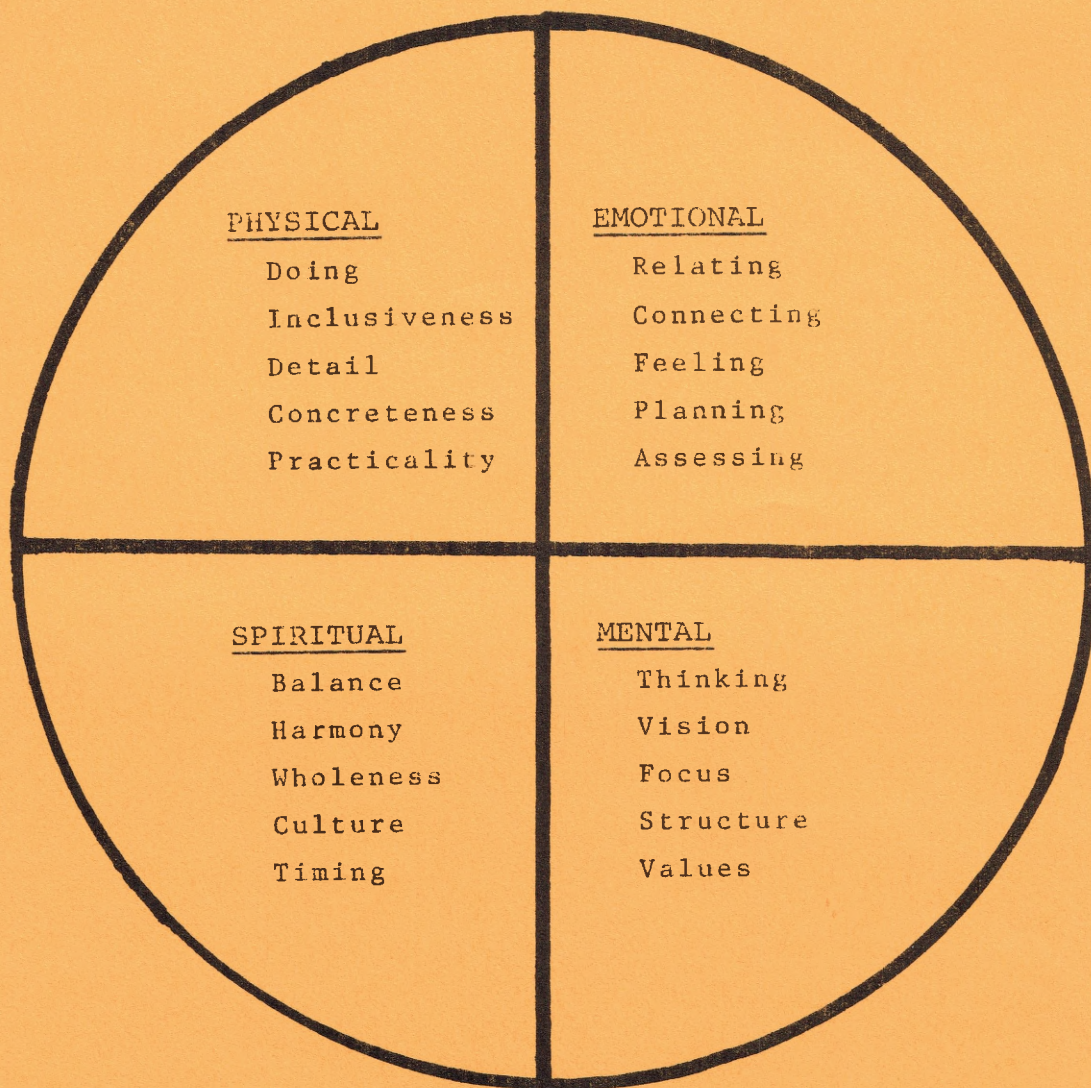# KINA WAABGE:

## THE CIRCLE OF LEARNING

LEARNING STYLES IN NATIVE ADULT EDUCATION PROGRAMS

———

NOKEE KWE
OCCUPATIONAL SKILLS
DEVELOPMENT PROGRAM

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prepared by
Carol Brooks, Ph.D.
1987

**PHYSICAL**
- Doing
- Inclusiveness
- Detail
- Concreteness
- Practicality

**EMOTIONAL**
- Relating
- Connecting
- Feeling
- Planning
- Assessing

**SPIRITUAL**
- Balance
- Harmony
- Wholeness
- Culture
- Timing

**MENTAL**
- Thinking
- Vision
- Focus
- Structure
- Values

KINA WAABGE - is a term with several meanings
regarding the circle of learning.
One is by observation and learning--
understanding and applying it.  Another
meaning is the learning that starts
within us in the spiritual and emotional
basis personally.  We take everything
into consideration before we leap.
Literally translated means 'Seeing All.'
--Dorothy Wassegijig Kennedy

# ACKNOWLEDGEMENTS

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# INTRODUCTION

This manual on learning styles in adult education programs for Native people was prepared to encourage Native programs to clarify and document their successful educational initiatives.

The impetus for this manual grew out of a pattern of events which sometimes threaten the effectiveness of Native programs. Some programs have worked hard to develop methods of instruction which meet their students' needs and successfully draw out their interest and skills. Instructors in these programs often acknowledge that their methodology and content are adapted directly to the context of the student as opposed to reflecting the methodology of conventional educational systems.

When external evaluators come with only traditional educational experience, their assessments may be filtered through the expectations of convention and North American culture. Evaluators often miss the dynamic blend of the pragmatic and the discreet in these programs. Because they do not see what they expect to see, they think that something is missing and they make their report to funders that the program is lacking and must make changes. What is needed is a way of pointing out and validating effective educational measures already in practice in many Native programs and a way of making accurate evaluations.

# THE NOKEE KWE STUDY

In 1985 Nokee Kwe Occupational Skills Development Program, which provides employment preparation for adult Native women, first introduced students to new work in learning styles.(1) Program participants and staff members found this work in learning styles personally useful because

> 1) it drew on information about themselves and others which many already understood intuitively or instinctively;
>
> 2) it provided a vocabulary and a framework for further discussion and understanding of students' ways of learning;
>
> 3) and it allowed students to re-define their past experiences in public and federal schools whose instructional styles had not addressed their learning needs.

In 1986 Nokee Kwe sponsored a study(2) which would introduce this particular learning styles system to other Native programs in Ontario and develop a profile of students' learning needs to support special culturally-sensitive content and instructional delivery in programs.

Participants came from programs based in London, Muncey, Hamilton, Toronto, Parry Sound, Sudbury and

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(1)   Sandra Seagal and David Horne, The Human Technology, Life Actions, Topanga Canyon, Ca., 1985.

(2)   This study was funded by the Ministry of Skills Development.

the Thunder Bay area. The largest numbers of partici-
pants were from the Oneida, Chippewa of the Thames
and the Six Nations Reserves. There were representa-
tives of 94 Ontario bands and small numbers from
Manitoba (6), North West Territories (3), British
Columbia (2), the United States (2), New Brunswick
(1), and Prince Edward Island (1).

Assessments were based on a short video-taped
conversation between the participant and the consul-
tant. The consultant worked with Dr. Sandra Seagal,
designer of the learning styles system, to determine
learning styles attributes and strengths. Assessments
were based on an analysis of voice and interactive
patterns.

Participants were assured of the confidentiality
of the video-taped conversations. However, some
groups wanted to view the tape together. A learning
style consultant met individually with participants
to review the feedback. Most often, participants
shared the feedback with other group members and
dialogue continued about their learning processes.
Some participants were initially shy or nervous about
being video-taped, but by the time they saw the tape
again, there was often a greater understanding about
themselves as a result of having gone through the
process.

Two hundred and three participants were involved
in the study, 160 students and 43 instructors and
community developers. Of the 160 students, Seagal
found that 104 (65%) were emotionally-centred and

56 (35%) physically-centred.(1)  These figures are
in striking contrast to a previous learning style
assessment at Fanshawe College in which 93% of the
women students in Technology and Trades programs
were emotionally-centred and 7% physically-centred.(2)
There were no mentally-centred learners in either
study, a fact that is, in itself, not too surprising.
A very small pecentage of the North Ameican popula-
tion, 3-5%, is mentally-centred and these students
would be inclined to select more abstract courses
of study than those offered in adult preparatory
programs.

## NOKEE KWE STUDY

|  | Emotionally-Centred | Physically-Centred | Total |
|---|---|---|---|
| STUDENTS | 104 (65%) | 56 (35%) | 160 |
| INSTRUCTORS/STAFF (NATIVE) | 16 (80%) | 4 (20%) | 20 |
| COMMUNITY DEVELOPERS (NATIVE) | 10 (83%) | 2 (17%) | 12 |
| INSTRUCTORS/STAFF (NON-NATIVE) | 11 |  | 11 |

(1)   For a description of these styles of learning, see the next four sections
of this manual, beginning with "Overview of Learning Styles."

(2)   Carol Brooks, Instructor's Handbook:  Working with Female Relational
Learners in Technology and Trades Training, 1986.

# COMPARISON OF NOKEE KWE, FANSHAWE COLLEGE AND GENERAL NORTH AMERICAN POPULATIONS

------------------------------------------------------

|  | Emotionally- Centred | Physically- Centred | Mentally Centred |
|---|---|---|---|
| STUDENTS IN NATIVE PROGRAMS | 104 (65%) | 56 (35%) | -- |
| STUDENTS IN COLLEGE TRADES & TECHNOLOGY PROGRAMS | 77 (93%) | 7 (7%) | -- |
| GENERAL NORTH AMERICAN POPULATION | (85-90%) | (5-10%) | (3-5%)[1] |

------------------------------------------------------

Most of the programs in the Nokee Kwe study were urban. A range of 29% to 50% physically-centred students were enrolled in urban programs. Of the two reserve programs visited, one of them had 82% physically-centred learners. Instructors and community developers have suggested that the percentage of physically-centred learners on reserves is higher than in city programs.

Some participants wondered if the conditions of life and environment influenced the learning style; for example, does growing up on a farm or on the reserve incline a person to be a physically-centred learner? These conditions might account for the

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(1)   Sandra Seagal, Training Materials, Predictive Profiles International, Topanga Canyon, Ca., 1984.

development of certain skills, but would not neces-
sarily determine the learning style.(1)  The Asian
population, which is almost exclusively physically-
centred, lives in both urban and rural regions.

Most of the programs visited were specifically
geared to women, so that the numbers reflect more
women students--136 to 27 male students.  In the
co-ed programs there were comparable numbers of phy-
sically and emotionally-centred male and female
students.  On top of the basic style of learning,
there is a patina of socialization in gender roles
that influences learning to the extent that it estab-
lishes certain gender-specific expectations and
behaviours.  In planning the study, the consultants
had hoped to work with these specific female and
male behaviours.  Experience with students and ins-
tructors adjusted this objective as so much of the
gender-specific data is highly sensitive and takes
second place at this time to issues of Native identity.

Seagal also saw a cultural overlay that is phy-
sical.(2)  Therefore some Native people who are emo-
tionally-centred learners have developed certain
characteristics of physical learners; for example,
the strong sense of group identification, the depth
of concern with the comprehensive, inclusive and
practical.

North American school systems have been designed
primarily for the mentally-centred learner.  This

(1)  Sandra Seagal, Workshop Notes, Predictive Profiles International, Topanga
Canyon, Ca., 1984.
(2)  Sandra Seagal, Student Assessment Notes, London, Ont., Apr.-Sept. 1986.

information suggests that educational systems need
to accommodate more directly to the differences in
learning needs and styles across the population in
general. Because approximately 85% of the North
American population is emotionally-centred, changes
in educational approaches will very likely reflect
the needs of the greatest number. It is imperative
that programs examine their implicit expectations
of students and their provision of service. As Diane
Knight writes in her study,

> For many Native students..., it is not a case
> of the student having learning problems, but
> rather a situation where a learning style,
> dictated by the student's cultural background
> is in conflict with a foreign teaching style.
> When the processes by which one is taught are
> out of phase with the processes by which
> one thinks and learns, then successful
> learning is not likely to occur.(1)

LEARNING IS INITIATED AND SUSTAINED BY A RECOG-
NITION OF STUDENTS' STRENGTHS OPERATING IN THE LEARN-
ING PROCESS. USING SEAGAL'S APPROACH TO LEARNING,
STUDENTS ARE ABLE TO IDENTIFY THEIR STRENGTHS AND
APPLY THEM IN THE LEARNING PROCESS.

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(1)  Diane Kinght, "A Study of Learning Style and Its Implications for Education
of Indian People," for Health Sciences Dept., Sask. Indian Community College,
Aug. 1985.

# WHAT THIS MANUAL IS FOR

# AND HOW TO USE IT

The following pages are drawn from the data collected from visits with students and instructors. This manual provides certain resources for Native programs:

1) A SYSTEM OF LEARNING STYLES which allows Native programs to articulate and document students' needs and characteristics.

2) DESCRIPTIVE EXPERIENCES OF STUDENTS AND INSTRUCTORS reflecting the learning process.

3) SAMPLE INSTRUCTIONAL STRATEGIES used by instructors.

4) A DEFINITION OF SUCCESS based on learning styles data and GUIDELINES FOR PROGRAM EVALUATION.

This manual offers a way of looking at learning which can put to rest obsolete stereotypes and revitalize neglected strengths and attributes. In fact, seeing certain characteristics as part of a stereotype has often kept people from using these same characteristics as valid strengths of a particular style. When viewed positively, these traits can work constructively for them.

THIS MANUAL SUGGESTS THAT THE MOST IMPORTANT
RESOURCE TOOL FOR EDUCATORS AT THIS TIME IS <u>TO DEVELOP
THEIR SKILLS IN OBSERVATION OF STUDENTS' DISCREET
PROCESSES.</u> The manual proposes a particular way
of respectfully observing people's different styles
equally, without valuing certain personal traits
above others.

The strategies for instructors to use in working
with students are embedded within the discussions
of the following pages. They are sometimes subtly
stated or part of an "experience" or anecdote and
they may be overlooked in a first reading. <u>To help
the reader make note of these practical strategies,
each has been numbered successively in the left-hand
margin of the text.</u> It is up to the instructor to
elaborate their use in the classroom. Throughout
the year, when visits to programs occurred, it was
clear that many instructors have developed techniques
and methods which reflect the principles fundamental
to the learning styles information.

The manual itself observes as its basic focus
what Native people have said about education and
learning as they have interacted with the information
on learning styles. In this sense, it has been com-
posed by a collective of 200 people and suggests
not one prescription but many pathways to learning.

# OVERVIEW OF LEARNING STYLES

## INTRODUCTION

The learning styles assessments were based on an analysis of vocal and interactive patterns. Dr. Sandra Seagal developed this system of analysis and students responded positively to the format--informal conversation and feedback.

Seagal has identified nine different sound frequencies in the human voice and has linked these sounds with psychological processes.(2) The three higher pitched sound frequencies are linked with the <u>MENTAL</u> dimension. Some examples of the accompanying mental processes are

<u>IDEAS, THEORIES, VISION, VALUES, STRUCTURE, OVERVIEW, OBJECTIVITY, FOCUS, ETC.</u>

The three middle frequencies reflect the <u>EMOTIONAL</u> dimension and the following processes

<u>PERSONAL FEELINGS, COMMUNICATION, RELATING, CONNECTING, ASSESSMENT, PLANNING, ORGANIZATION, CREATIVITY, SUBJECTIVITY, Etc.</u>

The three deeper sound frequencies connect with the physical system and its attendant processes,

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(1) This chapter is on "Overview" and the following three chapters on the three learning styles covered in this report are directly attributable to Dr. Seagal. It would be impossible to footnote each statement. Footnotes have been reserved for the major references.

(2) Seagal, Training Materials, Life Actions, May 1986.

IMPLEMENTATION,   COMPREHENSIVENESS,   INCLUSIVITY,
INSTRUMENTATION,   DOING,   DETAIL,   CONCRETENESS,
PRACTICALITY, REPETITION, Etc.

According to Seagal, these three dimensions interact
in the learning process, but one dimension appears
to be consistently prominent.  The three learning
styles take their names from the most prominent
feature--

PHYSICALLY-CENTRED LEARNING,
EMOTIONALLY-CENTRED LEARNING,
MENTALLY-CENTRED LEARNING.

## OVERVIEW: PHYSICALLY-CENTRED LEARNING

Physically-centred students learn best when
their learning is part of the whole context. They
prefer to concentrate on the task, on the doing.
Many of them have said that if they can watch someone
do something, they can do it themselves given enough
time for practice and repetition. Comprehensiveness
is a prime value in the process.

Verbal communication does not appear to be neces-
sarily central in the learning process. Information
may be transmitted discreetly, indirectly or non-
verbally, but when an instructor uses words to intro-
duce a lesson, it is helpful if the words are concrete
and to the point and do not overload students. These
students appear to gather considerably more data
than students with other learning styles; carefully
chosen words in explanations facilitate the learning
process.

Having enough time to practice and complete
tasks is essential for these learners. There is
an inclusive, thorough-going aspect, a largeness
in what is undertaken that may sometimes require
more time than for the other two styles. The physical
rhythm may be more measured than it is for the other
styles. The pacing of learning exercises in North
American schools often does not suit the style and
needs of the physically-centred learning process.
Sometimes these students may be mistakenly placed
in remedial classes. Given correct conditions to
support their learning, these students work effectively
and excel.

Physically-centred students are most at ease in the learning environment when their strong sense of belonging to a community, group or family is acknowledged. Their identity is congruent with the group they are part of. When the group is appreciated in the learning environment, these students' identity is positively effected; when the group is injured or not integrated into the learning process, students experience discontinuity and disruption. There are two aspects for consideration in the identity issue. First, students' identity is enhanced by positive cultural content. Second, students respond to learning more readily when their class has bonded; life skills techniques and small task-group formats are particularly helpful. In addition to the issue of enhancement of identity, there is incorporated in this strong sense of belonging a need to have their learning be of practical use to their group.

## OVERVIEW: EMOTIONALLY-CENTRED LEARNING

Emotionally-centred learners use the auditory faculty to intensify learning. These students need interaction in the learning process; conversing back and forth with the instructor or other students helps sustain attention and involvement. This group starts by speaking from the personal point of view--their experience of what they are learning, their feeling about it and the difference it will make in their lives. When they are personally encouraged, they

8    respond positively.  Personal stories from instructors about how they learned stimulate these students.

     Because feelings are a vital aspect of their openness to learning, it is important for them to feel relaxed in the environment and to feel good about themselves.  The sensitivity of this group
9    is notable.  When students feel at ease and centred, this sensitivity heightens the degree to which they learn.  When their sensitivity is threatened or is vulnerable, learning is more difficult.

10   Emotionally-centred learners accommodate well to variety and diversity.  Creative art processes
11   are often effective routes to learning for this group.


## OVERVIEW:  MENTALLY-CENTRED LEARNING

12   Mentally-centred learners use the visual to stimulate learning.  These learners focus on the idea, the theory or the data rather than on people or action.  They tend to learn what they value. They appear to depend more on their value system than on personal experience or feelings in deciding
13   what is important to them.  Some instructors have worked with students to help them expand their value system and thereby increase their effective participation in educational experiences.  Once they value a subject to be learned, these learners, more than

the other two groups, are content to work in a solitary manner; many students have no difficulty in remaining focused on what they are learning, no matter how long it takes.

These learners respond well to ideas and content which are validated by documentation or authorities. Their objectivity allows them to develop overviews and abstracts of what they are learning.

In the learning process, language and communication are used to ask questions, probe issues, debate and discuss theories and ideas.

## SUMMARY

While the initial processing of information is experienced differently by the three groups, it is important to remember that the whole process includes all three dimensions--physical, emotional and mental--fully interactive.

The following chapters illustrate each of these prominent dimensions interacting with the other two. Each section can be read as a discussion on the dimension itself. For example, physically-centred learners might read about the emotionally-centred and mentally-centred learning experience and receive some suggestions on developing those dimensions in themselves.

The purpose of this learning styles work is to help people to develop all aspects of themselves by understanding more clearly their own processes.

INSTRUCTORS READING THE NEXT THREE CHAPTERS
ARE ADVISED TO CONSIDER THEIR OWN SKILLS IN OBSERVA-
TION OF DISCREET DATA AND THEIR OWN INTUITED UNDER-
STANDINGS OF STUDENTS. INSTRUCTORS MAY RECOGNIZE
THAT THEY HAVE ALREADY DEVELOPED CERTAIN INSTRUCTIONAL
STRATEGIES IN RESPONSE TO THE THREE DIMENSIONS--
PHYSICAL, EMOTIONAL, MENTAL.

# PHYSICALLY-CENTRED LEARNING

For physically-centred learners, the physical dimension may be most apparent initially in the learning process. It is part of a whole system and can be seen interacting with the mental and emotional dimensions. The more the three dimensions interact, the more there is harmony; the more there is harmony, the more fluidly the dimensions work together.(1)

Physically-centred people have sometimes learned not to value the physical perspective in themselves. They have to learn to recognize and value the knowledge which they gain through this dimension. Their ability to learn and to do well with a sense of well-being depends on this primary recognition.

Emotionally and mentally-centred people who read the following pages may gather directions for themselves in developing their physical dimension.

In this physically-centred learning process there are certain

## KEY CONDITIONS WHICH SUPPORT LEARNING

### I.  INITIATING LEARNING IN ITS PRACTICAL CONTEXT

EXPLORING THE ENVIRONMENT RELATED TO WHAT IS BEING LEARNED.

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(1)  Sandra Seagal and David Horne, "Overview," Video documentary, Predictive Profiles, Topanga Canyon, Ca., 1985.

II. LEARNING BY DOING: OBSERVING, TOUCHING, TINKERING.

REPEATING A PATTERN OF ACTION UNTIL IT BECOMES NATURAL/PRODUCTIVE.

III. ATTUNING TO THE RHYTHM OF THE PHYSICAL DIMENSION.

IV. IDENTIFYING LEARNING WITH ONE'S GROUP, COMMUNITY OR FAMILY (GROUP CONSCIOUSNESS.)

V. COMMUNICATING FOR BALANCE AND HARMONY.

# INITIATING_LEARNING_IN_ITS_PRACTICAL_CONTEXT.

## EXPLORING THE ENVIRONMENT RELATED TO WHAT IS BEING LEARNED.

In the following two descriptions of learning, what is being learned is not separated from everyday life experiences. It is important that instructors consider the practical context related to classroom topics.

### Description 1:

> Excerpt from a letter written by a mother to her child's teacher: He is not accustomed to having to ask permission to do the ordinary things that are part of a normal living. He's seldom forbidden to do anything; more usually the consequences of an action are explained to him and he is allowed to decide for himself whether or not to act. His entire existence since he has been old enough to see and hear has been an experimental learning situation arranged to provide him with the opportunity to develop his own skills and confidence in his capacities. Didactic teaching will be an alien experience for him.(1)

14

### Description 2:

> It was a very different kind of learning situation that we were in as children. In fact, all the things we did related to our way of life. Everything had to fit into the whole; we didn't learn things in parts. As an example: if we watched someone running an outboard motor, we would learn everything that was involved in working that motor.

15

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(1) "A Mother to a Teacher," from Northian Newsletter, 1986. (Submitted by Jock Smith, Surrey School Trustee and Educational Counsellor for the Department of Indian Affairs.)

> If someone taught someone here to do that, after he was finished he might add a safety program on top of it. This would be an additional thing. The way Indians learned it, they built in a safety program while they were learning through their observations and because their very lives depended on their doing it right.
>
> And just as we didn't separate our learn- from our way of life, we didn't separate our work from it either.(1)

Suggested exercises:

16
17
18

19

20

21

--Field trips

--On the job interviews

--Job placements

--Team projects with small groups of compatible students working together

--Designated activity centres in the classroom

--Simulations through

> story-telling
>
> role playing and skits
>
> sculpturing(2)

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(1)   Wilfred Pelletier, "Childhood in an Indian Village."


(2)   Examples of simulation exercises can be found in the manuals produced by the Participatory Research Group.

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**LEARNING_BY_DOING:__OBSERVING,_TOUCHING,_TINKERING.**

REPEATING_A_PATTERN_UNTIL_IT_IS_NATURAL/PRODUCTIVE.

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--'DOING' MAKES SENSE, ESPECIALLY IF THE STUDENT CAN FIRST WATCH THE WHOLE PROCEDURE.

Example 1:
> "Most times, if I watch someone else do something, I can turn around and do it, as long as I watch the whole procedure. But if I don't watch them I might as well forget it. Like if you gave me a book with everything from A to Z, I'd still say, well, this doesn't seem right, it seems too complicated. But, all of a sudden, if somebody shows you, you say, 'Oh, that's easy.' It's all the big words in between. You think 'Gee that seems like a lot.'" (Oneida Student)

Example 2:
> "You don't have a plan or a scheme in your mind to follow. It's more like your fingers know; your brain or your organizing function aren't what know first."(1)

Example 3:
> "A person, nine times out of ten, can learn more at the job than writing it up on paper. I think I learn faster that way."(2) (Oneida Student)

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(1)  Meg Houk, Consultant Notes, London, Ont. Sept. 1986.
     Modern Physics appears to back this statement. Ken Wilbur cites studies by Karl Pribram on "distribution of information throughout the system," The Holographic Paradigm and Other Paradoxes, London, 1982, p. 7.

(2)  An emotionally-centred learner might prefer to go back and forth between something written and the task while a mentally-centred learner might prefer to work out the task abstractly on paper.

--USE CONCISE, BRIEF, CONCRETE WORDS TO GET STUDENTS STARTED. THESE STUDENTS TAKE IN SO MUCH INFORMATION IN EVERY MOMENT THAT TEACHERS SOMETIMES PUT THEM INTO OVERLOAD WITH TOO MANY WORDS.

Example 1:
"I just shut down when there are too many words." (Toronto student)

Example 2:
23
When scheduling courses, balance textually demanding courses with courses requiring other skills (because of the tendency to comprehensiveness of detail): "I can't read 5 books at a time." (Parry Sound student)

--ALLOW TIME AT FIRST FOR TINKERING AND THEN FOR REPETITION. PHYSICALLY-CENTRED LEARNERS DO NOT NECESSARILY MOVE SEQUENTIALLY FROM ONE POINT TO ANOTHER UNTIL COMPLETION.

Example 1:
24
Instructors repeat a visual demonstration several times (science, math, trades and tech shop, grammar etc.) sometimes changing it slightly each time.

Example 2:
25
Students will try what the teacher has just shown when the group as a whole is going to try it.

Example 3:
26
One math instructor monitors her class and finds she may demonstrate a problem 3 or 4 times illustrating the same principle and then she asks the students to tell her the steps. The next time they do the problem themselves, using 3 or 4 examples. She then gives them enough time to work on the problems themselves.

This instructor gives speed drills from the beginning of the week to the end and notices that students' scores vastly improve during the week.(1)

Example 4:
27
One instructor asks students to monitor how many repetitions it takes before they really learn the task. Then the instructor and student gradually aim at working with 3 to 5 repetitions.

(1)    Priscilla Hewitt, Wanepuhnud Native Women's Program, Toronto.

Example 5:

28
Students need to "digest" information over a period of time, often short passages must be re-read, digested and assimilated before they are known. Think of certain Native songs or poems as you prepare yourclassroom presentation.

## --ROUTINE SUPPORTS LEARNING.
Example 1:

29
New learning or new routines are best introduced as "not new" but part of a whole picture or connected with a familiar routine.

30
Also introduce students to the first 3 principles of "First Principles" (Appendix), a statement compiled by elders and educators for The Four Worlds Project. Discuss "wholeness, process and change" in light of ROUTINE.

## --INCORPORATE COMPUTERS INTO THE CURRICULUM. THEY ALLOW CONCRETE, HANDS-ON WORK AND AS MANY REPETITIONS AS NECESSARY.
Example 1:

31
Good results have been found with computer instruction in English, math and other subjects.

## ATTUNING_TO_THE_RHYTHM_OF__THE_PHYSICAL_DIMENSION..

--PERMITTING THE MEASURED PACING OR RHYTHM OF PHYSI-
CALLY-CENTRED LEARNERS ALLOWS THEM TO WORK WITH THE
COMPREHENSIVENESS, INCLUSIVITY OF DETAIL AND LARGE-
NESS OF SPAN WHICH ARE CHARACTERISTIC OF THEIR PRO-
DUCTIVITY.

32

Example 1:
Life skills exercises which focus attention on
people's differing rhythms are essential. One
instructor asks the women to pass around a drum
and beat it until they have commuicated their
own individual rhythm. Throughout the exercise,
the group comments and encourages each player,
offering nuances, from their own knowledge of
the student.

33

Example 2:
Instructors can speak more slowly and with more
pauses.

34

--SUPPORT THE INTERACTION OF THE MENTAL, EMOTIONAL
AND PHYSICAL RHYTHMS BY
.ALLOWING SUFFICIENT TIME FOR COMPLETE
PROCESSING,
.GIVING TIME TO FORMULATE RESPONSES,
.LEARNING TO BE COMFORTABLE IN THE SILENCE
REQUIRED TO GIVE THIS TIME, AND
.NOT ANSWERING FOR THEM OR COMPLETING
SENTENCES FOR THEM.

--RUSHING THE PROCESS RESULTS IN INCOMPLETED TASKS, LOW SELF-CONFIDENCE AND LACK OF BELIEF IN THEIR POTENTIAL.

Example 1:

A Chippewa woman in a self-directed academic upgrading program, an exceptional student who plans to continue her training--"School is more fun now. It's not as serious as it used to be. It helps if you're at ease. There's nobody behind you pressing you. Years ago there was always somebody standing behind you telling you, 'You've got to get this done.' Now we can work at our own pace and when we need help, we can call the teacher to help us."

# IDENTIFYING THE LEARNING WITH ONE'S GROUP, COMMUNITY, OR FAMILY (GROUP CONSCIOUSNESS).

--EXPECT AND UTILIZE IDENTIFICATION WITH THE GROUP THROUGH DISCREET SIGNALS.

Example 1:
"I remember as a child a different kind of organization existing, and I have come to call it now 'community consciousness.' That community can exist and function and solve all its problems without any kinds of signals, like a school of fish. All of a sudden you see them move; they shift all together."(1)

Example 2:
Some instructors build a learning environment on this trait by a)being sure the class bonds as a community and b)utilizing small work groups for problem solving, etc.

NOTE:
Attributes associated with group identification may sometimes be misinterpreted by people who are not familiar with the usefulness of discreet signals. Often these very constructive and positive attributes have been wrongly stereotyped. Instructors must exercise their finest, most circumspect skills of observation in their interactions with students.

35
36

--MOTIVATION, COMPETITION AND DRIVE AT THE SERVICE OF GROUP CONSCIOUSNESS HAVE A DIFFERENT LOOK FROM THEIR APPEARANCE IN GENERAL NORTH AMERICAN CULTURE.

Description 1:
You could see it in our games. Nobody organized them. There weren't any competitive sports.

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(1)  Wilfred Pelletier, "Childhood in an Indian Village."

But we were involved in lots of activity...and we were organized, but not in the sense that there were ways of finding out who had won and who had lost. We played ball like everyone else, but no one kept score. In fact, you would stay up at bat until you hit the ball. If somebody happened to walk by on the street, an old guy, we'd tease him and bug him to come over and try to hit the ball, and he would come over and he'd swing away. If they threw us out on first, we'd stay on first anyway. We ran to second, and they would throw us out there, and sometimes we'd get thrown out all the way around.(1)

Description 2:

A sixteen-year old Mohawk student was excellent at football. His mother, who related this story, spoke of how he was such a hard worker that she encouraged him to play on the football team as an outlet. After a few weeks, he left the team and would not return. He told her that it was more important for him to spend the time helping his grandparents who were getting old and needed help with the chores. Despite his mother's encouragement to play, his decision was based on the usefulness of his role to his identified group, his grandparents. His mother, who was emotionally-centred recognized that she had projected onto him expectations associated with her own style.

--SOME PHYSICALLY-CENTRED STUDENTS HAVE THE GIFT OF EFFICIENCY EXPERT--THEY SEE CLEARLY HOW THINGS COULD BE DONE BETTER BY ASSIGNING CERTAIN PEOPLE TO SPECIFIC TASKS.

Example 1:

Some instructors ask these students to assign teams or certain people to tasks; this allows students to develop and practice their skills.

37

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(1)    Wilfred Pelletier, "Childhood in an Indian Village."

--THE LEADERSHIP OR DIRECTIVE ROLE IS OFTEN SHARED. ONE PERSON WILL DIRECT ACTION FROM TIME TO TIME AS NEEDED. TEACHERS CAN MAKE EFFECTIVE USE OF THIS.

Description 1:
> ...there wasn't any kind of a vertical structure in the community. In these communities, what existed was a sharing of power. In spite of what everybody says, we really didn't have chiefs, that is, people who were bosses. We had medicine men, who were wise men. The rest were leaders as we look at them today. It was a different kind of leadership in that the person who was leader had special abilities, say in fishing or hunting. He took the leadership that day, and then discarded the leadership when he finished with the job. He had the power only for the time he wanted to do something. That power came in all forms of all the things he did in the community so that he used power only for the thing he wanted to do, and then he immediately shed it so that someone else could pick it up and it could change hands several times in the community in a day or a week or whatever.(1)

Example 1:
> One instructor leads the group as much as possible from the seated position, equal to the students. When she works with individual students, she always sits beside them. She feels that they respond positively to her because she is not taking a different position from them. It is also possible that students may be more willing to assume leadership under these conditions.(2)

BECAUSE PHYSICALLY-CENTRED PEOPLE SEE THEMSELVES FIRST THROUGH THEIR IDENTIFIED GROUP, THEY MAY NEED TO WORK ON SEEING THEMSELVES AS SEPARATE INDIVIDUALS WITH SEPARATE FEELINGS. BALANCING BOTH INDIVIDUAL AND GROUP IDENTIFICATION IS IMPORTANT TO THE LEARNING PROCESS,
> --FOR ENHANCING INDIVIDUAL ABILITIES,
> --FOR ESTABLISHING A SOUND PLAN FOR TRAINING AND CAREER.

38

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(1)   Wilfred Pelletier, "Childhood in an Indian Village."

(2)   Priscilla Hewitt, Wanepuhnud Instructor, Workshop Notes on Instructional Methods, Fanshawe College, London, Ont., Dec., 1986.

Example 1:

39

Life skills exercises and group discussions
which highlight individualized preferences
and priorities stimulate belief in self
and instill a keenness for the future.

Example 2:

40

As Seagal has pointed out, "a curriculum
could make all these steps operational:
--this is my group;
--this is a group;
--this is me within the group;
--this is me apart from the group;
--this is me apart from the group
and honouring the group."(1)

## --FOR GREATER SELF-CONFIDENCE STUDENTS CAN EXPLORE AND VERBALIZE FEELINGS.

Example 1:

41

One instructor has indicated a sequence
to the questions she uses to stimulate self expres-
sion.(2)  At first she asks "What do you know?"
instead of the questions "What do you feel?" or
"What do you think?"  "What do you know in your-
self?" elicits a response of what is deeply or
quietly known.  Later, when students are at ease
with this question, it is possible to move on
to "What do you feel?" or "What do you think?"
which require greater differentiation of informa-
tion.

Example 2:

42

Another instructor has coined the phrase "quiet
watching" which she explains as the process by
which many students take in information.  She
asks students to talk about a) when they 'quiet-
watch,' b) what kinds of things they 'quiet-watch'
for, and c) what they know as a result.(3)

(1)    Sandra Seagal, Student Assessment Notes, Sept. 1987.

(2)    Susan MacPhail, Life Skills Instructor, Nokee Kwe, 1987.

(3)    Elizabeth Reilly-Grzyb, Women's Workshop, 1987.

Example 3:

43

> An instructor in a native journalism program uses the question "What is your opinion?" repeatedly throughout the year to prompt students to express themselves.(1)

Example 4:

44

> As students move to an expression that is more personal, they may find vocabulary lists of feelings helpful.(2)  These lists are often useful as students differentiate one feeling from another. One physically-centred woman who read a draft of this manual said that for her, this exercise is the most important of all.  She spoke about her experience:

> "I used to go to a counsellor who would ask me what my feelings are.  I wouldn't know what to say.  I would go home and look up words for feelings in the dictionary to get the right description.  I'd go back the next time and tell him the description of my feeling and he'd say, 'is that really your feeling, or is it your husband's or daughter's?'  Then I'd go home again and use the dictionary to get clearer about the words. Gradually it all came together and I could talk about which feelings I was having and which ones belonged to other people."

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(1)   Rhonda Hustler, Program in Journalism for Native People, University of Western Ontario, Sept. 1986.

(2)   Vocabulary lists or glossaries of feelings are common in life skills texts and materials.

> COMMUNICATING FOR BALANCE AND HARMONY.

--COMMUNICATION IS OFTEN CONCRETE, CONCISE, BALANCED. SOME MEANING OR EXTRANEOUS DETAIL IS TRANSMITTED NON-VERBALLY. WORDS EITHER COMMUNICATE A FUNCTION OR ACKNOWLEDGE THAT SOMETHING IS UNDERSTOOD WHOLLY.

Example 1:
One community developer spoke of asking a young man a question--the direction to a building on the reserve. He said he didn't know and yet the community developer was sure that he had some information. When she knew him better, she realized that he hadn't given her an answer because he didn't know the complete directions to the building. He only knew which road to start off on, but to him that information was not the answer to her question. This anecdote reflects other experiences related by teachers.

Example 2:
"If you will take the time...to listen and observe carefully, you will see that he and the other Indian children communicate very well, both among themselves and with other Indians. They speak "functional" english /sic/, very effectively augmented by their fluency in the silent language, the subtle, unspoken communication of facial expressions, gestures, body movement and the use of personal space."(1)

--BALANCE OF THE POSITIVE AND NEGATIVE POINTS IN COMMUNICATION ALLOWS A DEPTH AND INCLUSIVENESS OF PERSPECTIVE.

Example 1:
"In the slide show which Anishnawbe Health Resources uses in workshops about diabetes, there is a slide with a skinny man and a fat man. The slide comes in the part of the workshop telling about who can get diabetes. Using the direct

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(1) "A Mother to a Teacher," Northian Newsletter, 1986.

approach, a professional would likely say something like 'Obesity is the single most important causative factor in Type II diabetes. You have much more chance of having diabetes if you are obese.' For most Natives this is too direct (mentioning the word you), and too negative. The way /Elder Joe/ Sylvester talks about this slide is a good example of the indirect approach. He may say, 'Thin or fat can get diabetes, but more likely somebody (we don't use the word you) could get it if they are overweight. If we balance our food and our exercise, we can control our weight and our blood sugar.' So the negative idea of someone getting diabetes must be balanced with the positive idea that they can control it. And nobody is pointed out or put on the spot for having diabetes, or for being overweight. Respect and balance are maintained, and yet the information about a very tense and difficult subject gets across."(1)

## --COMMUNICATION IS OFTEN INDIRECT.

Example 1:
"Indian people don't want to hurt or embarrass anyone. The way they try to avoid this is they don't use words to point to that person directly. They will not ask direct questions such as 'where do you work?', 'Are you married?', 'How much do you drink in one week?'. These questions put people on the spot. Part of their identity is being peeled off by each question. Indians show respect for the other person by showing interest rather than putting them on the spot by demanding answers to questions. So instead of the direct questions, someone could say: 'Perhaps you have been working hard these days?', 'Maybe your wife is finding it difficult too?'. These expressions of interest are only acceptable if they follow along naturally in the conversation. If there are too many of them, and if the point is to extract answers rather than be in harmony with the person, the effect is bound to be discomfort and embarrassment."(2)

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(1)     Rebecca Hagey, "Anishnawbe Health Resources and the Indirect Approach," Nutrition Newsletter, Health and Welfare Canada, #7, Summer/Fall 1986.

(2)     Rebecca Hagey quoting Elder Sylvester.

Example 2:

47

Dr. Seagal has suggested that creating a collage and telling about it is one way of initiating talk about personal views. The process of collage is to put the whole on paper without having to priorize or separate out certain themes. Working visually with an expression of the whole provides an effective bridge to talking about what the collage shows and why the student made certain arrangements.

Example 3:

48

One urban program video-tapes students and plays the tape on fast-forward so students can see how they use expressive body movement. Many of the students discover that they are very still and need to work on becoming more expressive. For the students this exercise is appropriate--it is visual, concrete and technical. If students want to work on expressiveness, the exercise can be very practical.

Example 4:

49

Exercises that allow students to express through body movement or action with a group are also effective.(1) First the students move, and then they talk about it, and generally words flow more easily.

## --RECOGNIZING THE USEFULNESS TO ONESELF AND TO OTHERS OFTEN PROMPTS PHYSICALLY-CENTRED PEOPLE TO SPEAK OUT.

Example 1:

Physically-centred people have sometimes expressed difficulty speaking outside the family or community group. One Cape Croker woman said that she never used to speak in public until two years ago; then she looked around and saw that it wasn't that difficult. She said that she wasn't shy; she was just quiet. She recognized that there was a usefulness

(1) Popular Education has provided many useful exercises. See manuals developed by the Participatory Research Group, 229 College St., Suite 309, Toronto, Ont. M5T 1R4.

in speaking more and that by speaking she could
get more things done. She also said that even
if she has something to say, she will often wait
to see if anyone will say it first; if not, then
she speaks.

Example 2:

Some instructors encourage students to give answers
even when the responses 'feel' partial by <u>repeat-
edly reminding students that their contribution
is important for everyone in the group to hear.</u>

50

## --PRACTICAL, CONCRETE TOOLS HELP TO INITIATE SELF-EXPRESSION AND SELF-CONFIDENCE.

Example 1:

"The life skills made me more aware of everyday
things—just things I'd always seen and thought
were a part of life but when you sit down and
look at them, you can change them. Like when
I went to the education committee. I've been
there before and just sat there, but this time
I went again on Monday and I noticed that some
of the educational committee members weren't asking
the 5 W's. I use the 5 W's and I find I speak
more in groups now."(Oneida student)

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## --FORMALITY IS SOMETIMES NECESSARY IN INVITING PHYSICALLY CENTRED STUDENTS TO SPEAK.

## --TALKING TOGETHER WHILE WORKING TOGETHER ON A TASK ENHANCES COMMUNICATION SKILLS.

Example 1:

Some instructors encourage physically-centred
students to speak by working alongside them and
allowing speech to relate to what they are working
on. It may be easier to talk during the action
or the function--an in-movement communication.

53

Example 2:

A need for communication may occur when physically-centred people see someone else or something else in difficulty. At this time they may speak out in order to help someone else function. Teachers can be aware of this helpfulness and can assign physically-centred learners to help other students having difficulty.

54

Example 3:

A physically-centred consultant has observed that the pronoun "it" is frequently used. Students assume that others automatically know what they are talking about. This grammatical usage is characteristic of closely-knit communities where meaning is often transmitted through the context. As students interact with a society which does not have a consistent context, there is a need for explicit descriptive words. This consultant presents appropriate nouns to students when they use "it," and asks that they repeat and practice the specific terminology.

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# EMOTIONALLY-CENTRED LEARNING

Emotionally-centred people learn chiefly through feeling, assessing and relating. The influence of a physical culture has given many emotionally-centred Native students a certain ease with the physical dimension. They may be conversant with inclusivity, group consciousness, concreteness and with doing. When they have developed their emotional dimension, life, learning and work are harmonious. Some people may have held back the personal, or emotional, dimension and may need special encouragement to bring it out. Until the emotional aspect is developed, it is difficult to initiate or sustain learning.

Physically and mentally-centred people may read the following pages for guides to developing their own emotional dimensions.

There are certain KEY CONDITIONS WHICH SUPPORT LEARNING for emotionally-centred Native learners:

    I.   RELATING AND MAKING CONNECTIONS WITH OTHERS IN THE LEARNING PROCESS.

    II.   SELF-UNDERSTANDING.
           AWARENESS OF FEELINGS AND SENSITIVITY.
           POSITIVE, CONSTRUCTIVE IDENTITY.

    III.   TALKING ABOUT WHAT IS BEING LEARNED.

## RELATING_AND_MAKING_CONNECTIONS_WITH_OTHERS_IN_THE LEARNING_PROCESS.

**--RELATING PERSONALLY TO THE INSTRUCTOR AND OTHER STUDENTS ACCELERATES LEARNING.**

Example 1:
Many of the students interviewed during this project spoke of dropping out of schools where they felt there was nothing in common with instructors or other students.

The emotionally-centred students in this study spoke positively about their experiences in their present programs; they were remaining in these programs because they and instructors related well together or they had family members or friends with them in the course. Many students were in the course because relatives or friends had told them about it.

Example 2:
A few emotionally-centred students spoke about wanting to go on for further training, but feeling hesitant about going into unfamiliar settings. If these students receive personal encouragement and support, or can make personal contact with new instructors they will be more apt to try and stay with new experiences. They will also be more likely to go on if they know that they can continue to be in touch with instructors in their preparatory programs.

Example 3:
Several programs have made it clear to students that they are welcome to drop into the program once they have gone on for further training or employment; in this way, continued support can be given to help them adapt to new settings and expectations. One very successful program reported approximately 40% of their students return until

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they have finished with training. At Wanepuhnud(1) graduates commit themselves to holding two open houses per year. Trainees have the opportunity of talking with them and exploring some positive options.

Example 4:
A young woman told about never thinking she was any good in math in school until her instructor began to encourage her and make her feel like she could do well. In the beginning of the learning process students may work to please an instructor and then as they find themselves improving, they will work to please themselves.

## --STUDENTS' LEARNING IS PROMPTED IF THEY CAN RELATE BY LINKING NEW MATERIALS TO THINGS ALREADY KNOWN TO THEM.

Example 1:
60
Many instructors are successfully linking new concepts to examples from students' personal or cultural experiences. A list of culturally sensitive books can be found in the Appendix.

Example 2:
61
One grammar teacher gives spelling tests using sentences about members of the class.

Example 3:
62
A Wanepuhnud instructor spends as much time writing positive, constructive comments on compositions as she does on the actual grading.(1)

## --INSTRUCTORS PERSONNIFY COURSE CONTENT TO MAKE TASKS AND MATERIAL IMMEDIATELY RELEVANT.

Example 1:
63
Telling stories helps students relate to material.

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(1)   Priscilla Hewitt, Instructor at Wanepuhnud, Workshop Notes presented at Fanshawe College, London, Ont., Dec. 1986.

--IN THE BEGINNING OF THE LEARNING PROCESS, STUDENTS RESPOND TO POSITIVE FEEDBACK. AT FIRST STUDENTS MAY WORK TO PLEASE AN INSTRUCTOR AND THEN AS THEY FIND THEMSELVES IMPROVING, THEY WILL WORK TO PLEASE THEMSELVES.

Example 1:

64

In the shift from external to internal motivation, the transition may feel threatening to a student. Instructors can be watchful and explain that the feelings of upheaval, change and uncertainty are normal and natural during this time.

Example 2:

65

Once a strength is pointed out, many students will use it to launch them into developing other areas. They build around their identified strength, adding related skills.

--WHEN THERE IS A PERSONAL SENSE OF EASE WITH A SUBJECT, STU-DENTS WILL ASK FOR CRITIQUES AND REFINEMENTS.

Example 1:

66

First, encouragement motivates students and helps them focus on their work.
Then, as they improve, they can receive help through criticism.
Finally, as they take responsibility, they ask for criticism.

Example 2:

67

It is helpful to ask students to monitor themselves regarding encouragement and criticism. When they are aware of this process, they take responsibility more quickly.

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┌─────────────────────────────────────────┐
│  SELF-UNDERSTANDING.                     │
│                                          │
│  AWARENESS OF FEELINGS AND SENSITIVITY.  │
│                                          │
│  POSITIVE, CONSTRUCTIVE IDENTITY.        │
└─────────────────────────────────────────┘
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**--WHEN EMOTIONALLY-CENTRED LEARNERS ARE RELAXED AND CALM, THEY ARE OPEN TO LEARNING AND POSITIVE ABOUT ENGAGING IN NEW EXPERIENCES.**

Example 1:

68
> As one Medicine Woman put it, "Relax and make yourself comfortable...if you aren't relaxed your ears get plugged up and you might miss something you've been waiting to hear for a long time."(1)

Example 2:

69
> An entry point for instructors working with emotionally-centred students is to find their common ground, talk about it, and refer to it during lessons.

**--RECOGNITION OF FEELINGS IS CENTRAL TO INITIATING THE LEARNING PROCESS.**

Example 1:

> One student was assigned to write a composition on her hometown. She enters the subject through her feelings and weaves a story in which feelings (emotional dimension), concrete detail (physical dimension), and overview (mental dimension) are all ingredients:
>> "I will write about the people because they are the main reason I liked or disliked a city. I will also write what I liked and disliked about a city, other than its citizens."
>
70
> Once this personal statement is issued, she can move into the other facets of her composition.

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(1)  Reported by Bryan Loucks, from the Dakota-Ojibwa Elders Gathering, Brandon, Manitoba, 1975.  See Loucks in Bibliography.

Example 2:

71

Some instructors in math, science, trades shop, etc. ask their students to talk about their feelings toward the course, then find the relevancy of the subject to their personal lives and potential careers.

## --SOMETIMES LEARNING IS BLOCKED BY TOO MANY FEELINGS HELD-IN, BY FEELINGS PICKED UP FROM THE ENVIRONMENT AROUND THEM AND BY SELF-BLAME.(1)

Example 1:

As Dr. Seagal indicated about one emotionally-centred learner,

"Her instincts are excellent. These instincts speak to her of her environment, including people and things. She must pay attention to her 'gut' reactions. She has a lot of feelings which she is 'sitting on.' Her impatience relates more to these feelings and instincts which may not be expressed appropriately."(2)

Example 2:

72

Emotionally-centred learners need to learn assessment skills that work constructively for them. When they are able to distinguish their feelings from others, to protect themselves from any negative feelings of people around, and to find a balance, they are able to facilitate their own learning.

Example 3:

73

Besides group discussion, physical exercise discharges built up feelings; some programs have success with yoga or tai chi exercises.

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(1)  An excellent manual which looks at this issue is, Tribal Sovereignty Associates, The Power Within People: A Community Organizing Perspective, June 1986.

(2)  Sandra Seagal, Student Assessment Notes, London, Ont., Sept. 1986.

--DEVELOPING SENSITIVITY CONSTRUCTIVELY CAN BE USE-
FUL FOR EMOTIONALLY-CENTRED LEARNERS. IT IS A ROUTE
TO TAPPING DISCREET INFORMATION WHICH CAN MAKE THE
LEARNING PROCESS MORE RELEVANT TO THEM.

### Example 1:

74

Constructive sensitivity can provide a route to
tapping of intuition or discreet information which
can make the learning process more relevant and
interesting to students. Imagination is also
a facet of this sensitivity. Exercises for the
right brain are useful in developing these facets
and in giving students an opportunity for expres-
sion of constructive sensitivity.

--EMOTIONALLY-CENTRED LEARNERS MUST UNCOVER AREAS
OF IDENTITY LINKED WITH SELF-ACCEPTANCE. STRESS
TIED TO ECONOMIC AND SOCIAL DISPLACEMENT HAS SOMETIMES
ERASED A SENSE OF INDIVIDUAL IDENTITY.

### Example 1:

One community developer in Northern Ontario spoke
of growing up isolated from her heritage. Being
suicidal in her early twenties, she was desperate
until she was prompted by a dream to seek out
some wise, older people who could help her recon-
nect with her culture. The positive understanding

75

of her heritage was critical to her initiating
a sense of identity for herself.(1)

### Example 2:

Many students spoke of the value of life-skills
courses--
"I didn't know how to say what I was feeling,
I blamed myself a lot."
"I didn't know who I was or where I was going.

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I didn't seem to have any direction until
we started talking in life-skills. I saw
I felt the same as other people and I started
to appreciate myself more. After a while
I connected with a purpose in life." (Toronto
student)

(1) For a sensitive treatment of the role of culture, see Brian Loucks, "Native
Spiritual DEvelopment: Learning for Survival," for Program Planning and Evalua-
tion, OISE, Summer 1982.

### Example 3:

Instructors working with women were very clear that two issues of identity which link with self-image and self-confidence were important for students to consider,

77

--their identity as Native people, and
--their identity as Native women in the 1980's.

### Example 4:

It is notable that several emotionally-centred women mentioned the importance of the creation stories to their sense of identity and purpose.

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### Example 5:

"I found out I could do math really well. I feel happy about myself and I want to go on and do something with it on the job." (Toronto student)

## --STUDENTS NEED TO LEARN TO DIFFERENTIATE THEMSELVES FROM OTHERS.

### Example 1:

Life skills exercises which allow students to explore both their similarities to and differences from others are critical.

79

### Example 2:

One English teacher encourages students to write especially about their personal experiences, to write or speak their personal stories. Some instructors work with students on a Re-vision exercise, seeing a difficult experience and re-vising it positively in light of their strengths, and and then telling the story.

80

## TALKING ABOUT WHAT IS BEING LEARNED.

**--EMOTIONALLY-CENTRED LEARNERS NEED TO TALK AND EX-PRESS THEMSELVES IN THE LEARNING ENVIRONMENT.**

Example 1:
> Seagal has said about these learners--"They some-times don't know what they know until they say it."(1)

Example 2:
> Emotionally-centred people can often help physi-cally and mentally-centred learners with self-expression. Sometimes students with different learning styles are paired together to help each other naturally with such issues.

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Example 3:
> Instructors have noted that they are careful to use stories or novels by Native writers about Native experience.(2) Students relate to the char-acters and their lives and are more open to dis-cussing their own opinions and feelings.

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**--INSTRUCTORS CAN MONITOR THE WAY THEY SPEAK TO STU-DENTS.**

Example 1:
> Some instructors find that giving constant feedback keep students focused, for example, "Good ques-tion," "Good point," "I'm glad you said that."(3)

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(1)   Sandra Seagal, Workshop Notes, 1984.

(2)   See Appendix for list of suggested readings to be used in class.

(3)   Priscilla Hewitt, Wanepuhnud Instructor, Workshop Notes, Fanshawe College, London, Ont., Dec. 1986.

## --SOME STUDENTS NEED PRACTICE IN SPEAKING IN CLASS.

### Example 1:

84

In English class, start with basic lists of words most commonly in print, from General Educational Development. Of the lists, start with the easiest and work to more difficult. Include words from previous lists repeatedly. In exercises, give whole sentences about things going on in class. Repeat slowly 3 or 4 times. Wait until everyone has finished. This instructor notes that students will be sensitive to exasperation in the voice.[1]

### Example 2:

85

In vocabulary and grammar exercises, use words and examples from Native literature. In the first round of questions ask for straight facts. In the second round, ask students' opinion, for example--"Why did she do this?" "How would you have done it differently?" (1)

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(1)    Priscilla Hewitt, Wanepuhnud, Workshop Notes, Fanshawe College, London, Ont., Dec. 1986.

# MENTALLY-CENTRED LEARNING

There were no mentally-centred learners in the Nokee Kwe or the Fanshawe College(1) studies. Mentally-centred learners represent a very small percentage of the population and very likely have placed themselves in courses more theoretical than those programs participating in these two studies.

The mental dimension interacts with the emotional and physical dimensions and requires development and refinement for balance and harmony of all three.

Psychological processes which are connected with the mental dimension are

--ideas,
--theories,
--focus,
--vision,
--values,
--structure,
--overview,
--abstraction,
--objectivity.

## DEVELOPING ABSTRACT PROCESSES.

Much of the content of academic upgrading and adult education programs is related to mental processes. Instructors who present a lot of ideas, theories and abstract concepts must remember to assist students in finding their personal relevance and must provide examples or opportunities

(1) Carol Brooks, Instructor's Handbook: Working with Female Relational Learners in Technology and Trades Training, Fanshawe College, Ministry of Skills Development, 1986.

for practical applications. Often case studies or problem solving exercises linked with mental processes are helpful. Sometimes, instructors borrow from Popular Education(1) in asking students to role play or enact an idea or an abstract principle. Creating a play, a story or an exercise around an idea, a theory or a value also gives students the opportunity to develop a taste for abstract processes.

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## DEVELOPING AN OVERVIEW POSITION.

Sometimes cultural traditions can acquaint students with a world view which provides a framework for beliefs, values and direction. Developing a world view allows practice in constructing an overview in given situations. Overview skills help people to create options or to look at issues from a different point of view. One woman spoke of always being aware of the overview since she has recognized her responsibility to look seven generations ahead. This point of view has given her a new dimension, a new way of reasoning. Overview and vision are two mental processes which allow people to consider and create alternatives and to recognize what is positive or negative for them and their communities.

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## IDENTIFYING AND CREATING WITH STRUCTURES.

Discernment of structures and the ability to create structures can be practiced through asking students to write outlines, create guidelines or to participate in creating policy statements for the classroom or student group they belong to.

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(1)   Popular Education exercises can be found in manuals produced by the Participatory Research Group, 229 College St., Suite 309, Toronto, Ont. M5T 1R4.

## DEVELOPING VISUAL SKILLS.

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Some Native adult education programs are beginning to use visualization exercises which may tap students' abilities to create ideas, issues and solutions to problems. Visualizations are also being used in life skills, math, communication, computer training, career planning, etc. As vision and overview are developed, students find that they may become more objective, not taking things too personally or being afraid to attempt the unfamiliar. Focus exercises are varied, from showing students how to monitor their attention span to visualizations which require probing, more probing and continued probing until the sought-for point is found.

## IDENTIFYING VALUES.

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Identification of values provides an important focal point for individuals in career planning and for working through obstacles created by cultural contradictions. It is important to be clear about values associated with Native culture and to understand that cultures carry within them different value systems. Instructors often ask students to create lists of values, charts, stories and plays enabling greater clarification. Some skilled instructors insert values statements into math problems, spelling dictations or composition assignments.

No MATTER WHAT THE LEARNING STYLE OF THE STUDENT, IT IS IMPORTANT TO TRAIN AND STIMULATE THE MENTAL PROCESSES IN UPGRADING AND EMPLOYMENT PREPARATION COURSES.

# HOW TO PRESENT LEARNING STYLES INFORMATION IN THE CLASSROOM

## THE CIRCLE OF LEARNING.

THERE ARE CERTAIN CULTURAL PRINCIPLES WHICH ARE CON-
TINUOUSLY DYNAMIC IN THE ADULT EDUCATION PROGRAMS
WHICH CONTRIBUTED TO THIS STUDY. STUDENTS WERE VOCAL
ABOUT THE SIMILARITY BETWEEN THE LEARNING STYLES
INFORMATION AND THE MEDICINE WHEEL.

The Medicine Wheel demonstrates wholeness and
balance. Within it are "the four dimensions
of human potentiality...the physical, emotional,
mental and spiritual dimensions."(1)

Because students are familiar with the Medicine
Wheel, it may be an apt starting point of stu-
dents to begin to examine the dimensions
themselves.
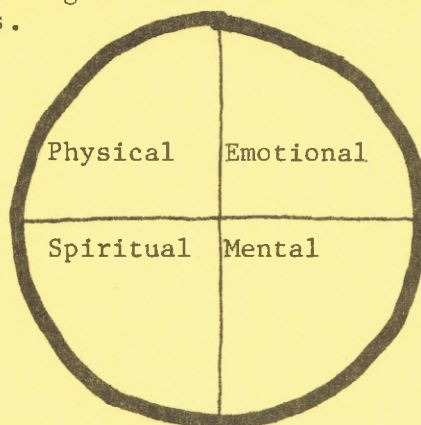


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EXERCISE: Think of the last week and of
things that you have done which contributed to your physi-
cal, emotional, mental or spiritual balance. Note
them around each of the parts of the wheel. Divide into
small groups and talk about what you see about balance.

(1) "Overview. The Four Worlds Development Project," Native Education, Faculty
of Education, Univ. of Lethbridge, Alta., Oct. 1983, p. 9.

## PRESENTING THE CONCEPT OF LEARNING STYLES

FOLLOWING ARE WAYS IN WHICH INSTRUCTORS HAVE <u>BEGUN</u> TO PRESENT THE LEARNING STYLES WORK TO STUDENTS:

In 1979 Dr. Sandra Seagal first heard nine different sound frequencies in the human voice. Since that time she has linked these sounds with the different ways we approach life. The three higher pitched sound frequencies are linked with the mental part of ourselves. Examples of the functions of the mental dimension are--

> ideas, theories, vision, values, structure, overview, objectivity, focus, etc.

The three middle frequencies reflect the emotional functions--

> personal feelings, communication, relating, connecting, assessment, planning, creativity, subjectivity, etc.

The three deeper sound frequencies connect with the functions of the physical dimension--

> implementation, comprehensiveness, inclusivity, instrumentation, doing, detail, concreteness, practicality, repetition, etc.

> NOTE: Some instructors have asked students to work with this list of words and circle one word in each list which they want to work on in the next six months.(1)

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(1)   This list of words and the exercise were developed by Sandra Seagal, Training Materials, London, Ont., May 1986.

Tribal Sovereignty Associates(1) has adapted the work with the sound frequencies in the following way:

1.   An individual is born into the world with the potential for balance and harmony.

2.   The harmony can be understood by a balance of
    --the mental: high pitched sound frequency, like the sound of a MOSQUITO;

    --the emotional: mid sound frequency, like the sound of a FLY;

    --the physical: a deep sound frequency, like the sound of a BUMBLE BEE.

    All frequencies are connected and work together to achieve the balance in the natural world.

3.   When a person gets stuck in one of these areas (frequencies) or experiences a distortion, the harmony within is broken.

4.   To regain harmony, these three frequencies and the dimensions they stand for have to become balanced within the individual like--the MOSQUITO, the FLY, and the BUMBLE BEE sounds of the natural world.

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(1)   Tribal Sovereignty Associates, "A Network for Native Futures," Oneida Settlement, Southwold, Ont. N0L 2G0; or 700 Richmond St., Ste. 314, London, Ont.

## THE BRIGHT IDEA, PLANNING AND DOING.

THE WAY THAT FREQUENCIES INTERACT MAY BE DESCRIBED
VERY SIMPLY. THE FOLLOWING EXPLANATION WAS DEVELOPED
IN CONVERSATIONS WITH STUDENTS AND HAS PROVEN TO
BE QUICKLY GRASPED AND APPLIED.

### IDEA

Consider the experience of getting a bright
idea: the feeling is fast, excited, light. Some
people experience the bright idea as a vision that
is positive, ideal, almost shimmering. They may
refer to this kind of experience by saying, "I had
a sudden flash" or "The light bulb suddenly went
on,"etc. People speak of this experience as being
on a "high."

### PLAN

Then, what happens when the idea moves into
the planning phase? Things slow down, seem to become
less clear, and some of the "high" excitement is
gone. Sometimes people stop here; they misinterpret
the slowing down as a negative signal.

### ACTION

When people do continue, however, and carry
their plan into action it may feel incredibly slow,
perhaps difficult or awkward, and even less clear.
Sometimes people do not complete an action because

they do not understand the process of moving from one frequency to another. This process is a normal one. People are experiencing the high, mid and lower frequencies associated with the original idea, the original idea, the assessment and planning and finally the doing. THE MORE THE THREE DIMENSIONS ARE WORKING TOGETHER IN PEOPLE, THE EASIER IT IS TO MOVE FROM THE IDEA TO THE PLAN TO THE ACTION WITHOUT LOSING THE MOTIVATION OF THE INITIAL VISION.

## MISINTERPRETATIONS

Difficulty comes when people misinterpret the change from one frequency to another. If people are more familiar with one frequency, they may feel uncomfortable with the tasks associated with the other frequencies. Sometimes people misinterpret unfamiliarity for the inability to plan or to do. This also has a bearing on the way people work together in groups.

## ACTION, PLAN, IDEA

Some people like to get to work right away; they don't seem to need a plan or an idea. It is the doing, or deeper frequency, that they are familiar with. At some point in their work, they may need to move into assessing or planning or into the idea related to what they are doing. They may need to be able to assess or conceptualize in order to share what they are doing with other people. The unfamiliar

tasks or frequencies may feel scary, shakey or threat-
ening. Sometimes people may get stuck in just the
doing and not develop the other parts--the planning
or idea parts--of themselves. IT IS IMPORTANT TO UN-
DERSTAND THAT WE POSSESS THE POTENTIAL TO DEVELOP
ALL THREE STYLES.

## PROCESS

One day an Oneida academic upgrading student
asked, "Why is it that I'm always doing things and
I look around and see people just sitting and talking
about their ideas and they think they're doing, but
they're really only talking and they don't get any-
thing done?" Out of this comment came another way
of looking at these three dimensions. Picture a
circle divided into three parts which represent the
physical, emotional and mental parts of ourselves.
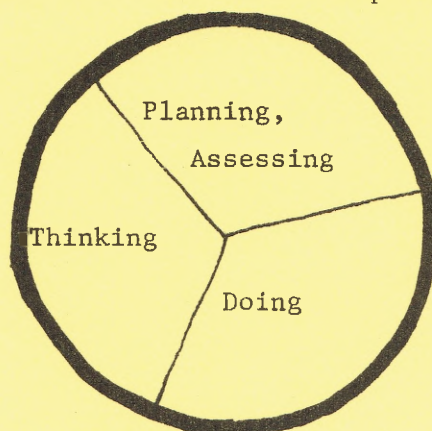


This Oneida student starts with doing and sees that
other people start with talking about their ideas
or plans, but not moving into doing. Sometimes people

only do one part of the whole; what they need to do is to observe themselves to check whether they can move from one part of the circle to another, no matter where they start.

NOT EVERYONE STARTS TO LEARN WITH AN IDEA. Some people start the learning process by <u>doing</u> first, then <u>thinking</u> about it and then <u>assessing</u> it.

Or they may <u>do,</u> then <u>assess</u>, and then <u>think</u> about it.

Or they may start first by <u>assessing</u>, gathering and weighing information, perhaps making a plan and then venture into <u>doing</u> and only later come to <u>under-standing</u> or developing an idea about it.

On another occasion, a student said, "You know, I think I start in different places at different times, depending on what is necessary. BUT there are certain times when I need more support than other times."


## RELATIONSHIPS


On another day a Nokee Kwe student said, "You can understand relationships this way. I like to start by just getting up and doing, but my husband has to always talk about the plan first. He thinks that's the only way to do things. Talking first has always felt like a waste of time, never made sense to me. I think I can see both points of view now." Another person wanted to tell her child's teacher about it, because the child needed to learn by doing first and the teacher was primarily emphasizing ideas.

## BALANCE

Wherever people start, it is important to remember that all three parts make up the whole and that each part must be balanced for harmony and wholeness to be experienced.

When people look at the learning process in this way, they often understand themselves better. They also begin to tolerate each other's differences and they stop putting themselves down for being different.

MOST OF THE NORTH AMERICAN SCHOOL SYSTEMS HAVE RECOGNIZED IDEAS AS THE BEGINNING OF THE LEARNING PROCESS. BUT FOR MANY PEOPLE THE IDEA IS NOT WHAT HELPS THEM ACTUALLY GET STARTED. THESE PEOPLE HAVE SOMETIMES HAD A HARDER TIME WITH SCHOOL. AS PEOPLE COME TO KNOW MORE ABOUT LEARNING, THEY SEE THAT THEY HAVE HAD ABILITIES ALL ALONG. AS THEY RECOGNIZE THEIR ABILITIES, THEY ADAPT LEARNING TO SUIT THEMSELVES.

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EXERCISE: a) Look at the three parts of the circle. Where do you like to start? Where do people in your family like to start? Do you see any differences?

Is there any place where you ever feel blocked? What do you do to get around it?

b) Make a collage showing the way you go about doing, planning and thinking.

c) Show the collage to the small group and talk about what you have seen for yourself.

| NEEDS OF GROUP | EVALUATION OF PROGRAM | % OF TOTAL CURRICULUM | FORMAT OF PRESENTATION |
|---|---|---|---|
| Sustaining of focus so that students can become more selective and effective. | Are focus and visualization exercises used? | _____ | _____ |
| | Are students given tools and skills which help them to sustain a focus or an activity? | _____ | _____ |
| • • • • • • | • • • • • • | • • • | • • • |
| Understanding of one's own process of learning. | Are students provided with information about learning? | _____ | _____ |
| | Are there opportunities for discussing and monitoring one's own process? | _____ | _____ |
| • • • • • • | • • • • • • | • • • | • • • |
| Awareness of the body in the learning process.<br>a) to clear the body of stored-up feelings & data<br>b) to learn to relax | Are relaxation tools taught early in the class? | _____ | _____ |
| | Are students taught tools and exercises for clearing out stored-up feelings and data? | _____ | _____ |
| • • • • • • | • • • • • • | • • • | • • • |
| Continuity--tracking or follow-up of graduates. | Do students keep in touch with program staff? | _____ | _____ |
| | Are systems in place to provide continuity of support to students? | _____ | _____ |

## FUTURE RESEARCH

Seagal's work in learning styles is very new, dating from 1979 in the United States and 1983 in Canada. There are certain areas which bear further investigation. These areas have to do with the physically-centred learners and their observed

--right brain activity,

--field dependency

--high spatial, low verbal performance

--simultaneous learning.

Further research might examine these areas in light of particular learning styles.

Roland Chrisjohn has sounded a note of caution regarding research on intelligence testing in particular and all research in general,

> The fundamental problem with theory, whether Bannatyne's, Horn's, or Jensen's, is that it is external to Indian thought on the problem. Theory of Indian intelligence must eventually be constructed from within Indian ranks, with Indian perspectives and concerns reflected in its development. Otherwise, we continue to run the risk of producing trivial research with post-hoc constructions and recommendations being based on models and concerns insensitive to Indian people.(1)

Researchers must exercise care to listen to and document the experiences of individuals, allowing them to inform and shape the outcome of the research.

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(1) Roland Chrisjohn and Cynthia B. Lanigan, "Research on Indian Intelligence Testing: Review and Prospects," Mokakit Indian Education Research Association, July 1986, p. 54.

# PROGRAM EVALUATION

## DEFINITION OF SUCCESS.

Criteria for success in many programs are stipu-
lated by the funding body; the most current criterion
is "how many students advance to jobs or further
training?' Distortions in program evaluation occur
when this criterion is interpreted as 'advance immedi-
ately at the end of the course.'

Because of grave economic and social displacement
among Native people, there are many obstacles facing
students in preparatory programs. It is impossi-
ble that all of the issues deriving from deprivation
can be resolved in the brief period of a preparatory
program. During the program students work to satisfy
curricular objectives and if life skills components
are included, to tackle as many of the strategic
hurdles and blocks to achievement and success as
possible. Life skills provide practical, concrete
tools for insuring the success and eventual achieve-
ment of these students.

Many of these social and economic obstacles
will continue to be experienced by students after
the preparatory course has terminated. Some students
are unable to proceed immediately to jobs or training,
but must take three months, six months or two years
adjusting family circumstances, upgrading their health,

relocating, building contacts with people who will support and encourage them, in short, constructing the conditions which will ensure their continuing success.

To create conditions for success which include the bridging of cultures requires that students exhibit a particular set of refinements as they leave preparatory programs, whether they move directly or gradually into employment or training. These refinements, or criteria, for success are--

1) SKILLS FOR LOOKING FOR AND SECURING EMPLOYMENT OR SEATS IN ADVANCED TRAINING;

2) PERSONAL AND PROFESSIONAL RESOURCES FOR CONTINUING EMPLOYMENT OR TRAINING; PERSONAL RESOURCES INCLUDE SELF-CONFIDENCE AND BELIEF IN ONE'S ABILITY;

3) PROBLEM-SOLVING FOR A) COMBINING THE DEMANDS OF FAMILY AND COMMUNITY WITH INDIVIDUAL GOALS; B) OVERCOMING SOCIAL ALIENATION AND CULTURAL DISCONTINUITY; AND C) BRIDGING TWO CULTURES;

4) ONGOING CONTACTS WITH SUPPORT PEOPLE WHO ARE COMMITTED TO STUDENTS' PROGRESS AND CAN HELP STUDENTS STRATEGIZE IN AREAS RELATED TO ETHNO-STRESS.

These criteria are concrete and the dynamics they refer to are enduring. Students can be assessed based on the criteria and numerical data gathered to measure program success. Each of these criteria implies strong back-up of life skills programs especially adapted to the needs of Native people.(1)

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(1) A three year study of pre-, mid- and post-testing of the Nokee Kwe program attests to the importance of the life skills component in an employment preparation program. Dr. Roma Harris, Univ. Western Ontario, Evaluation Report, March 1985.

# INTERNAL EVALUATIONS

## COLLECTING DATA AND INTERVIEWING EVALUATORS

It is important for each program to devise methods of gathering numerical data and to set up a tracking system of program graduates. With follow-up data on graduates' employment and/or training, an accurate picture of program success can be developed.

It is very helpful if each program has ready access to information which can be used to educate external evaluators. Often evaluators who do not know about Native learning or culture are sent to evaluate programs. They may try to apply to Native programs assessment tools and/or educational expectations based in other cultures and other modes of learning. Each program administration must be alert in recognizing this problem and correcting it.

Interview evaluators before they start their work and record their responses to your questions so that your judgement of the evaluators is based on authentic information. This process will also help you to get to know evaluators more quickly so that you can work harmoniously together. Examples of questions to ask evaluators are

1)   What do you know about Native learning?

2)   Do you have some ideas about strategies for correcting ethno-stress?

3)   How do you see Native culture existing successfully within the framework of the general North American culture?

4)   Have you evaluated other Native programs?

## Demographics

A thorough-going system for gathering demographic data from students on entry to the program can be of great benefit to program design and can help to assess the match between a) the population served and b) the appropriateness of curriculum. This type of description is also useful to educate external evaluators.

Wanepuhnud(1) composed an effective internal evaluation which has educated both government funders and the public at large about their program. Demographic data, learning style assessments, program history, curriculum description, performance indicators, representative case studies and anecdotal material served to provide a convincing statement of the success and potential of this program.

Some of the demographic data to be drawn from initial surveys examines

| | |
|---|---|
| --age of participants | --family conditions and responsibilities |
| --past educational history | --past employment history |
| --relocations | --urban or reserve upbringing/affiliation |
| --languages spoken | --economic condition |
| --students' own perceived skills | --students' own perceived obstacles |
| --students' goals | --existing support networks |

Sometimes students express vulnerability in responding to such surveys. Care must be taken to assure students of both the confidentiality of the information and the help it gives to the program.(2)

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(1)    "Wanepuhnud Evaluation Report," Toronto, Ont., June 1986.

(2)    Other information can also be helpful in establishing a profile of students in the program; for example, Native Women: A Statistical Overview, Department of the Secretary of State, Government of Canada, Ottawa, Sept. 1985.

## PERFORMANCE ASSESSMENTS

Documentation of students' performance can be determined through pre-, mid- and post-testing. Some programs consider grades to reflect progress. Other programs provide personal statements of observed progress.

For three years Nokee Kwe arranged with Dr. Roma Harris[1] to conduct a battery of pre-, mid- and post-tests including career maturity, locus of control, self-esteem, communication, community resources, and perception of gender roles. This information has been helpful to the Nokee Kwe staff and board in tracking students' response to different program components and in making adjustments in the program.

## LEARNING STYLE ASSESSMENTS

A general profile of students' learning styles drawn from the data in this manual can be very useful in determining program design and delivery techniques. Since most of the students in Native preparatory programs are emotionally- and physically-centred learners, certain assumptions can be made. Most striking are the need for small group work and life skills techniques as a program component and as ways of teaching academic and technical courses. Clarification of identity issues--whether identification with the group or individual identification--are critical to stimulating and sustaining the learning process. External evaluators must be made aware of these differences. The following checklist is helpful in assessing how closely a program meets the needs of learners.

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(1) Roma Harris, "Evaluation Report, Nokee Kwe Project," March 1985.

# CHECKLIST FOR PROGRAM EVALUATION BASED ON LEARNING STYLES CRITERIA

| NEEDS OF GROUP | EVALUATION OF PROGRAM | % OF TOTAL CURRICULUM | FORMAT OF PRESENTATION |
|---|---|---|---|
| Practice speaking and working in a group one trusts and feels part of. | Is the community or bonding aspect of each program emphasized early in the curriculum? | _____ | _____ |
| | | | _____ |
| | Is there information about<br>  a)  Native culture<br>  b)  being a Native woman<br>      in the 1980's<br>  c)  being a Native man<br>      in the 1980's | | _____<br><br>_____<br><br>_____ |
| Time for speaking about what students are doing.<br>  a)  physical:  helps them develop a sense of their individuality<br>  b)  emotional:  helps them know what they know | Is each person encourage to  speak about what they know?<br><br><br>Is the pace/rhythm appropriate to allow each person to speak? | _____<br><br><br><br>_____ | _____<br><br><br><br>_____ |
| Time to practice and repeat until the student feels good about what they are doing. | Is enough time given for completion of tasks so that the student develops a sense of being in control of their own skills? | _____ | _____ |
| A brief overview, concrete terms, demonstration and doing. | Are concrete terms used?<br><br>Do instructors speak slowly & clearly?<br><br>Do instructors teach new vocabulary? | _____ | _____<br><br>_____<br><br>_____ |

# APPENDICES

## SELECTED BOOKS--RECOMMENDED FOR USE IN THE CLASSROOM

Benton-Banai, Edward, Mishomis Book, Indian Country Press, 1979.

Boyd, Doug, Rolling Thunder, Dell, 1976.

Cameron, Ann, Daughters of Copperwoman, Press Gang, 1981.

Campbell, Maria, Half Breed, University of Nebraska Press, 1982.

Culleton, Beatrice, In Search of April Raintree, Manitoba Metis Federation Press, 1982.

Erdrich, Louise, Love Medicine, Bantam, New York, 1984.

Storm, H., Seven Arrows, Ballantyne, 1972.

_____, Song of the Heyoehbah, Ballantyne, 1981.

Sun Bear and Wabun, (Series of books), Prentice Hall, Englewood Cliffs, New Jersey.

Waldo, Anna Lee, Sacajawea, Avon, 1979.

## THE FIRST PRINCIPLES*

1. Wholeness. All things are interrelated. This connectedness derives from the reality that every-thing is a part of a single whole which is greater than the sum of its parts. Hence any given phenomenon can only be understood in terms of the wholeness out of which it comes.

2. Change. All of creation is engaged in a process of constant change. There are two general cate-gories of change: development or integration and disintegration. Both are necessary and inseparably linked.

3. Process. The course of change generally follows observable patterns which occur in cycles or stages. There is a direction ... to all change that leads to some outcome which can only be fully understood in relationship to the context within which the process is taking place.

4. All of creation may be understood in terms of two categories of existence: material reality and spiritual reality. These two categories of existence are functionally inseparble....

5. Human beings exist in connection with all other aspects of creation.

6. Human beings are material and spiritual beings.

_____

* "Overview. The Four Worlds Development Project," p. 10.

7.   Human beings are in process of becoming (i.e. actu-
     alizing potentiality from conception to eternity.)
     This is true of individuals as well as human collec-
     tives such as the family and the community.

8.   Human beings have the capacity to create further
     potentiality through the cummulative effects of learning
     and culture.  Hence human potential may be regarded
     as infinite.

9.   As human beings, we transcend the limitations of mere
     materiality by virtue of our ability to direct the
     process of our own becoming.

10.  The spiritual dimensions of human development may be
     understood in terms of four related capacities.

         First,       the capacity to formulate and/or to
                       respond to non-material realities
                       such as dreams, visions, ideals,
                       spiritual teachings, aims, purposes,
                       and theories.

         Second,       the capacity to accept these realities
                       as representations ...of unknown
                       human potential.

         Third,        the capacity to give these non-material
                       realities symbolic expression (through
                       art, mathematics or language).

         Fourth,       the capacity to use this symbolic
                       expression to guide action....

11.  Human spirituality is expressed and developed through
     the practice of life preserving, life enhancing values....
     The realization of these values in human affairs is an
     indispensable component of human development.

12.  The essence of human actualization is the process of
     coming to know and to love the ultimate unknowns under-
     lying the ordering of the universe.  This is an infinite
     process.  It may be expressed by individuals as well as
     by human collectives.[1]

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