Spelling in the Written Mode.

FIGURE 4:

Overview.

Stage
1. Prephonemic Labelling (Clay 1975)

DEC/JAN

2. Phonemic (Temple & Gillet 1989)

MAR/APR

3. Letter-Name (Temple & Gillet 1989)
4.4.3.1 Spelling Forms in the Written Mode: At Home.

Within the spelling domain as a whole, synthesis of the data (as seen in Figure 4) revealed the following distinct features. First, there were three parallel forms of spelling operating within the learning to spell continuum.

These three forms of spelling that Tim produced in his writing grew out of, and within a labelling strategy stage. (Clay 1975, i.e., a single word or graphic item representing a wider and more general concept).

Each form had several distinct growth phases. At the commencement of this project Tim's labelling had several features. Well aware of what writing or print looked like, his writing/spelling attempts had well formed and recognisable print shapes, linearity and directionality. Secondly, these three parallel forms developed into a series of recursive and overlapping stages of spelling growth.

To elaborate on the first of these two features the three parallel forms of spelling which were revealed in Tim's writing were: rebus type, so called because it was a mixture of print, letters and graphics, Dyson (1981); an alphabet type, Temple and Gillet (1989), consisting of reproducing whole words; and letter name spelling, Temple and Gillet (1989).
Phase 1: Graphic Mixture.

Perhaps the most enigmatic form of spelling and writing was the mixture of graphic shapes letters and numbers. These written messages (see Appendix 1) were literally a mixture of single letters, numbers and drawings, conveying no meaning to the reader. Apparently there was no intention to convey meaning, because when asked what he was doing Tim would reply "just writing!".

However, one important aspect was revealed through careful observation, and that was the development of the strategy of copying. Seated at his desk, Tim would copy from the print he had placed above his desk, adding shapes and graphics as he wrote. From the comments he made, such as "just writing", it seemed that he did not differentiate between drawing and writing.

Gradually, the use of graphics and pictures in Tim's writing decreased and Phase 2 emerged.

Phase 2: Single letters with no apparent meaning.

This phase had two parallel constituents:

a. Copying single letters: Apparently content with mechanical formulation, for a brief time Tim simply copied single letters. Appendix 17, 19/1/89 shows the care
with which he had copied, trying so hard for accuracy and apparently trembling. This example also shows some of the carry over from the previous stage which manifested itself occasionally.

At roughly the same time as this form began, a second parallel aspect appeared.

b. Reproduction: This term refers to the fact that Tim was now able to recall and write letters from memory. As with the copying constituent, there seemed to be no intended meaning for himself or for the reader as exhibited by Appendix 11, 13/1/90, when he simply made the comment, "Dad, I wrote /l/'s.

However, towards the end of the third month of this project, March 1989, this phase gradually disappeared as the third phase appeared.

Phase 3: Reproduction with Meaning.

As stated above, the single letters with no attached meaning gradually gave rise to single letters with meaning. Writing T-T-R on the 23/1/89 (Appendix 20) Tim stated that these letters stood for "The Three Little Pigs."

It should be noted that these phases are not developmental with clear-cut boundaries but represent a gradual cognitive drift, or subtle transformations from generalised to more specialised forms, "which gives the false impression of recapitulation and occasions certain parallel phenomena in two related genetic series" Werner (1961, p25). More importantly,
these phases were recursive, with features of the apparently sublimated previous form surfacing occasionally. An example of this occurred on the 9/3/89. (Appendix 33) At that time I was diagnosed as having encephalitis. Tim, particularly worried, wrote a get well card to me. Although being able to reproduce his name, he simply gave single letter labels to himself and each family member.

FORM 2

Alphabetic type. This form had two phases.

Phase 1: Reproduction of whole recognisable words.

At the same time that copying and reproducing single letters were being attempted, a rebus form of the writing/spelling developmental process was unfolding. This rebus form incorporated both contextual and non-contextual reproduction of whole recognisable words.

a. Non-textual.

In regard to non-contextual reproduction, Tim was able to reproduce whole words from memory. The "non-contextual" reference describes the fact that the word he was formulating was written in complete isolation, with no graphics, accompanying description or wording. Appearing as a simple label, it seemed as if Tim was practicing letter formation. It should be noted that the overwhelming majority of these labels were simply his name as per 5/1/89, where he
commented that he was "just writing". Tim gave no real evidence of monitoring his spelling, writing or meaning by talk or pronunciation.

b. Contextual reproduction of whole recognisable words.

Tim also showed a form of rebus writing which was contextual in that it had an accompanying drawing or graphic presentation. This form had two developmental points along a continuum.

The first point emerged as single contextual words from memory. In Appendix 1c, 1/1/89, where Tim wrote his name, then drew a picture of a house along with the accompanying sub-vocalisation, "This is my house," contextual information was revealed. This form of contextual writing became an almost ritualised pattern, whereby the non-contextual form was slowly subsumed by the contextual. This process began with Tim reverting to former strategies.

The second point consisted of, contextual words and single letters, written from memory. As can be seen from Appendix 84, 30/6/89, the next phase in the Contextual Reproduction process was the writing of known words plus the addition of single random letters. This single word (once again "Tim"), and the single letters may have had meaning for Tim but as he stated he was writing about "our place" and talked about the accompanying pictures,
but he did not volunteer any information about the letters themselves.

At the end of August 1989 family circumstances produced another contextual form.

Phase 2: Multiple recognisable words and copied words.

Having been hospitalised again, Tim wanted urgently to write another card for me. Writing the words Dad, Tim and Nikki he requested the word Stephen (the spelling was given to him orally.)

It was at this point that this reproduction phase meshed with a third parallel strand of spelling development. The co-joining of these two parallel forms also now represented an integration of home and school in product, as well as in conditions. Tim now began drawing on the forms and strategies gained through his development at home and applying them to the requirements made of him at school. Thus spelling letter-name approximations gradually began to predominate.

FORM 3
Letter-name spelling.

This phase had two overlapping but complementary phases, which were writing at home and writing at school. This form employed by Tim was also founded in the labelling stage. The first approximation Tim used (Appendix 3) within the frame of reference for this project, was the label seal which he had spelt "PSTEL'. This written symbol reveals an attempt to match the
sound-letter combination that Tim could hear. Having a fairly good grasp of letter names and sounds by the commencement of this study he was able to match the perceived sound through a mixture of a syllable based decoding system and a sound/letter correspondence with the last two letters.

i.e., PST = S (Having placed over-emphasis on the initial consonant).

E = E
L = L

It is interesting to note that written approximations were relatively few in this initial stage of the spelling/writing process. Most of the approximations were carried out in the oral mode. Tim much preferred the previously mentioned methods which can be summarised as operating within a base of recalling whole words or letters having a broader conceptual meaning.

However, as described in the Spelling in the Oral Mode section, successful attainment of the conventional spelling of his sister's name was achieved through the use of approximations. However, the approximations gradually approached conventional spelling through a cycle of questioning, receiving a whole word demonstration and a retrial by Tim. It seems that with each successive trial, Tim was using a mixture of whole word configuration and sound/letter correspondence as can be seen in his attempts to spell his sister's name.

First attempt - NKOK
Second attempt - NKIKKI
Final attempt - NIKKI
From these reproductions it seems that with the first attempt he could hear the consonant sounds, filling in the gaps with a vowel holder. After receiving the first demonstration, he remembered the overall visual similarity, but could not hear the initial /i/. After the second approximation, he had retained a visual record and the convention was cognitively held.

As stated previously, approximations were minimal. He continued writing at home, however, using a mixture of whole memorised words, oral questioning and copying to approximate meaning (rather than single words). An example of this can be seen in the letter he wrote to his friend Ross on the 22/2/90: "Ross to from Tim Come Back Port". In this Tim managed to write "Ross to Tim", then asked me how to spell "from" and then most probably copied "Come Back Port." What he really wanted to say was "I want Ross to get better". An ability to read, remember oral sequencing and memorise whole words produced enough spelling/writing meaning to satisfy the urgent need he felt to communicate with his friend.

Tim's spelling development at home was a complicated matrix of ever increasing complexity based on a series of ever increasing spirals of discovery and exploration. In concept it was a strongly sequential model, but when explored in detail it revealed a highly sophisticated grid of selection and engagement with the print.

The following section details how this matrix was further developed at school in a strikingly similar fashion to the foundation already developed.
4.4.3.2 **Spelling Forms in the Written Mode: At School**

Tim's teacher had basically a tri-pronged approach to the teaching of spelling. Although not recognising that she was teaching spelling, she tried to develop in her class:

1. **Letter name strategy**, beginning with consonants and then vowels she encouraged the children to listen for the initial sounds of words. If unable to spell the word in total, write the letter and then draw a line, signifying to her that the remaining phonic segments were not known and needed to be discovered.

2. **A sound to letter correspondence through verse, rhymes and class demonstrations.**

3. **An automatic recall of whole words.**

This triple spelling strategy fitted in well with Tim's spelling strategies. As he already knew the letter names, had begun to write before school, had a reasonable sight vocabulary and as noted by the "co-researcher", he could read fairly well. His spelling development as within the home, became focussed on developing a base of decoding utilising visual recall of whole words. With recall of phonic groups being a secondary consideration. Thus as expressed by Joyce's supervisor (Appendix 151), Tim and apparently most of the class skipped several early spelling strategies of using random letters only.
Close inspection of his "free" or process writing attempts reveal that while coping with the strategies demanded of him by his teacher, he had also incorporated several other spelling forms developed at home. His first free writing attempt reveals that as well as constructing a sentence using whole words, he had written a string of apparently random letters. It seems that Tim had written a draft to begin with approximating the word shown as a collection of random letters and numbers (Appendix 152). Apparently embarking on school writing activities produced a need to revert to safer known strategies. Gradually these random labels disappeared being replaced by another "strategy", whole word labelling. Appendix 157 shows that Tim was unable to fill final phonic segments and so in an attempt to make his meaning clear he reverted to a use of known whole word labels, i.e., "Nikki", "Tim", "Dad", and "Mum". Gaining confidence, these labelling strategies gradually disappeared and he began to focus on the initial consonant strategy. Throughout the months of March and April 1990, Tim managed to gain control of several words such as birthday (Appendix 159) but continually failed to grasp the spelling of went, despite the fact it was repeatedly demonstrated for him. It seems that he was simply not willing to engage with this letter configuration or attempt to use it.

Once Tim had become consolidated in this whole word/initial consonant mode it took almost two months for the first spelling approximation to appear (see Appendix 168).

As the sentence was not followed up in the usual writing/labelling conference, the meaning of the word h'z' is
unclear, but it began a period where extended approximations began to appear more regularly. On the 21/5/90 (Appendix 172) Tim revealed an approximation based on his awareness of visual print and the ability to grasp whole configurations. Having visited Kiama the previous weekend, Tim had questioned as to what the township sign said. He was simply told that it said "Kiama". Nothing more was asked for. However, in free writing time at school, he made an excellent approximation, spelling the word Kiama, "Kaima". His teacher Joyce made a (quote) "big deal" about it, so much so that he commented that night about his attempt. Towards the end of this study Tim had begun to experiment in a much wider scope as can be seen from the writing attempt dated 30/6/90, (Appendix 174) where nearly every word was a total letter-name strategy. However characteristics of the Letter-name stage were present throughout the initial stages of development rather than a completed form of later development as described by Temple and Gillet (1989).

Perhaps the most important feature of Tim's spelling was the large amount of proof-reading that he undertook in his free writing. From the very beginning of his school experience with free writing Tim constantly crossed letters and words out moving on to correct himself. In the last example of his writing (Appendix 174), marked by the amount of approximations he is now willing to undertake, is a corresponding amount of self correction. Obviously re-reading his work as he writes, his "spelling conscience" was continually fine tuning his attempts.
It is this proof-reading and editing ability which provides a complementary dimension to the spelling matrix previously described. Tim's ability to select information from his "spelling code" knowledge, grasping the complex structures of English orthography reveals a sophistication often ascribed to adult learners.

The observations and data supplied in this paper argue that such a complex view of spelling development and literacy learning ought to be applied to children entering school. However, more importantly, this project seeks to advance the idea that spelling should be cultivated and not imposed. In the same way as they learn to speak, children should be able to learn to read, write and spell. Literacy learning should not be taught as reading and writing but coalesced through methods in which both these skills are found. These points underpin the conclusion to this thesis.
CHAPTER FIVE:

CONCLUSIONS AND IMPLICATIONS
CHAPTER 5
CONCLUSIONS AND IMPLICATIONS

5.1 **Introduction**: Synthesis of Study.

In summary the findings of this study are:

1. Tim's spelling development in the oral and written modes was characterised by a large volume of talk which focussed on his own spelling attempts in both modes, and on the print in his immediate environment. While "spelling talk" was not initially an intended focus, it has been dealt with very briefly and is a definite source for further research.

2. Rather than a linear progression of spelling development through a linear form of growth, Tim's spelling development was characterised by stages which were contemporaneous in quality and overlapping recursive by nature. Characteristics of later developmental stages were present in the initial stages as well.

3. As was the case in this study, before beginning school children may have a highly complex and structured spelling/writing understanding.

4. The role of a child's caregivers is crucial. The teaching climate and learning conditions set in place by a teacher may enhance and direct the spelling understanding and
attempts a child may bring to school, or conversely perhaps seriously debilitate them.

5.2 Conclusions.

Recognising that a case study of one child "does not a theory make," the differences in Tim's spelling development and behaviour expands the spelling development children may embark on as described by previous researchers. These points are discussed in the following sections:


Tim's spelling growth reflected an apparent set of stages which were indeed "rough" (Temple and Gillet, 1989). Transition points between stages were not clear-cut by any means because they could only be distinguished by a predominance of one characteristic. Tim's spelling growth did not manifest itself as linear development of ever-increasing complexity but rather a cyclical amalgamation, as shown in Fig.4.

As higher-order strategies developed, i.e., those beginning to take in a more correct usage or form of orthographic correctness, lower-order forms were not completely discarded but were often recalled in times of stress to compensate for "writing blocks", so as to continue the flow of meaning. Tim's spelling development revealed much more than creating and extracting meaning from an alphabetical system. What emerges is a view of spelling development that is circulatory and recursive, turning through symbols, signs and oral language.
Such a view has important implications for the teaching of spelling and writing. Rather than a mechanical mastery, learning to spell may involve a metamorphosis that entails the transformation of forms involving the curtailment, disappearance or reversal of some types, with the seemingly unexpected re-emergence of others. As Vygotsky (1978) noted, "The developmental history of written language among children is full of such discontinuities."

(Vygotsky, 1978, p106)

Just as Tim's teacher was willing to follow Tim's writing development gently cajoling, prompting and waiting, it behoves all teachers to be fully aware of each child's potential, level of competence and state of awareness. Teachers, it seems need to sometimes accept regression and to be willing to have "both the sensitive appreciation of children's creations and support of children's growth as written language artists."

(Dyson, 1980, p 800).

5.2.2 A Microtome of an Instant: Spelling Decisions in Action.

Always moving towards making meaning through print, Tim's spelling development seemed to be based on "predicting skills". The overall strategies which Tim employed were very much problem-solving attempts. The need to spell seemed to be accompanied by the need to predict and then to check or proof-read his attempt.

Initially having a limited spelling repertoire to choose from, familiarity with the basics of the coding system, that is, the letters of the alphabet, was half the battle. He was then able to
test, predict and choose from amongst the letters he knew, assembling them as a possible alternative spelling. The following figure is a diagrammatic representation of Tim's spelling behaviour at the end of the study. It represents both a spelling instance and the follow up to the writing of a word contained within his writing.
FIGURE 5: ALTERNATIVE PORTRAYAL OF SPELLING IN ACTION

Phase 1  Phase 2  Phase 3  Phase 4  Phase 5

DECISION  INITIAL  SCANNING  RESPONSE
RESPONSE  PROCESS

NEED  TO  SPELL

MEMORY  UNCONSCIOUS  REACTION

TEST

WRITING  OF  THE  WORD

EXTERNAL  REFERENCE  CUES
 Wortd/Letter  Stealing)

*ENVIRONMENTAL
-charts
-books

*Others  in  class

*Contextual

Rewrite

RESPONSE  OF  OTHERS
As can be seen in this model, there were several distinct spelling steps of his writing attempts.

**Step 1: Need to Spell.**

Spelling for Tim was not something that occurred as a matter of course, but rather initiated, directed and precipitated by him as a definite need to make print meaningful for himself and others. At this stage, the target audience consisted of "significant others" in his life.

**Step 2: Decision Process.**

Having a need to spell, Tim then had to make a decision as to which spelling channel or mode he was to initiate. The choices he had were:

i. **Unconscious channel.** As the name suggests, words written by Tim in this mode of thought were simply reproduced without any apparent thought or slow down in writing. The letters simply flowed with smooth mechanical precision.

ii. **Memory channel.** Similar to the previous mode, this form of spelling was often characterised by a slow down in writing speed and then what appeared as a quick mental check or reference to an external reference cue (described in Phase 3). The spelling of the word was then carried on or rewritten.
iii. Test Channel. This was marked by a comparatively long period of concentration or checking of reference cues. While this sometimes occurred in the initial spelling of a word, it was more a characteristic of a rewriting/correction stage as initiated by his teacher, once meaning (the top priority) had been established.

Step 3: Initial Response.

This phase had two distinct features.

i. Writing of the word in a single flow. Having total recall this form of spelling was an automatic response or as previously described, fairly quickly written, after a quick check with an external reference.

ii. External reference cues. These cues were external aids used by Tim, lying outside of his "cognitive spelling view", which were used to provide cues and clues as to the spelling of a word. These include:

   a. environmental charts, displays and examples of children's writing.

   b. books, both correct versions of class writing or specific class readers.
c. Children in the class. As observed by both teacher and co-researcher, Tim frequently used other children to gain help, as well as help other children in a similar way.

d. Contextual. This was in the form of self made rules such as o-u-t spells out (taken from a school singing game).

**Step 4: Scanning Process.**

Tim was often observed at home and at school very quickly re-reading his print. If unsure he would very quickly leave off and continue writing (as occurred in school drawing a line for unknown or unsure letter groups), use a reference cue or completely rewrite the word.

**Step 5: Response of Others.**

Writing and spelling for specific audiences other than for pure personal satisfaction became an important facet of his overall development, especially after beginning school. It was to this end that his total spelling behaviour was aimed. It should be noted that both at home and school all his attempts were valued. Even at school, when required to correct and find conventional spelling, Tim took this requirement in his stride.

Rewrites were of two basic kinds:
i. **Self imposed.** Realising that his spelling was not correct during the scanning stage he would rewrite from memory, use another approximation or use an external reference.

ii. **Teacher imposed.** Forced to correct or add further segments of print became an integral part of "learning to do school". Tim accepted this quite readily and never expressed any dissatisfaction in having to perform the task. This aspect of re-correction was normally directed to external cues.

5.2.3 In the Phonemic stage, use of **Phoneme-grapheme relationships** were not the single initial spelling strategy or the dominant form.

As is suggested by Temple and Gillet (1989) Tim's spelling development did not follow a single direct line in which something like a clear continuity of forms was maintained. Instead this paper offers the notion that operating within Temple and Gillet's (1989) design, metamorphosis of forms and transformation of strategies may arise.

As Baldwin (1967) suggests the total process may involve as much "involution" as evolution. This means that together with forward motion of development and appearance of new forms, processes of curtailment, disappearance and the reversion to old forms may arise during each stage. This type of development is not new within child psychology or science in general, but as yet has not influenced current curriculum development.
Literature dealing with this spelling stage often begins with only a description of letter sound relationships as does Temple and Gillet (1989, p40). Gentry (1981, p379), is more direct when he writes that "the phonetic stage is characterised by an almost perfect match between letters and sounds." This was not true of Tim's spelling in the home or at school. Rather, matching sounds to letter names was only one of several strategies in his writing. At home, he most certainly talked a great deal about the relationship between letters and sounds but it was not until writing at school that this strategy was encouraged. As previously discussed, grapho-phonic relationships were only one form operating within several other strategies reverting to a rebus form and the use of letter-name spelling were also present.

Attaching meaning to single letters (with grapho-phonic representation) appeared only after a period of copying letters and then being able to reproduce them from memory. Mechanical movements made through copying was a strategy that appeared throughout the majority of this study but then gradually faded out. It appears that Tim gradually internalised letters and words and was able to move away from the "concrete" to a recall of letters.

Rather than a linear movement from grapho-phonic representation through several approximation phases, Tim's development was characterised by a collateral strategy approach as shown in Figure 4.

While copying and grapho-phonic relationships were one of several initial strategies, gradually total recall of letters became
the dominant factor. As Tim moved through these stages, gaining control over mechanical formation and naming of letters, he moved gradually towards whole word spelling based on recall of total letter configuration.

His achievement in spelling his sister's name gives some insight into this recall strategy. Starting initially with the grapho-phonetic strategy of "N" for Nikki, he gradually extended this by using his phonemic knowledge to the approximation "NKOK" and then "NIKIKI" and finally succeeding. However, in each step, he was giving a demonstration of how the word was spelt and once he had achieved the correct version it was secured for total recall. It appears that in all Tim's efforts a pattern of regeneration occurred as described in Figure 6.

FIGURE 6: SPELLING REGENERATION.

<table>
<thead>
<tr>
<th>NEED TO SPELL</th>
<th>Generate</th>
<th>test</th>
<th>regenerate</th>
<th>test</th>
<th>recall</th>
<th>Shared</th>
<th>Meaning</th>
</tr>
</thead>
</table>

Temple and Gillet (1989, p40) suggest that children "look for patterns in spelling that relate letters to sounds". Tim's development was not as a pure "phonetic" writer but rather one using several spelling channels, or modes, all moving towards an almost habitual ritualised test--regeneration process until conventionality is achieved and the words stored. While the process of spelling his sister's name is similar to the stages of invention as described by Graves (1983, p184), this approximation mode was only one developmental strategy used by Tim.
It appears that Tim developed a "visual memory system." Rather than a mechanistic serial learning track coupled with pronunciation, spelling in Tim's case was a multi-stranded approach based around internalisation of information, cognitively organising that information, constructing tentative approximations and then applying them in a written form.

Early in the study Tim realised that the correspondence between acoustic sound and phonemic units was far from simple. Discovering for example that the sound for the initial letter /c/ in some words is /k/ and /c/ for others (see Appendices 68, 71) was more than an experience of analysing and interpreting sounds. Rather it was a developmental process of thinking and cognitively manipulating letters.

Spelling is not merely learning a set of letters and memorising them but rather a process of discovery through interpreting, thinking, understanding, inventing, and testing. For Tim, spelling began with forming print and then beginning a cognitive search for strategies to make that print meaningful.

5.3 Research Implications.

The findings of this study highlight the following suggestions for further research:

1. Further research into the relationship between talk and spelling is needed. While not suggesting that Tim's spelling is atypical, the findings of this project definitely suggest that the models currently purposed, such as Temple and Gillet (1989), while accurate in outline, give only a broad
spectrum. They fail to incorporate the totality of language modes which children use in writing and spelling. It would seem that spelling is more than a facet of writing, but rather a facet of talk and language as an integrated whole.

What is needed is an indepth longitudinal study based on Dyson's (1986) notion of "tensions between symbol systems". While recognising the possibility that every child may have a highly individualised model of spelling acquisition, an overall generalisation of how children actually learn to spell would enhance the teaching of one of the most controversial aspects of the curriculum.

2. Further research into the science of morphology and its implications for the teaching of spelling is also indicated. As this study tends to suggest, visual strategies are a dominant form, and perhaps this branch of philology could provide key inferences into the design of more efficient teaching strategies. Strategies based on visualisation processes of forms, rather than sound-letter correspondences still common practice today.

3. In undertaking research on children's spelling development closer teacher-researcher partnerships are recommended. The liaison between the classroom practitioner and myself developed into a two-fold learning process. While I gained valuable insights into the teaching of spelling, Tim's teacher came to realise the value and true worth of her teaching style and methodology. Using me as
a "sounding board" was far more valuable than simply reading the currently available literature, or accepting the relatively limited praise or direction from her supervisors.

Although a practising teacher, I also came to realise the "ivory tower" I had entombed myself in when forced to confront the pressures, demands and dedication needed to be a successful Kindergarten teacher.

5.4 Pedagogical Implications

Important pedagogical implications arising from this study and model of spelling behaviour include the following:

5.4.1 The teacher’s role. The inferences drawn from this study concerning initial spelling attempts made by children, throw light on how vital a teachers' role is in this learning process. Teachers in this position need to:

a. provide and create an environment which is language-rich and conducive to individual learning. The teacher should provide demonstrations of adult conventions, structuring situations which foster and promote independent spelling autonomy through self regulation of spelling discoveries. From current literature and the spelling attempts exhibited by Tim, it appears that children undertake the learning to spell process in a similar fashion to the learning to talk process. In both cases they select from the language which they encounter to suit their own
special interests and needs, at their own pace and in their own time.

b. design programs which encourage children to focus on the structure of written text and its construction. By involving learners in such activities, through reading and writing they are also focusing on spelling.

c. encourage "invented" spelling in the initial writing or composing process as it is in this crucial time period that children develop spelling strategies. An over-emphasis on spelling correctness may inhibit the writing flow so as to lessen opportunities to learn through "self-construction." Children definitely must put pen to paper first, to allow spelling to grow towards adult conventions, rather than have standard spelling as an initial dominant observance.

d. not accept rigid stages of spelling behaviour, and development; or the belief that the first stage in developing spelling ability is the discovery of written symbols that stand for acoustic equivalents; as Temple and Gillet indicate, these stages are "rough".

e. Create opportunities that will encourage talk about writing and spelling. Learning to spell, as in Tim's case, was an integral part of learning about language. His writing and spelling attempts did not occur in a vacuum
but as part of an aggregate language formation involving combinations of talk, reading and writing.

f. Recognise that what is taught is not necessarily identical to that which the child has learnt. As each child engages with language components of their own choice and rate, teachers' demonstrations may be sublimated into their language data pool or ignored.

5.4.2 Spelling Curricula and Programs.

Findings in this study suggest that spelling should not be taught in a mechanical fashion. Rather it asserts:

a. Spelling might usefully be taught through reading, especially in a program that emphasises a decoding approach in which graphic options are introduced contextually, systematically and incidentally (according to need). e.g., Use of a "Big Book" approach. This would allow children the opportunity of reconstructing words in their writing in a similar way as they decode words in their reading. It could also allow them to introduce strategies they could use later in generating spelling alternatives as well as pointing up close relationships between reading, writing and proof-reading.

b. Insistence on proof-reading. Tim's whole class is proof that even at an early age children are capable of proof-reading their work and searching for the correct phonic
segments. Generating spelling approximations and then searching for the correct form can be introduced as an integral part of the learning to spell and write process, rather than seeming a chore. This has important implications for later grades because if this proof-reading process can be introduced from the beginning, children may simply take this process upon themselves as a matter of course. Thus individual conference times may be freed up for important facets of language learning.

d. In general, words which are more frequently used are more likely to be spelled correctly. This also incorporates the fact that a child who looks at a word with some interest or definite purpose will experience a qualitatively different exposure to print than a child who is disinterested. Mere exposure is not enough. Engagement is the ebullition which develops the spelling conscience.

e. Before beginning school children may be aware of relationships between graphemes and phonemes, in that they do not follow a one-to-one relationship. They may be also aware that some words are made up entirely of phonemes that are represented by a single spelling option or others which are made up of phonemes plus morphemic units, which are more likely to be established through visual representations. It is imperative then that teachers establish where each and every child is in their spelling understanding.
This necessitates a cyclical program of demonstrations, observation, monitoring and analysis to ensure that needs are being met rather than simply a program being taught.

As Almy (1974, p60) suggests, sensitive observation is the key to successful teaching.

"The more carefully you observe, the more sure you are about what you're doing and the more effective what you do becomes."

g. As Tim's teacher stated (during an interview) spelling should be taught in a similar fashion, as that undertaken by herself, throughout primary school. In discussing in detail Tim's development we both came to realise that:

i. Learning lists of words is not spelling.

ii. Teaching spelling rules is an "uneconomical use of time."

iii. The notion of testing needs to be carefully scrutinised and evaluated itself. It would seem that recording progress anecdotally would be a truer account of spelling progress and development.
However, perhaps the most potent decision that we collectively came to was:

"that in order for a child to understand something, he must construct it himself, he must re-invent it. Every time we teach a child something, we keep him from inventing it himself." (Piaget 1972, p27)
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APPENDICES:

SYNTHESIS OF DATA # 1
<table>
<thead>
<tr>
<th>TALK</th>
<th>WRITING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Decoding</strong></td>
<td><strong>Encoding</strong></td>
</tr>
<tr>
<td><strong>Interrogative</strong></td>
<td><strong>Description</strong></td>
</tr>
</tbody>
</table>

**JAN**

4 yr
1mth

<table>
<thead>
<tr>
<th>Date</th>
<th>What do those words say?</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/1</td>
<td>(5/1) reproduce &quot;ice&quot;</td>
</tr>
<tr>
<td></td>
<td>(9/1) g for garage with blocks</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>What do these letters say?</th>
</tr>
</thead>
<tbody>
<tr>
<td>22/1</td>
<td>recognises spaces between words</td>
</tr>
<tr>
<td>22/1</td>
<td>asks for demo. (given orally)</td>
</tr>
<tr>
<td>25/1</td>
<td>recognises 0</td>
</tr>
<tr>
<td>25/1</td>
<td>Has memorised</td>
</tr>
</tbody>
</table>

**FEB**

<table>
<thead>
<tr>
<th>Date</th>
<th>Knows what spelling is?</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/1</td>
<td>(5/1) reproduce &quot;ice&quot;</td>
</tr>
<tr>
<td></td>
<td>(9/1) g for garage with blocks</td>
</tr>
</tbody>
</table>

**Narrative**

(knows story off by heart, read to mum 15/1)

<table>
<thead>
<tr>
<th>Date</th>
<th>What do those words say?</th>
</tr>
</thead>
<tbody>
<tr>
<td>14/1</td>
<td>nimble 11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>What do these letters say?</th>
</tr>
</thead>
<tbody>
<tr>
<td>22/1</td>
<td>recognises spaces between words</td>
</tr>
</tbody>
</table>

**Writing**

<table>
<thead>
<tr>
<th>Date</th>
<th>approximating using letters</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/1</td>
<td>eg 3/1 seal = BTEL has meaning</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>just practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>L's</td>
<td>L's &amp; e's (15/1)</td>
</tr>
</tbody>
</table>

**EOTLEIE (17/1)**

Had meaning (refers to cousins)
draws picture of himself & brother

<table>
<thead>
<tr>
<th>Date</th>
<th>EL(&amp; numbers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>19/1</td>
<td>TTR (3 little pigs)</td>
</tr>
<tr>
<td>TALK</td>
<td>WRITING</td>
</tr>
<tr>
<td>------</td>
<td>---------</td>
</tr>
<tr>
<td>Decoding</td>
<td>Encoding</td>
</tr>
<tr>
<td>Interogative</td>
<td>Description</td>
</tr>
<tr>
<td>4yr</td>
<td>&quot;BINGO'</td>
</tr>
<tr>
<td>2mth</td>
<td></td>
</tr>
<tr>
<td>3/2</td>
<td></td>
</tr>
<tr>
<td>4/2</td>
<td>recognises &quot;play school lable&quot;</td>
</tr>
<tr>
<td>11/2</td>
<td>traces letters in air/MNEL</td>
</tr>
<tr>
<td>13/2</td>
<td>Recognises &quot;bottle&quot;</td>
</tr>
<tr>
<td>15/2</td>
<td>FRDLINR</td>
</tr>
<tr>
<td>18/2</td>
<td>SGO</td>
</tr>
<tr>
<td>19/2</td>
<td>Recognises NKLE asks for F</td>
</tr>
<tr>
<td>20/2</td>
<td>MAR</td>
</tr>
<tr>
<td>4yr</td>
<td>4mth</td>
</tr>
<tr>
<td>3/3</td>
<td>4/3</td>
</tr>
<tr>
<td>5/3</td>
<td>6/3</td>
</tr>
<tr>
<td>7/3</td>
<td>10/3</td>
</tr>
<tr>
<td>C/Q</td>
<td>12/3</td>
</tr>
<tr>
<td>N/P</td>
<td>16/3</td>
</tr>
<tr>
<td>asks for whole word Ocean Breeze (T shirt)</td>
<td>18/3</td>
</tr>
<tr>
<td>T (link letter in object)</td>
<td>18/3</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>TALK</td>
<td>WRITING</td>
</tr>
<tr>
<td>------</td>
<td>---------</td>
</tr>
<tr>
<td>Decoding</td>
<td>Encoding</td>
</tr>
<tr>
<td>Interogative</td>
<td>Description</td>
</tr>
<tr>
<td>19/3</td>
<td></td>
</tr>
<tr>
<td>20/3</td>
<td></td>
</tr>
<tr>
<td>27/3</td>
<td>Whole word</td>
</tr>
<tr>
<td>28/3</td>
<td>Peace</td>
</tr>
<tr>
<td>29/3</td>
<td>I=ice cream</td>
</tr>
<tr>
<td>d for c</td>
<td></td>
</tr>
<tr>
<td>initial cons</td>
<td></td>
</tr>
<tr>
<td>30/3</td>
<td>confusion</td>
</tr>
<tr>
<td>initial cons i/6</td>
<td></td>
</tr>
<tr>
<td>APR</td>
<td>Capitals</td>
</tr>
<tr>
<td>4 yrs</td>
<td>(N=sister)</td>
</tr>
<tr>
<td>4 mth</td>
<td></td>
</tr>
<tr>
<td>3/4</td>
<td>P=Dad</td>
</tr>
<tr>
<td>10/4</td>
<td>demo ph=f</td>
</tr>
<tr>
<td>11/4</td>
<td>l=lolly</td>
</tr>
<tr>
<td>13/4</td>
<td>initial</td>
</tr>
<tr>
<td>cons</td>
<td>recognises</td>
</tr>
<tr>
<td>B for C</td>
<td>A</td>
</tr>
<tr>
<td>14/4</td>
<td>spells yes</td>
</tr>
<tr>
<td></td>
<td>(letter name)</td>
</tr>
<tr>
<td>22/4</td>
<td>predicts sisters</td>
</tr>
<tr>
<td>name &amp; recognise</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>TALK</td>
</tr>
<tr>
<td>------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>28/4</td>
<td><strong>Ask what is &quot;on&quot;</strong> Change Letter, number</td>
</tr>
<tr>
<td>24/4</td>
<td>Letter names (environment)</td>
</tr>
<tr>
<td>28/4</td>
<td>Asking cucumber =q?</td>
</tr>
<tr>
<td>29/4</td>
<td>Recognises &quot;on&quot; in book &amp; reverse letters=no</td>
</tr>
<tr>
<td>30/4</td>
<td>Corrects little sister recognises P</td>
</tr>
<tr>
<td>4/5</td>
<td>asks about m=mouth starts</td>
</tr>
<tr>
<td>9/5</td>
<td>asks how to spell olives</td>
</tr>
<tr>
<td>19/5</td>
<td>spell Disney N-I-E (given demo)</td>
</tr>
<tr>
<td>15/5</td>
<td>n-u-t-s' recognise nuts</td>
</tr>
<tr>
<td>16/5</td>
<td>recognises words Spaceship Surprise</td>
</tr>
<tr>
<td>17/5</td>
<td>Asks for demo of hexagon octagon</td>
</tr>
<tr>
<td></td>
<td>Asks for demo of spell of nuts</td>
</tr>
<tr>
<td>18/5</td>
<td>Asks do you</td>
</tr>
<tr>
<td>Date</td>
<td>Event</td>
</tr>
<tr>
<td>------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>18/5</td>
<td>Talks about spelling the word bus (B-U-S) and checks understanding.</td>
</tr>
<tr>
<td></td>
<td>Asks if the sign says 'Bus Stop'.</td>
</tr>
<tr>
<td></td>
<td>Asks G/ma to watch as they draw x/y.</td>
</tr>
<tr>
<td></td>
<td>Asks what B-E-N spells the word.</td>
</tr>
<tr>
<td></td>
<td>v starts violin (TV).</td>
</tr>
<tr>
<td></td>
<td>J for James.</td>
</tr>
<tr>
<td>19/5</td>
<td>Asks T-O-N-K-A.</td>
</tr>
<tr>
<td>20/5</td>
<td>T for trombone (TV).</td>
</tr>
<tr>
<td></td>
<td>Recognises letters in environment.</td>
</tr>
<tr>
<td>21/5</td>
<td>A for Audrey (Grandmother).</td>
</tr>
<tr>
<td>24/5</td>
<td>Pronouncing letters in environment.</td>
</tr>
<tr>
<td></td>
<td>Recognises telephone (with picture clues TV).</td>
</tr>
<tr>
<td>25/5</td>
<td>K = cat given oral demo cut.</td>
</tr>
<tr>
<td></td>
<td>K = cat given demo.</td>
</tr>
</tbody>
</table>
**TALK**

<table>
<thead>
<tr>
<th>Decoding</th>
<th>Encoding</th>
<th>Interrogative</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>c=cat, cut</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| 26/5      |          |               |             |
| c=sock    |          |               |             |
| given oral demo |  |               |             |
| s=sock    |          |               |             |
| s=city    |          |               |             |
| demo c=city |       |               |             |

| 27/5      |          |               |             |
| *Asks for demo |          |               |             |
| of peoples name |          |               |             |
| Nanna/Neville |          |               |             |
| (copies)    |          |               |             |

| 27/5      |          |               |             |
| *Asks what PMP |          |               |             |
| says (initials |          |               |             |
| environ. print |          |               |             |

| 27/5      |          |               |             |
| *matches words |          |               |             |
| with picture cues |          |               |             |

| 27/5      |          |               |             |
| *finds ping from |          |               |             |
| initial cons-sight |          |               |             |

| 27/5      |          |               |             |
| finds more P words |          |               |             |

| 29/5      |          |               |             |
| Asks if j for jump |          |               |             |

| 30/5      |          |               |             |
| talking to himself |          |               |             |
| s for city |          |               |             |
| No: c for city |          |               |             |
| N-O, no |          |               |             |
| (while drawing) |          |               |             |

| 2/6       |          |               |             |
| Asks if out |          |               |             |
| starts with |          |               |             |
| a |          |               |             |

| 6/6       |          | Predicts       |             |
|          |          | Farmland       |             |
|          |          | Supermarket    |             |
|          |          | (sound out letters) |         |
|          |          | =grocery shop  |             |

| 7/6       |          | Predicts Chinese sign |         |
|          |          |                      |             |

| 9/6       |          | v=vet prediction |             |

**WRITING**

<table>
<thead>
<tr>
<th>Interlard</th>
<th>Facsimilie</th>
<th>Approximations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| 2/6       |          |                |             |
|           |          |                |             |

| 6/6       |          |                |             |
|           |          |                |             |

| 7/6       |          |                |             |
|           |          |                |             |

<p>| 9/6       |          |                |             |
|           |          |                |             |</p>
<table>
<thead>
<tr>
<th>Date</th>
<th>Talk</th>
<th>Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/6</td>
<td>Do you spell Dad d-e-d (given oral demo)</td>
<td>Predicting Oral c-a-k-e = beach</td>
</tr>
<tr>
<td>12/6</td>
<td></td>
<td>Interogative Description</td>
</tr>
<tr>
<td>16/6</td>
<td>Asks for confirm. AD = dad</td>
<td>Encoding</td>
</tr>
<tr>
<td>22/6</td>
<td>Ask why BEAR written in big letters</td>
<td>Takes over reading (off by heart)</td>
</tr>
<tr>
<td>23/6</td>
<td>recognises bird from initial cons &amp; picture</td>
<td>Interlard Facsimile Approximations</td>
</tr>
<tr>
<td>25/6</td>
<td>Asks what sign says &quot;Colour Combo&quot;</td>
<td></td>
</tr>
<tr>
<td>28/6</td>
<td>(TV) H for Hippo asks if canoe starts with k. k=c junk with u</td>
<td></td>
</tr>
<tr>
<td>29/6</td>
<td>recognises exit (from TV) (sounds letters)</td>
<td></td>
</tr>
<tr>
<td>1/7</td>
<td>reads zoo (sounds letter names)</td>
<td></td>
</tr>
<tr>
<td>2/7</td>
<td>recognises letters B-E-Y</td>
<td></td>
</tr>
<tr>
<td>TALK</td>
<td>Writing</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>---------</td>
<td></td>
</tr>
<tr>
<td><strong>Decoding</strong></td>
<td><strong>Encoding</strong></td>
<td><strong>Interlard</strong></td>
</tr>
<tr>
<td><strong>Interrogative</strong></td>
<td><strong>Description</strong></td>
<td></td>
</tr>
<tr>
<td>(beyond TV)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8/7 recognises big</td>
<td>N for sister</td>
<td>big T for Tim</td>
</tr>
<tr>
<td>15/8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20/8 Asks if you spell key k-i-e (given oral demo)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24/8 recognises Taxi from environment sounds letters (predicting)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12/9 (TV) soon/eel asks if spell eel describes elephant double 1 e as big word given demo</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10/10 Asks what sounds writing letter s-t confuses predicts' No's with Stephen letters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21/0 Using hand control for TV asks if FF stands for fast forward &amp; REW = rewind</td>
<td>m for rat using picture cues (mouse looks like rat)</td>
<td></td>
</tr>
<tr>
<td>24/1</td>
<td></td>
<td>m for rat using picture cues (mouse looks like rat)</td>
</tr>
<tr>
<td>27/1 Interr'g Description Predicts changed (now telling me c=Chris, Cat =Pizza)</td>
<td></td>
<td></td>
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<table>
<thead>
<tr>
<th>TALK</th>
<th>WRITING</th>
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<tbody>
<tr>
<td><strong>Decoding</strong></td>
<td><strong>Encoding</strong></td>
</tr>
<tr>
<td>Interrogative</td>
<td>Description</td>
</tr>
<tr>
<td>12/12</td>
<td>writes card for G/ma given letter names copies down</td>
</tr>
<tr>
<td>19/12</td>
<td>States can read reads from memory</td>
</tr>
<tr>
<td></td>
<td>Predicts from picture clues</td>
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<tr>
<td></td>
<td>Asks what numbers I've written refer to letters</td>
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<tr>
<td>20/12</td>
<td></td>
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<tr>
<td>JAN</td>
<td>Interrog but knows answer x</td>
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<tr>
<td>90</td>
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<tr>
<td>13/1</td>
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<tr>
<td>22/1</td>
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<td>9/2</td>
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<td>22/2</td>
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TALK

Decoding  Encoding
Interogative Description

<table>
<thead>
<tr>
<th>Date</th>
<th>Decoding</th>
<th>Encoding</th>
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<tbody>
<tr>
<td>2/3</td>
<td>b for beetroot stickybeak p for plane &amp; pink</td>
<td></td>
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<tr>
<td>10/3</td>
<td></td>
<td>spells me</td>
</tr>
<tr>
<td>12/3</td>
<td>w with sticks</td>
<td></td>
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<tr>
<td>13/3</td>
<td>spells rocks rox</td>
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<tr>
<td>15/3</td>
<td></td>
<td>writes letter for teacher asks for once upon a time</td>
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<tr>
<td>16/3</td>
<td>predicts spelling (oral) of surf equates with beach</td>
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<tr>
<td>17/3</td>
<td></td>
<td>asked as Interrog. but reads S-I-R asks what it means</td>
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<tr>
<td>25/3</td>
<td></td>
<td>makes A from word</td>
</tr>
<tr>
<td>28/3</td>
<td></td>
<td>reads school story predicts painting for pasting</td>
</tr>
<tr>
<td>30/3</td>
<td></td>
<td>requests to read book at home using picture clues substn prediction</td>
</tr>
<tr>
<td>31/3</td>
<td></td>
<td>copies from book that has been read to him</td>
</tr>
<tr>
<td>TALK</td>
<td>Encoding</td>
<td>Writing</td>
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<td>------</td>
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<tr>
<td>Decoding</td>
<td>Description</td>
<td>Interlard</td>
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<tr>
<td>27/3</td>
<td>asks what N-I-N spells tells me ninja turtles</td>
<td></td>
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<tr>
<td></td>
<td>Asks what Th spells gives unvoiced</td>
<td></td>
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<tr>
<td></td>
<td>T-O-Y spells tells me toy</td>
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<tr>
<td>28/3</td>
<td>Predicting names from initial letter c= m=</td>
<td></td>
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<tr>
<td>29/3</td>
<td>Asks what does PEALA spell (no reason)</td>
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<td></td>
<td></td>
<td>Writes letter to mother</td>
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<td></td>
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<tr>
<td>1/4</td>
<td>Asks what AH--HA spells environ. print</td>
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<tr>
<td>2/4</td>
<td>calls a worm a /w/</td>
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<tr>
<td>3/4</td>
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<tr>
<td>5/4</td>
<td>Asks what v-o-l-v-o spells environ. print predicts word</td>
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<tr>
<td>7/4</td>
<td>Recognises word missing from sign</td>
<td></td>
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<tr>
<td></td>
<td>/ch/ in book</td>
<td></td>
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<tr>
<td>Date</td>
<td>Talk</td>
<td>Writing</td>
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<td>------</td>
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<tr>
<td>8/4</td>
<td>Asks if spell Ford F-W-D F-O-D</td>
<td>Writes letter to Chris &amp; Sian C=Chris S=Sian letters &amp; picture</td>
</tr>
<tr>
<td>9/4</td>
<td>Asks if spell Term tm</td>
<td>Writes book for mum label mum &amp; Wendy &amp; picture</td>
</tr>
<tr>
<td>12/4</td>
<td>Asks how to spell written narrative &amp; mother writes for him</td>
<td></td>
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<tr>
<td>11/5</td>
<td>writes card for me</td>
<td></td>
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<tr>
<td>13/5</td>
<td>Asks if spell Term tm</td>
<td></td>
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<tr>
<td>14/5</td>
<td>Points out volvo sign (environ)</td>
<td></td>
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<tr>
<td>16/5</td>
<td>Asks what C-L-E-O-'S spells (environ)</td>
<td></td>
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<tr>
<td>17/5</td>
<td>Points out Volvo car</td>
<td></td>
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<tr>
<td>19/5</td>
<td></td>
<td>Writes about going to Jindabyne to</td>
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<tr>
<td>Date</td>
<td>TALK</td>
<td>WRITING</td>
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<tr>
<td>------</td>
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</tr>
<tr>
<td>21/5</td>
<td>v-e</td>
<td>visit grandparents</td>
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<tr>
<td></td>
<td>says ve from love (sticker)</td>
<td></td>
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<tr>
<td>30/5</td>
<td></td>
<td>writes book labels &amp; copied words</td>
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<tr>
<td>10/6</td>
<td></td>
<td>writes sentence (word/letter perfect)</td>
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<tr>
<td>13/6</td>
<td>Asks for S-O-G-O-O-D</td>
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<tr>
<td></td>
<td>asks if spell bin B-a-n (assoc. with bat)</td>
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<tr>
<td></td>
<td>I see a f f=fox</td>
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<tr>
<td>16/6</td>
<td>Asks if spell K-Mart (from environ)</td>
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<tr>
<td></td>
<td>asks for K-O coke</td>
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<tr>
<td></td>
<td>rearrange letters M-O-R-O ,TMRO (tomorrow)</td>
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<tr>
<td>17/6</td>
<td>Asks if meal = neil asks about putting turtle letters</td>
<td></td>
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<tr>
<td>18/6</td>
<td>Spells salt s-o-t</td>
<td></td>
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<tr>
<td>19/6</td>
<td>Spells Nikki correctly</td>
<td></td>
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<tr>
<td>20/6</td>
<td>Calls her dumb, d-e-m</td>
<td></td>
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<tr>
<td></td>
<td>Writes sentence about going to Bendalong asks for mum to</td>
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<tr>
<td>TALK</td>
<td>WRITING</td>
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<tr>
<td>Decoding Encoding Interlard Facsimilie Approximations</td>
<td>write Bendalong &amp; spell picture</td>
<td></td>
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<tr>
<td>Interrogative Description</td>
<td></td>
<td></td>
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<tr>
<td>21/6 p=paddlepop a-p-a</td>
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<tr>
<td>22/6 spells so good</td>
<td></td>
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<tr>
<td>23/6 Asks what AGA spells (initials of club) spells Ross's R-O-S-S-'S</td>
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<tr>
<td>reads lolly wrapper O-J-A-Y-S</td>
<td>Spells out pizza</td>
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<tr>
<td>25/6 Asks title of book predicts from initial letter states can</td>
<td></td>
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<tr>
<td>28/6 Asks what W-A-Y spells (encodes wayout) spell yes Y-E-S states can</td>
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<tr>
<td>28/6 states can spell hand H-A-N-D</td>
<td></td>
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<tr>
<td>30/6 asks what numbers spell eel double l e No double eel told</td>
<td>Writes book requests spelling of camping copies/ write other</td>
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APPENDICES:

from the home.
APPENDICES

1. 1/1/89 Age 5 yrs 1 mth
   a. 10.30am
      Tim has been seated at his desk "doing work" (as he calls it). Random letters/scribbles/numbers (no order moved from top to bottom to middle.)

   b. 5.00pm
      Found on Tim's desk.
      (claimed they didn't mean anything, just work)

   c. 6.30pm
      Loungeroom. Drew house first, sub-vocalised, "My house" and then wrote his name underneath. Wrote his name next to the drawing, subvocalising "this is my house."
      At completion
      T: Dad I drew our house.
2. 2/1/89

7.00am
Awoke to find Tim watching videos. Warner Bros sign /Tim points, with big grin "That says Bugs Bunny."

3. 3/1/89

approx 2pm
Was given Magna Doodle for Christmas.
Wrote PSTEL told his mother it was seal.

Example of Magna Doodle writing.
4. 5/1/89

7.30pm
Family has finished tea, have read to children.
Children going to bed as I take Tim to his room, ask Kate:
P: Let's have some I-C-E       C-R-E-A-M.
   (pronounced as letter names)
T : What does I-C-E spell?
   (pause of several seconds).
   Are we having I-C-E ?
   (Is put to bed).

5. 5/1/89

7.00pm
Labels found.
a. claimed to be "just writing".
   (apparently practice).
b. simple "name" label.
Tim

Tim
6. 9/1/89

5 pm
Tim playing with building blocks (including alphabet blocks).
T. Dad I've built a garage.
D: That's great Tim.
T: I need a sign.
(searches through alphabet blocks.)
Holds up /g/ block for garage.
(letter name)

7. 10/1/89

a. 8.30 am
Tim sitting at breakfast bench waiting to go for a swim. (very impatient to go, playing with goggles and snorkel).
T: (as I walk past).
"Look dad a capital /J/.

b. 2pm
Drawing and scribbling on Black board writes his name twice plus a few recogniseable letters. C W L & J K.
8. 11/1/89  
5 pm  
Tim playing with blackboard wrote his name "Tim" plus the letter /C/. (repeat from yesterday.)

9. 12/1/89  
6.30 am  
Tim has woken early, walked over to see what he's doing with the blackboard, writing /e/’s over & over again.  
D: What does that say?  
T: Nothing, I'm just writing /e/’s.  
(with quisical look almost saying can't you tell.)
Tim has been writing on the "Magna Doodle".
(magnetic writing board.)
After several minutes of intense concentration walks over and says:
T: Dad does this say Nikki?
(Nikki is his younger sister).
(real inquiry type tone/concerned look on face.)
D: No you write Nikki like this...
(Demonstrate on my paper.)
T: O.K.
11. 13/1/89

4.30pm
Tim has been apparently drawing in his "work" book.
Comes to me while I'm reading.
T: Dad I wrote /L/'s .(letter name)
   Look dad /L/'s.
P: Great Tim.

Turns around, sits down and continues to write /e/'s, /l/'s for several minutes
(L--R) then tires and goes outside.

12. 14/1/89

7pm
Reading to both kids -"David the Sheppard". His favourite story.
T: Dad what do those words say?
D: (Read and point)

T: Keep telling me.
   Continued to point and read.

13. 15/1/89

11.30am
Visiting friends place --Mt Kembla.
Ross is eight months older than Tim.
Both boys are drawing and scribbling on
Ross's Blackboard. After 5-10 minutes Tim begins to draw /L/'s and /E/'s across the board. They both then run off down to the creek.

14. 15/1/89

7.10pm

Reading Tim "David the Shepherd" with his mother. After initial few sentences Tim stops his mother and begins to read through the story. Word Perfect/pointing as he goes (very pleased with himself.)

15. 16/1/89

6.00pm

Comes over to where I'm seated.

T: Look dad I drew some letters /e/ /l/ /o.

D: Where did you learn that from?

T: Sesame Street.

D: What about playschool?

T: No Sesame Street.

(almost indignant).

* All this week both children know from sight, commercials and titles eg. play school, ABC sign, L & B commercial.
16. 17/1/89

4.30pm
Tim drawing with Magna Doodle.
T: Dad what do these letters say?
   
   E O T L E I E (written as capitals)
D: (sound phonetically "eotley").
T: Oh. (obviously very dissappointed).
D: What did you want to say?
T: I want to say Chris and Sian.
D: Have another go, just write what you think.
T: OK. (very despondent.)
(Draws a picture of himself with Stephen).
D: What made you choose those letters?
T: I saw mum writing them.

17. 19/1/89

These two sheets of paper were found on Tim's desk. When questioned just said he was writing.
18. 21/1/89

6.30am
Reading to Tim & Nikki. (Esther the Shining Star).
T: Dad what are those holes for?
D: What holes? What are you talking about?
T: Points to spaces between words.
D: They're spaces, they show different words.
T: Oh. (very nonchalant, keep on reading)

19. 22/1/89

a. 1.30pm
Visiting Sylvia & Peter Bodycott.
Tim is sitting on my Knee flicking through a National Geographic. Stops on page with picture of large Narwhale with crossed tusks.
T: Look Dad. (pointing to tusks)
   They made an /X/.
Continues to flick pages over.

b. 4pm
Children watching Sesame Street.
Cartoon section with Children and a lost dog. Large print with words "Lost dog" appear. Letters highlighted as they spell Lost Dog.

T: (Immediately turns to me)
   Dad how do you spell our dog's name?

D: (Using letter names) T-R-I-T-C-H-Y.

T: Thanks.

(continues to watch TV)

Interval of 10mins

T: Can you write it down on the Blackboard?

Write dogs name on Blackboard.

Tim looks for several minutes and walks away.

20. 23/1/89

10.00am

Tim comes outside to where I'm working carrying a book "The three Little pigs" (Golden Book).

T: This book is called T-T-R.
   (Letter names)

T: Can you get me a pencil?
   (Give him pencil and paper)

Sits down and writes T.T.R.

Rolls over and looks at book.
6.30pm
Both children have begun to point when reading to them moving figure L--R trying to keep up.

21. 25/1/89

3.30pm
Children watching Play School.
Looking through the windows segment.
Camera pans to the circular window that "John" has chosen.
Tim jumps up.
T: Look at the /O/. (letter name)
D: Yer your're right.
(Nikki jumps and points as well and says O).

22. 3/2/89

Age 4 years 2 months.
Playschool song for the week is Bingo.
In the chorus BINGO is spelt out. (in letter names). Both children have been singing the song incessantly.

23. 4/2/89

a. 6.45am
Tim and his sister sitting at breakfast bench eating toast.
T: Dad look what I made.
(Has spelt TIM using left over crusts)
D: (laughing) Good boy.
(Tim simply continues eating)

b. 8.30am
Children playing outside. Tim runs in.
T: Dad come and look what I've made outside in the courtyard.
Has spelt out his name using sticks.

24. 11/2/89
7.00pm
Tim's mother is picking out video from compartment under the TV -Tim is right beside her. Tim points to the play school video. (labeled)
T: That says play school.
M: Yes you're right.
How did you know that?
T: Don't know, just know it.

25. 13/2/89
7.15am
Children eating breakfast.
As I move to give them more toast Tim calls out.
T: Dad what's this?
(tracing with index finger in the air)
D: Don't know, what are you doing?
T: You have to guess.
D: Guess what?
T: What's this letter?
D: An /M/.
T: Yer, What's this?
(continues for several minutes with Tim tracing M /N/ E /L )
T: You're pretty good dad.
(continues eating)

26. 15/2/89
7.00pm
Have arrived home from day out.
Children have tea, daughter begins to complain obviously wanting to make her a bottle and go to bed.
D: (To wife) I'll make her a B-O-T-T-L-E.
M: OK I'll get her down. (from table).
T: Dad does that spell Bottle?
D& M: Shh!
T: OK.
27. 19/2/89

6.45pm

Tim is sitting on his mother's knee as she reads to him at the end she closes the book.

M: Time for bed.

T: (pointing to the title on the cover)

Does that say /T/? (letter name)

M: Yes. (This pattern continues through the letters /K /L /E .)

T: Pointing to the letter /F/.

Does that say.....?

(obviously doesn't know.)

M: That says /F/.

T: (with very puzzled look)

That says /F/? (with rising tone)

M: What does it all say?

T: Thomas the Tank Engine and Friends.

M: Good boy .

(mother obviously very pleased.)

28. 20/2/89

4.45pm

Tim and his sister playing on the floor, both building roads to drive their cars on--Alphabet blocks are mixed in with the building blocks.

Tim picks up an alphabet block.
T: Look Nik an /S/.
N: /S/.
T: This is a /G/.
N: /G/.
T: This is an /O/.
N: /O/.
T: Good girl, mum did you hear her say that?
M: She's getting clever isn't she.

(children resume playing)
29. 22/2/90

4.30 pm

Tim copies/traces letters of mother's receipt. Appears to write letters at random, then scribbles over them.
30. 5/3/89  4 yrs 3 mths

6.15pm
Tim drawing with magna doodle.
T: Dad I drew a picture of Nikki.
D: That's great. (Has labeled NKIKI Runs off scrubs it off and starts again.)
31. 6/3/89

Found on Tim's desk.
32. 7/3/89

Wrote on envelope copying from sheet.

33. 19/3/89

During the last week of February I contracted encephalitis and was subsequently ordered to bed for complete rest. At 7pm before going to bed Tim brings me in a picture he has drawn. He has labeled the stick figures

K T N S

He points to them and says;

T: That's mum,
(pointing to /K/, his mothers name is Kate)

That's for me,
That's Nikki,
That's Stephen,
Good night dad.
34. 10/3/89

6.40pm
Watching TV with all the family. During an advertisement greengrocers sale of cucumbers mentioned.
T: Dad does cucumber start with a /q/?
(letter name)
D: No it starts with a /c/.
M: Like er cute.
T: (looking very puzzled) Oh yer.

35. 12/3/89

5.15pm
Tim and his sister Nikki are looking through their toy box.
T: Let's play with /N/ and /P/. (letter names Transformers which can be turned into letters.)
N: I've got a N. (letter name)
T: I've got the P. (letter name)
(Run into the loungeroom)

36. 16/3/89

7.15am
Tim has been getting dressed. Runs out to his mother in the kitchen.
T: Mum what does this say?
Holding up his T-shirt.
M: Ocean Breeze.
T: Thanks mum. (runs into his room and puts it on)

37. 17/3/89
6.15am
Tim is already awake. Obviously writing on the Magna Doodle. Claimed "He was just writing," and didn't know what it said.

38. 18/3/89
a. 7.20am
Sitting at breakfast bench asked Kate for a T-towel.
T: Dad does T-towel start with T?
D: Yes.
M: Like Television, tea-pot.
(continues eating.)

b. 4.30pm
Tim's mum writing on the Kitchen bench.
T: Mum what are you doing?
M: I'm writing the Sabbath School lesson.
(Tim gets up with the magna doodle and begins to draw, writes his name) Draws a /Y/ with a large circle.
T: Mum what does this say?
M: It starts yak, yatch, yes.

T: A /Y/. (very pleased with himself.)

39. 19/3/89

6.30am
Tim wakes up, goes straight to magna doodle
begins to draw, draws a mouse like creature,
then draws a single letter /L/.

T: Dad what's this letter? (from tone and
smirk on face obviously playing a game.)

P: You tell me.

T: It's an / L/.

Sits down and continues to draw singing /T/
for telephone, tea towel, teapot, television.

40. 20/3/89

Found on Tim's desk 6.30pm.
41. 27/3/89
6.45pm
Reading to the children. Their own personal Christmas story. Throughout the story Santa is collecting letters. When finally turn over the final page Tim calls out PEACE.

42. 28/3/89
5.40pm
Giving kids desert (ice-cream) as give Tim his;
T: ice cream, ice block.
They start with /I/.(letter name)
Yeah, that's right.
(begins to eat)

43. 29/3/89
a. 1.30pm
Visiting friends Tim and Kia (friends adopted daughter) drawing together on the blackboard.
Kia: (writes her name.)
M: What does that say Tim?
T: K - K (letter sound) Kia!
b. 7.00pm
Saying goodnight to Tim.
Hugging his toy crocodile.
D: Goodnight Tim.
T: Dad does crocodile start with /d/?
(letter name)
D: No it starts with /c/.
T: Yer? (questioning tone) Repeats very slowly croco-dile, croco-dile.

30/3/89

3.35pm
Tim asks for ice-block. As I am getting him one from the freezer he asks:
T: Does ice-block start with /b/ dad?
(letter name)
D: No, /i./
T: /I/?
D: Yer, I for ice-block.
T: Thanks dad, takes ice-block and runs outside.

3/489

3.45pm
Tim chasing Nikki (playing tag).
Begins to yell "Capital N for Nikki." (letter name)
46. 20/4/89

5.30pm
Tim lying in bean bag apparently watching TV, fiddling with /P/ transformer. As I come in the door, Tim asks:
T: Dad you're name starts with a /P/, (letter name) but sounds like an /f/? (letter name).
P: The two letters that start my name are /ph/. when you put them together they sound like an /f/.
N: (sister comes through the door)
What've you got Tim?
T: /P/ (letter name) for dad.
(continues to watch TV)

47. 11/4/89

3.50pm
Tim runs in from outside.
His mum is preparing dinner.
T: Mum can I have an /l/ for lolly?
Gives him one and he runs out.

48. 13/4/89

a. 4.10pm
Watching Sesame Street.
/A/ comes on screen. Tim calls out /A/.
(letter name) before script.
b. 4.35pm
I'm reading on lounge in front room. Tim walks up:
T: Dad you spell yes Y-E-S? (letter names)
D: How did you know that?
T: It was on the TV.
(runs off)

c. 6.30pm
Eating family meal.
T: Mum do you spell cold, K-O-L-D?
(letter names)
M: No.
T: What's the first letter?
M: A /c/.
T: but..... ? (looking very puzzled)
M: /C/ says /K/ (letter name) in cold.
T: Oh. (resumes eating later to change topic completely.)

49. 14/489

3.45pm
Banking at shopping centre.
Tim writes name on IMB form.
(Building Society.)
50. 22/4/89

2.40pm

Family picnic at Cataract Dam.

Walking back along pathway, on the right there is a large sandstone wall filled with graffitti.

T: Walk up to a name (indicates Nikki)

P: Tim what’s this?

T: (slight hesistation) Nikki.

(runs off)

51. 23/4/89

6.45am

Very cold morning children have turned on heater and are sitting in front of it.

T: Dad, What does that say? (points to on signal)

D: It's says on.

T: If you put /o/ behind the /n/ it says no.

D: How do you know that?

T: I don't know, I just know it.

52. 24/4/89

7.10am

Tim and sister sitting in front of heater. Tim says the letters (individually) of all printed signs on the heater. His sister repeats them after him.
T: O-N. (letter names)
sister repeats.

T: O-F-F.
R-O-O-M.
T-E-M-P-E-R-A-T-U-R-E
R-I-N-N-A-I, etc.

53. 28/4/89

Getting tea for children, who are sitting at the breakfast bench watching. Get cucumber from the fridge.
T: Dad, Is that a zucchini?
D: No it's a cucumber.
(slight pause)
T: Does that start with /q/? (letter name)
D: No a /c/ (letter name). Sometimes /c/ can have a /q/ sound.
(Tim looks very puzzled. He jumps off stool and goes to watch TV.)

54. 29/4/89

11.40 am
In church reading the Bean Book to Tim.
Before I can open the cover Tim points to the Word "On".
T: What's this say O-N? (sounds letters names)
D: It says on.
T: (without hesistation) Dad if you put the /n/ in front it will say no.
(continue reading)

55. 30/4/89

8.30am
Both children are playing with the letter transformers.
His sister Nikki turns to Tim.
N: Tim this is a /b/. (letter name)
T: No it"s a /P/. (letter name)
N: Yer a /P/.
(continue playing)

3.15pm
Tim has been drawing, folding and apparently writing on a piece of paper.
T: Dad I made a book.
D: (pointing to the letters)
    What do they say?
T: I don't know.
D: What do you think?
T: I don't know, I can't read.
D: Have a guess.
T: It tells you who wrote the book.
56. 4/5/89

6.05pm

Family having dinner. Tim starts playing around opening his mouth very wide, showing his sister the contents of his mouth.

M: Tim keep you mouth closed.

T: Mum does mouth start with /m/?

(letter name)

M: Yes, just like the sound in your name...Tim (emphasizing /M/).

(Tim continues to eat).

57. 9/5/89

6.10pm

Family having pizza for dinner.

Children will only eat olive pizza.

Tim's mother hands him a slice.

T: Mum, how do you spell olives?

M: O-L-I-V-E-S (letter name)

Why do you want to know?

T: Just want to.

(pause of several minutes)

T: Dad you spell olives?

(with very quizzical look)

I-V-S (letter names--shakes his head, possibly saying no.)

D: O-L-I-V-E-S.

T: Thanks.
58. **14/5/89**

6.20pm
T: Dad can I watch Dysney tonight?
D: OK.

(pause of several minutes)
T: Dad do you spell Disney
   N-I-E? (letter names)
D: No you spell Dysney
   D-I-S-N-E-Y.
T: Yer. (settles down to watch as I change TV channel for him).

59. **5/5/89**

3.35pm
Children are watching Sesamee Street.
A picture of different nuts comes on the screen, then a one word caption appears underneath—nuts.
T: Look nuts
   n-u-t-s,(letter name)
   ... that spells nuts.

60. **16/5/89**

3.45pm
Watching Sesamee Street.
A Title appears on the screen "Spaceship Surprise" before caption is stated Tim calls out "look it's Spaceship surprise."
61. 17/5./89

a. 4.10pm
I am lying in bean bag reading Tim comes over carrying the magna doodle.
T: Dad want to play?
(Has ruled up a grid to play noughts and crosses.)
T: You can be the /o/’s (letter name)

b. 5.15pm
Sitting at the table, reading.
T: Dad will you draw me a hexagon?
D: A hexagon? Where did you hear about hexagon’s?
T: At Kids Uni ... they’ve got six sides.
P: OK. (draw hexagon)
T: Can you write "hexagon" underneath?
   (print letters underneath.)
   Can you do an octogon now?
   (repeat draw/print process.)

c. 5.30pm
Tim begins to use the Magna doodle.
D: What are you doing?
T: Just writing.
(has written A N O O G W E )
   What's that ?(pointing to /G/)
D: A /g/. (letter name)
T: How do you spell nuts?

D: (write it on magna doodle)

T: What other words rhyme with nuts?

D: (Write down rut, cut, but, and pronounce them.)

Tim repeats.

62. 18/5/89

a. Tim has been visiting his grandmother in the afternoon. Arrives home at 3.40pm.

T: Mum can I have some L-O-L-'s? (meaning lollies)

M: No you've had too many.

T: Oww!

b. 4.10pm

Driving to supermarket.

Stopping at traffic lights Tim says:

T: Mum does that sign say

Bus Stop?

(Both of us look around, to the left of the car is the sign)

M: Good boy, it does.

How did you know that?

T: I saw it on Sesamee Street.
63. 19/5/89

a. 3.20pm
Tim runs into the lounge room.
T: Mum you spell bus, B-U-S .(letter names)
M: Good boy.
T: (moves over to cushions on floor and begins to doodle).

b. 3.30pm
Tim's grandmother arrives.
T: Nan watch me draw an /x/ and /y/ (letter names) draws on magna doodle.
G: Good boy.
(Tim puts magna doodle to one side and begins to play with his brother Stephen. After a brief pause.)
T: Does /v/ start violin?
D: Where did you hear that?
T: On the TV.

c. 6.30pm
Tim asks me to help him colour in his Thomas the Tank Engine book. (his favourite book) We both lie on the floor, Tim turns the page to a word search. he then begins to colour in.
T: Dad let's colour in these numbers.
D: They're letters Tim.
T: OK (Tim puts his finger on the picture of James and then slides his finger down to a J in the wonder word).
T: Dad that's /J/ for James. (letter names).
(He the moves through all the pictures finds the corresponding initial letter of their names in the search-a-word. Coming to B for Ben he slides his fingers through each letter).
T: Dad what does B-E-N say? (letter names)
D: What do you think?
T: Ben. (very excited)
D: Great!
T: (Then goes back to each name sliding his finger over the letters).
He turned to a new page (appendix No 0 and asked what to do, he wrote his name and then asked me to show him what to do. I completed two words END and VAN. He counted the letters and then proceeded.
T: H... A.... T (letter names)
    hat! (very pleased with himself.)
    V... we've done that (moving to odd)
0...P...P (letter names)
No that's wrong.
O....D..... (letter names)
odd (he then writes them in).
T: (Moved down to seven letter group)
    s-t-a-t-i-o-n (letter names)
    station yeh I got it.

D: Great.

T: Dad, where will I write it?
(I point to where it goes)
(sounds letter names as he writes)
Then asked what word guard and engine were and where they were to go. After I showed him he writes them in pronouncing every letter).

d. 7.05pm
On his way to bed, he picks up his truck and begins to put it on the shelf.

T: Mum what does T-O-N-K-A say?
(name is on the side.)

M: K-Mart. (obviously joking)

T: It does not. (very emphatic with big smile on his face)

M: Well what does it say?

T: K-M, no. (pulls out his other truck)
   This says K-Mart. (written on side)
   What's it say?

M: Tonka.

T: Repeats silently to himself.
19/5/89

Writes name and random letters.
65. 20/5/89

Family getting into car ready to go out.
Moving out of driveway.
T: Dad /T/ is for trombone.
D: Where did you hear that?
T: On Sesamee Street.

(10 minutes later, driving passed Supermarket)

Did you see the big /K/ there?
M: No, where is it?
T: Over there, pointing towards supermaket-K-Mart)

66. 21/5/89

4.15 pm
Tim gets magna doodle from shelf.
Begins to draw and talk to himself.
T: (draws)

/A/ for Audrey (his grandmother)

(changes drawing)

Dad will you write snowman for me?
67. 25/5/89

a. 3.40pm
During Sesamee Street.
Picture of a telephone with word printed underneath.
Tim runs up before caption is read.
T: T-t-e-l-e (letter names)
that says telephone.

b. 5.30pm
Children sitting at breakfast bench watching as dinner is prepared.
T: Dad, /k/ for cat.
D: No, cat starts with /c/.
like in cot, cut.
the /c/ says /k/.
T: Oh like /p/ for pot, /j/ for jumper.
(picks up celery and begins to eat.)

68. 26/5/89

6.45am
Tim getting changed from pyjamas into clothes.
T: Dad /c/ for sock.
D: No, sock starts with and /s/.
T: /s/ for city.
D: No, city starts with a /c/.
T: How come it's got two sounds.
D: Remember yesterday?
T: Like /K/.
D: Yep.

(my wife later informed the word cat was featured on Sesame street previous day.)

69. 27/5/89

a. 11.20am
At church family sitting with grandmother and friends Neville and Naomi. Tim has been doodling on the floor, asks grandmother to write Nan and Naomi to write her name, looks for several minutes and then copies them, after several minutes climbs into my knee, asks to read Richard Scary's Word book. On the first page (farm pictures with matching words) points to the pictures, guesses the word underneath, (all correct) and then pronounces all the letters. (letter name)

b. 12.45pm
Washing hands before lunch.
T: What does P-M-P say?
(initials written on soap container.)
D: They don't say anything, they're called initials.
T: What's that mean?
D: It's the first letters of the name of the people who make the container.

c. 7.10pm
Reading to children before they go to bed.
Story is Tim's favourite--David the Shepherd.
Come to part "Ping went the stone".
T: Dad where's the word ping?
D: You find it.
T: (slides his fingers through the words)
   There it is, (correct) let's find more /p/
   words.
   (slides his fingers through finding /p/
   words.)

70. 29/5/89
3.15pm
Tim is walking through the house heading for the rear sliding door.
T: (talking to himself)
   /j/ for jump (letter name)
   /j/ for..... (comes up to me)
   Dad is it /j/ for junk?
D: Yep that's right.
T: Thanks dad.
71. 30/5/89
   a. 5.15pm
      Tim is drawing on the floor. Begins to talk to himself.
      T: /s/ for city, (pause of several seconds)
      ... No it's /c/.
      (continues to draw)

   b. 6.00pm
      At the dinner table.
      N: Tim, can you give me the orange cup?
      (Tim has been given a drink in it.)
      T: No, N-O, No (spells letters).

72. 2/6/89
   2.30pm
   At K-Mart, shopping.
   Tim and other two children have been playing on the cars in shopping centre.
   M: Come on kids we're going out.
   T: Does out start with /a/ mum?
   M: No with /o/, o-u-t.
   T: Oh. (climbs off and begins to walk out).

73. 6/6/89
   a. 4.50pm
      Shopping at Supermarket.
      All three children are in a trolley.
Walk up to entrance.

T: (pointing to sign above entrance)
   Mum that signs says

M: What's that say?
T: Grocery shop.
M: Good boy.

b. 5.40pm
Sitting in car waiting for my wife to complete
last minute details in shopping centre.
T: What's that sign say?
   Pointing to chinese takeaway. ( sign
   is written in Chinese)
D: You tell me.
T: It's a ....Oogy Boogy shop. (laughs)
D: No, it's written in Chinese writing, I don't
   know what it says.

74. 7/6/89
5.30pm
Asks mother to help him write book.
Writes Tim/Nikki and then dictates book
because he claims he doesn't know how to
write the words.
Book about Dinosaurs.

Stephen

NIKKI

TIM
There lived a diner, whose name was Kim.

One day he went surfing and a big wave came and he fell into the water.
75. 9/6/89

a. 3.45pm
Watching Sesame Street
Narrator introduces letter for the day /V/.
T: Dad /v/ for vet. (Tim had been to the vets with his grandmother.)

b. 4.00pm
Play School comes onto the screen.
T: Dad it's /p/ (letter name) for playschool.

76. 10/6/89
Family in the car, going out.
T: Mum do you spell dad, d-e-d?
(letter names)
M: No it's d-a-d.
T: Oh.

77. 12/6/89
7.15am
My wife is preparing my birthday cake.
Tim comes into the kitchen.
M: Phil, this c-a-k-e is supposed to be a surprise so don't let on.
T: Does that spell beach, are we going to the beach mum?
M: No.
T: Arr.
78. 16/6/89

4.20pm
Tim writing/drawing using the Magna Doodle.
T: Dad does that spell dad?
   Has written AD (upper case)
D: Good try, but look at the first /d/.
T: What's wrong. (continues to draw)

79. 22/6/89

Reading to children prior to them going to bed.
(Story is David the Shepherd.)
As I begin to read Tim interjects.
T: Dad, What words are you reading?
I begin to read and point.
Tim then takes over pointing to the words as he reads, he knows the story off by heart.
When he comes to the bear part, bear is written --BEAR (upper case).
T: Why is bear written in big letters?
D: The writer is trying to make it more exciting. (continues reading).
80.  23/6/89

3.40pm
The oldest children are watching Sesamee Street. Letter for the day is /B/. A caption comes on /B/ written in large white letters the /ird/ written in black.
T: That says bird.
Nikki: /b/ for Bird.

81.  25/6/89

5.30pm
Family eating at "MacDonald's"
T: Dad what does that sign say?
D: Where?
T: Up there.
D: Colour Combo.
T: Thanks (continues eating)

82.  28/6/89

a.  4.15pm
Tim is watching Sesamee Street. Letter for the day is /K/.
T: Dad does canoe start with /K/?
(letter name).
D: No it starts with a /c/, but it sounds like a /K/.
T: Is it /K/ for coat?
D: No coat starts with a /c/ too.
(pause of several minutes)
T: Dad does junk start with /u/?

(letter name)
D: No, it starts with /j/ then a /u/ and then /nk/.
T: Taa.

b. 4.25pm
A picture of a hippo flashes on the screen.
T: Dad it's /H/ for hippo.
D: Yer, that's right.

83. 29/6/89
4.30pm
Walking through K-Mart store Tim sees and points to an EXIT sign.
T: E-X-I-T (letter names) that says exit.
(Has been on Sesamee street this week.)

84. 30/6/89
6.30pm
T: I wrote a book about our place dad.
Has name, random letter and drawing.
pl "That's our house."
p2 "That's Tritchy (family's pet dog).
p3 "That's our house... but we don't have a chimney."
85. 1/7/89

5.10pm
Reading a book with Tim's sister.
Looking at the cover.
Tim walks up.
T: Z-O-O (letter names) that says Zoo.

86. 2/7/89

6.39pm
Watching Disney. Ad for another show.
"Beyond 2000" comes on.
Tim walks up to the screen.
T: B-E-Y- Ad disappears.

87. 8/7/89

3.20pm
On the way to friends, stop at traffic lights.
T: Nikki, look at the big /N/ (letter name) for Nikki.
Everyone looks up Tim is pointing to a sign New world.
T: Look at that big /T/ for Tim it goes right across to the /H/ . (pointing to Hoyts sign)
I'm in hospital, Tim writes a card for me.
89. 20/8/89

8.15am

Going to the beach with the children.
Tim is holding towels while I lock the door.
T: Dad do you spell key, k-i-e ?
(letter names)
D: Good boy, but you spell key, k-e-y.

90. 24/8/89

a. 8.20am

Family in the car.
T: Dad there's a taxi behind us.
D: How do you know it's a taxi?

b. Fathers day Tim writes a card for me.

91. 12/9/89

4.00pm

Tim watching childrens game show, "Now you see it".- (Spelling recognition game.)
Girl contestant --- eel.
T: Dad do you spell eel, double l---e (letter names)
D: No. Double e/l (letter names)
Few seconds later contestant correctly circles "elephant".
T: Dad elephant is a big word.
92. 10/10/89
8.00am
Writing names on lunch bags. Children going to Kids Uni. (creche)
T: Dad what are you writing?
D: Names on your lunch bags.
T: What numbers?
D: No, not numbers, they're letters, I'm writing words.
T: That say S-t (letter names) ....Stephen, that's Stephen's bag.

93. 21/10/89
3.40pm
Tim watching TV, playing with the hand-control.
T: Dad does f-f stand for fast-forward?
D: Yes.
T: What does R-E-W stand for?
D: Rewind.
T: Thanks dad.

94. 24/11/89
3.40pm
Grandmother has returned from visit to Japan and Korea and has brought the children an alphabet chart.
Kate puts it up.
Grandmother: That’s a /A/ for apple.
T: (pointing) That’s an /m/ for rat.
Grandmother: No that’s /m/ for mouse (which looks like a rat).

95. 27/11/89
7.50am
Tim and sister eating breakfast.
T: Dad you know what else starts with /c/?
(letter name) (pointing to alphabet chart)
D: What?
T: Chris and cat.
D: Good.

96. 10/12/89
4.15pm
Discussing Christmas presents with my wife.
Debating whether to get Tim a skateboard.
Tim walks in.
M: They're really C-H-E-A-P (spell using letter names)
T: Is that pizza, are we having pizza for tea?
M: No, dad and I are just talking.

97. 12/12/89
Kate is writing Christmas cards for friends.
M: Tim do you want to write a card for Nanna’s birthday?
T: Sits at table and begins to write, without help or prompting, Tim, Dad, Mum, Nikki.

How do you spell Stephen?

M: S-t-e-p-h-e-n. (using letter names)

T: (writes down letters as she says them.)

How do you spell Tricky (family dog)

M: T-r-i-t-c-h-y.

T: (writes them down one-by-one.)

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98. 19/12/89

a. 11.15am

Tim has been lying around reading "Faint, Frogs Feeling Feverish and other Terrifically Tantalising Tongue Twisters." by Lillian Obligordo (an alphabet book).

T: Dad will you read this book with me?

(I read through ABCD sections as I turn to the E section)

T: Dad that says Elephants Eagerly eating easter eggs! I can read that.

(very excited)

(points to opposite page, text reads, "Friendly Fox Fixing Faucets". Tim immediately begins)

T: A Fox fixing a tap.

(continue reading.)
b. 11.25 am
As I write the previous experience up Tim wanders over to me.
T: Dad why are you writing those numbers?
D: They're not numbers they're letters and words. I'm writing about what we just did.
T: Oh. (runs off)

99. 20/12/89

9.15 am
Tim is seated at table writing.
D: What are you writing?
T: Nothing, just writing.
100. 13/1/90

10.15 am

Family going to the beach.

Tim lies on the floor with arms and legs outstretched.

T: What am I dad?

I'm an /x/. (letter name)

(jumps up and runs to car).

101. 22/1/90

Tim hears my wife and I discussing the fact that family friends have the flu. Runs into his room. Several minutes later comes out.

T: How do you spell book dad?

D: What are you writing?

T: I'm writing a book for Ross. (Tim's best friend)

(I spell out book, Tim writes it down.)

: How do you spell once upon a time? (I spell out once and he runs back into his room and completes the book.)
102. 9/2/90

4.40pm

Tim is playing in his room rearranging furniture, placing plastic animals in different places.

 Writes Zoo on paper and sticks on his bed.

D: What's that say?

T: Zoo. (incredulous look on face)

D: How did you know how to write it?

T: I remembered it from last time I went.


103. 22/2/90

9.15am

Tim listens as I speak to friends on the phone. Their whole family is sick. Tim runs into his room and begins to draw and write. Several minutes later he comes back and asks how to spell "from". As I tell him letter by letter he writes it down.

D: What are you writing?

T: I want Ross to get better.

(continues writing)
104.  2/3/90

(Getting down from bench after eating lunch)

T: Begins to sing.
   /B/ for beetroot.
   /B/ for stickybeak.
   /P/ for plane. (has plane in hand)
   /P/ for pink.

(runs outside)

105.  10/3/90

7.30am

Tim writing and drawing on floor.

T: Dad I'm going to write a story for my teacher.

(Begins to draw)
   Dad I want to write "Once upon a time."

   How do you do it?

   (spell it out for him, letter by letter)

(He puts his finger between each word to space them. Begins to sub vocalise. Can just make out the words "capital A").

   Dad how do you spell there was a little boy?

D: I can't now Tim, I'm too busy.

(Gets annoyed and draws himself)

T: Dad I can spell me, M-e.
106. 11/3/90

3.30pm
At grandmothers place Tim is playing outside, as family leaves:
T: Look mum a /W/. (letter name, has placed four sticks together, gets up and runs to car).

107. 12/3/90

Has been decorating room with print and stickers and copied words eg Batman (from poster) and copying random letters. Claims to be just working.
108.  13/3/90
   a.  3.30pm
   Kate has taken children to the beach. Tim's sister has brought a rock home. On the way back Tim begins;
   T: Mum you spell rocks R-O-X. (letter name)
   K: Good boy, but you spell rocks, R-O-C-K-S.
   T: Oh.

   b.  5.15pm
   Tim has begun home-reading school initiated by his teacher--first book is called "At School". Tim reads whole book perfectly, but on page 3 text reads "we are pasting." Tim looking at the picture says "we are painting."

109.  15/3/90
   4.45pm
   Tim asks if he can read the book "Silly Dilly Duck". Using picture cues and some recognisable words, reads through the book.

110.  16/3/90
   3.35pm
   I'm going for a surf.
   As I'm walking through the kitchen I say to my wife.
P: I'm going for a S-U-R-F (spell word out as children always want to come).
T: (sitting on floor) Dad I want to go to the beach too.

111. 17/3/90
6.45pm
Watching television with children, commercial appears, advertising a movie "SIREN"
T: Dad what does S-I-R (letter name) spell?
D: SIR.
T: Uh.
1.00pm
Copies from book that has been read to him.
"The Black Stallion"
113.  25/3/90

4.05 pm
Tim playing outside near Barbeque.
T:  Look dad a capital /A/. (has found a fork of a small tree in woodpile)
D:  Good boy.

114.  27/3/90

a.  3.35pm
Tim and I lying in bean bags.
T:  Dad what does N-I-N spell? (letter names)
D:  N-I-N mm.
T:  It spells Ninja Turtles.
(has just begun on TV although Tim has not seen them)

b.  5.15pm
Watching TV with Tim.
Heart foundation commercial comes on print only ad.
T:  Dad  what does T-H spell.
D:  Th. (harsh sound)
T:  No it's th. (unvoiced)
What does T-O-Y spell?
D:  Toy.
T:  Yep.
D: Where did you learn that?
T: I don't know, I just know it.

What does T-O-N-Y-Z spell?
D: Toneez (phonetic)
T: What does T-O-N-Y spell?
(Tony is a close family friend)
D: Tony.
T: You're right.

115. 28/3/90

a. 5.30pm
Tim sitting with his mother at the computer watching her type up the class stories for publication. Kate types a sentence, ending with the pupils name.
T: That's Leannes.
M: No it's Lucinda.
(No Leanne in his class)
(next sentence and name).

b. 6.05pm
Reading his reader to his mother.
Begins to fixate (for a few seconds) on a girls name --text says Mary.
T: That says Mercy.
M: No it's Mary.
(Tim continues to read/There is a girl Mercy in his class.)
116. 29/3/90

6.35pm

Watching News on TV. Tim is sitting with me.

T: What does P-E-A-L-A spell?

P: Ar Peala.

T: What does that mean?

D: Nothing. (conversation ends.)

117. 30/3/90

3.30pm

Writes letter for mother.
118. 1/4/90

5.05 pm

Cleaning up after dinner.

Kate has cleaned sink with Bicarbonate Soda.

T: (sitting on stool watching)

   Mum what does A-H spell?

M: Nothing.

T: What does H-A spell?

M: Ha, Where did you see that?

T: On the box. (brand name Harpers)

119. 2/4/90

T: Dad there's a /W/ (letter name)

   out there.

   (pointing to the patio)

D: A what?

T: A worm.
120. 3/4/90

5.30 pm
Presents letter to mother asked for my help to complete love.

![Image]

121. 5/4/90

3.10 pm
Driving home from school, go past Compas Volvo. (Car dealership)
T: Mum what does V-O-L-V-O spell?
M: What are we driving?
T: A volvo, does that sign say Volvo?
M: Uh ha.
122. 7/4/90

a. 8.20am
Driving past Picadilly shopping centre.
T: There's new words over there.
D: What words?
T: There's a new sign on the wall.

b. 4.55pm
Tim wants to read "The Chipmunks" by Richard Scarey.
Pointing to the cover/and word Chipmunks.
T: That's /ch/ and there's another /ch/ (pointing to Richard Scarey)

123. 8/4/90

a. 5.55pm
Ford advert appears on TV screen at conclusion.
T: Do you spell Ford, F-W-D?
D: NO, F-O-R-D.
T: F-O-D.
D: No, F-O-R-D.
b. 6.15pm
Tim writes letter to his cousins, Chris and Sian. Explains C=Chris and S=Sian.
124. 9/4/90

7.00pm

Going to bed Tim gives his mother a book. Wendy written in the book is his aunty. (possibly copied from his calendar in his room).
125. 12/4/90

7.00am

Children having breakfast.

T: Mum you spell so, /s/o

(so Good container in front of him).

I didn't look at the So Good.

126. 14/4/90

11.40am

Tim has been colouring in his Dinosaur Book.

T: Mum I want to write blow. (has already written To Hot B_____).

M: B-L-O-W (Tim writes down letters).

T: How do you write

"then eat them."

(His mother writes it for him). He then draws food, explains they are chips.
127. 11/5/90

Tim writes card for me as I've been in hospital.

(apparently by himself).
128. 13/5/90

5.20pm

Writing at the computer, Tim walks up.

T: Dad is that how you spell term?

(has written tin)

D: No it's written t-e-r-m.

T: Thanks dad, and goes back to his room.

129. 16/5/90

8.15am

Driving to work.

T: Dad what does C-L-E-O spell?

(letter names).

P: Cleo. (referring to Cleo's night club sign).

Where did you see that?

T: Over there.

130. 19/5/90

Writes about going to visit Grandparents at Jindabyne. Writes story at desk. When reading back.

T: I go to ... I went to Jindabyne and I liked it."
FOOT
JAN
BABY
AND I LIKED IT
21/5/90

3.05 pm

Driving home from work.

T: (talking to himself) V-e says /v/.

D: How do you know that?

M: He's got a sticker with "love" on it.

30/5/90

Writes a book, asks his mother to write book.

Wrote page 1 himself, copied page 2.

I CAN JUNK

BATMAN WORK

FULLY POS EARLY
5.30pm

Wrote sentence at desk and presented it to us.
134. 10/6/90

7.05am
Tim requests breakfast.
T: I want some s-o g-o-o-d.
(letter name).

135. 3/6/90

a. 4.15pm
Driving down the coast for weekend away.
T: Mum do you spell bin B-A-N?
(letter name).
M: No B-i-n.
T: I know how to spell bat.

b. 4.30pm
T: Mum I can see a /f/.
(letter name).
M: A what?
T: A wolf.
M: Wolf starts with /w/.

136. 16/6/90

a. 4.45pm
Tim playing with plastic animals and toy semi trailer.
T: Dad do you spell K-Mart, K-M-A-R-T?
D: Yes, What made you think of that?
T: It's on the side of the truck.
Do you spell lion (holding up a plastic animal) L-i-e-n?
D: No, L-i-o-n.

b. (Tim's mother enters the room)
T: Mum can I have a drink please?
M: What do you want?
   A K-o-coke.
(sounds out letters on bottle whole drink is poured.)

c. 5.30pm
MORO commercial appears on TV.
T: point to letters M-O-R-O
   Mum if you take of the /M/ and /NO/....
   the /R/ like T-M-R-O you get tomorrow.
D: Very good boy, but you spell
   Tomorrow.... .... (letter names).

17/6/90
7.00pm
Children sitting in front of heater.
Tim is looking at the cardboard backing from
Ninja Turtle Toy.
T: Dad does this word say /meal/ or Neil?
(pointing to April O'neil).
D: It say Neil.
T: T-U-R-T-L-E- (letter names)
turtle.

O-N-E-G-O-O-D.

Dad what's this say?

D: One Good.

T: Goon.

D: One good Turtle deserves another.

138. 18/6/90

7.30am
Tim sitting at kitchen bench (breakfast time/ I put some salt on toast).
T: Dad why are you using s-o-t.
D: What's that.?
T: Salt.
D: I like it with tomato.

139. 19/6/90

7.10am
Children sitting at kitchen bench.
T: Dad N-i-k-k-i wants a drink .
(children want the same cup and start trading insults).
T: Nikki you're a dumb girl, D-e-m.
6.30pm
Asks to help him write about going to Bendalong. (Draws picture first). Asks for help, mother writes Bendalong and spells picture.

I went to Bendalong
The picture is for you.
141. 21/6/90

4.30pm
Kate tells Tim is driving her mad as he wants
to spell everything.

eg Kate takes children to the fun factory.

T: Mun can I have a /p/?(letter name)

M: A what?

T: An a-p-a.

M: What?

T: An a-p-a-p.

M: Just tell me what you want.

T: A paddle pop.

142. 22/6/90

7.15am

Sitting at Kitchen bench.

T: I'm thirsty can I have a drink of

  s-o- g-o-o-d?

D: What's that?

T: So good.

143. 23/6/90

a. 1.30pm

Driving past Australian German Club.

T: Mum what does A-G-C spell?

(letters on building).

K: Nothing, It's the initial of a club. It stands
   for Australian German Club.
b. 1.45pm

(For no apparent reason)

T: R-o-s-s-s (emphasis on last s)

Says Ross's.

M: What made you think of that?

T: Nothing I know it, it meant he owns it.

M: What does?

T: It's got a circle thing on top of the last s. R-o-s-s-s.

It's also in I'm ,I-m.

M: It's called an apostrophe.

T: Oh.

c. 3.10pm

Kate gives children lollies to eat. (in car)

T: (Reading the wrapper).

O-J-A-Y-S.

Mum does A-u-s say Australia?

M: Part of it.


M: No.

T: Yes it does. (very indignant)

K: OK, ok.
d. 3.30pm
Arriving at friends place--Pizza Hut opposit.
N: MUM, can we have a pizza?
T: Yes, can we have a P-i-z-z-a?
M: Later.

144. 25/6/90
6.45pm
Tim asks for a story before he goes to bed. He goes to book shelf.
T: What's the name of this book?
D: You tell me.
T: (pointing at initial letter)
   /B/ --Blinky Bill.
   What's the rest say?
D: (Tell him the full title)
Tim runs fingers under title saying the letters as he goes.

145. 28/6/90
7.10am
Tim sitting in front of heater.
T: Dad I can spell yes. y-e-s.
D: How did you know that?
T: I Just know it.
b. 8.05am

Going to work, put children in the car. Tim is last.

T: Dad I just hurt my hand. I can spell hand h-a-n-d.

D: How do you know that?

T: Because it's got /and/ with a /h/ in front.

c. 3.30pm

Shopping at supermarket, walking through doorway, Tim sub vocalises letters on door, name of shop etc.

Leaving the shop.

T: Dad what does W-a-y spell?

(pointing to sign)

D: You tell me.

T: I can't, I can only read "out", please.

D: It says way.

T: It says "wayout".

d. 6.05pm

Watching the news on Television.

Channel 10 logo comes on.

T: I can spell ten. t-e-n.

I can spell to, too, two.

t-o, t-o-o, t-o-w.

D: The last ones t-w-o.

Do you know what they mean?
T: Some, but I know to spell all of them.

D: How?

T: I just know.

29/6/90  3.10pm

T: Dad I'm going to write a book for......
   (begins to draw and write)

D: How did you know how to write camping?

T: I just know, I copied the /m/ and pictures from the MacDonalds card.
   That's a postraphe it means it's mine.
T: Dad do you spell eel, double e ... 
D: No, double /e/ l/. 
T: Yep. 
(runs off)
APPENDICES:

from the School.
CLASS OVERVIEW.

There are 29 children in K/H. There are 13 girls and 16 boys and their ages (as of 1/1/90) ranged from 4 years and 10 months to 5 years and 8 months. Except for 4 of the children all attended at least 1 year of pre-school and some spent 2 years in a pre-school programme. Five children come from homes where a second language is spoken on an everyday basis. Mercy has only recently arrived in Australia from New Guinea.

SOCIAL:
The children in K/H are a happy and friendly group. They interact well together in group work, sharing willingly and assisting each other across cultural and age groupings even though there is a wide diversity of abilities and a significant age range. They have settled well into school and classroom life. They are adapting to new routines and procedures with a steadily growing confidence but still need assurance, encouragement and close supervision in some activities.

The social skills that I will continue to foster and encourage in the classroom are: sharing and caring, positive accepting attitudes, self control and discipline, manners and appreciation of each other.

LEARNING AREAS.

Language and Reading:
Each child needs to develop their listening skills and to follow simple instructions. Opportunity is given to practise these skills through games, a variety of classroom activities, and 'jobs' and errands and improvement is expected in this area by the end of Term 1. The majority of the children have a good command of language. E.S.L. classes are attended by Maria and Mercy who are 2nd. phase learners and need extra stimulation and experience in speaking and understanding English. Alexander and Daniel have speech problems and work with the E.S.L. teacher. Daniel also needs assistance in learning to; stay on tasks (concentration), colouring, cutting and pasting and comprehension skills. Some E.S.L. work is done on a withdrawal basis but there is also side-by-side work done in the classroom in consultation with myself so that at all times Mrs. Lyon and I are aware of areas in which each child needs extra assistance.

The class really enjoy listening to stories, poems or news/shown tell times and they are learning to be leaders of the news groups and to encourage one another to listen to each child's news and to ask questions about the topics presented.

Story Box:
Without exception the children enjoy all aspects of the "Story Box" program and its related activities. They especially love to join in reading along with the Large Book and they seek out the smaller copies to read or act out in their free choice activity times. In relation to reading most children have one-to-one correspondence. Some are able to use initial sounds as cues to finding out words and/or use the pictures to help make sense of the story line. Every child in the class responds well to repetition of phrases and the rhythm of the text for recall. A small group of children too are developing sight vocabularies and employing this strategy as well in decoding the text so reading response is very positive in this class.
I'm a family. I'm 5 years old. My name is [Name].

I love the beach.

My teaching bear is [Teaching Bear].

I'm in [Class].

I can [Ability].

I'm a [Attribute].

The party is at the [Location].

There's a theme song:

The theme song is [Song].

The theme song is [Song].

There's a theme story:

The theme story is [Story].

I have [Item].

I can [Ability].

I'm [Age].

I'm [Gender].

I'm [Attribute].

I can [Ability].

I'm [Age].

I love [Activity].
Dear Parents,

A NOTE ABOUT HOME READING

Thank you for your support this year. Here are just a few things that I'd like you to know about your child's home reading program.

Firstly, this program is a totally individual one and as such your child will be able to progress at his/her own rate and level.

Your child will bring home a reader and when he is able to read it with an adult or older peer it will be replaced with another reader. As each reader is completed you will need to sign beside each title and make a comment if you wish e.g. 'Peter enjoyed this book' or 'We worked hard at this book'.

Some hints:

1. If your child finds the book too difficult read it to him/her and ask your child to point to each word as it is read. In this way your child will become more familiar with the text as well as the words.

2. Then see if your child can read all or parts of the reader to you.

3. Ask questions about the story to see if your child has understood it.

4. If there are some words that he/she is always stumbling over make small flash cards and revise these from time to time.

5. Each reader can be read several times and there is no time limit as to how long your child has his reader at home. Some parents have found that their child also enjoys reading to smaller sisters or brothers or grandparents. The important thing is that the reading experiences should be enjoyable.

SIGHT WORDS

In the near future I'll be sending home List A of Sight Words. I want your child to begin to read these words by sight - i.e. to learn to say the words by looking at them as an adult says the words.

It is best to begin with 2 or 3 words and gradually add more as your child's sight vocabulary grows.

Once again there is no race to complete each list. However when your child is able to read all the words on List A sign the sheet and return it to school so that I can hear him/her read and the next list can be sent home.

Some hints:

If the Sight Word List is displayed in a prominent place in your home e.g. (on the frig. door, on the bedroom wall) it may prove very helpful to your child. Last year some children enjoyed having family games using the Sight Word Lists e.g. "I'm thinking of a word and it's in row 2. What is it?" or "Find me the word 'little'."

Thank you again for your interest and please if you have any concerns about your child's reading (or any other area of his/her learning) do come and talk with me.

Yours sincerely,

Class Teacher.
Thank you for a most interesting and professional document. I particularly liked your Overview of the class. It was most thoughtful and analytical. I still find it curious that your children have missed the "scribble" stage and the "strings of meaningless letters" stage. I guess they must have been past it. Perhaps we will still see Maria, Daniel and Mercy pass through this stage. Perhaps those who are drawing and dictating may be encouraged to experiment with their own scripts.

I like the way you have planned your Maths around your units. The only problem with this is that you need to indicate units. Mathematical unit you are developing with each activity eg 3D1, Numeration 1 etc. All in all, an excellent programme.
I can play with my teddy bear.
I went to my house.
I went to the beach.
I went to the beach.

I'm

Nikki

Mum
I went to the Fun Factory.
I went to a Birthday party.
Three little ducks
Title to publish with
160
The duck are Camouflaged
and the
Mum is looking after them.
I went to my house.
I did clean the house for a 3.4. My tooth fell out. I went to Jindabyne.
I went to a picnic and swimming. And I took my toy Batman costume.
My Nah picked up and took me to her house.
I liked the dance. It was good.
I did go to the Duck Pond.

10/4
It is because it is not my job.
I went to the zoo and I ate a pop.
I gave my dad breakfast.

Mum 100

Kiam

I went to Kaimū to get a new toy dinosaur.
I went to the museum in Sydney.
I found my future face in the week after Christmas.