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Narratives: Developmental Level and Strategic Outcomes of

Grade 5 and 7 First Nation Students

by

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# ABSTRACT

This exploratory study investigated the developmental levels of Grade 5 and Grade 7 First Nation students, as measured by their narrative knowledge, in relation to strategy utilization. The study's predictions were informed by the notion of age-related changes in information processing capacity. Neo-Piagetian theory provided a developmental lens through which to view and interpret the study.

The subjects completed a story composition task, designed to asses developmental level, and a story understanding task, designed to assess strategy utilization and comprehension. Analysis of the story composition protocols indicated a developmental level equal to that of the norm. Analysis of the story understanding protocol indicated that most subjects who utilized one strategy well, utilized others in a similar fashion. That is, the results indicated that performance was better on those aspects of narrative and strategies which are pervasive in day-to-day living.

# ACKNOWLEDGEMENTS

# DEDICATION

This thesis is dedicated to some very important people:

First and foremost, to my partner Christine for her support, patience and understanding and her belief in everything I do.

To my darling children, Emily Rain and Bailey Lorraine who are the inspirations in my life.

To my mother and father, Illa and Bill for everything that they have given me and for instilling in me the value of hard work.

To the memory of my grandfathers, Tom and Andrew for their gentle wisdom and guidance and who are sadly missed.

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## CHAPTER ONE

## INTRODUCTION

From pre-historic drawings in cave dwellings to the oral history of First Nation peoples, narratives have served as a vehicle for interpretation of life events. Within the last half century, several disciplines have utilized narratives in an effort to examine and understand life events. Anthropologists, for example, have utilized folktales and myths in an effort to understand cultural frames of reference of various indigenous groups. Clinical psychologists, on the other hand, have used narratives as a biographical means to examine the life history of a patient. Regardless of the form narrative has taken over the centuries, it serves as a meaning-making system in our efforts to understand and make sense of the world.

More recently, narratives have been utilized in an attempt to understand experiences. Bruner (1986), for example, suggested that narrative is one of two ways in which experience is ordered and understood. The other, being the paradigmatic mode of thought, is suited more to the scientific realm where thought organizes information hierarchically in categories and concepts. The narrative mode of thought, on the other hand, is based upon a temporal ordering of events of two sorts: those that take place in the physical world (i.e., the "landscape of action") and those that take place in the mind of the characters (i.e., the "landscape of consciousness") (Bruner, 1986). Narrative allows one to explain or understand the noncanonical events by explaining action through the psychological underpinnings of those actions (McKeough, Templeton, and Marini, 1995).

Folk psychology, or the cultures common-sense knowledge, also explains human action (Bruner, 1986). Folk psychology is a cultures account of why humans behave the way

they do. To understand human behavior, one must understand how experience and actions are shaped by intentional states; that is, beliefs, desires, and commitments. It is only through culture that these intentional states are realized. Culture gives meaning to human actions by situating intentional states in an interpretive system; this being the narrative system. To illustrate, when beliefs and desires become well established and organized, we come to understand the world in a certain way. It is when these beliefs and desires are violated that narratives are constructed. When perceived states and our own desires are in conflict, narratives serve as a vehicle for organizing our experience and knowledge about the social world. In essence, it is a method for negotiating and renegotiating human transactions.

A culture's way of understanding and interpreting human action, and the underlying mental events, is represented in the cultures stories. Like culture, stories define the range of canonical characters, the settings in which they operate, and the actions that are permissible and comprehensible. These in turn, map possible roles and possible worlds in which action, thought, and self-definition are desirable (Bruner, 1986). This becomes quite apparent when one examines the oral tradition of First Nation people. Oral tradition has maintained each group's cultural identity and world view (Montejo, 1994). It has served as a method of documenting each group's history, linking the past, present, and future. This is evidenced in individual identities which are rooted in an awareness of the family, community, and cultural heritage (Ortiz, 1995). The mode or medium to maintain sacred and specialized knowledge, morals, and values has been story. The method sometimes employed begins a process that allows the listener to draw a conclusion far beyond the original story. Through this process, the storyteller provides a vehicle for the listener to manipulate in their own way and derive and

elaborate their own solutions. Narratives, therefore, has served as a primary means of organizing experience and knowledge about the world.

Although it is generally accepted that narrative is central to First Nation's attempt to make sense of the world, no systematic investigation related to how this narrative meaning-making process develops in children, or the form narrative knowledge takes, has been conducted. Present research in the area of narrative has focused almost exclusively on the structural forms of narrative thought. Independent of the work in narrative, research on learning strategies has attempted to provide illustrations of good strategy users through a comparison of "average students" with those students who have learning difficulties. It does not, however, consider structural aspects. What is currently lacking, is an integration of these two lines of work. Given the strong oral history and tradition of First Nation peoples, narratives will be used to assess the developmental levels of First Nation students and the strategies they utilize during narrative listening activities.

To address this issue, Chapter Two will focus on the empirical work conducted in narrative (i.e., story understanding and story composition) and learning strategies. The methodology will be discussed in Chapter Three, followed by the results and findings in Chapter Four. Finally, the discussion in Chapter Five will focus on the findings and how they relate to the literature. Methodological issues, educational implications, limitations and delimitations of the study, as well as suggestions for future research, will conclude the discussion.

# CHAPTER TWO

# REVIEW OF THE LITERATURE

## *Introduction*

The purpose of the next section is to examine the empirical work as it relates to narrative and cognitive processes; specifically, learning strategies. Because no attempt has been made to link these two lines of research, each will be examined in isolation of the other. This will be followed by a brief discussion on the propositions generated as a result of the empirical work in each area. Attempts to link these two lines of research is the purpose of the ensuing study.

In order for a story to be a story, it must have intention (Bruner, 1986). Stories involve characters in action, with intentions or goals, in settings using particular means. An imbalance of these elements, however, does not sufficiently describe drama. Rather, two landscapes must be considered simultaneously; that is, "the landscape of action" and "the landscape of consciousness" (Bruner, 1986). The underlying theme of a story is captured by the manner in which the "dual landscape" is integrated. The plight which has befallen characters due to their intentions, the interaction of the characters and their plight, and an uneven underlying consciousness among the characters with respect to plight are necessary constituents. In essence, the story structure (i.e., start, development, and ending) is borne out of the manner in which these constituents interact.

Other authors agree that the narrative story schemata consists of a setting, problem, goal, and resolution (Beck & McKeown, 1981; Idol, 1988; Stein & Glenn, 1977). The problem lies in empirically validating differences in structural complexity as a result of age-related

changes. Applebee (1978) suggested that there were indeed age-related changes in the structural complexity of children's narrative. He believed that the increase in structural complexity may be due to some age-related changes in children's reasoning capacity. One such age-related change between preadolescent and adolescents appears in the recall of the story (Applebee, 1978). Before the age of 12, children are generally unable to extrapolate beyond the information that is provided. While the younger children do not possess the ability to infer beyond what is presented, the adolescent attempts to infer meaning through an in-depth analysis and generalizations beyond the information provided. This implies that the adolescent is able to recognize that the story has more than one meaning. For example, in a study of 9, 13, and 17 year old responses to a story, Applebee (1978) found that there is a move toward analysis and generalization of "what might be." It seemed that with an increase in age, subjects were able to gain an understanding of "how the world works" rather than just an understanding of the information provided. However, the ability to generalize an understanding of the text to one's own understanding of the real world is not within the younger child's developmental repertoire.

During recall of the story, children who possessed concrete operational schemata were only able to provide a summary and categorization of responses (see Figure 2.1). With experience and practice, children acquire the ability to analyze and generalize beyond what is presented. In Stage I of formal operational thought, the child is in the process of acquiring the ability to analyze the information presented. Understanding occurs from analogy or "exemplification." By Stage II, the adolescent acquires the ability to analyze and generalize "what might be."

Prior to the shift in emphasis, as a result of Applebee's work (1978), much of the research was generated from a formalist perspective. Utilizing this approach, researchers tended to: (a) emphasize the formal structure of narratives at the expense of symbolic content; (b) emphasize the delineation of how narratives are constructed in lieu of what the narratives reveal about the child's conception of the world; (c) neglect the symbolic

Figure 2.1
Developmental Stages in the Formulation of Response

| Mode of Thinking | Characteristic Response | |
| --- | --- | --- |
| | Objective | Subjective |
| Preoperational (ages 2 to 6) | Narration, in whole or part | Syncretism, lacking integration |
| Concrete Operational (ages 7 to 11) | Summarization and categorization | Categorization, attributed to the work |
| Formal Operational - stage I (ages 12 to 15) | Analysis of the structure of the work or the motives of the characters; understanding through analogy | Identification or perception of involvement in the work |
| Formal Operational - stage II (ages 16 to adult) | Generalization about the work; consideration of its theme or point of view | Understanding gained or not gained through the work; its effect on the reader's own views |

Applebee (1978)

imagination of the child; and, (d) treats the younger children's narrative as primitive, and as a starting point to competency (Nicolopoulou, in preparation). With the advent of the cognitive revolution, story grammar marked a shift away from meaning and it's construction, to information and the processing of information. Very briefly, this line of research attempts to specify the "story schemas" or "story grammar" that allows one to recognize, comprehend, and recall various narratives (Nicolopoulou, in preparation). Elementary units include hierarchically organized goals, units of plot structure, or networks of causal interconnections. Quite similarly, functional linguistics devoted much research to the acquisition of narrative competence. Notwithstanding the methodological limitations, it has yielded a method which allows the increasing complexity of older children's language use to be traced. Focusing on the child's own use of language attempts to capture the child's creation, as well as comprehension, of narrative.

In essence, regardless of the methodological limitations of the formalist approach, significant methodological tools for analyzing the formal aspects of children's narrative have been generated. This has created an atmosphere of change; one that integrates formal analysis with the interpretation of meaning, situated within a socio-cultural context. Meaning, and meaning-making, therefore, have become central in the research of narrative.

## *Narratives from a Neo-Piagetian Perspective*

McKeough (1991a) hypothesized that there were varying processing demands underlying developmental change in narrative structure. Using Case's (1991b; 1991e) model of child development (Figure 2.2), McKeough (1991a) was able to map the changes in children's narrative composition, as well as the changes in processing capacity. According to Case's

theory, a general structural form characterizes children's thought at different ages, and certain processing capacities were necessary to construct structural forms of different sorts. Four-year old children are supposed to handle either one of two relational structures in isolation; they cannot coordinate two such relational units. Six year-old children, on the other hand, have a processing capacity of two working memory units. As such, they integrate two relational structures into a higher order unit. Eight year old children integrate two units of the new kind in a tentative fashion. By the age of 10, integration is more systematic and elaborate. In essence, structural progression is characterized by the same rate of increase in working memory; that is from one to four units.

In an attempt to formalize and relate Case's (1991b) theory to the study of age-related changes in children's narratives as reflected by age-related changes in processing capacity, McKeough (1991a) conducted two studies. She found that the structural progression of 4 to 10 year old children's stories moved from a script structure to that of an elaborate event sequence. Four year-old children's stories were characterized by a single stereotypic event sequence. This consisted of a setting, initiating event, response, and outcome. Because this involved an inter-relational processing capacity of four units, it involved one working memory unit at the dimensional stage (i.e. pre-intentional substage). Narratives of 6 year old children were characterized by a shift from script to plots; that is, a move from a well known set of events that are temporally and causally related to one that centers around a problem and its resolution. The problem and resolution are seen as involving 2 units of working memory (i.e. uni-intentional). Eight and 10 year old children retain the plot structure, but their stories are considerably enriched. Eight year old children

add a complicating event that blocks or impedes resolution of the initial problem. Three

working memory units are required: one to store the initial problem, one for the

complicating event, and one for the resolution (i.e. bi-intentional substage). Ten year old

children stories are characterized by an elaborate integration of the initial problem. Their

stories consist of an increase in complicating events. The four working memory units

required to reach the final dimensional substage (i.e. integrated bi-intentional substage)

now serve as building blocks for entry into the vectorial stage of development (i.e. pre-

vectorial substage). Sample stories at the different age levels are presented in Figure 2.3.

In essence, McKeough (1991a) found parallel changes in story structure complexity, that

included both syntactic (i.e. settings, initiating event, response, and outcome) and semantic

(i.e. well-scripted social event sequences) features, and age-related growth in processing

capacity. With scripts serving as the basic unit which stories of older children are built

upon (Case, 1991a; Case & McKeough, 1990; McKeough, 1991a) children's stories

progressed to include plots, elaborated plots, and finally, integrated elaborative event

sequences. As one moves through the inter-relation and intentional substage to the

vectorial stages, there is a move from action, to intention, to an interpretive state of mind;

that is, there is shift in focus from the character actions, to how the character may be

feeling or thinking, to why the character may be feeling or thinking the way that s/he is

feeling or thinking. This reveals what Bruner (1986) calls the tying together of "landscape

of action" and "landscape of consciousness." Several, more recent studies, have utilized

the developmental framework presented in Figure 2.2 to examine the relationship between

Figure 2.2

VECTORIAL STAGE*

| | 4th ORDER RELATIONS | Substage 3 (15½ - 19 yrs.) | $\begin{array}{ll} A & B \\ 1\,\overline{x}\,1 \\ A & B \\ 2\,\overline{\phantom{x}}\,2 \end{array}$ W.M. 4 |
| | | Substage 2 (13-15½ yrs.) | $\begin{array}{ll} A & B \\ 1\,\overline{\phantom{x}}\,1 \\ A & B \\ 2\,\overline{\phantom{x}}\,2 \end{array}$ W.M. 3 |
| | DIMENSIONAL STAGE | Substage 1 (11-13 yrs.) | A __ B  2 |

| | 3rd ORDER RELATIONS | Substage 3 (9-11 yrs.) | $\begin{array}{ll} A & B \\ 1\,\overline{x}\,1 \\ A & B \\ 2\,\overline{\phantom{x}}\,2 \end{array}$ W.M. 4 | } A or B  1 |
| | | Substage 2 (7-9 yrs.) | $\begin{array}{ll} A & B \\ 1\,\overline{\phantom{x}}\,1 \\ A & B \\ 2\,\overline{\phantom{x}}\,2 \end{array}$ W.M. 3 |
| | INTERRELATIONAL STAGE | Substage 3 (5-7 yrs.) | A __ B  2 |

| | 2nd ORDER RELATIONS | Substage 3 (3½ - 5 yrs.) | $\begin{array}{ll} A & B \\ 1\,\overline{x}\,1 \\ A & B \\ 2\,\overline{\phantom{x}}\,2 \end{array}$ W.M. 4 | } A or B  1 |
| | | Substage 2 (2 - 3½ yrs.) | $\begin{array}{ll} A & B \\ 1\,\overline{\phantom{x}}\,1 \\ A & B \\ 2\,\overline{\phantom{x}}\,2 \end{array}$ W.M. 3 |
| | SENSORIMOTOR STAGE | Substage 1 (1½ - 2 yrs.) | A __ B  2 |

* or ABSTRACT DIMENSIONAL STAGE

| 1st ORDER RELATIONS | Substage 3 (12 - 18 mos.) | $\begin{array}{ll} A & B \\ 1\,\overline{x}\,1 \\ A & B \\ 2\,\overline{\phantom{x}}\,2 \end{array}$ W.M. 4 | } A or B  1 |
| | Substage 2 (8 - 12 mos.) | $\begin{array}{ll} A & B \\ 1\,\overline{\phantom{x}}\,1 \\ A & B \\ 2\,\overline{\phantom{x}}\,2 \end{array}$ W.M. 3 |
| | Substage 1 (4 - 8 mos.) | A __ B  2 |
| | Substage 0 (1 - 4 mos.) | A or B  1 |

Hypothesised structure of children's knowledge at different stages and substages of development.
Case (1991b)

Figure 2.3

**Sample Stories at Different Age Levels**

---
**Level 1**

Once there was a lamb and a little girl walking down to get home. So they saw their mother's house and they went in and they saw their mom. That's where they lived and they lived happily ever after.

---
**Level 2**

A horse was walking along in a field and he saw a little lamb in one of the places of the barn and it was a fence. And it was a nice lamb and it - it was lonely. So the horse jumped in and then the lamb jumped onto the horse and then they - and then the lamb jumped onto the horse and then they got out. And then they went to a place where there was no one except them. And they picked some blueberries and they ate them. And the horse found some hay and he liked the hay better than the blueberries. And a lamb found some grass and he liked the grass better than the blueberries. And then they went and lived together. And they lived happily ever after.

---
**Level 3**

Once there was a little girl who was walking in the woods and she saw a helpless little lamb. And then she took it to her father but her father said, "No!" She can't keep it. Then she built a little house in the woods for it and kept it there and brought food for her everyday. And then her father and mother found out that she was keeping the little lamb there and so, they told her that they should send her to a place where lambs live.

---
**Level 4**

Once upon a time there was a little girl. She was very sad because she didn't have a pet. One day one of her father's - father's sheep had a little goat and it was going to die because she had lots of others and it couldn't get enough milk. She wanted it so badly. And then her father finally gave up and gave it to her. She was very happy. After that she always lived with it and was always happy with it. She took very good care of it and was very happy with it. Then one day a ram come and he was - the little girl was inside eating her supper. The ram came along and killed the little goat and ate it. She - finally came out and saw the little goat was dead - had been taken away. She was very sad. Her father went out and bought her another little lamb and she lived happily ever after.

---

Case, Sandieson, & Dennis (1986)

the manner in which fictional story character's intentions are explained or accounted for in relation to how students accounted for their own thoughts, feelings, or actions (McKeough, Easton, Wigmore, Dolyniuk, & Marini, 1996a) and how characters may change over the course of a story (Genereaux, in press).

McKeough et al., (1996a) examined the relationship between students' conceptual development in narrative composition and awareness of their thinking, learning, and problem-solving. Specifically, they hypothesized that the way in which students explained or accounted for fictional story characters thoughts, feelings, or actions would be evidenced in the manner in which students reflected on or interpreted their own actions and intentions. Following pre- and post-instruction, story compositions and journals were broken into T-units, or terminable units, which are the shortest grammatically correct complete sentence that a passage can be broken into without sentence fragmentation (Hunt, 1977). The T-units were then categorized as action, intentional, or interpretive, following the developmental shifts in narrative organization (Figure 2.4). The results showed that the interpretive quality of student's story compositions increased significantly following instruction, whereas the action and intentional statements decreased. In addition, the results showed that the interpretive quality of the student's story compositions correlated with the interpretive quality of their journals.

Figure 2.4
Developmental Change in Narrative



|  | **Action/Event Structure** | **Intentional Structure** | **Interpretive Structure** |
|---|---|---|---|
| *Plot Structure* | Sequence of events and states ("I do "A" then I do "B") | Events and states in physical world are related to mental states ("I do "A" and "B" because I feel "X" and "Y") | Mental states are related to character's psychological make-up ("I feel/think "X" and "Y" because I am a certain type of person") |
| *Literary Structure* | 1st Order Event Structure<br><br>Script: discrete events are temporally, causally, and referentially bound (time line reporting) | 2nd Order Event Structure<br><br>Simple plot of folktale: event sequences are temporally, causally, and referentially bound (each event selected for purpose, e.g., initiating event) | 3rd Order Event Structure<br><br>Complex plot of short story: episode sequences are temporally, causally and referentially bound (each episode selected for a purpose, for example foreshadowing or flashback) |
| *Social/ Affective Structure* | Affect limited to 1 event or 1 affect and its opposite<br><br>event<br>↓<br>feeling | Affect occurs trans-situationally. One affect transforms into another via external events.<br><br>event      event<br>↓           ↓<br>feeling    feeling | Situational affect is long-term to define character independently of external situations: the long shadow of the past is cast on the present.<br><br>event event event event<br>↓ → ↓ → ↓ → ↓<br>feeling feeling feeling feeling<br><br>(PAST)      (PRESENT) |

McKeough, Sanderson, Martens, & Salter (1996b)

Genereaux (in preparation) used the general developmental framework to investigate how story characters changed over the course of story composed by pre-adolescents and adolescents. He examine the compositions of subjects, aged 10, 12, 14, and 18 years, and developed a scoring system that characterized character change as (a) pre-intentional, which involve changes to physical characteristics (i.e., name, physical appearance), (b) intentional, which involve changes in temporary psychological states (i.e., emotions), undifferentiated traits (i.e., bad), and achievement level (i.e., gets better at math), and (c) interpretive, which involve personality changes of an enduring nature. Genereaux's scoring criteria is presented in Table 2.5. Analyzing the data qualitatively, Genereaux noted a general developmental shift toward interpretive types of character change as the age of the participants increased. That is, a larger proportion of the characters created by the older subjects changed in ways Genereaux described at interpretive, whereas a larger proportion of the younger subjects' characters changed physically or intentionally. These changes mirror the major developmental stage shifts outlined in Figure 2.2.

Figure 2.5

## STATIC CHARACTER - DYNAMIC CHARACTER DIMENSION

Level                                    Nature of change in character(s)

Pre Intentional

1        - No explicit mention of any change in characters
         - Change in physical, demographic, or role characteristics
         - Change in non-psychological abilities or behaviors
           (e.g., sports ability)

Intentional

2        - Change in temporary psychological states (e.g., sad to happy)
         - Change in specific psychological/social behaviors, abilities,
           knowledge, attitudes or beliefs (e.g., gets better at math, at talking
           to Jane)
         - Change in general, undifferentiated traits (e.g., bad to good)

Interpretive

3        - Change in what makes a person feel happy, sad, etc.
         - Change in enduring, global psychological states (e.g., overcomes
           depression)
         - Change in general psychological/social behaviors, abilities,
           knowledge, attitudes or beliefs (e.g., quiet to talkative, racist to
           non-racist)
         - Change in personality traits (e.g., insensitive to sensitive,
           responsible to irresponsible)
         - Change in more than one key trait
         - Change in self-concept or interpretation of one's own trait(s)
         - Reconciliation of conflicting traits?
         - Change in overall world view
         - Change in overall view of oneself and one's place in life
         - Change in overall way of living or mode of being

## *Learning Strategies*

### *Metacognition and Strategy Selection*

Metacognition refers to an introspective awareness of one's cognitive processes, the strengths and weaknesses of those processes, and self-regulation during task performance (Flavell, 1976). Two broad definitions of metacognition are recognized and can be distinguished as knowledge about cognition and regulation of cognition (Brown & Palincsar, 1982; Flavell, 1976; Wong, 1986). Knowledge about cognition, a form of declarative knowledge, refers to the conscious selection of certain cognitive operations over others, to meet certain task demands. For example, if reading is the task domain, one who possesses good metacognitive skills may first identify the purpose of reading. Identifying the nature of the task will, in turn, determine the type of strategies employed. Regulation of cognition, a form of procedural knowledge, refers to planning activities prior to engaging in problem solving, monitoring activities during learning, and evaluation of the outcome. These executive controls are responsible for the ability to predict, test, revise, and evaluate strategic outcome (Baker & Brown, 1984; Brown & Palincsar, 1982). In essence, metacognition refers to the "introspective awareness of one's own cognitive processes, and one's own self-regulation....it enables us to use suitable strategies to deal effectively with the task demands" (Wong, 1986, p.12).

Strategies are gradually developed in the early stages of development. As the child grows and matures, they acquire a repertoire of strategies that can be applied in a variety of settings. These strategies are strengthened when they can be represented symbolically and expressed through language (Bruner, 1987). Although strategies are unevenly distributed and vary according to cultural background, they can be taught as an effective means of problem-solving (Bruner, 1987). From this, we begin to appreciate that strategies are not only effected by experience and maturation, but are also culturally determined.

More specifically, strategies aid in the regulation, execution, and evaluation of particular task demands. They are "goal directed procedures that are planfully or intentionally evoked prior to, during, or after the performance of a task" (Alexander & Judy, 1988, p.376). Through goal-directed procedures and monitoring strategies, good strategy users achieve particular memory, problem-solving, and comprehension goals (Pressley, Snyder, and Cariglia-Bull, 1987). If a given str17ategy, for example, does not meet the demands of a task, higher order sequencing strategies integrate goal-specific and monitoring strategies in larger sequences.

Good strategy users also know when and where various strategies are most useful (Dole, Duffy, Roehler, & Pearson, 1991; Pressley et al., 1987). This awareness is dependent largely on the extent of one's knowledge base. If a given strategy is taught to one who possesses an extensive knowledge base, one is able to determine where and when it is most useful so that learning transfers to other situations. As a result of learning transfer, strategies become more flexible and spontaneous, and can be applied in a wider variety of situations. This, inevitably, leads to a greater understanding and more efficient problem solving.

*Reading and Writing Strategies*

The integration of knowledge and strategy use is evident in the cognitive view of reading, which holds that "an active reader constructs meaning through an integration of existing and new knowledge and the use of strategies to foster, monitor, regulate, and maintain comprehension" (Dole et al., 1991, p.242). Good strategy users identify the purpose(s) of reading. They summarize and self-review what is being read, paraphrase, generate questions about the content, hypothesize, and make predictions as to the outcome (Brown & Palincsar, 1982; Idol, 1988; Palincsar & Brown, 1984; Palincsar, 1991; Pressley, et al., 1987; Wong, 1986). The extent that one can do this is determined, in part, by the readers underlying knowledge base. To construct meaning, prior knowledge filters and interprets the text (Wade, 1990). It determines importance, allows the reader to infer meaning, elaborates text, provides interpretation, and monitors comprehension (Dole et al., 1991; Wong, 1991).

Like reading, the writer actively seeks to construct meaning (Wong, 1991). Good strategy users in writing must be able to self-evaluate and self-monitor potential comprehension problems for the reader (Wong, 1986). The writer develops ideas and integrates them into words and sentences. The meaningfulness is captured in the communicative goal of the writer. If the goal is ambiguous, or does not meet some internal criteria of communicative intent, revisions are made.

Very similarly, if individuals actively seek to construct knowledge and meaning from the acts of reading and writing, it is plausible that listeners do the same. In fact, Palincsar (1991) asserts that good listening comprehenders employ strategies similar to that of reading

and writing. Good strategy users generate questions about the content, make predictions as to the outcome, and summarize what they hear. The extent of their comprehension is determined, in part, by the underlying schemata or knowledge structures (Idol & Croll, 1987). According to the schema theory, the extent of comprehension is determined by underlying schemata and the textual material. "A schema is a basic unit for storing information and representing the readers acquired knowledge" (Idol, 1988, p.14). Relevant schemata allow the interpretation of new information, and subsequent assimilation of this new information, into an existing knowledge base. Good comprehenders select schemata which derive the most meaning from the new information. For example, during reading, the reader evaluates how well their schema fits with the existing information, a process similar to hypothesis testing (Wade, 1990). If the schema fits, the reader is able to make predictions about future events or the outcome of the story. If the schema does not fit, it is modified or rejected. The ability to select, modify, or reject existing schema in light of problem solving is considered an important component of comprehension monitoring (Wade, 1990).

## *Summary*

In conclusion, the empirical work in narrative has generated three propositions: (a) that there is a gradual increase with age in the structural complexity of children's stories, (b) this increase may be due to age-related changes in information processing capacity, and (c) there are specific values of processing capacity for generating a particular form of narrative structure. Similarly, the empirical work in learning strategies has generated several propositions, including: (a) one's knowledge base develops as a result of experience and maturation, (b) the

extent of one's knowledge base determines the utility and efficacy of strategies, and (c) strategies utilized in listening comprehension are similar to those used in reading and writing. As yet, however, no attempt has been made to link these two lines of research. With empirical work on narrative emphasizing structural aspects, and the work on strategies emphasizing expository text, there is presently a dearth of empirical data which specifically examines the structural aspects of story composition and the processes involved in story understanding (i.e., comprehension) simultaneously. The goal of this study, was to attempt to determine if such a link could be made by documenting the developmental trajectories in each area, and then looking for relations.

The hypotheses were as follows:

1. There will be an age-related difference in story composition.

      1a.    There will be a significant difference in the structural complexity of stories composed by Grade 5 and Grade 7 students.

      1b.    There will be a significant difference in the number of interpretive T-units identified in the story compositions of Grade 5 and Grade 7 students.

      1c.    There will be a significant difference in the level of character change in the story compositions of Grade 5 and Grade 7 students.

2. There will be an age-related difference in the strategies employed by Grade 5 and Grade 7 students while engaged in the story understanding.

2a.    There will be a significant difference in the predictive ability of Grade 5 and

Grade 7 students.

2b.    There will be a significant difference in the clarifying and questioning ability of

the Grade 5 and Grade 7 students.

2c.    There will be a significant difference in the accuracy of summary of the Grade 5

and Grade 7 students.

2d.    There will be a significant difference in the developmental level of summary of

the Grade 5 and Grade 7 students.

2e.    There will be a significant difference between Grade 5 and Grade 7 students in

the perspective from which a story is recalled, with older children producing

developmentally-advanced integrated perspectives and the younger children

recalling the story from a unitary perspective.

2f.    There will be a significant difference in the developmental level of morals

generated by Grade 5 and Grade 7 students, assessed through a

developmental T-unit analysis.

3. More specifically, it was hypothesized that:

3a.    There will be a significant positive correlation between the various measures of

the story composition task.

3b.    There will be a significant positive correlation between the various measures of

the story understanding task.

3c.    There will be a significant positive correlation between the various measures of

the story composition and story understanding tasks.

Following neo-Piagetian theory (Case, 1991b; 1992c), hypotheses 1 and 2 were based on the

assumption that the developmental levels of the subjects would affect their level of

performance. Hypothesis 3 was based on the assumption that because of the overlap in

narrative knowledge for both tasks, performance level would be similar.

# CHAPTER THREE

# RESEARCH DESIGN AND METHODS

## *General Method*

This study employed a cross-sectional design and was undertaken to examine developmental change and strategy use of First Nation students in story composition and interpretation. This chapter will provide a detailed description of how the study was conducted.

Grade 5 and Grade 7 students participated in the study. Data was collected in May and June, 1996. The researcher met with each subject twice, during which participants wrote (and revised) stories and responded to questions related to understanding a story they listened to. Sessions for each Grade level were held separately. The researcher met with small groups (5 - 10 subjects) for story compositions and revisions, and individually during the interview and story understanding activities.

## *Participants*

Subjects were selected from a locally controlled First Nation elementary and junior high school in south-central Manitoba. All were of aboriginal descent and lived exclusively on a reserve. Two grade levels were included: 5 and 7 which are roughly equivalent to the age groups, 10 and 12 years. These age/grade levels were selected because Neo-Piagetian theorists assert that a qualitative shift in conceptual development occurs within this two year span (Case, 1985).

1985).

A total of 33 subjects participated in the study, including 17 grade 5 students and 16 grade 7 students. (See Table 3.1 for demographic information). Data from one subject was not used in the final analysis because she failed to complete the tasks, resulting in a count of 32 participants.
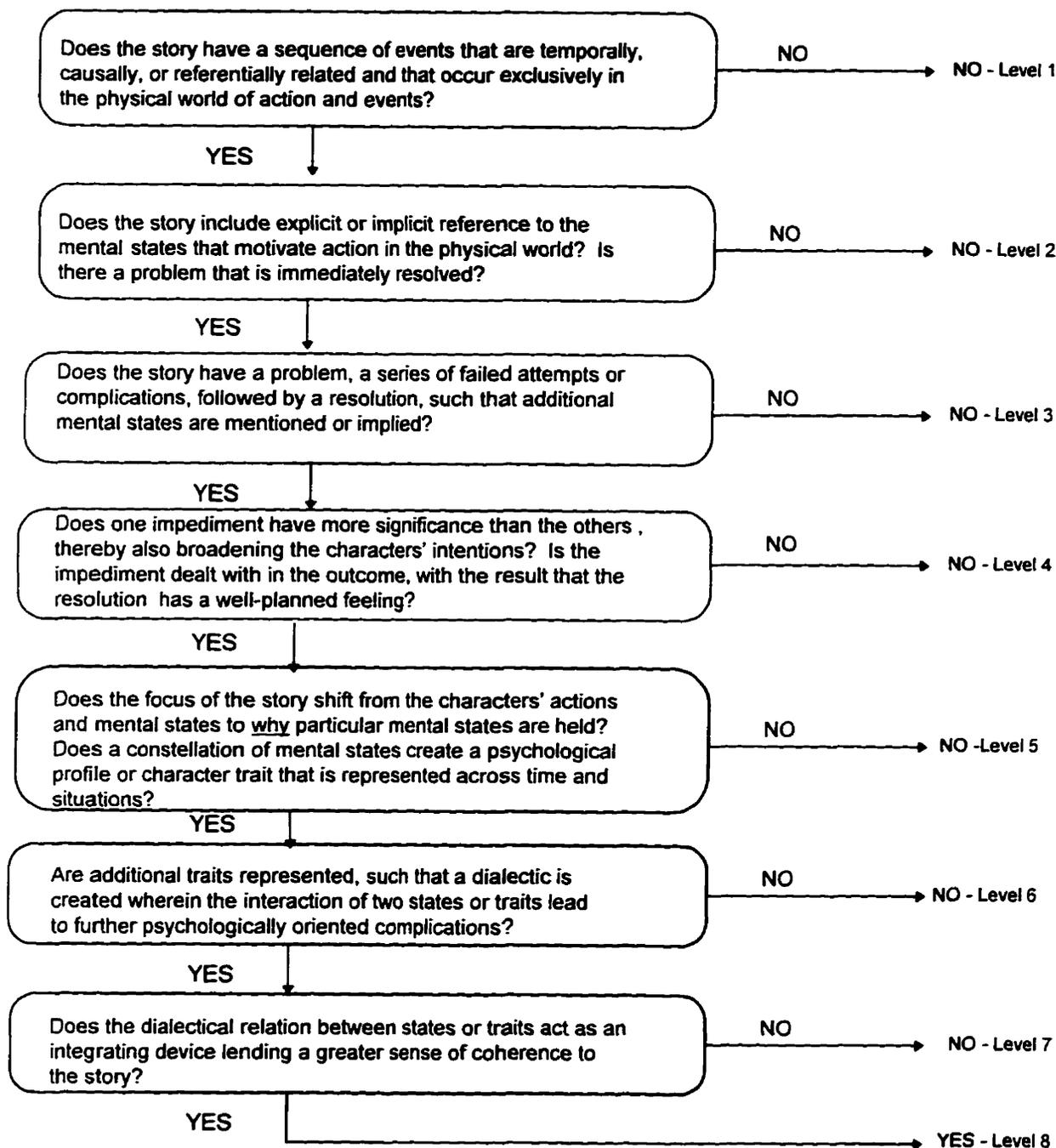
Table 3.1

| | Number of Participants | Gender F | M | Mean Age | Age Range | |
|---|---|---|---|---|---|---|
| Grade 5 | 17 | 9 | 8 | 11-0 | 10-1 | 11-6 |
| Grade 7 | 16 | 8 | 7 | 12-11 | 11-11 | 13-6 |

*Procedure*

Following approval of the Band Chief and Council and the School Board, the school Principal and Vice-principals were contacted and met with individually to explain the purpose of the research and the time required of each student to complete the tasks of the study. The researcher then met with the teachers of potential participants and gave a brief description of the research. Teachers were asked to identify students of average level of academic achievement in all subject areas, based on academic grades recorded in school records. Parental consent forms were given to the teacher who, in turn, distributed them to the student that he/she nominated for study participation. The consent forms informed the parent(s) that the subjects' participation was completely voluntary and withdrawal from the study could occur at

any time, at the instigation of the child, parent, or researcher. Parent(s) were also informed that

this work was not a school achievement test. The covering letter and consent form (see

Appendices A & B) also explained that all stories and interviews would be held in the strictest

of confidence. Each subject was numerically coded and all records were kept under the code

number in a portable locked filing case. Parent(s) were also informed that all data would be

destroyed upon completion of the data analysis.

Figure 3.1     STORY SCORING CRITERIA EXTENDING INTO ADOLESCENCE

Does the story have a sequence of events that are temporally, causally, or referentially related and that occur exclusively in the physical world of action and events?

NO ⟶ NO - Level 1

YES

Does the story include explicit or implicit reference to the mental states that motivate action in the physical world? Is there a problem that is immediately resolved?

NO ⟶ NO - Level 2

YES

Does the story have a problem, a series of failed attempts or complications, followed by a resolution, such that additional mental states are mentioned or implied?

NO ⟶ NO - Level 3

YES

Does one impediment have more significance than the others , thereby also broadening the characters' intentions? Is the impediment dealt with in the outcome, with the result that the resolution has a well-planned feeling?

NO ⟶ NO - Level 4

YES

Does the focus of the story shift from the characters' actions and mental states to why particular mental states are held? Does a constellation of mental states create a psychological profile or character trait that is represented across time and situations?

NO ⟶ NO -Level 5

YES

Are additional traits represented, such that a dialectic is created wherein the interaction of two states or traits lead to further psychologically oriented complications?

NO ⟶ NO - Level 6

YES

Does the dialectical relation between states or traits act as an integrating device lending a greater sense of coherence to the story?

NO ⟶ NO - Level 7

YES ⟶ YES - Level 8

McKeough, Sanderson, Martens, & Salter (1996b)

In the first meeting, it was explained to participants that the study required their involvement in several tasks related to writing and reading. Students were told that they would meet in small groups to write an individual story (session 1) and revise it (session 2). As well, they were told that they would meet individually with the researcher, at which time they would listen to a taped story and answer questions on it (session 3).

All individual sessions were audio tape-recorded. Tapes were transcribed and a qualitative analysis was performed on the transcripts to determine the structural level of the stories. For the story composition task, existing scoring systems were used. For the story interpretation task, some existing scoring systems were used and additional scoring criteria were developed from the qualitative analysis. Finally, statistical analyses were conducted to determine if significant age/grade differences were evident and if significant positive correlations emerged between the two types of tasks.

*Tasks and Scoring Criteria*

The tasks involved the subjects in two activities: story composition and questions related to comprehension strategies and story interpretation.

Story composition. Separate small group sessions ( 5 - 10 subjects) were held for each grade level. Following McKeough (1991b), Case et al. (1993a), and Genereaux (in preparation), students from each grade level were asked to compose a story. The instructions were as follows:

"Write me a story, about a problem a child your age may face that has a

surprise ending. It can be any story. There must be no discussion with your

neighbour. When you have completed your story, please hand it in and you

may return to your classroom."

Following the directions, a brief time was allowed for clarification questions. Sessions

lasted from 20 minutes to 50 minutes, with the older children completing their story in less

time. Children were thanked upon completion of their first draft and were told that they

would be called again to read over their story and revise it, if they wished to do so.

Scoring the story compositions involved three types of developmental analysis:

T-unit, structural level, and character change.

1.       Developmental T-unit Analysis. T-units, or terminable units, are the shortest

grammatically correct complete sentence that a passage can be broken into without sentence

fragmentation. T-units are defined as " a single clause plus whatever subordinate or non-

clauses are attached to, embedded within, that main clause. A clause is defined as a subject

(or coordinated subjects) with a finite verb or coordinated finite verb" (Hunt, 1977, pp. 92-

93). The story compositions were broken into T-units, and categorized as action, intentional,

or interpretive, following the major developmental shifts in narrative organization (see

Figure 2.4).  Examples of each category presented below are taken from the study of

McKeough, Easton, Wigmore, Dolyniuk, and Marini (1996a).

(i) Action or descriptive T-units. Action T-units can be expressed in two ways:

(a) Physical movement (e.g., "Sue got up and got ready for school.")

(b) Descriptions that give information concerning settings or physical states and

events transcribed by a copula verb (e.g., "She was deaf.")

(ii) Intentional T-units refer to first-order mental states and are expressed in four ways:

    (a) Thoughts, needs, wishes, plans and intentions that motivate action (e.g., "She

        then decided to do just that.").

    (b) A social judgment that is context-specific (e.g., "your doing all right as a baseball

        player.") or describes a general social trait (e.g., "he was a nice boy.").

    (c) Verbs that describe emotion (e.g., "She was really scared.").

    (d) Actions or descriptions that suggest underlying mental states (e.g., "Leave me

        alone!' she screamed.").

(iii) Interpretive T-units refer to second-order mental states that underlie first-order

mental states. They can be expressed in multiple ways and frequently involve a

combination or two T-units, as the following illustrates:

    (a) Justification or a mental state or social judgement with a second mental state

        or social judgement (e.g., "Joey loved pets (first-order mental state) because he

        knew they wouldn't make fun of him" (second-order mental state).

    (b) Statements denoting self understanding, self knowledge, and self

        questioning (e.g., "I was known to suck up to people. And now I know its

        true. Whenever someone was mad at me I would always be the first to

        apologize even if it wasn't my fault.").

    (c) Enduring psychological/social state or trait (e.g., "Teasing or nagging would

        always ring in his ears during the night.").

    (d) Psychological/social similes and metaphors (e.g., "The wall had started to

        build. Not a wall of concrete or stone but a mental wall that no one, except for

Rachel herself, could move or tear down.").

(e) Flashback or foreshadowing (e.g., "I thought about the first time I met her in grade one.").

(f) Paradoxical occurrences or juxtaposing alternatives (e.g., "And poor Laurie. An innocent girl who got what she did not deserve....Things like this sometimes happen. Too often though.").

(g) Perspective taking (e.g., "I am sixteen and mature enough to handle the responsibility of a vacation alone.' No. That would be no good it sounded to superior.").

The number of action, intentional, and interpretive T-units were tabulated to provide a developmental profile for each participant.

2.     Plot Structure Analysis. To score the structural level of story compositions, a system developed by McKeough (1991b), as discussed in Chapter II, was used. Very briefly, this system categorizes story compositions within a developmental hierarchy which identifies both major (action, intentional, and interpretive) and sub-stage shifts (see Figure 3.1).

3.     Change in Story Character Analysis. A scoring system devised by Genereaux (in preparation) was used to score the character change in the story compositions (see Figure 2.5). This system of analysis examines if and how characters change over the course of a story. Responses are categorized as (a) pre-intentional, which involve changes to physical characteristics (e.g., name, physical appearance), (b) intentional, which involve changes in temporary psychological states (e.g., emotions), undifferentiated traits (e.g., bad), and achievement level (e.g., gets better at math), and (c) interpretive, which involve personality

changes of an enduring nature. These changes mirror the major developmental stage shifts

outlined in Figure 2.4 and are hierarchically organized. As character change scoring proceeded

within the levels delineated by Genereaux, it became evident that delineation of the interpretive

level was not warranted. Thus, the numerical values of the interpretive level were changed to

reflect one level; that is, the interpretive level - Level 3. Therefore, story compositions were

categorized as Pre-intentional, Intentional, or Interpretive, and received a score of 1, 2, or 3,

respectively.

      Strategy Use and Story Interpretation. Each participant listened to an audio-taped

reading of the story, The Man by the River, while following along on a printed text (see

Appendix C). This story was a slightly adapted version of a story entitled The Man by the

Fountain (Purves, 1973). The adapted version maintained the original themes, structure, and

main content. Changes involved only minor details so as to increase the cultural relevance of

the story. Very briefly, the story is about an old man who longs to return to the world of

children. He befriends a young boy, gains his trust by promising not to reveal his secret, and

enters his fantasy world. But when the boy tells him of his plan to run away from home, the old

man realizes the boy may come to harm and so takes him to the police station where his father

picks him up. The young boy feels betrayed and calls the old man a traitor because he has

turned him over to those he considered as enemies. The old man realizes that he could not

return to the world of childhood, even vicariously through contact with children, and so cuts

himself off from this single source of joy. This story was selected because it lends itself to

developmental analysis. More specifically, it can be interpreted at an action level (with focus on

the events and states occurring in the physical world), at an intentional level (including a focus

on the characters goals, thoughts, and feelings thus providing a view of their mental worlds), or at an interpretive level (wherein the mental worlds of the characters are further elaborated by contextualizing their goals, thoughts, feelings in their personal/social history, thus showing enduring psychological traits) (see Figure 3.1). Additionally, the story can be understood from a unitary perspective (either that of the young boy or old man) or from an integrated (or joint) perspective.

The story understanding task lasted approximately 20 to 30 minutes, depending on student elaboration and response. Students were given the following instructions:

"You will be listening to a story entitled, The Man by the River.' You will also

be provided with a written copy of the story for you to read along with the

taped version. At various points throughout the story, I'm going to stop the

tape and ask you questions about the story"

The questions posed to the participants throughout the story were based on the work of Palincsar & Brown (1984), Pressley et al. (1987), and Palincsar (1991) that identified four strategies commonly used by expert readers, namely predicting, questioning, clarifying, and summarizing.

In order to examine and evaluate the types of strategies the students utilize across developmental levels, the story was stopped at four pre-determined points (see Appendix C). At these points, the students were asked:

(a)     "What do you think is going to happen now? Why do you think

this will happen?"

This question was presented at two points in the story (see Questions 1 and 3, Appendix C) and was designed to provide information on the students' ability to make predictions as to the outcome of the story. Responses were examined and scored through the following questions:

    1. Is the prediction reasonable in light of what has already occurred in the story?

    2. Is the prediction unreasonable in light of what has already occurred in the story, but still remains within the general story content, tone, or theme?

    3. Is the prediction unreasonable in light of what has already occurred in the story, and does not remain within the general story content, tone, or theme.

Responses were categorized as 1, 2, or 3, as described above. Scores from both responses were averaged to reflect good (score of 1), mixed (score of 0.5), and poor (score of 0) predictive ability.

(b)    "Is there anything that you don't understand in the story so far?" (see Question 2, Appendix C) "Is there anything unclear to you in the story so far? Is there something that doesn't make sense?" (see Question 4, Appendix C)

These questions were designed to probe clarifying and questioning ability and to provide information on whether the child knows when he/she does not know. Responses were examined through the following questions:
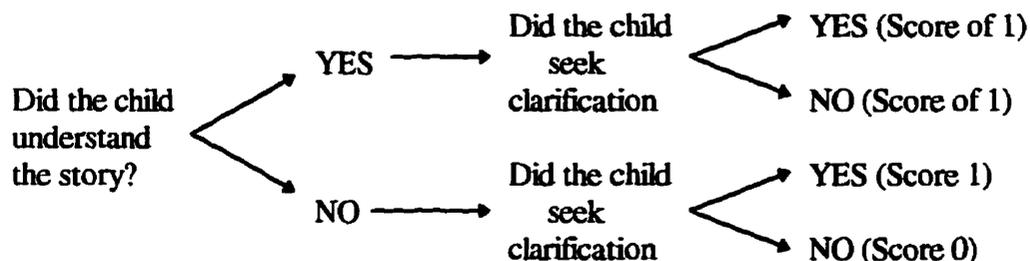
Scores from both responses were averaged to reflect good (score of 1) and poor (score of 0) clarification and questioning ability.

(c)     "What's happening so far?" (see Question 2, Appendix C)

This question was posed to determine how accurately the participants could summarize the story up to the point of the probe. Additionally, immediately following the story reading, participants were told:

> "Summarize the story you have just heard/read. Tell only what you consider to
>
> be the most important parts for the meaning of the story. You do not have to
>
> retell the story exactly as it is written. Instead, try to summarize the story in as
>
> few words as possible."

Responses were scored on three dimensions: (a) accuracy, (b) the perspective from which the story was told, and (c) developmental level. To address these aspects of the summaries, a four step-approach was taken. First, the original story was summarized and two lists of T-units constructed that provided the gist of the story told from each perspective (see Table 3.2). Second, each participant's summary was broken into T-units.

Table 3.2

Story Understanding Scoring Criteria

| | Young Boy's Perspective | Old Man's Perspective |
|---|---|---|
| A | 1. There is a lonely old man (Tom) | 1. There is a lonely old man(Tom) |
| | 2. who is sitting by the river | 2. who is sitting by the river |
| | 3. He has turned his back on adults and seeks only the company of children | 3. He has turned his back on adults and seeks only the company of children |
| B | 4. A young boy approaches and they begin to talk. | 4. A child comes along |
| | 5. The young boy tells the old man that he is the last of his tribe | 5. Tom befriends the young boy |
| | 6. and that he is at war with the the tribe of grown ups. | 6. and does so by entering the child's fantasy |
| C | 7. The young boy asks the old man if he is a friend or an enemy | 7. The boy reveals that he plans to run away |
| | 8. He offers to tell the old man his adventure if he can keep a secret | 8. because he is angry at his school and home. |
| | 9. The old man promises not to tell his secret to anyone. | 9. He tells the old man he is going to sail across the sea. |
| D | 10. The young boy tells how his dad spanked him for not being ready for school. | 10. The old man realizes that he might come to harm. |
| | 11. He also tells how he had to write lines after school | 11. He turns the young boy into the police |
| | 12. The young boy tells the old man his plan to sail across the seas. | 12. and the boy's father picks him up and takes him home. |
| E | 13. Before leaving on his journey, the young boy agrees to eat in the old man's teepee. | 13. The young boy accuses the old man of being a traitor. |
| F | 14. But instead, they go to a police station where his dad arrives shortly | 14. The old man is now ever cut off from children |
| | 15. The young boy calls the old man a traitor and says he hates him. | 15. because he realizes he can't return to his child- hood. |

Third, participant T-units were matched to the story gist to provide an assessment of (a) accuracy (a perfectly accurate summary received a score of 15, whereas a perfectly inaccurate summary received a score of 0) and (b) perspective [whether gist units largely matched a unitary perspective (score of 1; i.e., either the old man or young boy), or an integrated perspective (score of 2). Fourth, and finally, to assess developmental level, the participant's T-units were categorized as action (dealing largely with states and events in the physical world; score of 1), intentional (dealing additionally with goals, desires, thoughts, and feelings of the characters; score of 2), or interpretive (dealing with characters' enduring psychological traits, personal history, and including perspective taking and justification of mental states with a second mental state; score of 3). (d)     The final question posed to the participants asked them to provide a moral of the story. The instructions were as follows:

"Thinking about the story as a whole, what do you think is the overall moral or message of the story?"

This question was posed to provide information on the students ability to <u>infer meaning</u> through analysis and make <u>generalizations</u> beyond the information presented. Questions posed by the researcher to score the responses were:

    1. Did the participants generate a moral?

    2. Is the moral generated reasonable?

    3. Is the moral (a) action, (b) intentional, or (c) interpretively based?

        (a) Is the moral simply a re-statement of some action-based element of the

           story?

(b) Is the moral based on a social rule involving a judgement of right or wrong?

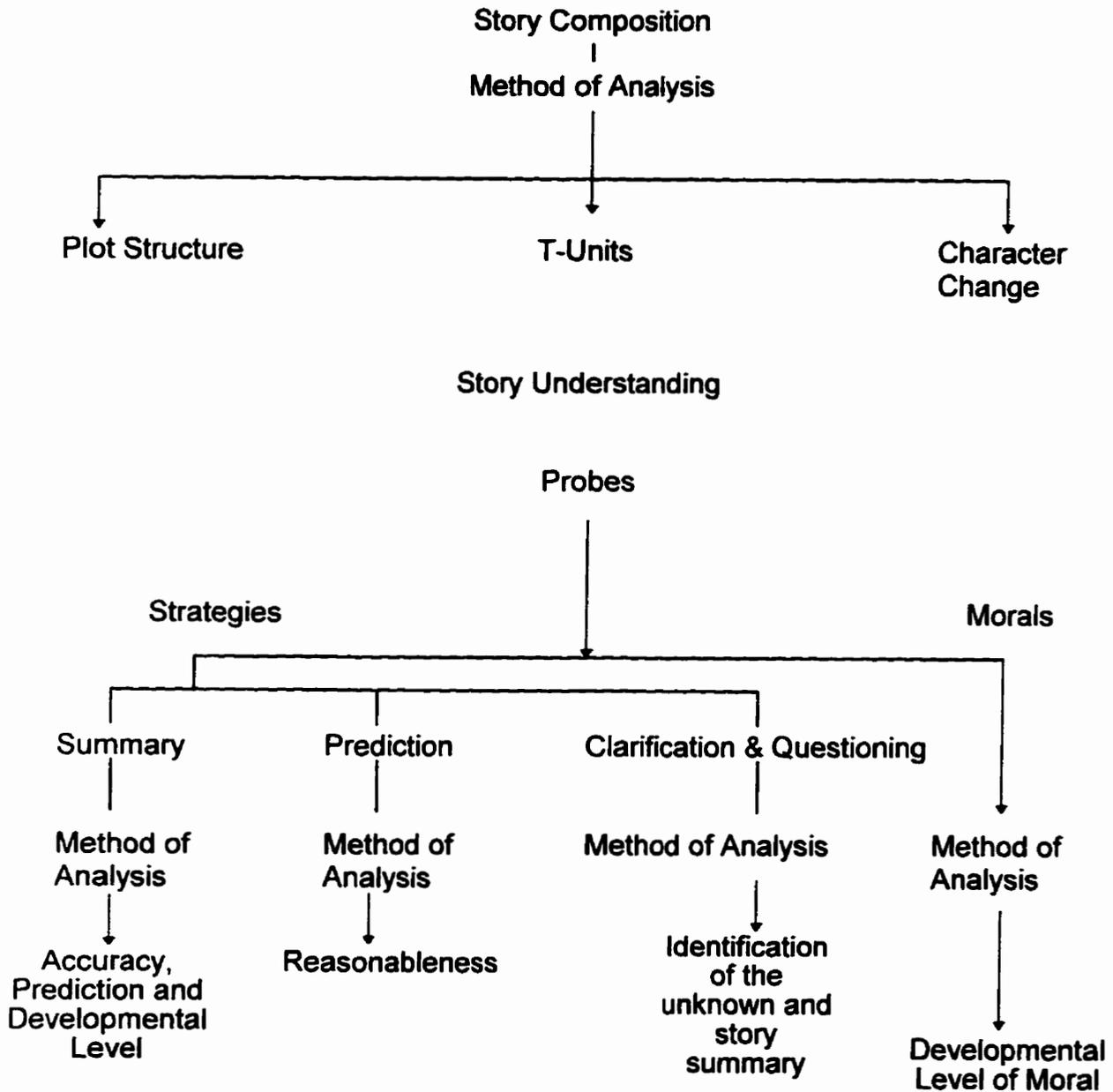(c) Is the moral based on a social rule and a consequence?

Scoring for the moral was such that scores of 1, 2, and 3 were assigned respectively, to morals of an action, intention, or interpretive orientation. A score of 0 was assigned when subjects failed to provide a response or when the response was unreasonable.

### *Summary*

The current study presented two tasks to grade 5 and 7 subjects during the regular school year (May/June, 1996). Subjects were informed that the study involved their participation in two tasks: a story composition task, which involved writing a story and a story understanding task, which involved listening to a story (to assess the types of strategies they use).

For the story composition task, the method of analysis involved T-units, plot structure, and character change. The method of analysis for the story understanding task involved probes which would allow insight into the relative strengths and weaknesses of strategy use, and the level of moral generated. Strategies were assessed on the basis of story summary, prediction, clarification and questioning, and moral. The method of analysis for summary scores involved accuracy, perspective from which the story is told, and the developmental level of the summary. The method of analysis used in prediction involved the reasonableness of the prediction whereas clarification and questioning scores were based on the identification of the unknown and the level of story understanding. Finally, the method analysis for moral scores involved the developmental level of morals generated (see Figure 3.2).

Figure 3.2

**Story Composition**
|
**Method of Analysis**

**Plot Structure**　　　　**T-Units**　　　　**Character Change**

**Story Understanding**

**Probes**

**Strategies**　　　　　　　　　　　　**Morals**

Summary　　　Prediction　　　Clarification & Questioning

Method of Analysis　　Method of Analysis　　Method of Analysis　　Method of Analysis

Accuracy, Prediction and Developmental Level　　Reasonableness　　Identification of the unknown and story summary　　Developmental Level of Moral

# CHAPTER FOUR

## RESULTS

### *Introduction*

At a general level, it was hypothesized that there would be a significant difference between the Grade 5 and Grade 7 participants for the story composition (as measured by T-unit analysis, plot structure analysis, and analysis of character change) and strategy interpretation tasks (as measured by strategy use analysis, story summary analysis, and analysis of story morals). Following neo-Piagetian theory (Case, 1985; 1992), this prediction was based on the assumption that the developmental levels of the subjects would effect their level of performance. It was also hypothesized that there would be a significant positive correlation, both within and between the measures of story composition and story understanding, regardless of grade. Here, it was reasoned that because of the overlap in narrative knowledge for both tasks, performance level would be similar.

A qualitative analysis of both tasks (story composition and story understanding) will be discussed first, followed by the statistical analysis.

### *Story Composition*

#### *T-unit Analysis*

As described in Chapter III, a developmentally-based method of analyzing the stories (McKeough et al., 1996a) was used to score the story compositions in the present study. The subjects' story compositions were broken into T-units, and categorized as action, intentional, or

(c) Enduring psychological/social state or trait (e.g., "There was once a young boy

named Charlie McNire who was so sweet and kind that everyone in his home town

of west Philadelphia loved him. All the young kids looked up to him as a role

model.")

(d) Flashback or foreshadowing (e.g., "His dream was a vision of his future. His

future showed a man who was deeper into drugs than he was.")

(e) Paradoxical occurrence or juxtaposing alternatives (e.g., "He was in shock crying

because he couldn't believe his father was doing this, the man who taught him how to

play baseball.")

(f) Perspective taking (e.g., "When I grew up and had a son and daughter, I knew how

my parents felt.")

An inter-rater reliability check was conducted on 40% of the data. Two raters agreed on .80 of

the levels assigned. Disagreements were resolved through discussion. The means and standard

deviations of the T-unit analysis across grade levels are presented in Table 4.1.

Table 4.1

Means and Standard Deviations for Action, Intentional, and Interpretive Thought in
Narrative Composition

|  | Action | | Intentional | | Interpretive | |
| --- | --- | --- | --- | --- | --- | --- |
|  | Mean | (SD) | Mean | (SD) | Mean | (SD) |
| Gr. 5 | 16.53 | 11.61 | 6.58 | 4.38 | .29 | .59 |
| Gr. 7 | 9.69 | 3.40 | 8.23 | 2.56 | 1.15 | 1.41 |

*Plot Structure Analysis*

As indicated in Chapter III, the scoring system developed by McKeough (1991a) was used to score the story compositions. A diagrammatic representation of the scoring system is presented in Figure 3.1. A more complete description of the levels with sample stories from the present study follow.

## Level 3

Consider the following story which warranted a Level 3 score in the present study according to McKeough's scoring system. This story met the criteria for a story that is typical of average-functioning 8-year-old children. It includes a problem, a series of failed attempts or complications, followed by a resolution, such that additional mental states are implied. By incorporating a problem (1 unit), a complicating event (1 unit), and a resolution (1 unit), children demonstrate the use of three working memory units.

There once was a boy who had some problems on the farm and he didn't know

what to do or who to tell. If he tells some[one], he knows that his dad will give

him a licken with a willow. One day him and his family went to court. After

court the judge said to Tom's dad that he [can] not see his son [for] a year. He

can't go around them. A year later he saw his family and said to his son, if you

get me mad, I will try not to hit you ever again.

In this story, the author presents a problem: Tom is having problems on the farm; and, a resolution: a judge prevents Tom's father from seeing him. The complication in the story is when Tom cannot trust anyone enough to tell his problem to. He fears that if he tells someone,

they will tell his father. In this instance, the complication is simply inserted without being fully

described and developed. The three components (i.e., problem, failed attempt, and resolution)

are poorly integrated in this story, as is often the case with level 3 stories.

## Level 4

Stories that warrant a Level 4 score provide the reader with one impediment that has

more significance than others, which also broadens the characters intentions. The impediment,

or complicating event, is dealt with in the outcome such that the resolution has a well-planned

integrated feeling. At this stage, four units of working memory are utilized; that is, a problem

(1 unit), a complicating event (1 unit), a resolution (1 unit), and integration of the complicating

event into the resolution (1 unit). An example follows:

> Once there was a girl named Janelle she is my cousin. She was in the hospital
>
> for just about a month because she was very sick. I went to go visit her almost
>
> every day after school. We always gave her gifts or flowers and sometimes
>
> treats. She was always wanting to come home. She is my best cousin that's why
>
> I wanted to visit her every day. My Mom didn't want me to see her lots
>
> because that's why she probably wanted to come home. My auntie Jen that's
>
> Janelles Mom she slept there with her sometimes because my auntie works
>
> during the day. Close to the end of the month about a week my cousin Janelle
>
> got out of the hospital all cured. We had a big party for her she was really
>
> happy to come home. So me and my cousin Janelle were always together
>
> because I slept at her [house] or she slept at mine.

In this story, the reader is introduced to several problems. First, Janelle is very sick and is required to stay in the hospital. Although this a problem in itself, an impediment arises that creates an even larger problem; that is, the writer's mother does not want her to visit Janelle as much as she would like to because Janelle gets home sick. Resolution of the original problem and the complicating event occurs when Janelle is released from the hospital, cured, and the two girls are "always together."

## Level 5

At the age of 12 years, a qualitative shift is thought to occur in average functioning children's stories. The four working memory units required to reach the elaborated coordination substage now serve as building blocks for entry into the vectorial stage of development at the unifocal substage. The four working memory units available in the previous stage are consolidated and form 1 unit of working memory. This is coordinated with a second equally complex unit during the unifocal vectorial substage. Children at this age begin to understand that by reflecting on one's intentions, feelings, and thoughts, people often come to understand the world differently and consequently, begin to act differently. Thus, at level 5 the focus shifts away from intention and moves toward an interpretive realm of thought and feelings. The following story illustrates this view:

> Once there was a gangmember named Ace. He was deeply into drugs and
> violence. The police visited his house more often than usual but this time he
> went to the county jail. While he was serving time in jail on the charge of
> second degree murder he had a dream. His dream was a vision of his future.
> His future showed a man deeper into drugs than he was. The man was

hijacking a plane that was bound for florida but he told the pilot at gunpoint to keep on going to the caribbean. The pilot landed and the man got off but the police were ther. They arrested the man but right as he was being led away he was shot by a passenger on board the plane that was hijacked. He received a bullet wound to the heart and he died on the way to the hospital. The vision scared the young gangmember and as soon as he was let out on bail by his mother and father he became a priest by the local church. After awhile, he became one of the nicest people on his reserve.

In this story, an internal event (i.e., a vision) causes the protagonist to change his lifestyle. Prior to the vision the protagonist was "deeply into drugs and violence" and was visited by the police "more often than usual." Following the vision, Ace becomes "one of the nicest people on his reserve," another enduring trait.

## Level 6

By 14 years of age, the story conflict typically moves within the protagonist, allowing the portrayal of a deeper psychological dimension. In the following sample story, the author not only analyzes his own perceptions to gain insight into his own feelings ("I hesitated. I didn't really know either....It was dumb. It was all I could think of."), but attempts to view the situation from the old lady's perspective ("I knew that she knew she won't be around much longer.").

Once upon a time our family lived by a old house. I never really knew but I think the people there were really strange. I never seen anyone go in or come outside. I was curious. The grass was long, they always left the windows open

and my parents said they don't remember anyone moving in and they

remembered the house from when we moved in before my parents got our

house. Now I was confused.

My Mom said they could be very crabby people or they lost the rest of the

family. Either way, I still don't know. It wasn't much of a problem. I still

wanted to figure it out. Who, what, and why. One day, shortly after, I gathered

courage and walked to the house, it had a thin cracked up paved walkway.

Fortunately, my Mom was watching from the window. The door had a small

knocker resembling a black bear. It stood out on the diagonally checkered

door. Although the house looked small from the outside I knew it was big

inside. I knocked a few times and waited. Soon it was answered. There stood a

old lady. I'd guess she was about 78 years old. She had grey hair and stood lop-

sided. She was wearing a pink bathrobe and slippers. Then she asked, "What

do you want?" I hesitated. I didn't really know either. I finally said "would you

like me to mow your lawn?" It was dumb. It was all I could think of. She said

"How much?" I said "Free." "Be my guest." She sounded strange. Then I

started mowing 2 foot grass with cramps up my legs. Every time I would finish

her lawn she would invite me in for some lemonade.

I got into the habit of visiting her. She told alot of stories about her house, her

family. I liked them. It was neat how she told them so detailed. It turned out to

be fun there. Her son ran off and never told her anything. Her husband was

deceased and all her pets were hit by cars.

She was 76 and I knew that she knew she won't be around much longer. So I

was as nice to her as possible.

She died at the age of 77.

In this story, there is a psychological conflict expressed in feelings of fear of the next door

neighbours ("...they were really strange...I gathered courage and walked to the house...") and a

desire to address the curiosity and confusion the protagonist is undergoing ("I was

curious....Either way, I still don't know....I still wanted to figure it out."). As a result of the

internal conflict, the psychological dimensions of the character are broadened (i.e., the

protagonists analyzes his own perceptions and attempts to take the old lady's perspective). In

the present case, the participant is using this ability to construct an interpretive story world.

An inter-rater reliability check was conducted on the structural scoring for 33% of the

stories. Two raters agreed on .86 of the levels assigned. Disagreements were resolved through

discussion. The means and standard deviations are presented in Table 4.2.

Table 4.2

Means and Standard Deviations for Plot Structure

| Grade | Predicted Mean | Actual Mean | Standard Deviation |
|---|---|---|---|
| 5 | 4.00 | 4.00 | .50 |
| 7 | 5.00 | 4.92 | .64 |

*Character Change Analysis*

The scoring system devised by Genereaux (in preparation) was used to score the character change in the story compositions (see Figure 2.5). Very briefly, changes in characters were categorized developmentally as pre-intentional, intentional, or interpretive. Examples of each type from the present study follow.

### Level 1 (Pre-intentional)

Stories scored at this level involve no psychological change in characters. The change that occurs is in relation to physical, demographic or role characteristics, or a change in some other nonpsychological ability or behavior. A sample story follows:

There was this boy who was only 12 years old. He got everything he wanted but he only had one problem he had skin cancer. At first he thought it was like a cold that would go away in a couple of days. His dad told him that you might not be cured. The boy wanted to know what was wrong with him, his dad told him he can't be cured. His dad was crying. He told his kid to go to the car and wait for him he was going [to] the hospital. When they were at the hospital. They took some of the boys blood. Later on that week the doctor told his father on the phone he had skin cancer. His father was shocked that he had skin cancer. He told his boy that he had skin cancer. The boy went running outside and went into the bush [as] far as he could he feld into a big hole. It was like an old indian place where they go to heal them selfs. The boy found these cups of water and he was thirsty he drank one cup but then he heard his dads voice. He called his dad his dad took him to the hospital and his cancer was gone.

In this story, psychological states (i.e., sad, happy, worried, etc.) are implied by such statements as "his dad was crying' and "the boy went running outside and into the bush as far as he could."

However, change in character revolves around a change in a physical characteristic; that is, a physical illness which is cured.

### Level 2 (Intentional)

Character change scored at this level involves some change in temporary psychological states or specific psychological/social behaviors, abilities, knowledge, attitudes, or beliefs. The change may also be in some general, undifferentiated traits. The following story serves as an illustration of Level 2 character change.

> One day a girl had a problem with teasing people. Robyn went to school with a
>
> problem of teasing a girl. It was recess and Robyn started to tease another girl.
>
> Her name was Anny. After school Robyn went to the park to see her friends
>
> Nicole, Lynn, Donna, Ashley. On the way Robyn went to the park she seen
>
> Anny. Robyn went to see Anny first. Robyn started to tease her. Robyn said
>
> "you should at least change your [clothes] each day. So Anny went home and
>
> told her Mom that she needs new [clothes]. Her mom Stephanie bought her the
>
> coolest [clothes] in the school. So she went to school and she met Robyn at the
>
> door. Anny said now you won't tease me because I have better [clothes] than
>
> you. So Anny was so glad that she got new [clothes].

In this story, there is not only a change in Anny's physical state (as at Level 1), but additionally, a change in her mental state (i.e., negative emotions as a result of being teased to positive emotions as a result of new clothes). This change, however, is limited to the immediate context

involving Anny and her clothes and does not extend to a more general level where teasing, per se, is dealt with.

## Level 3 (Interpretive)

Character change scored at this level are characterized by change in enduring, global psychological states (emotions, cognitions, desires), general psychological/social behaviors (e.g., talkative or extroverted), abilities (e.g., smart), attitudes or beliefs (e.g., racist), or personality traits (e.g., insensitive, or responsible). A sample story follows:

> Once upon a time in a large reserve north of Winnipeg there lived a normal family. In this family there were 2 boys and a Mom and a dad. One boy was 13 and the other was 17. The parents were over 50.
>
> The 17 year old was muscular and tough because he worked out. He was good with the girls and very popular. The 13 year old was scrawny and wimpy. Almost everywhere was pure bones. He lived on unhealthy foods while the 17 year old ate healthy.
>
> During his life the small boy came face to face with many problems. He was teased, picked on, beat up, and embarrassed by almost everybody around him. His life was slowly falling apart. The older brother tried to help but it backfired. The punishment doubled. The 17 year old could not do anything.
>
> The small boy tried to help himself by working out, but it did not do nothing. He tried eating well but his stomach could not handle it. He wanted to give himself a promising future so he began to study, work, study harder, work harder. Soon his grades were top notch. It was then he knew he could be

anything he wanted to be.

The author of this story attempts to provide the reader with a sense of the protagonists fragile mental state through details of his physical appearance ("Almost everywhere was pure bones."), poor eating habits ("He lived on unhealthy foods."), and social dilemmas ("...the small boy came face to face with many problems. He was teased, picked on, beat up, and embarrassed by almost everybody around him. His life was slowly falling apart."). In this case, younger children may be tempted to provide a change in physical characteristics so the protagonist can become popular. However, the author goes much further than this and provides insight into the protagonists thoughts and feelings (He wanted to give himself a promising future....It was then he knew he could be anything he wanted to be.) This illustrates a change in the protagonists self-concept.

An inter-rater reliability check was conducted on the character change scoring. Two raters agreed on .88 of the levels assigned. Disagreements were resolved through discussion. The means and standard deviations are presented in Table 4.3.

Table 4.3

Means and Standard Deviations for Character Change

| Grade | Predicted Mean | Actual Mean | Standard Deviation |
|---|---|---|---|
| 5 | 2.00 | 2.00 | .71 |
| 7 | 3.00 | 2.54 | .89 |

### *Story Understanding*

As was discussed in Chapter III, the story used to examine and evaluate the type of strategies students utilize across grade or developmental levels was selected because it lends itself to developmental analysis. Specifically, it can be understood from a unitary or an integrated perspective, and can be understood at an action, intentional, or interpretive level. The purpose of this section is to report on participants use of strategies including (i) story summary (i.e., accuracy, perspective, and developmental level), (ii) prediction, (iii) clarification and questioning, and (iv) developmental level of story moral generated.

Story Summary

As indicated in Chapter III, story summaries were scored for accuracy, perspective, and developmental level.

(a)     Accuracy

In scoring for accuracy, story summaries were broken into T-units and matched to the corresponding story summary constructed by the researcher. Accuracy was determined by the match between the number of gist units identified in the participants summary and that constructed by the researcher. An example of an accurate story summary is as follows:

> The story is about an old man and he's sad because he wants to have a
>
> conversation with a little boy - a person and then a little boy came along. He
>
> came running onto the sand to stand there and watch the waves and then that
>
> man talked to him and then he (the boy) looked at the river and he said he was

gonna run away and before that the guy (the old man) asked "What's your name?" And then he says, "I'm the last of the Mohicans." The ambush took my friends and I had danger and I escaped from it and he (the boy) asked (the old man) if he was part of the Mohicans and he (the old man) said no. "I made a blood promise about that" and when he (the boy) said that he was gonna run away because he was mad at his principal and his father. His father came and asked him if he was going to school and he said he wasn't ready, so his father gave him a slap and when he went to school the principal gave him a slap and then later he escaped from the gate from the school and he said he was gonna run away. He was going across the seas and then (the old man) says, "Come first, come inside and eat" and he said no. But he said "Come inside and have some bread and salt." So he (the boy) thought about it and then he said yes. And then he took the boy to the police station and then that big man was there and called his father and then that little kid got after Tom Bird (the old man) because he was supposed to keep a promise. And then the man told him -that man (the boy's father)-that he should be nice to him (the boy) and he (the boy's father) vanished in the dust and he (the old man) just sat there.

Although some detail is misconstrued, the summary was matched on 14 of a possible 15 gist units. Accuracy therefore, was at 93%.

The following summary example was rated as lacking in accuracy as only 3 of the gist units (20%) matched.

What I think is that boy - he thought everybody was against him and that he

was the only person left in his tribe and he didn't like anybody but himself. He

was stubborn and didn't want to listen to people. At the end there he told his

friend that he hated him and that.

This summary was matched on only gist units B4, B5, and F15 (see Table 3.3). Table 4.4

shows the mean, standard deviations, and range of gist units for both grade levels.

Table 4.4

Means, Standard Deviation, and Range of Total Gist Units

| Grade | Mean | (SD) | Range |
| --- | --- | --- | --- |
| 5 | 5.35 | 2.76 | 1 - 11 |
| 7 | 8.31 | 3.35 | 3 - 14 |

(b)    Perspective

As was discussed in Chapter III, the scoring system constructed by the researcher was

used to score this aspect of the participants' story summary. As indicated previously, the story

can be understood from a unitary perspective (either that of the young boy or old man) or from

an integrated or joint perspective. Examples follow:

*Unitary Perspective*

There was an old man who always sat by the river/ One day he was sitting

there and he met a little boy/ The little boy told him he was at war/ and he

needed a boat/ and he was trying to run away from home/ but Tom tricked

him/ He said come have some bread and salt/ and that little boy went with him/

but Tom tricked him/ and he took him to the police station/ His father was

there/ and he took him/ and that little boy got mad/ His father asked Tom what

did he say/ and Tom told him he should be good to his little boy for what he

believes in.

This summary contains a total of 15 T-units, 11 of which match the gist units from the

perspective of the old man (i.e., A1, A2, B4, B5, B6, C7, C8, D10, D11, D12, and E13); (see

Table 3.2).

*Integrated Perspective*

Tom Bird was at the river/ then he was looking at the river/ then he seen a boy/

and the boy said he belonged to a tribe, the last tribe/ and he was the last

person of his tribe/ Then that boy said are you an enemy or a friend/ and Tom

says I am a friend/ Then he asked if he wanted some food/ and that little boy

said no, I need a boat/ Then he says well you can't go that long without food/

then he took him down to the police station and seen a big fat man/ and that

guy looked at that boy, then glanced at Tom Bird then took him away/ Then

that boy said you are a member of the tribe of grown ups/ I hate you/ and then

that guy says youths these days then took him away/ then he went walking

down to town/ and he was never seen again by the river.

This summary contains 17 T-units and captures 11 of the gist units from the integrated

perspective. Table 4.5 shows the percentage of story summaries for each perspective as told by

the two grade levels.

Table 4.5

Story Understanding Perspective

| Grade | Young Boy | Old Man | Integrated |
|---|---|---|---|
| 5 | 59% | 23% | 18% |
| 7 | 15% | 46% | 39% |

(c) Developmental Level

As was discussed in Chapter III, story summaries were categorized as action, intentional, or interpretive, and assigned a score of 1, 2, or 3, respectively. Examples of summary categorization follow:

*Action Level Summary*

As indicated previously, an action level summary deals primarily with what has happened in the physical world of the story. It deals with physical movement or descriptions that give information concerning settings or physical states and events transcribed by a copula verb. The following summary serves as an illustration.

I would say the story is about two guys/ One was small and one was called

Tom Bird/ And that little boy was in a tribe/ and that little boy broke his

promise/ then he became Tom Bird.

This summary is very general and focuses primarily on the states and events occurring in the physical world, albeit in a misconstrued fashion.

*Intentional Level Summary*

An intentional level summary not only tells what has happened, but also deals with the goals and feelings of the protagonists. The following serves as an illustration.

> Its about that guy Tom/ he always sits by the river/ and his wife dies/ and he
>
> wants that little boy to come then that little boy comes/ and they talk/ and that
>
> little boy says he has to write lines on the board after school/ so he says he
>
> doesn't want to go home/ He wants to get a boat/ he says that he wants to sail
>
> across the sea/ That was his secret to Tom Bird/ and he says, that guy Tom
>
> Bird, will keep his secret/ but he tells the police/ and the police tell the little
>
> boys' dad/ and that little boy has to go home/ and he tells that guy Tom Bird
>
> that he hates him/ because he broke his promise/ He has to go home with his
>
> dad.

Statements such as "he doesn't want to go home," "he wants to sail across the sea," and "he hates him" characterizes the young boy's desires and emotions, making this level of summary "intentional."

*Interpretive Level Summary*

Summaries categorized at this level account for actions and intentions by referring to, for example, enduring psychological states or traits, personal histories, taking another' perspective, or justification of a mental state or social judgement with a second mental state or social judgement. The following sample summary serves as an illustration.

Well, I guess it's that Tom Bird used to sit by the river all alone/ because his

wife died - passed away/ Then he met this little boy who didn't like school, or

grown ups for that matter/ And Tom Bird wanted him to go to school to get a

good job/ and it seemed the boy didn't like that idea/ and when he took him to

the police station he got mad at old Tom Bird/ He got real mad/ He yelled and

he called him down a lot/ He spit on the ground/ and Tom was upset with that/

but what I don't understand is he was never seen by the river again/ That's the

only thing I don't understand/ Other than that or maybe he realized what the

young boy said/ maybe he started his life over again/ and maybe he thought

about it and he started his life over again and tried to get a little bit better/

In this summary, the solitary lifestyle of the old man is illustrated with the statement

"used to sit by the river all alone because his wife died." This is indicative of the character's

personal history. Perspective taking is evidenced when the participant attempts to understand

why the old man was never seen by the river again. Table 4.6 shows the percentage of action,

intentional, and interpretive based summaries for each grade.

Table 4.6

Story Understanding Level of Summary

| Grade | Action | Intentional | Interpretive |
|-------|--------|-------------|--------------|
| 5 | 18% | 71% | 11% |
| 7 | 8% | 69% | 23% |

*Prediction*

To examine the students' ability make predictions as to the outcome of the story, the story was stopped at two different points. As indicated in Chapter III, scores from both prompts were averaged to reflect good (score of 1), mixed (score of 0.5) and poor (score of 0) predictive ability. When students were first asked, "What do you think is going to happen? Why do you think this will happen?", the story had told them of Tom Bird's fascination with young people, the loss of his wife, and his poor eating habits. Wishing for a conversation, Tom sees a young boy approaching far off in the distance. The young boy flops down on the bank of the river. Examples are provided from the present study to illustrate the scoring categories.

Category 1 (Score of 1) - Predictions in category 1 are reasonable in light of what has already occurred in the story.

Question:     What do you think is going to happen now?

Answer:     That little boy is going to ask the old man what is he doing?

| Question: | Why do you think this will happen? |
| --- | --- |
| Answer: | He's going to wonder what he's thinking about. |

The prediction is reasonable in light of what has already occurred in the story. The second response is an attempt to get into the old man's psychological space or to take his perspective.

Category 2 (Score of 0.5) - Predictions in category 2 are unreasonable in light of what has already occurred in the story, but still remain within the general story content, tone, or theme.

| Question: | What do you think is going to happen now? |
| --- | --- |
| Answer: | The boy will fall in the water and he will have a fight. |
| Question: | Why do you think this will happen? |
| Answer: | Because that boy went there and sat down. |

In this response, the story's content or tone is captured, but is unreasonable in light of the story events. Given what has occurred in the story thus far, the prediction that he will have a fight is unreasonable.

Category 3 (Score of 0) - Predictions of this sort are unreasonable in light of what has already occurred and do not remain within the general story content, tone, or theme.

| Question: | What do you think is going to happen now? |
| --- | --- |
| Answer: | I don't know....The dragonfly is going to try get some food. |
| Question: | Why do you think this will happen? |
| Answer: | Cause it says in the story that he is sitting down by the river. |

As evidenced by this response, no mention is made of the characters or main events of the story. Instead, the prediction is based on detail that is unimportant to the story theme. The

subjects scores for the two prediction prompts were averaged. The means and standard

deviations are presented in Table 4.7.

Table 4.7

Means and Standard Deviations for Prediction

| Grade | Mean | Standard Deviation |
|---|---|---|
| 5 | .88 | .18 |
| 7 | .79 | .27 |

*Clarification and Questioning*

Participants were asked on two occasions, "Is there anything that you don't understand

in the story so far?' and, "Is anything unclear to you in the story so far? Is there something that

doesn't make sense?" These questions were designed to provide information on whether the

child knows when he/she does not know. As was discussed in Chapter III, responses were

scored as follows: Score 0 -The child does not identify something he/she does not

know/understand and does not understand the story (no response and don't know responses

were also scored 0); Score 1 - the child identified something he/she does not know/understand

and does not understand the story; or, the child does not identify something he/she does not

know/understand, but understands the story; or, the child identified something he/she does not

know/understand and understands the story.

To score the responses, a two step-approach was taken. First, in order to assess whether the participants understood the story, they were asked, "What's happening so far?" Responses were matched on summary gist units up to this point (see Table 3.2). To illustrate, at the point in the story where the old man is engaged in the young boy's fantasy, the participant was asked:

Question:    What's happening so far?

Answer:      That Indian asked Tom whether he is a friend or his enemy, and I think Tom made friends with that Indian long ago.

Question:    Is there anything that you don't understand in the story so far?

Answer:      Not really.

A match of 2 of a possible 7 gist units from the young boy's perspective provides an accuracy score 29%. Because the participant did not identify anything that he/she didn't know/understand and did not understand the story, the response was scored 0.

The second step involved examining the second clarification and questioning prompt in relation to the final story summary score. An accurate score involved 15 gist units. To illustrate, when asked:

Question:    Is there anything unclear? Is there something that doesn't make sense?

Answer:      Yes, that part where the Indian is trying to make the boy go in his tipi, that's all.

The participants story summary score revealed an accuracy of 27% of the total gist units. Because the participant identified something that he/she did not know, but did not understand the story, this response was scored 1. The score assigned to this particular participant was 0.5,

the average of both responses.

In the following, both responses were scored 1.

Question:       What's happening so far?

Answer:         Tom met that little boy and asked what he is doing here and asked him

who he was, what his name was, and he said he was the last of the

Mohicans and Tom asked are you at war now and the boy said "yes."

He says I don't wear that war paint much anymore and Tom asked him

who he is at war with and he said with the grown ups. I used to call

them my friends....and that's all I remember.

Question:       Is there anything that you don't understand in the story so far?

Answer:         No.

Question:       Is there anything unclear....Is there something that doesn't make sense?

Answer:         No.

It is evident from the summary for the first prompt that the participant understands the story.

Accuracy at this point is 67% as told from the old man's perspective. Total gist units matched

upon completion of the story was 93%. In this case, the child does not identify anything she

does not understand, but obviously understands the story. The same scoring procedure was

used throughout; that is, scores of 1 were also assigned when the child identified something

he/she didn't know/understand and understands the story, and when the child identified

something he/she didn't know and did not understand the story. The means and standard

deviations for clarification across grade levels are presented in Table 4.8.

Table 4.8

Means and Standard Deviation for Clarification

| Grade | Mean | Standard Deviation |
|-------|------|--------------------|
| 5 | . 44 | .46 |
| 7 | .77 | .39 |

*Moral*

As was discussed in Chapter III, morals that were generated were categorized as action,

intentional, or interpretive, and received a score of 1, 2, and 3, respectively. An irrelevant

comment or no comment at all were scored 0. Samples of each are presented below.

*Action Level Moral (Scored 1)*

Action level morals are those that are simply a re-statement of some element of the story. For

example, one participant responded: "This guy was going across the sea and that so see if he

could find any of his enemies and ...."

*Intentional Level Moral (Scored 2)*

An intentional level moral includes a social rule, such as the following: "Stay in school. Respect

your elders. Respect your parents. And best of all, get a really good education."

*Interpretive Level Moral*

An interpretive level moral is one which includes a social rule with a consequence. No response

was scored at this level from the present study. Table 4.9 shows the percentage of morals

scored at the action, intentional, and interpretive levels.

Table 4.9

Developmental Level of Moral

| Grade | Action | Intentional | Interpretive | No Response |
|-------|--------|-------------|--------------|-------------|
| 5 | 17% | 65% | 0% | 18% |
| 7 | 20% | 53% | 0% | 27% |

*Statistical Analysis*

SPSS Statistical Software was used to analyze the data. A multivariate analysis of variance (MANOVA) was selected to ascertain is differences existed between the two groups (Grade 5 and Grade 7) in the presence of multiple dependent variables. The dependent variables were (i) T-units, (ii) plot structure, (iii) character change, (iv) predictive ability, (v) clarification and questioning ability, (vi) accuracy of summary, (vii) developmental level of summary, (viii) perspective of summary, and (ix) developmental level of moral generated. The MANOVA was followed by a univariate analysis of variance (ANOVA). This test was selected because it provides information about the relative importance of each of the dependent variables as though they had been considered in isolation. A final analysis of the dependent variables, collapsed across grades, was performed using correlations. This test was selected because it provides information about the nature of the relationship between variables regardless of grade/age level.

variables, collapsed across grades, was performed using correlations. This test was selected

because it provides information about the nature of the relationship between variables

regardless of grade/age level.

Results of the MANOVA indicated an overall significant difference between the Grade

5 and Grade 7 students when all the dependent variables were considered Wilk's Lambda F

$(11,18) = 5.26 \leq .001].$

The univariate analysis of variance addressed two hypotheses:

1. The story compositions (as measured by T-units, plot structure, and character change) of

Grade 7 students would be significantly different than the Grade 5 students; and,

2. There would be a significant difference between the two groups on story understanding

[including prediction, clarification and questioning, story summary (measured by accuracy,

perspective, and developmental level), and developmental level of moral generated.

Follow-up univariate tests indicated a significant difference in interpretive T-units

$F(1,28) = 5.22 \leq .05$ between the Grade 5 and Grade 7 participants, with the Grade 7

participants having more interpretive based statements. There was no significant differences

between the two groups on action T-units, $F(1,28) = 3.98 > .05$, and intentional oriented T-

units $F(1,28) = 1.44 > .05$. Therefore, hypothesis 1a was supported.

There was a significant difference in plot structure between the Grade 5 and Grade 7

participants $F(1,28) = 19.70 \leq .001]$ with the Grade 7 participants providing more elaborated

plot sequences. Therefore, this analysis supports hypothesis 1b.

There was no significant difference in character change between the two groups $F_{(1,28)} = 3.47 > .05$ and therefore, this analysis does not support the hypothesis 1c.

For story understanding, follow-up univariate tests show the following:

There was no significant difference between the Grade 5 and Grade 7 students for prediction, $F_{(1,28)} = 1.33 = .26$, and therefore, this analysis does not support hypothesis 2a.

There was a significant difference between the two groups on clarification, $F_{(1,28)} = 4.23 \leq .05$, and therefore, supports hypothesis 2b.

An ANOVA indicated a significant difference between the Grade 5 and Grade 7 students on accuracy (measured by total gist units) of story summary, $F_{(1,28)} = 7.02 \leq .05$, and therefore, this analysis supports the hypothesis 2c. The ANOVA indicated no significant difference between the two groups on the developmental level of story summary, $F_{(1,28)} = 1.08 = .31$. Therefore, this analysis does not support hypothesis 2d.

There was a significant difference in perspective of story summaries between the two groups, $F_{(1,28)} = 5.18 \leq .05$, and therefore, this analysis supports hypothesis 2e.

An ANOVA indicated no significant difference in the developmental level of moral generated between the two groups, $F_{(1,28)} = .00 = .96$. Thus, this analysis does not support hypothesis 2f.

To determine if significant positive correlations existed within and between the measures of the story composition and story understanding tasks, regardless of grade, correlations were calculated. Looking within the story composition task, the correlational table (Table 4.10) shows a significant positive correlation between plot structure score and scores for character change, intentional T-units, and interpretive T-units (but not for action T-units).

Additionally, there was a significant positive correlation between scores for character change and intentional T-units and interpretive T-units (but not for action T-units). Finally, no significant positive correlation existed among the T-unit scores ( i.e., action, intentional, and interpretive). Thus, the hypothesis that these would be significantly positively correlated among the scores was partially supported.

Table 4.10

Correlational matrix for story composition task

| Variable | Plot | Character Change | Action | Intentional | Interpretive |
|---|---|---|---|---|---|
| Plot | 1.00 | | | | |
| Character Change | 0.49* | 1.00 | | | |
| Action | 0.13 | -0.23 | 1.00 | | |
| Intentional | 0.43* | 0.44* | 0.13 | 1.00 | |
| Interpretive | 0.58* | 0.39* | 0.023 | 0.048 | 1.00 |

\*      $p < .05$

Looking within the story understanding task, the correlation table (Table 4.11) shows a positive correlation between: total gist (as measured by accuracy) and perspective; total gist and moral; total gist and clarification; perspective and story summary; perspective and

clarification; and, moral and clarification.

Table 4.11

Correlation matrix for story understanding task

| Variable | Summary/ Accuracy | Summary/ Perspective | Summary/ Dev. Level | Moral | Pred. | Clarif. |
|---|---|---|---|---|---|---|
| Summary/ Accuracy | 1.00 | | | | | |
| Summary/ Perspective | .36* | 1.00 | | | | |
| Summary/ Dev. Level | .32 | .39* | 1.00 | | | |
| Moral | .40* | -.12 | .04 | 1.00 | | |
| Prediction | .28 | .12 | .10 | .01 | 1.00 | |
| Clarification | .80* | .40* | .33 | .45* | .19 | 1.00 |

\*     $p \leq .05$

Looking between the two tasks, the correlation table (Table 4.12) shows a significant positive correlation between plot structure and total gist, plot structure and developmental level of story summary, and plot structure and clarification.

Table 4.12

Correlation table for story composition and story understanding tasks

|  | Accuracy | Pers. | Dev. Level | Moral | Pred. | Clarif. |
|---|---|---|---|---|---|---|
| Plot | .37* | .33 | .39* | .10* | .13 | .47* |
| Char. Change | .12 | .20 | -.02 | -.02 | .11 | .09 |
| Action | -.03 | -.03 | .25 | -.09 | .22 | .10 |
| Intentional | -.19 | .28 | .14 | -.30 | .19 | -.17 |
| Interpretive | -.04 | .22 | .19 | -.07 | .11 | .18 |

*$p \leq .05$

A summary of the ANOVAs follow:

*Story Composition*
<u>T-Unit Scores</u>

* There was no significant difference in action T-unit scores of the Grade 5 group and the Grade 7 group.

* There was no significant difference in intentional T-unit scores of the Grade 5 group and the Grade 7 group.

* There was a significant difference in interpretive T-unit scores of the Grade 5 group and the Grade 7 group.

*Plot Structure Scores*

> * There was a significant difference in plot structure scores of the Grade 5 group and the Grade 7 group

*Character Change Scores*

> * There was no significant difference in character change scores of the Grade 5 group and the Grade 7 group.

*Story Understanding*
*Prediction Scores*

> * There was no significant difference in prediction scores of the Grade 5 group and the Grade 7 group.

*Clarification Scores*

> * There was a significant difference in clarification scores of the Grade 5 group and the Grade 7 group.

*Accuracy Scores*

> * There was a significant difference in accuracy (as measured by total   gist unit) scores of the Grade 5 group and the Grade 7 group.

*Developmental Level of Story Summary Scores*

> * There was no significant difference in developmental level story summary scores of the Grade 5 group and the Grade 7 group.

*Perspective Scores*

> * There was a significant difference in perspective scores of the Grade 5 group and the Grade 7 group.

_Moral Scores_

* There was no significant difference in moral scores of the Grade 5 group and the

Grade 7 group.

# CHAPTER FIVE

# DISCUSSION

## *Introduction*

The present exploratory study used a developmental framework (Case, 1990; 1991b) to investigate the levels of First Nation children's composition and story understanding. The specific predictions were guided by the notions that (a) a general structural form characterizes children's thought at different ages, and that increases in processing capacity underlie the construction of more advanced forms (Case, 1991b; McKeough, 1991a), and, (b) with experience and maturation, a repertoire of strategies can be applied in and across a variety of settings (Pressley et al., 1987; Brown & Palincsar, 1982). The subjects' response protocols were analyzed and scored such that between-group comparisons of story composition and story understanding could be made. Because the overall MANOVA indicated a significant difference between groups, univariate results were examined. Additionally, task comparisons, collapsed across groups, were examined via correlations.

The present chapter reviews the findings from the story composition task first (i.e., T-units, plot structure, and character change), followed by an examination of the results of the story understanding task [i.e., story summary (including accuracy, perspective, and developmental level) prediction, clarification and questioning, and level of moral generated]. Methodological issues, educational implications, and directions for future research are also examined.

***Story Composition Task***

Recall that the story composition task was analyzed via three scoring systems (T-units, plot structure, and character change). The findings for each of these systems are discussed separately, followed by a discussion of the statistical and conceptual relations among the three systems.

*T-Units*

The subjects' story compositions were broken into T-units, and categorized as action, intentional, or interpretive, following the major shifts in narrative organization. The univariate analysis of variance for T-units showed that there was a significant effect for group on interpretive T-units, thereby supporting the hypothesis that the Grade 5 group would have scores significantly different than the Grade 7 group. These results suggest that with an increase in age, there is a shift in focus from the characters actions, to how the characters may be feeling or thinking, to why the characters are feeling or thinking they way that they do. Within Case's framework (Case 1985, 1992), these findings are accounted for by positing that changes in the structure of children's narrative are reflective of the changes in processing capacity.

*Plot Structure*

The ANOVA demonstrated that there was a significant difference between the two age/grade on plot structure. These results support the hypothesis that there is a move toward elaborative event sequences which is associated with age-related growth in processing capacity.

Viewed within Case's theory (1991b; 1992), a general structural form characterizes

children's thought at different ages, and certain processing capacities are thought to be necessary to construct more advanced forms. These results are similar to earlier work where 10-year-old children stories were characterized by an elaborate integration of the initial problem and an increase in complicating events (McKeough et al., 1996b). The four working memory units required to reach the final dimensional substage (i.e., integrated bi-intentional substage) now serve as building blocks into the vectorial stage of development. Twelve year old children's stories were characterized by an increasing ability to coordinate and integrate these techniques with age (Case, 1993a). Transition to this level is accomplished by coordinating and consolidating two qualitatively different units from the dimensional stage. This coordinated unit serves as basic units for the structures of the vectorial stage. In essence, these results support the theory that with an increase in age, there is an increase in processing capacity resulting in story plots becoming more structurally complex. These results also suggest that First Nation children perform similarly to caucasian urban children in terms of plot structure.

*Character Change*

The results of the univariate analysis of variance showed no significance difference between the two groups on character change. Therefore, these results do not support the hypothesis that there would a significant difference between the two grades. A possible explanation may lie in the analysis of the task. It is possible that the modifications to the scoring system were not sensitive enough to the differences between the two groups. To address this

issue, perhaps the criteria should be scored as outlined by Genereaux (in press).

*Integration of Story Composition Results*

Findings from the present study show developmental differences on two of the scoring schemes; that is, plot structure and developmental T-unit analysis. There are several possible explanations for these findings, both which relate to level of exposure and practice. Narratives, for example, are such a pervasive part of our day-to-day existence (Bruner, 1986, 1990) that we have ample opportunity to construct narrative knowledge. When beliefs and desires become well established and organized, they form commitments, or ways of life. It is when these commitments are violated that narratives are constructed. Narratives interpret and organize our experience and we respond to the changes in our world and to the people in it. Viewed in this manner, plot structure, and the developmental T-units may most closely approximate narrative knowledge. Plot structure, for example, captures the complexity of stories children tell and because narratives are such a pervasive part of our day-to-day life, children have ample opportunity to practice their construction. As increased processing capacity becomes available, children are able to generate more complex stories. Similarly, with age, experience, and processing capacity, children begin to realize that one is not only effected by the physical events in the world, but also by underlying thoughts, emotions, and desires. Through this realization, less emphasis is placed on the physical events and states and more on the mental states as they relate to the psychological makeup of a character. This notion is captured in the stories the children compose, as the present study has shown.

A positive correlation was hypothesized between the three variables because all scoring

systems measured various aspects of developmental change in story composition. In addition, all were based on Case's developmental theory. As is apparent on the correlational data (Table 4.4), when the data was collapsed across age/grade groups, intentional and interpretive T-units are significantly correlated with plot structure and character change. In other words, regardless of age, children who produced stories that contained more intentional and interpretive T-units also scored at a higher level in terms of plot structure and character change.

### *Story Understanding Task*

The story understanding task was analyzed via four scoring systems [story summary (including accuracy, perspective, and developmental level), prediction, clarification and questioning, and level of story moral generated].

The univariate analysis of variance showed a significant difference in accuracy between the Grade 5 and Grade 7 group, thereby supporting the hypothesis that the Grade 7 group would have significantly higher scores than the Grade 5 group in terms of accuracy.

An ANOVA also showed a significant difference in perspective between the Grade 5 and Grade 7 group, thereby supporting the hypothesis that the Grade 7 group would take more of an integrated perspective when re-telling the story.

The univariate of analysis also showed a significant difference in clarification strategy use between the two groups. Therefore this analysis supports the hypothesis that the Grade 7 group would utilize this strategy in a more efficient manner.

*Integration of Story Understanding Results*

No significant differences were found for developmental level of story summary,

prediction, and developmental level of moral generated. Strategies, according to Bruner

(1987), are gradually developed and are strengthened when they can be represented

symbolically and expressed through language. In addition, strategies are unevenly distributed. If

strategies are developmentally-based, one would expect to find a significant difference between

the two groups. However, the results show a significant difference in accuracy of summary,

perspective of summary, and clarification, and not for the developmental level of story

summary, prediction, and developmental level of moral generated. A possible explanation for

these findings is the amount of practice and exposure to the strategies. Strategy use, as it was

examined in the present study, may be a reflection of formal application, rather than a means to

negotiate experience in day-to-day living. Whether in a formal or informal setting, children are

more than likely to question information if it is unclear or ambiguous, rather than predict, or

guess. Hence, the clarifying strategy may come more naturally as a result of practice. Similarly,

summarizing maybe a more natural by-product of day-to-day living. Because one can not

attend to the wealth of daily information, one learns to attend to that which is important or

relevant. Hence, without the same exposure to and practice of the strategies, one may expect

to find an uneven distribution in their application and utility.

The correlation matrix (Table 4.11) showed a positive correlation between accuracy

and perspective. In other words, those children who provided more accurate story summaries

were able to take an integrated perspective. This may suggest that the information presented is

being organized and interpreted in a more coherent manner. In other words, one can suggest

that the ability to take more than one perspective is related to a more organized and coherent account of the story.

The correlation matrix also showed a positive correlation between perspective and developmental level of story summary. These results seem to indicate that students who are able to provide a more psychologically focused summary are also able to consider more than one perspective.

Finally, there was a positive correlation between accuracy and the developmental level of moral generated. Those students who were able to provide a more accurate account of the story were also able to provide a higher level moral; one that moves beyond some re-statement of an element of the story. This suggests that those who provided a more accurate account of the story, also gained a deeper understanding of the story; one where they infer and generalize beyond the information that is presented (Applebee, 1978).

It is generally accepted that strategy use improves with reading competency and grade (Wong, 1986; 1991). In other words, experience and maturation aide in the development of strategies. Through this line of reasoning, one can assume that the strategic repertoire is largely dependent on the extent of one's knowledge base; knowledge that is developed as a result of experience and maturation. The extent of one's knowledge base, in turn, determines how the strategy is utilized, and whether it can be applied to other situations. Knowing when and where a strategy is most useful aides in learning transfer, with strategies becoming more flexible and spontaneous in their application. As a result, there is a greater understanding and more efficient problem-solving. The results, therefore, suggest that the good strategy users were able to use goal-directed procedures to achieve particular memory, problem-solving, and comprehension

goals (Pressley, Snyder, and Cariglia-Bull, 1987). They knew when and where a particular strategy was most useful and, as a result, gained a deeper understanding. This notion is supported by the significant positive correlations found in the story summary scoring scheme and the level of moral generated.

### *Integrated Discussion of the Story Composition and Story Understanding Tasks*

Recall that there were significant positive correlations between plot structure and accuracy, plot structure and developmental level of story summary, and plot structure and clarification (see Table 4.12). In other words, those who provided more elaborated plot structures in the story composition task sought more appropriate clarification on the story understanding task and were also able to provide a more accurate account of the story. In addition, those who provided more elaborated plot structures in the story composition task were also able to provide summaries that were more interpretively based in the story understanding task. In explaining the significant positive correlation between plot structure and accuracy, the results suggest that recall may be improved when attention is given to intentions and actions, rather than just the physical events or states. That is, when relationships can be drawn between the physical events and the mental states of the character, and the mental states and psychological make-up of the character.

Similarly, an explanation for the significant positive correlation between plot structure and clarification is that more appropriate clarification may be sought when attention is given to the actions and intentions of the character's, rather than just the actions. In other words,

appropriate clarification of story events may be related to the question of why something has transpired, rather than what has transpired.

An explanation for the significant positive correlation between plot structure and developmental level of story summary is that both tasks are measuring developmental level. We may expect to find a significant positive correlation given that thought can be verbalized or expressed in written form.

### *Methodological Issues*

A number of methodological issues arose that need to be addressed. Perhaps the most important consideration centers around the issue of time constraints. Appreciating the fact that students volunteered their time during regular school hours, participants often seemed anxious to complete the tasks in order to participate in other school related activities (e.g., physical education periods and recess). Keeping the amount of time for each task to a minimum did not guarantee that the quality of story compositions and scores reflected in story understanding were not penalized.

A second, and final, consideration that arose in the assessment process was the manner in which responses to probes were presented. Returning to the story understanding task, the response probes had to be encouraging while remaining non-committal. For example, if some form of comment was not offered after each response, the participants seemed to interpret their response as less than desirable or even incorrect. This affected the manner in which they responded to following probes. Whether this can be overcome in a formal learning environment is nevertheless, an important consideration.

### Educational Implications

The results of this study offer a number of possible advancements in our understanding of listening and writing composition abilities of First Nation Students and, as such, hold certain educational implications. In the domain of narrative knowledge, a comparison of group means suggest that the First Nation students developmental level is equal to the norm.

A second consideration is that the children who provide more accurate accounts of the story are also providing morals of a higher level and are able to take more than one perspective. This suggests that the children are going beyond the information presented and are inferring meaning through an in-depth analysis. Summarizing ability therefore, may be used as a first level assessment tool in comprehension. To illustrate, if children are asked to provide a summary, and their summary account is inaccurate, chances are they do not understand other aspects of the story. On the other hand, accurate summaries may indicate a move toward analysis and an ability to infer meaning beyond the information presented.

Clarification may also be used as a first level assessment tool in comprehension. Recall that children who sought appropriate clarification were also able to provide more accurate accounts of the story, take more than one perspective into consideration, and provide morals of a higher level. When clarification is inappropriate, chances are other aspects of the story are not understood. On the other hand, when more appropriate clarification is sought, this may be indicative of a move toward analysis and an ability to infer meaning beyond that which is presented.

A third consideration is strategy use. Because strategy use has not been examined developmentally at these particular grade levels prior to this study, one can not suggest that the results indicate below average, average, or above average strategy use. However, the results do suggest that perhaps the strategies, as they are formally applied, must be made explicit. Making the strategies explicit in a formal setting will allow the children to practice their application and determine which strategies are most suitable for specific task demands.

### *Limitations and Delimitations of the Study*

A major concern in the study was that there was no way to control for motivational factors and how much effort was invested due to time constraints. While every effort was made to monitor and control for these factors, periodic difficulties arose. Sensitivity to these issues is essential in research.

A second concern was the sample size. The sample size is too small to generalize the results of the study to the general population of First Nation Students. Future research with larger subject groups from various locally-controlled First Nation school would be required to correct this delimitation.

Third, the selection criteria also delimits the study. Due to the number of students nominated for average-school performance by school personnel, the sample could not be randomly generated. The availability of school subjects therefore, was quite limited. In future research, it would be desirable to choose subjects from a larger sample pool.

*Suggestions for Future Research*

        1. The study should be replicated using the same scoring systems and applied to a

similar group of subjects to determine whether the results can be reproduced;

        2. Other central conceptual structures identified by Case (1992; 1991e), the

dimensional and spatial, should be investigated and the results compared to those in the present

study.

*Concluding Comments*

        The purpose of the present study was to examine the developmental level and strategy

use of First Nation students in story composition and story understanding. While a number of

interesting findings emerged, the study is exploratory in nature and therefore, the results should

be interpreted with caution.

        While the results of the story composition task indicate a developmental level equal to

that of the norm, interesting findings related to strategy use have also emerged. The data

suggests that most children who performed well in one strategy, also performed well in others.

In addition, the results show a significant difference in strategy use between the two groups

[i.e., summarizing (as measured by accuracy) and clarification]. If, in fact, these strategies are

accurate assessment tools of comprehension, these findings lend support to the notion of

decalage (Case, 1991c) and a developmental basis for strategy use. According to the notion of

decalage, although certain measures are passed at the same age (e.g., conservation of number

and conservation of weight), it is most often the case that different measures of the same

underlying construct are passed at different ages. Notwithstanding the novelty of the probe

(i.e., children were not used to this line of questioning and, as a result, did not respond much),

it is possible that prediction, in the context of the present task, is beyond the developmental

level of this age group. With experience and maturation, however, these strategies may be

developed and utilized in an efficient manner.

Finally, it is important to acknowledge the manner in which narratives can be

utilized as an instructional tool. Actively engaging the child in formal and informal

activities, allows the child to become a "co-constructor" of new knowledge; knowledge

which will inevitably lead to greater understanding and more efficient problem-solving.

# REFERENCES

Applebee, A. N. (1978). *The child's concept of story. Ages two to seventeen.* The University of Chicago Press.

Alexander, P. A., & Judy, J. E. (1988), The interaction of domain-specific and strategic knowledge in academic performance. *Review of Educational Research, 58,* 375-404.

Baker, L., & Brown, A. L. (1984). *Cognitive monitoring in reading comprehension.* Newark, DE: International Reading Association.

Beck, I. L., & McKeown, M. G. (1981). Developing questions that promote comprehension: The story map. *Language Arts, 58,* (8), 913-918.

Brown, A. L., & Palincsar, A. S. (1982). Inducing strategic learning from texts by means of informed, self-control training. *Topics in Learning & Disabilities, 2,* 1-17.

Bruner, J. (1986). *Actual minds, possible worlds.* Cambridge, MA: Harvard University Press.

Bruner, J. (1987). *Making sense: The child's construction of the world.* New York, NJ: Methuen.

Case, R. (1985). *Intellectual development: Birth to adulthood.* Academic Press, NY.

Case, R. (1990). Child cognitive development: The role of central conceptual structures in the development of scientific and social thought. In C. A. Hauert (Ed.), *Developmental psychology: Cognitive, perceptuo-motor, and neuropsychological perspectives.* North Holland: Elsevier.

Case, R. (1991a). A developmental approach to the design of remedial instruction. In A. McKeough & J.L Lupart (Eds.), *Toward the practice of theory-based instruction* (pp.

117-147). Hillsdale, NJ: Erlbaum.

Case, R. (1991b). A neo-piagetian approach to the issue of cognitive generality and specificity. In R. Case (Ed.), *The mind's staircase: Exploring the conceptual underpinnings of children's thought ad knowledge* (pp. 17-35). Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers.

Case, R. (1992c). Advantages and limitations of the neo-piagetian position. In R. Case (Ed.), *The mind's staircase: Exploring the conceptual underpinnings of children's thought and knowledge* (pp. 37-51). Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers.

Case, R. (1991d). General and specific views of the mind, it's structure and it's development. In R. Case (Ed.), *The mind's staircase: Exploring the conceptual underpinnings of children's thought and knowledge* (pp. 3-16). Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers

Case, R. (1991e). The mind and its modules: Toward a multi-level view of the development of human intelligence. In R. Case (Ed.), *The mind's staircase: Exploring the conceptual underpinnings of children's thought and knowledge* (pp. 343-376). Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers.

Case, R. (1992). Neo-Piagetian theories of child development. In R.J. Sternberg & C.A. Berg (Eds.), *Intellectual development* (pp. 161-196). Cambridge, Massachusetts: Cambridge University Press.

Case, R. (1993a). *The role of central conceptual structures in the development of children's numerical, literary, and spatial thought.* Final Report submitted to the Spencer Foundation.

Case, R. (1993b). Theories of learning and theories of development. *Educational*

   *Psychologist*, 28, 219-233.

Case, R., Sandieson, R., & Dennis, s. (1986). Two cognitive developmental approaches to the

   design of remedial instruction. *Cognitive Development*, 1, 293-333.

Case, R. & McKeough, A. (1990). Schooling and the development of central conceptual

   structures: An example from the domain of children's Narrative. *International Journal*

   *of Education*, 13, 835-855.

Dole, A. D., Duffy, G. G., Roehler, L. R., & Pearson, P. D. (1991). Moving from the old to

   the new: Research on reading comprehension instruction. *Review of Educational*

   *Research*, 61 (2), 239-264.

Flavell, J.H. (1976). Metacognitive aspects of problem solving. In L.B. Resnick (Ed.), *The*

   *nature of intelligence*. Hillsdale, NJ: Erlbaum.

Hunt, K. (1977). Early blooming and late blooming syntactical structures. In C. Cooper & L.

   Odell (Eds.), *Evaluating writing* (pp. 90-104). USA: National Council of Teachers of

   English.

Idol, L. (1988). Johnny can't read: Does the fault lie with the book, the teacher, or johnny?

   *Remedial and Special Education*, 9, 8-25.

Idol, L., & Croll, V.J. (1987). Story mapping training as a means of improving reading

   comprehension. *Learning Disability Quarterly*, 10 (3), 214-229.

McKeough, A. (1991a). A neo-structural analysis of children's narrative and it's development.

   In R. Case (Ed.), *The mind's staircase: Exploring the conceptual underpinnings of*

   *children's thought and knowledge* (pp. 171- 188). Hillsdale, NJ: Lawrence Erlbaum

Associates, Publishers.

McKeough, A. (1991b). Three perspectives on learning and instruction. In A. McKeough &
J.L. Lupart (Eds.), *Toward the practice of theory-based instruction* (pp.1-14).
Hillsdale, NJ: Lawrence Erlbaum Associates.

McKeough, A., Easton, J., Wigmore, B., Dolyniuk, C.. & Marini, A. (1996a). *Reflections on
learning: Young adolescents' analysis of their narrative knowledge and group
composition experiences.* Paper presented at the Jean Piaget Symposium, Philadelphia.

McKeough, A., Sanderson, A., Martens, M., & Salter. D. (1996b). *Narrative knowing in
adolescence: Toward an integrating framework.* Paper presented at the American
Educational Research Association Annual Meeting, New York.

Montejo, V. (1994). Oral tradition and the indigenous people of the americas. *Akwe: kon
Journal,* 11 (3-4), 138-145.

Nicolopoulou, A. (in press). Children and narratives: Toward an interpretive and sociocultural
approach. In M. Bamberg (Ed.), Narrative development: Six approaches. Hillsdale,
NJ: Erlbaum.

Ortiz, S.J., (1995). Seventeenth annual national conference issue. *Winds-of- Change,* 10 (4),
114-119.

Palincsar, A. S. (1991). Scaffolded instruction of listening comprehension with first graders at
risk for academic difficulty. In A. McKeough & J. L. Lupart (Eds.), *Toward the
practice of theory-based instruction* (pp. 50- 65). Hillsdale, NJ: Erlbaum.

Palincsar, A., & Brown, A. (1984). Reciprocal teaching of comprehension- fostering and
comprehension-monitoring activities. *Cognition and Instruction,* 1 (2), 117-175).

Pressley, M., Snyder, B.L., & Cariglia-Bull, T. (1987). How can good strategy use be taught to children? Evaluation of six alternative approaches. In S.M. Cormier & J.D. Hagman (Eds.), *Transfer of Learning: Contemporary research and applications* (pp.81-120). New York: Academic Press.

Purves, A. (1973). *Literature Education in 10 Countries.* John Wiley & Sons. New York: NY.

Stein, N.L., & Glenn, C.G. (1977). An analysis of story comprehension in elementary school children. In R. Freedle (Ed.), *Discourse* processing: *Multidisciplinary perspectives.* Norwood, NJ: Ablex.

Wade, S.E. (1990). Using think alouds to assess comprehension. The *Reading Teacher*, 43 (7), 442-451.

Wong, B.Y.L. (1986). Metacognition and special education: A review of a view. *The Journal of Special Education*, 20 (1), 9-29.

Wong, B.Y.L. (1991). Three conceptual perspectives on the connections between reading and writing processes. In A. McKeough & J.L. Lupart (Eds.), *Toward the practice of theory-based instruction* (pp. 66-91). Hillsdale, NJ: Erlbaum.

## APPENDIX A - CONSENT LETTER

Dear Parent/Guardian:

The Peguis School Board, along with the Peguis Chief & Council, have invited a graduate student to conduct research on children's story telling and problem-solving strategies. Stan Bird will conduct the research under the supervision of Dr. Ann McKeough, Faculty of Educational Psychology, University of Calgary.

The study will entail children composing a story with a surprise ending and providing a summary of a story. This will involve approximately 2 hours of your child's regular class time. **THIS IS NOT A TEST.** Participation is completely voluntary and your child may withdraw at any time.

Your permission is required to include your son/daughter in our study. The teacher will nominate students according to average school performance and provide grades to me as confirmation. Students will then be selected on a random basis for participation. This means that the teacher will not know which children have been selected to participate in the study.

The identity of your child will not be revealed. The results may be published or reported to government agencies, funding agencies, or scientific groups, but students names will not be identified.

All files containing data will be accessible only to the researcher, and will be destroyed when the analysis is completed.

If your child is not selected for the study, he/she will continue with normal classroom work.

If you have any questions regarding this study, please feel free to contact me at 645-2164, Mrs. Doreen McPherson at 645-2164, Dr. Ann McKeough at (403) 220-5723, the Office of the Associate Dean (Research & Resources), Faculty of Education at (403) 220-5626, or the Office of the Vice-President (Research) at (403) 220-3381. Two copies of the consent form are provided. Please return one signed copy and retain the other copy for your records.

Thank you for your cooperation.

Sincerely,

Stan Bird
Graduate Student
School Psychology
University of Calgary

**APPENDIX B - CONSENT FORM**

## CONSENT FOR RESEARCH PARTICIPATION

I, the undersigned, hereby give my consent for _____
_____ to participate in a research project entitled "Narratives: Developmental Progression and Strategic Outcomes of Grade 5 & & First Nation Students," conducted by Stan Bird.

I understand that my child's teacher will nominate my child according to average school performance and provide his/her grades to confirm school achievement.

I understand that if my child is selected for the study, he/she will be asked to compose a story with a surprise ending and provide responses to narratives.

I understand that participation is completely voluntary and that my child may be terminated from participation by my request, or the investigator.

I also understand that if my child is not selected for the study, he/she will be required to do normal classroom work.

I also understand that the identity of my child will remain completely anonymous and that his/her identity will not be associated with any published results.

I understand that all raw data will be kept in a locked portable filing case and destroyed when the analysis is completed.

I understand that if I have any questions regarding this study, I can contact Stan Bird at 645-3199, Betty-Ann McIvor at 645-3199,his supervisor, Dr. Ann McKeough, at (403)220-5723, the Office of the Associate Dean (Research & Resources), Faculty of Education, at (403) 220-5626, or the Office of the Vice-President at (403) 220-3381.

Thank you for your permission in allowing your child to participate in this research study.

_____

_____                    _____
Date                                                          Parent/Guardian

## APPENDIX C - THE MAN BY THE RIVER

As always, Tom Bird sat by the river.

The spring sun was shining on the gentle waves of the river. The children played in the water. They sailed their toy boats back and forth across the widest part of the river. Over the wide world the river sang.

Tom Bird sat at his usual spot, speaking to no one. There were few rules he stubbornly followed. People said such bad things about each other. He no longer listened to their foolish talk. He was interested now only in students and warriors, in young girls and boys. Young people fascinated him. He knew many things and had forgotten even more. He longed for youth and he approached death unwillingly.

One by one the visitors to the river left the park. It was time for lunch. Tom smiled without knowing why. Now that he was alone, it seemed to him that he was the head keeper of the park. It was Thursday. The day on which his wife always used to serve him fresh water fish and potatoes as round as marbles. She had been able to work miracles with a potato. Since her death he had fallen into poor eating habits. Three slices of bread and jam in the morning. At noon, often not even a bite. Round about five, some lumpy porridge and some fruit. Usually a sour apple that he would buy at the store by the boat dock. Sour apples, he believed, kept the mind clean and sharp.

He sat now alone with the calm of the river.

Maybe some little boy would turn up? He really wanted to have a serious conversation. With eyes that could still see very well, he looked up and down the bank that led to the edge of the town. Far off in the distance, as in a dream, the little boy came into view. The youngster, about six years old, came running up to him and flopped down on the bank of the river. The boy gazed spellbound at the tiny waves on the surface of the river and at the dragonflies swooping down toward the water.

1. WHAT DO YOU THINK IS GOING TO HAPPEN NOW? WHY DO YOU THINK THIS WILL HAPPEN?

"Hello, young man," said Tom Bird.

The child stared at him but said nothing.

"Isn't it your dinner time?"

"I'm not hungry," said the boy. "I eat once a day. Raw buffalo-meat, as I roam the prairie on my horse."

"Well now," said Tom Bird, "Well now...who might you be then?"

The boy looked at him full of pride.

"I am the last of the Mohicans. I lost all my Indian friends. They were caught in an ambush. But I sensed danger and escaped. Now I wander alone through the wood and valley..."

"But where are your feathers?" asked old Tom sternly.

The child gazed at him with lively interest. Tiny flames flickered in the boys golden eyes. He sparkled with excitement.

"I don't wear my feathers in enemy country," he said in a whisper. "But still, I'm on the war-path. I've no war paint on but I am at war. I am the last of my tribe. Are you my friend or enemy?"

"What a thing to ask! My name is Tom. I have always been the enemy of the buffaloes and the friend of the Indians. I made a deal signed in blood with the Indians long ago. Now I am too old for the hunt. Who are you at war with?"

"Against the tribe of grown-ups," answered the boy. "They threaten my hunting-grounds and my freedom. They don't understand a thing. How can an Indian live in stuffy school-buildings?"

2. WHAT'S HAPPENING SO FAR? IS THERE ANYTHING THAT YOU DON'T UNDERSTAND IN THE STORY SO FAR?

"Of course he can't," said Tom. "I'm all for freedom, too. But still, I think school is necessary..."

The youngster threw him a suspicious look.

"Maybe you're a spy," he said thoughtfully. "The enemy is sly."

Tom Bird gave a high pitched laugh.

"Nonsense," he said. "Take a look around. We're quite alone here. No, I'm

not a member of the tribe of grown-ups."

"How strange," said the boy. "So old, yet still a good Indian."

The old man gave a loud sniff. He held his hand out to the young boy.

"Peace," he said.

"I'll tell you my adventure," said the boy, "if you can keep a secret."

"Even if I was being tortured, I wouldn't give your secret away," answered Tom.

"This morning I had to go hunt for buffalo. As you know, the time has come for the hunt to begin. I was creeping out of the kitchen when dad caught me by the hair. He spanked me for not being ready for school. I didn't make a sound. Only being clever could save me. So I let myself be led to Rotten Ralph."

"Who is Rotten Ralph?"

"The school principal," replied the boy. "He's not strong but he's terribly clever. He laughed like a wild horse and said he would make me write lines on the board after school. At ten o'clock, during break, I sneaked out to the gate. I ran as fast as I could. ...I don't want to go home again. My homeland is the prairie. Tonight I'm looking for a boat and tomorrow I'll be sailing across the seas."

3. WHAT DO YOU THINK IS GOING TO HAPPEN NOW? WHY DO YOU THINK THIS WILL HAPPEN?

Tom Bird looked at the river. As full of energy as life itself, it flowed towards the light of the endless sky. There were beaver in the river. They slapped their tail as if to warn of the coming danger.

A wrinkle formed on Tom Bird's aged forehead.

"It's not going to be an easy plan," he said sadly.

"I *must* get a boat," said the boy stubbornly. "You've got to help me."

Heavy clouds drifted towards the spring sun. The birds were silent in the trimmed trees.

"First come and eat in my teepee," said Tom Bird in an unsteady voice.

"I'm not hungry."

"You can't refuse bread and salt..."

The boy thought this over.

"You speak the truth," he said. "I must set out on my long journey free from hunger. But I shall not eat meat."

"Bread and salt, O warrior..." replied Tom.

The boy trotted at the old man's side, looking neither left nor right. He thought of the wild smells of the prairie. He had met an old buffalo-hunter who gave him very valuable tips.

They stepped into the police station. The door closed behind them with a bang. The boy looked about him and understood.

4. IS THERE ANYTHING UNCLEAR? IS THERE SOMETHING THAT DOESN'T MAKE SENSE?

He sat down on a bench and freely gave information to a fat man with a badge. The boy's head sank on his chest. He did not even glance at Tom Bird.

The car arrived shortly afterwards. The father stepped out and thanked the old man. The boy took his place in the car. Suddenly, he turned to Tom Bird.

"You belong to the tribe of grown-ups." he said. "You have broken your promise and betrayed me. I will pay for it by being tortured by the enemy. I hate you."

He spat on the ground.

"What did he say?" asked the father.

"That you should be good to him and make him happy," said Tom Bird.

Father and son vanished in a cloud of dust.

"The youth of today," grunted the policeman.

**Slowly the old man walked through the streets of the little town.**

**He was never seen again by the river.**