

INTUITIVE AND ANALYTIC THOUGHT IN A TRIBAL CONTEXT

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INTUITIVE AND ANALYTIC THINKING IN A TRUILL CONTEXT:

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Jerome S. Bruner discusses the implications of intuitive and analytic thinking for formal education, in his book, "The Process Of Education"¹ as they would apply to a western or non-Indian setting. In the course of his discussion, he states the need for educational investigation of intuitive thinking:

"A careful examination of the nature of intuitive thinking might be of great aid to those charged with curriculum construction and teaching." (pg.55)

As well he recognizes shortcomings of present formal education in that intuitive aspect, with his statement: "Unfortunately, the formalism of school learning has somehow devalued intuition." This devaluation, he claims, has grown from "excessive emphasis upon techniques, formal proofs, and the like" (in the case for example of geometry), and poses a need for teachers to develop, (in the same example), "a good intuitive feel for geometry"

In defining the two modes of thought, Bruner refers to analytic thinking as being in the following manner: "proceeds a step at a time"..... "steps explicit"..... easily reported". He refers to intuitive thinking as: "based seemingly on an implicit perception of the total problem," and as resting on "Familiarity with the domain of knowledge involved and with its structure." In comparing the two modes of thought, Bruner describes them as complimentary in nature and where the Webster definition of intuition is immediate apprehension or cognition", he sees analytic thought as being "mediated" cognition. As for the means for development of intuitive thought in formal education, he seems less clear or certain. He suggests: "it may be of the first importance to establish a intuitive understanding of materials, before we expose our students to more traditional and formal methods of deduction and proof". He also poses the question: "Is the development of intuitive thinking in students more likely, if their teachers think intuitively?" and he suggests: "Perhaps simple imitation is involved, or perhaps more complex processes of identification." Later, Bruner introduces the notion of guessing as being parallel or comparable to intuitive thought:

"Very often we are forced, in science and in life generally, to act on the basis of incomplete knowledge; we are forced to guess. According to statistical decision theory, actions based on inadequate data must take account of both probability and costs. What we should teach students to recognize, probably, is when the cost of not guessing is too high, as well as when guessing itself is too costly. We tend to do the latter much better than the former.

pg.55-68 "The Process Of Education" (1969) Vintage Press, Division of Random House, 457 Madison Ave., New York 22, New York, USA.

Bruner goes on to suggest that effective intuitive thinking is fostered by the development of self-confidence and courage in a student, having earlier defined self-confidence as being two-fold; one a trait of personality and another that comes from knowledge of a subject. Further, he suggests that, "one who is insecure, who lacks confidence in himself may be unwilling to run such risks", those risks being of failure with "educated guesses" or intuitive thinking.

Bruner goes on to point out the obstacles in a formal educational system in an organized society, to fostering intuitive thought development. In closing he re-affirms the need for an "attack on the problem".

Relation To Tribal Or Indian Thought

Jerome S. Bruner's statements pointing to the need for examination of and efforts toward development of intuitive thought in formal education, by curriculum constructors and teachers, is perhaps even more important in Indian schools. I do not believe that present shortcomings in development of intuitive thought have root in formal educational techniques so much as the formal society from which the system of education evolved. Accordingly, it seems far more likely that western social values had more to do with the "excessive emphasis upon techniques, formal proofs, and the like." For example, there is little encouragement of "educated guesses" or intuitive thought, in coping with institutionalized justice or the enforced values of western society. As well, coping with the complex and analytical worlds of real estate, insurance, social welfare, government, and disciplined education, there is not much tolerance of intuition in preference of factual knowledge.

By comparison, tribal or Indian society would seem to provide more opportunity and application for intuition, in that the society is significantly wholistic, relative to western or non-Indian society. To develop or clarify that wholisticism, a comparison between tribal and western modes of thought could be made. By comparison, western mode of thought is linear, analytical, or in the words of Bruner, "proceeds a step at a time".... "steps explicit"..."easily reported". For example, a western person questioned as to his occupation, could probably respond with some facility, in describing the process or structure with which he works. On the other hand, tribal mode of thought is wholistic, intuitive, or more in terms of awareness rather than process. In the latter example, a tribal person questioned as to his occupation, would probably have difficulty in formulating an answer in terms of process, structure, or any analysis. This comparison of tribal and western modes of thought might be simpler in an analogy; if western, linear thought were equated to a rope, then tribal, wholistic thought would be a sponge.

Accordingly, western thought would proceed along the rope, one step at a time, with those steps explicit and easily reported; however, lacking an intuition or awareness of the whole rope. The tribal thought would be the atmosphere, climate or awareness within the sponge, generated by incoming data. The thought itself would be ever aware or able to intuit, but in absence of formulation, unable to render analysis or projection easily. In pursuing this comparison and analogy, to the development of intuitive and analytic thought, it would seem that social values manifesting tribal thought would be more likely to encourage intuition, than would the social values manifested by western thought.

A social situation which perhaps manifests the two societies' modes of thought, might be the respective family concepts. In western society, the word "family" implies a rather linear or formal definition with: first mother and father; and, followed by sons and daughters; comprising a definite unit with exclusive characteristics. Even deviation from this definition is usually instituted only, in the use of adoptions and orphanages. The tribal implications of the word "family" are much more general or wholistic and do not comprise a definite unit. In fact, the closest interpretation, (in the case of Cree, "haygodehmo") can vary from the characteristics of a nuclear or exclusive group, common to western society, to a collection of extended "family" members, perhaps including non-members, (relative to western definition). The possibility of formal or conventional roles in a tribal family context could hardly be as great as in a western exclusive family unit. Accordingly, the values of a tribal society's family members are not as easily formulated or defined, or in terms of Bruner's description of analytic thinking, not as "easily reported". Certainly there is the facility of reporting or defining family member roles for the western concept of family, as is readily noticeable in such as educational psychology, in elementary school curriculum, or even the nation's criminal code.

In conclusion to the comparison between western and tribal thought, it would seem that where a western mode of thought were linear and analytical, a tribal mode of thought would appear intuitive or wholistic. Subsequently, a tribal, intuitive or wholistic approach to education would probably encourage more intuitive thought development, than would the western, formulated or analytical approach to education. In that light, it would probably be of great advantage to examine tribal education or learning of skills.

Examination Of Tribal Education Or The Learning Of Skills:

Basically, the learning of a skill develops through four phases: observation; imitative play; private effort; and, finally, earnest effort. For example, in learning how to shoot a firearm or rifle with competence, there usually is little or no formulated instruction, but more a development of experience in terms of natural physical child growth. As a very small child, the tribal student may observe the competent demonstration of shooting skill by any or an assortment of tribal adults. A grandfather, father, or brother, might notice his observation and make a sling-shot for him to play with. In his play-shooting with a very rudimentary weapon, the child will gain experience or a feeling for such things as ballistics, leading on a moving target, etc., though he may not ever formulate that same data. Later, when his physical development allows, he will accompany his father or some private or intimate person, to shoot with a firearm, (again, usually a rudimentary one), at a more earnest target for earnest reasons. After, when in the intimacy of close family, he has gained competence with shooting, he is then free to shoot in the company of a much larger number of adults. It appears significant that this tribal education or learning of skills is common practice and yet to date, no manual or analysis is recorded or used in that education. As for grading or reporting of competence, the only formulated or conventional recognition throughout the process, is the decorating of the head of a young hunter's first goose, for display in his own room, home, or tent, (in the case of the eastern James Bay Cree).

Naturally, the method or tribal approach to education described would be very difficult to implement in a western, formulated, society, in that it would prove too volatile in a controlled environment. However, the principles or values of tribal mode of education could quite likely be successful in a western formal education system. In fact, there are some traces of those principles in the Montessori, and Language Experiences educational methods, by which pupils learn in a miniaturized adult environment, and where some emphasis is placed on experience as opposed to grasping analysis, or concepts.

The four phases of tribal skill development referred to earlier, could be adapted to, for example, name or word recognition in a primary classroom as follows: first the pupils could be given the opportunity to observe the teacher reading or recognizing pupils' names on their books as she passed them out; next a group game such as a relay or any play which could involve the recognition of the name, could be played as a subtle means of exposing or providing experience for the pupils; thirdly, a seatwork puzzle or private activity, could be designed to allow the pupils the practice needed; and, finally, the earnest effort could be provided for, in an opportunity for pupils to pass out the books, or some similar exercise which requires competence in the skill of name recognition.

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The final phase should be motivated by a pupil's feeling of competence rather than a teacher's desire to test.

Perhaps an important aspect of a tribal approach to education and intuitive thought development, that needs more description, is the absence of a manual or analysis of that education. Were the approach formalized as is the case of western education, it would seem that much of the spontaneity and subtlety would be lost. As well the development would be less susceptible to a child's willingness to try something new or more difficult. Intimacy is the key to the tribal approach to education. It is by the intuitive thought, resultant of that intimacy, that a grandfather might be aware when to carve a youngster his first sling-shot. A manual would ignore or not provide for the reciprocity between an intuitive teacher and a ready child in an intimate relationship. As well, a manual or formulated approach to teaching skills would introduce a distraction from achieving competence to achieving self-esteem. To bring out the latter point with an example: the sling-shot given to the child by his grandfather, was an intimate act, designed to give the child pleasure and to nourish the child's interest in a particular skill. His use of the toy is harmless and awareness of ballistics, leading on targets, etc., is a side effect and secondary. On the other hand, the sling-shot in a formulated atmosphere would have quite a different effect. For example, a teacher might pass out twenty-five sling-shots to his or her pupils, give them a lesson, analytically developed, on ballistics, leading on moving targets, etc., and hope for a side effect of interest nourishment and pleasure. The overall effect would be a tribal approach holding personal relationships primary, technical competence secondary; and, a western approach holding the reverse.

In aiming for a relatively tribal approach to education, in efforts to engender intuitive thought development, more insight would be required into the key or primary aspect of the approach, namely personal relationships. Perhaps, after more examination and description of tribal social values or the principles of personal relationships, it may be easier to adapt more of conventional educational activity to that tribal approach. The following descriptions are from a teacher's guide for eastern Cree folklore, particularly, the reader "When the Sun Was Young"², which is also accompanied by a workbook of private pupil activities, designed to accommodate a tribal approach to education.

² - "When the Sun Was Young" (1973) available with workbook and "Tehajim" (teacher's guide) from Thunderbird Press, Manitou Community College, La Macaza, County Labelle, Quebec.

tribal Social Values or Principles Of Personal Relationships

Although considerable western influence is both felt and evident in eastern Cree communities, for this paper, the tribal community, the ethic or social values have not been significantly altered. By comparison to western social groups, the tribal or Cree groups are quite passive and accordingly are much more subtly controlled. Because the ethic is not enforced as law as it is in most western societies, it is not as easily defined. With this in mind, this section develops these social values in very general terms that are often applied to an actual situation.

Perhaps the differences in Cree or tribal, and western values are most evident in the development and appearance of community structures.

Though many western groups may have "happened", very early in their development, they are "made" into social groups. For example, a group of soldiers form a band, which upon sufficient growth, becomes incorporated or "made" into a town. Later growth brings further organization or being "made" as a city, again with a definite government. Towns or cities are rarely ever abandoned, because of further institutions of social controls to guarantee their survival. For example, a police force evolves to enforce defined social values. Further organization for expedience restricts the definition of family to the nuclear, or exclusive terms, referred to earlier. This definition must be supported with mental institutions, orphanages, and homes for the elderly. To ensure society's survival against food shortage, alien aggression, or any other threat to the group's fixed location, other institutions must be developed. Education must be formalized to teach and re-enforce the instituted values of the society. Only a degree of tolerance that does not interfere with the institution of the society's values, can be permitted. Deviance from the instituted values of the society cannot be tolerated and must be stopped, usually with law enforcement institutions.

A large part of teaching young members of society appropriate behaviour and the respect needed for the ethic, is accomplished in resolving identity. For example, in most school curriculums, there are topics devoted to such people as famous patriots, inventors, scientists, etc., In the teaching of history, social studies and science, pupils are encouraged to identify with figures who demonstrated in their accomplishments, the values of their society. In order for a person to cope in western society and succeed in western terms, he must be aggressive and outgoing. He must be both capable and interested in analytical and projected thought and expression. Basically again, technical competence and economy are primary; personal relationships are secondary.

Cree or tribal social groups "happen" but seldom are ever "made". When the reasons that motivated the formation of the group disappear or diminish, so usually does the group. Only within the last two decades, have the communities on eastern James Bay

taken on any real permanence or semblance as a fixed social group, (band). Chiefs and band councils first instituted by the Department of Indian Affairs, receive the support to function as a governing body, only when sensitive to the subtle cues of the community members and socially competent enough to respond with appropriate action. The leadership in a Cree or tribal community could not function by virtue of authority, but instead by virtue of respected competence. Whenever the latter diminishes, accordingly, so does the support of the community. Control is not institutionalized in the group, but instead is accomplished with subtle means such as responses that insinuate respect or lack of. For example, a person who demonstrates social competence would probably be heard in attentive silence, where as a person, less competent, might be ignored or teased. Usually, bluntness or "coming on too strong" is considered socially incompetent. The enforcement of laws or values is very rarely ever accomplished by a person or institution. The families are much looser than their western counterparts. For example, in a class of pupils, only a minimal portion, if any, live with exclusive or nuclear families. Most children are fairly free to choose whether to stay with natural parents, grandparents or other relatives. Mental institutions are not required as a family accepts the mental states of its members. Neither orphanages nor homes for the elderly are required because the presence of natural parents is not prerequisite to the definition of a family and the elderly are needed for advice on a still contemporary life style. Traditional education is accomplished without formality, in personal relationships and folklore. Values are exemplified with revered actions rather than in the revering of people. For example, it would be difficult to choose a Cree or tribal person after whom to name an institution such as a school. In order for a person to cope with Cree or tribal society and succeed in tribal terms, he must be stoic. He must be sensitive enough to interpret and give subtle social cues. He must be able to think holistically and intuit his course of action in terms of previous successful experiences.

In practice, Cree or tribal social competence can prove frustrating for a person competent in western terms. A western line of questioning usually proves too direct and analytical. For instance, when asked the question, "How do you trap beaver?", little infinite response is likely to be received. The same information could be more success- fully sought with a question such as: "If you took me hunting and were going to teach me to trap beaver, what could you show me and tell me?" As well western response in communication does not make for appropriate tribal response. In receiving the answer to the latter question about trapping, interspersing questions, though indicative of attentiveness in western terms, would prove inhibiting and rude in tribal terms. The answer would best be received without interruption and perhaps as much as two or three minutes silence at the end, before further questioning. Tribal social values also bear an aversion to projected or opinionated questions, and very little committed response is likely. For

example, the usual western opener for discussion: "What do you think of.....", is not likely to meet with any more commitment than: "I don't know", or "It's alright I guess". Opinion is better reached in a private situation and applied to actual circumstances with response in actual terms. For instance, during an opinion survey on school policy, when a public meeting failed to receive any response, a door-to-door survey, (private) was conducted. However, the latter yielded response only when the question asked had actual application for the individual. One such question was regarding the value of transportation of the youngest pupils to and from school. Without exception, only those parents with children of the age in question, replied. The remainder of the parents declined with such answers as: "I don't know, my children are older".

The preceding descriptions and discussions were of a general nature and may not need to be extended to show any significant relevance in an educational or school context. Subsequently, the following applications in the latter context, may render the principles of personal relationships or tribal values, more clear to the teacher or curriculum constructor in Indian or tribal schools.

Family Atmosphere Of The Pupil:

There are basically four levels of child control, the most frequently used being the more passive. The first and mildest is used most often, that is teasing. It is a gentle teasing, usually heavy with humour, drawing attention to the character of the child or his particular idiosyncrasy. For example, a fastidious child might be nicknamed "old lady", a thin child who doesn't eat properly, "shuksheech", (weasel), or a child who walks sloppily, "gatchanast", (the one who walks poorly). The latter teasing is almost identity. In the case of carelessness, greediness, bossiness, etc., the teasing is proportionally stronger. Teasing is generally used to encourage acceptable behaviour, where existing actions pose a need for change, but without urgency. Teasing could not be used competently for a fault or handicap, that the child was not able to correct, such as a limp or speech impediment, and that characteristic distinguishes social teasing from childish or rude teasing.

The next step of control is threat. Most often the threats are passive, eg. "If you go near the river, that stranger will see you and chase after you". The customary strangers are teachers, nurses with needles, or any unadapted or unfamiliar people in the area. As the child grows older, the threats are made more credible, nearing real possibility, such as falling into the river and drowning. Seldom, and then in urgency, are members of the family used in a threat. The next control, and for the most part exclusively by the family, is scolding. In severe cases, the scolding is done by the child's father, or on occasion, a person known to command the respect of the child, (eg. grandmother, uncle, etc.) The ultimate and very rare control is spanking or hitting. Invariably, it is administered by the parent, often father, as a last resort, in altering behaviour which has or certainly

will bring a person or people harm.

When a child, as an infant or small toddler, is unable to fend for himself, his movements are restricted to a hammock, bed-top, or house. He is taken outside only in his parent's arms, or in a "waspskooyan", (a form of swaddling). When he first ventures outdoors, he is restricted to the range of his abilities by threats, or by sibling companionship. As his fear of the unknown fades, and his movements increase with newly acquired abilities, few restrictions are placed on his hours, wanderings or play. Only on occasion of particular need, are a child's activities interfered with. The exception to this practice occurs when a parent or adult sends or accompanies the child to school, the nursing station, store, or any other western oriented situation. In this case, the parent or adult responsible will insist on the child's passive and quiet behaviour.

As a result of their own learning of and practice of subtle, non-interfering social skills, tribal parents have a unique set of child rearing reflexes. In discipline, the child's fault is criticized, rather than the child, in a private rather than demonstrative manner. Children are encouraged, more often than commanded. The standard of success is "able/unable", rather than "good/bad". Children are often the centre of attention for their abilities and character, and are offered the greatest roles in most community activities. They are told little, but shown much in able demonstrations of skills. This is no less true for such matters as the "facts of life". For example, a child learns about Santa Claus around the age of puberty, by helping the adults play the role. This event is described to believers as "staying up to see Santa". It is remarkable to note the respect adults and older children have for the beliefs of those children who have not yet relinquished the fantasy.

At a very early age, a child is aware as to his value, deriving his sense of self-esteem. This is nurtured, not only by attention, but tradition as well. One such tradition is "weetsamagan", by which the child is named at birth. The relationship between a child and his namesake is a special one, not unlike that with a favourite uncle or aunt. The relationship and the incurred identity is encouraged by attention made to common traits between the person named, and the giver of the name, or the person for whom named. Often too, in casual or conversational reference, the terms, "his weetsamagan", or "your weetsamagan" are used. Frequent sources of names are ancestors, respected people, and family members who are living or who have died.

Sibling jealousy is rare, probably in light of the early learning of a unique identity and sense of self-worth. The arrival of a baby is met by such enthusiasm by brothers and sisters. It is not unusual for a child, even as young as four years, to imagine companionship, or gifts suitable for a soon-to-arrive baby. The anticipation induces much adult attention and obvious pleasure, allowing the child to maintain his own

esteem. Even after the arrival of the baby, the child's enjoyment, and his reactions of pleasure or concern, receive due attention.

Parents seldom encourage their children to compete with each other, but more often, encourage them to perform certain skills. This encouragement comes in the form of acknowledgment of earnest efforts and attention to imitative play, (eg. a grandfather may carve a child a small yoke for carrying water, or a group of adults will note with pleasure a child bringing firewood). After an ability receives recognition, motivation is maintained by parental reliance on the acquired skill. For instance a girl, maybe as young as ten, who has shown she knows how to change a diaper, will be asked or depended on by a parent to perform the task.

In conclusion, the atmosphere in which a child arrives at school from, is an extension, or mini-model of an intimate and individualistic society. By the time he enters formal education and its structured learning situations, he probably already has advanced considerably in a wholistic education, dependent on personal relationships. Consequently, he is quite likely to experience considerable difficulty in adjusting to a formalized environment and in coping with the lack of intimacy or personal relationships. With this in mind, some attention is now needed in accommodating the tribal child's previous educational experience and in assisting him to adapt to more analytic approaches to learning.

Adaptation Of The Classroom To A Tribal Context:

Before enrolling in school, the child learned by observation, then imitation, private efforts, and finally earnest effort. Accordingly, the tribal pupil is not as susceptible to exhortations, as he is to able demonstrations of a skill, imitations, guided practice, and finally an opportunity to perform where his particular ability is needed. Other people's demonstrative or public attention, (ie. involving other than child and family) to those abilities poses distraction to his sense of self-esteem, rather than his willingness to attempt the skill. Though not as pronounced among the younger children, this becomes quite prevalent in higher levels of school. More clearly, a teacher might encourage pupils to speak out or respond in a public or class audience, whereas a Greek or tribal child might refrain in respect of values (tribal) of modesty or reservation in self-expression. An example of such a situation would be a teacher's request of a pupil, in front of a class, for the answer to a question related to studies taken. The pupil, in modesty, rather than in inability, fails to respond. On the other hand, when the attention to a child's ability is more subtle, he is more likely to respond. The following incident may serve to illustrate this point:

On a number of occasions, I asked some small pupils to speak or sing into a tape recorder in the classroom. Each request failed to meet with any response, in spite of additional coaxing by the

Teacher-aid, a member of the community by birth. Later, while the pupils were busy in an art activity, I tape-recorded their conversation. This, I played back just loud enough to catch their attention. Within seconds, the art activity was abandoned, as all of the pupils pushed close to hear their voices. Much subsequent activity ensued, which I taped and played back immediately. Each playback provoked more pupil comment. At no time during the experiment did I or the Teacher-aid speak, but by maneuvering the microphone closer to a particular pupil, individual efforts were encouraged. After playing back a series of individual efforts, most pupils were willing and did perform individual efforts of singing, telling stories, imitations and the like. The end result was the desired pupil, individual, response on tape. A few days later, I again announced the tape-recorder and made a public request (in front of the class) for response. Still no response was received. However, using the more subtle method of playback without any instruction, the pupils responded immediately and enthusiastically.

Still the adaptation to a tribal context must go even deeper than the social atmosphere resultant of the group values practised there. The very principle or purpose which the classroom is based, would also better be adapted. In order to bring out the principle or purpose implied, again an investigation and comparison of tribal and western ideas might prove effective.

Inherent in the aims and formulae of western education is the principle that: technical competence in the acquisition of skills is primary; pleasure and social comfort a secondary. The latter principle is also inherent in western definitions of "work" and "play". The inherency of that same principle and implicated definitions, pose a difficult atmosphere for tribal pupils to cope with western education. Tribal or Cree pupils' obvious learning experience, upon entering school, has already taken place on the reverse the western principle, i.e.: social comfort and pleasure are primary; technical competence and the acquisition of skills is a side effect, hence secondary. This contrariety western and Cree principles of education or the acquisition of skills, would better be placed in a situation where principles are manifested.

To review the earlier example; in the acquisition of competence and skill in shooting accurately with a firearm, the tribal pupil passes through roughly four phases or stages of experience. First, his own interest leads him to observe or watch someone shooting with competence. Next, a grandfather, father, or a person intimate enough to him intuits his interests, makes for his pleasure primarily, a sling-shot, (a very rudimentary firearm) which he plays with and in doing so, gains a sense of problem or feel for ballistics, leading on targets, etc.. Later, around the age of twelve, a close person, usually a father, (again able to intuit his interest) goes out hunting with him for, say, geese, an earnest or practical target. In the private company of his father, he gains competence as a marksman. Finally, when his competence allows him to, he will hunt more solely, with a greater range of companionship. At no time during the requisition of his skill, is he forced or drawn into an experience before he feels able and does move ahead

for his own pleasure and interests sake. The functional result is the placement of primary pleasure or social comfort, and resultant, hence secondary competence. As well, it is not likely the student will have a formulated sense of structure of his experiences; however, he will be intimately aware or have a clear sense of problem for the skill. The latter is most apparent when conditions under which the skill is performed, change, and the competent tribal person changes as a matter of reflex or instinct. In keeping with the subject example; when hunting geese such changes are made during wind changes or type of shells used, or flying speed of target.

On the other hand, were the acquisition of the same skill tackled on western principles, a curriculum or teaching guide, rather than interest or intuition of it, would determine the time for the introduction of the sling-shot. As well, the teacher would lack the closeness or kinship to be able to intuit the point of pupil interest. It seems reasonable to assume that a teacher would probably bring about twenty-five sling-shots into a classroom and before allowing pupils to use them, would give them an analytically developed lesson on ballistics and loading targets, etc., so that they would grasp the concepts involved. Then the pupils would be allowed a limited amount of time, performing certain exercises with sling-shots. Again, later a curriculum or teaching guide would determine the time when the pupil would be allowed use a rifle, in a public or class atmosphere, as opposed to the private company of the tribal situation. The purpose inherent in teaching would appear more to be acquiring a certified level of standing, rather than performance of a skill that other people would depend on. At all times, the teaching situations at all levels, would have to prove developed structure and reciprocating pupil progress and competence. To a considerable degree, the pupils would be required to demonstrate their specific knowledge of structure, in testing situations which determine their eligibility to advance. Basically the main aim and functional result would be: pupil competence and the acquisition of the skill; pleasure and interest would only be hoped for and encouraged, therefore secondary.

Since the elementary level, (ie. age 4-11) is of the greater importance at present to the east coast of James Bay education; accordingly, the aspects of acquisition of skills apparent of a tribal approach to education, would be of greater importance.

Summary Of The Paper In Terms Of Present Situation (eastern James Bay) And Subsequent Implications:

Since the powers that be require formal education, it would be more practical to adapt the present system to the principles of tribal education, (ie. the previous and extra-mural learning experience of the pupils). Structure would still remain important, but only to the elementary school teacher; not to the pupil as the latter would not likely reach readiness to analyse or think in structured terms until linguistic, physical, or intellectual maturation, (approx. age 12). In activities where the motive involves analysis

such as: reading inferences, cause and effect, or summary skills; mathematical concepts; evaluations; or, research projects; the apparentness of the activities' motive could be altered to be one of pleasure. Again, an application should bear out the point more clearly: the analysis and projection involved by a reading skills activity of making or recognizing inferences could be disguised or altered in favour of pleasure, in the use of a crossword puzzle exercise, where the correct inference fits the puzzle. The subsequent result of the latter would be pupils accomplishing the desired inferences, primarily for their own pleasure, reluctantly or secondarily, in doing so, gaining the competence and sense of problem for the skill through experience. At a later date when the pupils' writings, reactions, or general behaviour, showed interest in analysis; then the structure definition, or analysis could be introduced in terms of their experience or developed sense of problem.

The implications of this paper and the view described are that:

(1) Research is needed to determine the skills necessary for a pupil to achieve in order to cope with further education, practically speaking, more of a western mode, e.g. highschool, college, etc..

(2) Research is needed to describe the norms of Cree pupil intuitive thought development and analytic thought readiness in order to assist an educator in designing instructional or educational activities with developmental appropriateness in a tribal context.

(3) Present curriculum, and instructional materials, and approaches, need to be re-designed to suit Cree pupil intellectual development. For example, in the more junior levels, the activities would be more suitably, intuitively developed, to involve the skill in pleasant experience, rather than "teach the skill" by definition or analysis.

(4) A series of analytic readiness activities would need to be developed to adjust an intuitively mature, analytically ready, pupil to a more western, hence analytically oriented formal education system.

(5) A more detailed and articulated description of norms of emotional, physical, and intellectual Cree child development must be researched for reference by educators and curriculum constructors. Inherent in the latter researched description, should be the Cree view relative to Cree culture, rather than the ethno-centricism of western society. More simply, the description would better be a series of norms of experience and behaviour rather than an analytically developed psychology, and subsequent definition.

(6) Research is needed for determining appropriate diagnostic testing and evaluation more based on performance of a skill, rather than performance in a test of the skill. An example that could render clarity, might be: successful participation in a game or activity, where the skill was pre-requisite; as opposed to a formal or term examination or test.

(7) To those people most likely to be familiar to the pupils and with easy access to their families, the greatest source of intuitive or instinctive knowledge of the pupils, should be given particular opportunity and encouragement: enter the education field as educators and curriculum constructors. This last aspect is of significant importance, for much of the educational design and research implied by this paper, will require the efforts and assistance of those same people. The latter people are most often the members of the community or a corresponding community of the cultural area.

As a person responsibly involved, in the tribal and educational context for which this paper was written, I do not believe the present pupil failure rate of major proportions, will diminish in formal education until the pupils' pre-school and extracurricular learning experiences are recognized by formal education. As well I see the most expedient and possibly most effective approach to the problem as being:

- (1) Determination of pre-requisite skills needed by Cree pupils to pursue their education beyond the community;
- (2) Determination of Cree norms of emotional, physical, and intellectual development in Cree culturally relative terms;
- (3) Determination and construction of appropriate curriculum, instructional approaches, and materials necessary to bring the Cree pupil through a suitably developed education system, to acquisition of required skills, at an appropriate stage in his growth.

Practically, these revisions of present formal education in the tribal community would best be done co-operatively, by native community members and articulated western educators, under the supervision of the community's band council.