



The Australian Journal of **INDIGENOUS EDUCATION**

This article was originally published in printed form. The journal began in 1973 and was titled *The Aboriginal Child at School*. In 1996 the journal was transformed to an internationally peer-reviewed publication and renamed *The Australian Journal of Indigenous Education*.

In 2022 *The Australian Journal of Indigenous Education* transitioned to fully Open Access and this article is available for use under the license conditions below.



This work is licensed under the Creative Commons Attribution 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by/4.0/> or send a letter to Creative Commons, PO Box 1866, Mountain View, CA 94042, USA.

ABORIGINAL LEARNING STYLES AND FORMAL SCHOOLING

*Stephen Harris

A. INTRODUCTION : THE NEED FOR FUNCTIONAL LEARNING SYSTEMS

During the last few years many teachers of Aboriginal children have become familiar with some ideas about applying traditional Aboriginal learning styles in modern classrooms (see Harris, 1980 and 1982). However, some misunderstandings and misapplications have developed along with some very positive results in the classroom use of Aboriginal learning styles. To be an effective teacher of Aboriginal children one would need to understand that traditional Aboriginal styles¹ of learning have severe limitations for classroom use as well as much value. The purpose of this paper is to help teachers to clarify this issue.

While this paper is written for teachers of Aboriginal children and thus directed at practical rather than theoretical issues, it does need a unifying theoretical theme. The idea of 'functional learning systems' (Cole and Scribner, 1974) might be that theme. A particular style of learning is neither 'good' nor 'bad' in itself, but is effective if it helps the learner *adapt to his situation and survive well in it*. The traditional Aboriginal economy and technology was that of hunter-gatherers, which was well served by a largely *informal* non-verbal learning style. Western technological society and cash economy is well served by a higher proportion of *formal*, verbal, learning style. In the context of Aboriginal schooling, then, we need to analyse the differences between formal and informal learning and work towards that *combination* of features of both, and their application, at *different stages* of school learning, which would constitute a functional learning² system for *modern* Aboriginal children.

B. INFORMAL AND FORMAL LEARNING³

Contrasting formal school learning with informal learning will clarify the differences between what Aboriginal students are used to and what they need to be able to handle when they go to school, especially if they are to succeed beyond upper primary levels.

* Dr Stephen Harris, Professional Services Branch, Northern Territory Department of Education, Winnellie, 5789.

I acknowledge substantial assistance from Michael Christie and Beth Graham in preparing this paper.

The major features of *informal Aboriginal learning*, at least in North East Arnhem Land (Harris, 1980) are:

- 1) Much Aboriginal learning is by *observation and imitation*, rather than through verbal instruction, as is often the case in classrooms. ('Verbal' here includes both oral instruction, answering questions, and reading and writing.) Virtually all survival skills, social skills and much learning of artistic skills such as painting and dancing are learned through observation and imitation. Yolngu people learn by *looking* more than through talk. Aboriginal people are highly verbal, but talk has more of a social than a teaching function.
- 2) Much Aboriginal learning is through *personal trial-and-error* rather than through a combination of verbal instruction and demonstration, as is the case, say, in a school chemistry laboratory. Put another way, Aborigines learn *by doing*, and this is efficient for learning their traditional technology, but unsuitable, say, in a chemistry laboratory.
- 3) Much Aboriginal learning is through *real-life-performance* rather than through practice in contrived settings. Even when Aboriginal people say 'practising', such as at a warm-up dance getting ready for a ceremony proper, or when they have football practice, they tend to turn these into events that are ends in themselves and not only means to later ends.
- 4) In Aboriginal learning experiences there is relatively little focus on sequencing of skills: rather, Aboriginal people learn through *successive approximation to the efficient end product*. That is, there is more learning of wholes than of parts. For example, if a non-Aboriginal school teacher were teaching dancing (or taking choir practice, or giving a woodwork lesson) the students would be required to practise a sequence of separate skills which later would be combined into the whole activity. By contrast, an Aboriginal child from a very young age will join in and simply perform as much of the whole dance as he/she can, getting better over time through successive approximations to the mature end product.
- 5) A very common Aboriginal problem-solving technique is *persistence and repetition*. This too is suitable to their traditional economy and technology. For example, the best way to ensure spearing a fish is to keep throwing at fish until you get one. (See Harris 1980, Brandl 1980 and Coombs *et al.* 1983) for further details of Aboriginal learning contexts. It should also be said that culturally different learning styles are not unique to Australian Aboriginal

people, but examining other groups is outside the scope of this paper. (See Cohen 1969, and John 1972, as examples of interesting studies of other groups.)

The major features of *formal learning processes* are (from Scribner and Cole, 1973, and Christie, 1982, 1983):

- i) It is *decontextualised* - with its content having little immediate application to everyday life and survival.
- ii) It follows from i) that it will therefore deal largely with *abstractions*, i.e. information abstracted or taken out of any real-life context.
- iii) It follows from i) and ii) that it will therefore need to be conducted *verbally*, which includes both the written and spoken forms.
- iv) It is a *conscious* process. Before something can be talked about the speaker must be conscious of it.
- v) It often involves the *sequencing of parts* of a skill or body of knowledge and the presence of an official '*teacher*'. (These last features are not always a necessary part of formal learning, but in Western society they seem to have become synonymous with it.)
- vi) It must be *purposeful* in the context of i) - v) above. (Aboriginal people are, of course, very purposeful in contexts which are familiar to them, e.g., hunting. But a skill such as hunting does not necessarily involve i) - iii) above in order to be effectively learned.) Because the role of purposefulness in formal learning may be less familiar than the roles of i) - v) above, it invites some additional explanation. The particular characteristics of purposeful learning behaviour which most school children in Western society begin to master by their mid-primary years as defined by Christie (1982, 1983) in relation to Milngimbi Aboriginal children are:
 - a) A goal which is conscious, specific and realistic. Frequently Aboriginal students have very different goals from their teachers. For example, some students' goal in school learning is to produce a page of 'ticks', or to produce 'work' - even if it is copied, or to move up through the school on the basis of age rather than mastery of skills, or simply to keep the teacher happy (Christie 1980). Also, Aboriginal children continue to set unrealistically high goals after failure and often do not increase their goals after success.

- b) *Internal control* or a sense of being in control of learning. This is related to the psychological construct of locus of control and in this situation involves the individual's willingness and ability to exert personal control over the learning process. Frequently Aboriginal students wait passively for learning to happen, assuming that teachers are bestowing learning on them, rather than make it happen. When teenage Aboriginal students at Milingimbi were asked to give advice to younger students about how to learn well in school they listed passive behaviours: 'sit down', 'listen to the teacher' and 'be quiet'. One other evidence of this behaviour is the infrequency of 'why' questions or attempts to clarify information. These children do not realise that they must try, think, and make learning happen.
- c) *Judgement* or using *feedback* concerning progress towards the goal. The purposeful learner continuously monitors his goal-directed progress. Some signs of this monitoring are: reflection, acknowledging when he is right or wrong, that it was his doing, and making moves to correct mistakes or to continue after success. He interprets a wrong answer as his own mistake, rather than the teacher's spite.

Purposeful learning is not only a matter of confidence or of assertiveness in learning, but part of a whole cultural attitude towards the nature of knowledge and the learning process.

Passive participation is not sitting back and doing nothing. It is doing something in a special way which reflects your view of yourself, your world, and the situation you are in.

(Christie 1981)

The communication breakdown between non-Aboriginal teachers and Aboriginal students in the formal learning situation is more than a failure to communicate information; it is a failure to communicate goals and the nature of goal-directed behaviour.

C. THE ROLE OF INFORMAL LEARNING IN THE CLASSROOM

There are, however, important classroom benefits to be gained from understanding ways in which traditionally oriented Aboriginal children are used to learning outside school:

- a) *Informal learning styles* are the best way to introduce the fundamentals of the 3Rs, and for that matter, any classroom skill or understanding. While the term 'Aboriginal learning styles' is

used, the approaches consistent with Aboriginal ways of doing things are found in varying proportions in all cultures. And informal (or more strictly, *planned informal*) approaches to, say, the teaching of *initial* reading will work better with all children, white or black, than the more formal, teacher-centred approaches. It is almost as if Western teachers have, in some subject areas such as the teaching of reading, overshot the limits of usefulness of formal instruction. Because formal teaching is so powerful we assume it works for every learning task. Because Aboriginal children are more used to learning informally (or have learned a higher proportion of what they know informally) than non-Aboriginal children, it is all the more important that Aboriginal children learn to read through a planned informal approach (Harris, 1980).

The teaching of reading provides a good example. From the point of view of Western theory about the reading process there has been a shifting of emphasis during the last 15 years away from the idea that reading is best taught as a decoding skill, to teaching it more in terms of a much broader communication skill. One of the more out-of-date ways to approach the teaching of reading was to emphasise the teaching of letters first, then words, then comprehension skills, then later to expose the learner to lots of easy reading practice. More recently, the tendency is to reverse this emphasis; to expose the child to lots of reading first and foremost (which is done by reading a great deal *to* and *with* children), and only then to teach smaller parts in a more formal way in the context of meaningful material. The theory is that although children do need to be taught word-attack skills, it is more important to realise that children learn to read by reading. (See Holdaway, 1979, where he describes children learning to read by approximating reading behaviour, Harris, 1981, and Harris, in press.) This approach incorporates the major aspects of Aboriginal learning styles:

learning by *observation*
by *doing*
by *imitation*
by *personal trial and error*
by *real-life performance*
by *persistence and repetition*

as well as utilising *person orientation* and the principle of learning through *successive approximations to the efficient end product*.

All this is a different approach from the careful sequencing of skills in formal schooling, where cumulative skills are taught in such a way that the ultimate usefulness of each skill is not obvious at the time of teaching. However, although informal learning strategies will help children learn to read, in time children

must read to learn and this involves using more consciously such higher level cognitive skills as judging, predicting, evaluating, etc., which are best achieved by involving children in discussion after reflection on what they have read.

Beginning to learn English as a Second Language can be more effective in planned informal or semi-formal activities - i.e. by *doing, role playing, imitating* and through *successive approximations* etc. The same is true for many aspects of primary level Social and Cultural Education - i.e. aspects of history, geography and economics - certainly the local parts of those learnings. Fundamental or introductory natural or environmental science could best be learned through planned informal activities, or informal and formal teaching combined. On the other hand, those aspects of science which cannot be experienced in the same way, cannot be taught informally. In other words, effective teachers of Aboriginal children need not only to know the children well and be able to adapt to them, but need to know each curriculum area well, before they can work out where to apply and where not to apply Aboriginal learning styles in the classroom. Until teachers know the curriculum principles well and the children well they cannot put the two together.

b) *Teachers who can make use of Aboriginal learning styles will be able to ensure that what the children are learning is truly meaningful in the social context.* Aboriginal learning styles have a special benefit in second language situations because they are generally not language-dependent. This is largely because when learning is by doing and by looking etc., there are more contextual clues which 'explain' what is involved. Informal, contextual learning can partially overcome the language barrier, where white teachers speak English, and Aboriginal children come to school with an Aboriginal language as their first language. Teachers need to realise that when they are talking in the classroom in English they are juggling around large numbers of quite abstract ideas and much of this juggling is dependent upon tiny English prepositions which the children may only barely grasp.

In addition, informal learning is valuable in the early stages of all learning. For example, most teachers now accept that children 'learn to read by reading' and there is evidence to show that this is a powerful learning strategy.

The danger with informal learning is, however, that because the learner is not always fully *conscious* about what he knows, he cannot always apply that knowledge to other problems. While it is argued below that there is ultimately no side-stepping the need to learn how to learn through verbal instruction for those who want to succeed in secondary schooling or to cope with many culture contact

situations, there are also dangers in depending on verbal instruction when experience-based activities combined with a carefully planned use of language would be more effective. This is true for children of *any* culture.

On the other hand, one danger of a teaching approach which is too predominantly verbal is that students may learn to respond, but do not really know the significance of all the terms the teacher uses. This is particularly important where the home culture has not provided the context for the words or concepts used in school. An example of the reverse teacher-student situation will illustrate the point. Some non-Aboriginal teachers working in Aboriginal communities learn the outline of the local Aboriginal kinship system, learn how to address some Aborigines by kinship terms and gradually come to think that they understand the kinship system, i.e., they are able to respond because they have 'learned' the reciprocal terms. But they usually do not get to know the social or economic significance of these terms and cannot apply them appropriately in many different settings. And the moment of truth comes when they are at a ceremony and say to an Aboriginal, "Why is X dancing now?" The Aboriginal person thinks the answer is obvious, and that they must already know because they can say the kinship terms. In the same way Aboriginal children can say "nine" when you say "six plus three" but often they don't know where it fits into life. These problems are often difficult to perceive in classroom practice, because, according to Christie (1980), Aboriginal children are forced to develop complex coping strategies in the face of impossible teacher demands. (Impossible, because teachers are expecting Aboriginal children to think, learn and understand like white children.) These coping strategies allow the classroom to run relatively smoothly, but minimise learning.

Ideally, in as many situations as possible formal and informal styles should be combined to avoid the dangers of each. A combination of what we are calling 'Aboriginal' and 'formal' learning styles is always the most effective primary classroom approach - a combination of doing and talking.

c) *A teacher who understands how Aboriginal children learn will have a good chance of building up rapport with students.* Non-Aboriginal teachers who work in Aboriginal schools have a much better chance of developing rapport with the children if they understand the patterns of socialisation that made them Aboriginal children. Some teachers find that the students don't respond to them for the first six months, and they give up careful planning and preparation because "nothing is happening". If they were warned that it takes six to twelve months for Aboriginal children to accept most teachers, they would be prepared to ride this period of

adjustment out and keep high expectations for the students and keep preparing carefully for lessons. The main point here is that teachers can easily misinterpret Aboriginal children's classroom behaviour as 'laziness', etc., but seen in the light of the children's own perspective these behaviours are in fact preferred Aboriginal behaviours. ('Laziness', for example, is often really the Aboriginal preference for non-pushy participation, or for the right to maintain personal independence by not obeying until the third or fourth request.)

d) *Teachers who understand Aboriginal learning styles will be more able to understand and assist the Aboriginal staff with whom they are working.* Perhaps even more important than teaching children is the non-Aboriginal teacher's responsibility for on-the-job Aboriginal teacher training - in both the 'what', 'why' and 'how' of school education. If the non-Aboriginal teacher has a fundamental understanding of the potential strengths and weaknesses of Aboriginal learning styles for classroom application, he/she will be in a much better position to understand Aboriginal teacher behaviour and to suggest any necessary adjustments to, or to reinforce, their teaching behaviour.

It is quite possible that non-Aboriginal teachers will be able to adapt to Aboriginal learning styles in classrooms more readily than Aboriginal staff. This, of course, is because non-Aboriginals are themselves able and willing to act purposefully in their classroom work, i.e., they have clear educational goals, a sense of control over the situation and the ability to monitor their progress towards the goal. Aboriginal staff, tending to be conservative and to expect to teach as they themselves were taught in school, sometimes become uneasy when innovative classroom programs are introduced. Because Aboriginal learning styles are largely informal, Aborigines are not conscious of them and do not find it easy to discuss them and analyse them. Thus non-Aboriginal teachers need to spend time initiating discussions - preferably with groups of Aboriginal staff - about how Aboriginal children learn at home and about how these insights might be applied in classrooms. Incidentally, when these insights are deliberately applied to learning in the classroom it is probably more accurate to refer to it as planned-informal learning.

To conclude then, all initial learning must be introduced *meaningfully*, which means through *context-embedded* learning. This is true even for language teaching:

...A major pedagogical principle for both first and second language teaching is that language skills needed

in context-reduced situations can be most successfully developed on the basis of initial instruction which maximises the degree of context-embeddedness.

(Cummins 1981, 14)

Brian Gray also talks about meaning preceding talk -

Children must perceive the meanings which are to be communicated before being asked to master the surface forms in which the meanings are to be expressed.

(Gray 1982, 10)

Therefore, informal learning styles must be employed. But, whereas informal learning styles are *essential* for laying the foundations, they are *not sufficient*, because without verbalisation the children will not learn what formal education is out to teach them, that is, how to be purposeful in (school) learning, how to use language in context-reduced ways, how to handle abstractions and how to handle context-free principles. As Wells says:

One of the chief aims of schooling is to help the child to transcend the limitations of thinking which is tied to the context of immediate practical activity.

(Wells 1981, 268)

And as Cummins further says:

Recent research suggests that...part of minority students' failure in mainstream classrooms may derive from application of context-embedded strategies in the school setting where context-reduced strategies (e.g. responding in terms of the logic of the text rather than in terms of prior knowledge) are expected and rewarded.

(Cummins 1981, 12)

D. SOME MISUNDERSTANDINGS AND MISAPPLICATIONS OF ABORIGINAL LEARNING STYLES

There are a number of misunderstandings which teachers have about applications of Aboriginal learning styles. One is that Aboriginal society has undergone so much social change that learning style contrasts are no longer valid. Without going into detail here it can be said that while social change has taken place in some areas of Aboriginal life, in isolated Aboriginal communities in the Northern Territory it has not been significant in the area of

learning styles. Also, some teachers say that too much extrapolation is done from observations made at Milingimbi; that Aboriginal groups throughout Australia are very different. Observations made as far apart as Bathurst Island, Ernabella, Yuendumu and Aurukun (for example, see O'Brien, Plooi and Whitelaw, 1975) indicate that in terms of learning style traditionally oriented Aborigines from all over Australia have much in common (as would traditional hunting and gathering societies throughout the world, because learning styles are closely related to economy and technology). In terms of applications that can be made in schools, however, the following are much more important misunderstandings:

a) *'Aboriginal people will do better at school if they are allowed to do school activities in the Aboriginal way.'* Provided teachers really understand what the crucial processes are in learning different skills and have analysed the strengths and weaknesses of 'the Aboriginal way' for teaching each skill, and have carefully planned for those teaching activities, for most areas of the curriculum in the earlier years, and in areas such as local history and geography in later years, Aboriginal learning styles can be productively used in classrooms. But it would be wrong to imply that if we could only learn enough about the 'Aboriginal way', eventually the whole school curriculum could be taught through Aboriginal teaching styles, and that the formal school approaches are only a stop-gap measure in Aboriginal schools till those greater insights come. The point is that because of the nature of what is to be learned in schools, that is, often verbal mastery of knowledge away from the here-and-now, the value of traditional Aboriginal styles is necessarily limited in schools. Schools use language to stand as symbols for real experiences, which leads to further use of symbolisations through written words, and mathematical symbols etc. This allows children to abstract principles and apply them to situations they have not previously met. The Aboriginal learning system is not a functional learning system for everything that needs to be learned in school. Whether a formal or informal style fits the task best is dependent on the nature of what is to be learnt, more than on the students' cultural affiliations.

Aboriginal learning styles evolved as adaptations to cultural, economic and technological realities for Aboriginal people. They are very efficient for those purposes, but are not efficient for all modern purposes. For example, persistence and repetition is an efficient problem-solving approach if the problem is spearing a fish, but not efficient in analysing an ailing motorbike engine; and trusting in older authority figures is an efficient learning attitude in a society where there is one religion and one political system for all, but is inefficient where there is freedom of religion and a variety of acceptable political ideologies. We cannot ignore

Western educational theories. We must be critically selective of both them and of Aboriginal learning styles, to achieve the purposes of modern Aboriginal learning.

b) *"Respecting Aboriginal learning styles requires letting things happen naturally."* There are a few teachers in Aboriginal schools doing what one observer regarded as "sloppy, poorly prepared activities and laying this at the feet of Aboriginal learning styles". In fact, to apply Aboriginal learning styles profitably in the classroom takes *more* time and more effort to understand and plan than the more traditional 'school' way of teaching. The word 'natural' in relation to 'traditional' is somewhat deceptive. A superficial analysis of traditional Aboriginal society might lead some observers to assume that things were 'just happening' very casually, when in fact there were pressures at work (e.g. economic necessity) which ensured that the significant adults in the Aboriginal children's world were performing a range of important skills in the presence of the children and which the children needed to learn. There was probably also significant social pressure on the children to learn these skills early and effectively. Without the frequent presence of these adults the quality of informal learning to which the children were exposed could be very inefficient. Also, in informal learning the proportion of 'newness' (or unfamiliar content and process) in any activity is very small. Thus, in view of the fact that much of the experience of Aboriginal children in school has a higher proportion of newness, unless adults are setting up the situations with a clear educational purpose in mind, so-called 'informal' learning experiences are likely to have little more than a baby-sitting function.

Informal learning must be carefully facilitated by the teacher. The danger is that it is often equated with the teacher doing nothing; e.g., letting the children tackle the block corner on their own. To evaluate this act we need to ask the question, "What are block corners for?" They are designed among other things for children to develop exploratory behaviour. But if children are to learn by watching and copying there must be an adult in the block corner, for if the blocks are strange to the children, and they see no adult lead the way, little will be learnt. Also, children's exploratory behaviour is often started by adult verbal suggestion and discussion, and without this the quality of exploration in this context is likely to be low, especially so in that exploratory behaviour is a cognitive process and not a skill.

From this discussion two principles emerge: informal learning in school is effective for learning skills that other people are already visibly performing and for activities where the proportion of

unfamiliar material is not too great. In particular curriculum areas, e.g., ESL or reading, or social studies, a great deal of behind-the-scenes planning is necessary on the part of the teacher/facilitator to make the experiences promote the desired learning. Thus, there is an obvious difference between informal learning in a traditional Aboriginal setting and in a modern classroom: in the former, although the adults were probably very effective teachers, they would seldom *plan* a teaching situation as such and may not have been fully conscious of what learning was taking place. So probably neither the student nor the 'teacher' were conscious of being in a 'learning situation'. In classroom informal learning situations, while the student may not be conscious of learning, the teachers need to be fully conscious about what is planned to be learned from each experience.

c) *"Aboriginal children should do their school work in groups, because co-operative learning is an Aboriginal learning style"*. In many cases group activity clarifies issues for weaker students and allows weaker students to experience success. For example, group discussion in a pre-writing activity is positive, and group reading during Shared-book Experience is very helpful. However, if the teacher, through knowing the students very well, perceives that some students are always coasting in the group activities, then they need to change the classroom organisation. Christie (personal communication) observes that 'copying' is a major escape route perfected by many Aboriginal children. White children copy too. But the difference between white children's and Aboriginal children's copying is that the latter often do not realise that copying is not an effective approach to formal learning.) Copying among Aboriginal children is a serious educational problem. When it is not the kind of group work that fosters true growth it is made worse by teachers who label it 'co-operation' and let it go.

d) *"Aborigines learn by repetition and rote memory"*. Repetition can promote learning more effectively than a lot of teachers recognise. For example, the power of bed-time stories to teach children to read partly depends on the repetition involved. But quite obviously if students are allowed to, say, continually play flash card games which embody skills which they have mastered years ago, or practise skills which are isolated from any meaningful context in which they can be applied, or allowed to do sums on the board or arithmetic worksheets endlessly at a level of difficulty which they have reached a long time before, or which involve operations which those students cannot apply in real-life situations, then repetition as a learning style is being applied in a way that short-changes the students. The teaching principle might be that repetition, or practice of itself does not teach new ideas, but is

successful only when accompanied by *meaning* and *purpose*. For example, the repetition of bed-time stories is helpful only because the child has his/her own purpose to gain enjoyment and is not merely following some external pressure. Learning tables in arithmetic is helpful, that is, it becomes usable knowledge, only when the students can see multiplication in a broad meaningful context and when they can use the tables with purpose in real life applications.

e) "*Aborigines don't ask questions*". Apart from being an oversimplification (because Aborigines do ask some types of questions - see Harris, 1980), the questioning nettle has to be grasped if Aboriginal students are ever to succeed in the school system. Aboriginal parents train their children not to ask too many questions. For example, one experienced non-Aboriginal teacher at Gapuwiyak observed that in maths lessons when children started to ask a lot of questions, the Aboriginal assistant teacher said, "Don't ask so many questions - you're not balanda (white) kids". On another occasion Aboriginal adults have been observed to respond to children's questions by distracting the children by saying things like "Look at those birds," (in a similar way as a non-Aboriginal parent would try to distract a child who was distressed or misbehaving). Teachers should accept that the Aboriginal customs here will not prepare students for high school, so strategies for getting Aboriginal students used to questions must be worked out. Christie (personal communication) suggests that games which required students to ask meaningful questions would be helpful. But perhaps more importantly, teachers need to learn how to ask questions in a way that does not confuse children. Also, Aboriginal children need to accept that asking and answering an unnatural number of questions is part of the school subculture. Teachers need to explain the purpose of questions. One of the problems is that teachers act as if all school activities are natural in terms of life outside schools - when clearly they are not.

Another principle about questioning is that if an experience *precedes* verbal discussion and questioning, the students are likely to be more confident and more talkative about the content being discussed (see Graham, 1984, p.28). The importance of using an experience (informal learning) as a stimulus for fostering verbal (formal) learning has been symbolised by the learning triangle. (See Section E of this paper). Here students move from *experience* to *discussion* to *recording*. If we try to start at the discussion stage, students often have nothing to talk about. If we start and stop at the experience, students do not learn to learn through verbal means. If we go straight to the recording stage (as is done often by a writing maths sum on the board), students may be doing nothing beyond rote activity. If we use all three stages we have

combined, as it were, informal and formal styles to the best overall learning advantage.

f) *"Teachers in the traditional Aboriginal setting perform tasks and provide answers for children."* Like other aspects of Aboriginal behaviour this can in *some contexts* be a really useful aid to learning. Most non-Aboriginal teachers tend to be worried about this Aboriginal trait and believe strongly in letting the children struggle.

In some cases for the adult to do the task for the students is educationally sound. Some educators believe that for some learning tasks for the child to be helped, say, 24 times over the same item makes learning just as efficient as being instructed, say, four times with the student being required to struggle on his/her own. (By struggle I do not mean floundering, but outlaying effort.) But we need to be careful here. If a child is struggling, you know he has a *goal* and *internal control*. Therefore you know his chances of being successful are high. On the other hand, if you help a child 24 times he will not learn *unless* you have successfully communicated the *goal* and he has *internal control*. Therein lies the danger of repetition and even modelling. These strategies will only work if we put them into a purposeful context. For example, take the teaching of reading: children can learn by going over and over stories with other people (such as bed-time stories or lap-method). These are really cases of adults 'doing' for the children - and this is positive, but only if the child has learning to read as his or her goal - something we take for granted in relation to white children. Or take cutting and pasting by Aboriginal children. Here the proportion of newness for the Aboriginal child is high, so for them to observe the adult or have the adult do it is an excellent *starting place*, even if the student does need to do it independently later on. Or take jig-saw puzzles. A good way to start this skill is to watch and imitate adults, and then to move into trial and error or doing it on their own. But if adults also talk about what they are doing for or with children (an un-Aboriginal thing to do) this combination of 'Aboriginal' and 'non-Aboriginal' styles would be efficient without being intimidating.

g) *"Aborigines don't verbalise a lot in learning contexts, so shouldn't be required to do so in school."* Sooner or later talking must be a major means of teaching and learning in school - it is unavoidable because much of what is learned higher up in school must be outside what can be experienced, seen, imitated, or performed. A list of learning processes such as could be found in almost any educational psychology textbook, e.g., observing, recalling,

classifying, comparing, contrasting, generalising, inferring, predicting, hypothesising, analysing, synthesising and evaluating, shows plainly the importance of verbalising in formal learning. Even a topic such as teaching Aborigines the white man's views about land would require verbal learning which uses many language functions typical of formal learning.

It is not just any kind of talk that develops a body of context-free principles or a body of knowledge that goes beyond the immediate context of the local people and environment, but particular ways of using language. For example, Aborigines are highly verbal - but much more for social than teaching purposes, and many 'white' parents are highly verbal, but quite often for the regulation of family life and behaviour rather than to stretch the child's imagination. Tough (1980) provides examples of some of the ways language is often used in school as a powerful tool of learning: talking for imagining, talking to think, talking to clarify and expand general knowledge, talking to express and explore ideas, talking to clarify and order experience, talking to stimulate curiosity and problem solving attitudes, talking as a tool for interpretation, and talking as a means of adjusting to new situations. In all of these different purposes for using language the child is nearly always dependent on adults for initiation into subtle and more complex uses of language.

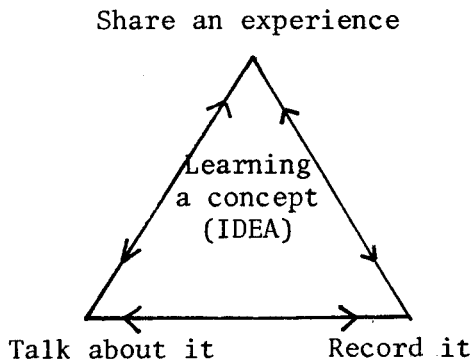
h) *"Non-Aborigines learn informally too."* In Western society there is a great deal of both formal and informal education whereas in more traditionally oriented Aboriginal society most learning is done informally.

Two common experiences in non-Aboriginal homes might make these distinctions clear. Firstly, there are of course non-Aboriginal examples of fairly 'pure' informal learning. These occur when there is no time pressure. A boy learns to shave by watching his father on and off over many years. The significant features of this informal learning setting are that the adult is doing something real, the child watches and maybe pretends or imitates, there is virtually no verbalisation of the process, and after a long period of time at the appropriate age the child successfully, with a little trial and error, performs the skill. The second is that of children learning to tie shoe laces. This is a difficult and complex task that usually must be accomplished in a short time. So, the parents take steps that are typical of formal school learning and thus unconsciously they prepare children for school even though at this stage there is nothing as advanced as, for example, questioning what is happening or about to happen. Parents break the task up into parts (sequence the skills) e.g., first knot, then bow, then knot the bows. Children practise each part before proceeding. Also the

parents verbalise a great deal of the process. This *collapses the time* involved. The verbalisation process which accompanies the knot-tying raises awareness of the process to the conscious level, so the learner *consciously* knows what he/she is learning. An added aspect of the preparation for school in this example is that the child is getting used to learning things imposed by adults and when demanded by institutionalised time schedules.

E. THE LEARNING TRIANGLE AND THE CONTENT/PROCESS CROSSOVER:
AN INTEGRATION OF FORMAL AND INFORMAL METHODS

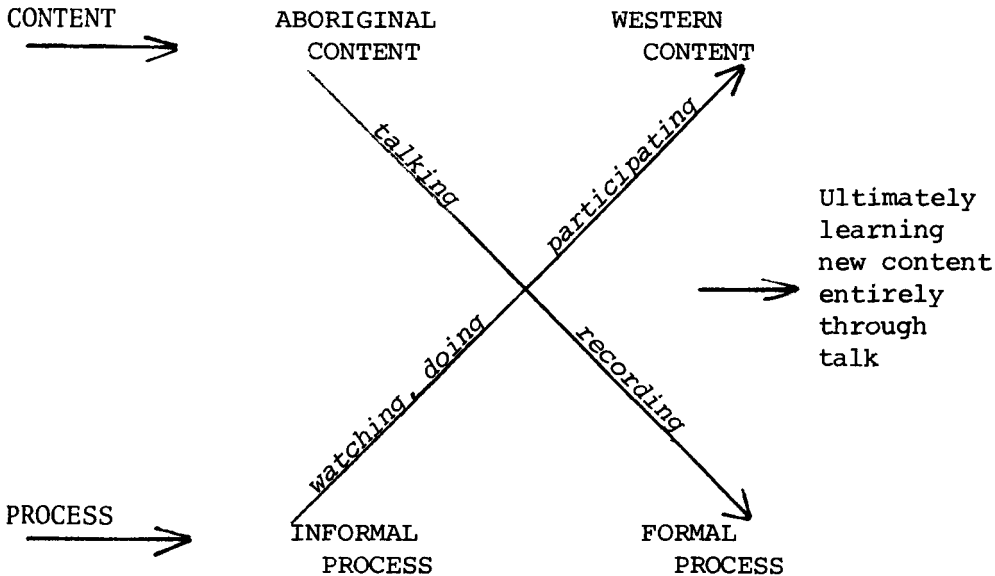
Teachers can do more than a lot of us presently do to avoid 'dumping' school verbalisation on Aboriginal children. Skilful teachers have their own routines, but for those less adept it is a good rule to begin with experiences, and then talk about and record those shared experiences. It is here that the three step learning triangle is so important. As discussed above, step one is *share an experience*, step two is *talk about it*, step three is *record it* in some way which allows for more talk. This approach involves beginning in an 'Aboriginal way' and ending up in a more conscious, verbalised 'school' way of transmitting and reviewing knowledge.



It is hoped that readers do not assume that the importance of verbalisation is being urged merely because it is a 'school way' or 'white' way of doing things. Verbal learning is important because it is highly efficient in terms of allowing for out-of-context learning, allowing immediate feedback, promoting the formation of generalised principles, and creating consciousness about what is known and not known, which in turn increases the chance of applying knowledge or principles in new settings.

Another teaching approach which is helpful in building bridges from informal to formal learning with Aboriginal children can be called the 'content/process crossover'. The basic idea here is that

formal learning processes, that is, verbal learning, should be started on familiar content, and that new Western content should, where possible, be introduced through informal processes, that is, through watching, doing, participating, telling and labelling. In this way the teacher can avoid teaching new content and new processes at the same time.



F. CONCLUSION

In order to improve Aboriginal schooling in fundamental ways, the starting point for a teacher is to be well grounded in Western educational theory and in an understanding of Aboriginal learning styles. There are, of course, important areas of Aboriginal knowledge in terms of language, world view, maths and science, etc., that we need to learn much more about in order to improve Aboriginal schooling, but those matters are outside the scope of this paper. The central theme of this paper is that until teachers know their school curricula well (including various teaching methodologies) and know the Aboriginal students well, they cannot put the two together. Those teachers who believe that all we need to know is the Aboriginal way of doing things only have half the formula; those teachers who think they only need good Western teaching methodology and do not need to make special adaptations for Aboriginal children only have the other half of the formula.

Formal school-type learning must be a part of any functional learning system in modern Australia. A teacher of Aboriginal

children who has not made a close study of traditional Aboriginal ways of behaving in learning situations is at a real disadvantage in trying to develop the most effective teaching approaches for Aboriginal children. To be an effective teacher of Aboriginal children, teachers must be well grounded in educational and pedagogical theory, must know and understand the children, must know and understand Aboriginal school staff, and must be able to analyse critically effective teaching strategies in the light of all this knowledge.

NOTE 1

It should be explained early in this paper that although it is largely devoted to informal Aboriginal learning styles, and although it will be claimed here that the vast majority of traditional Aboriginal learning was achieved informally and largely non-verbally, it is not being implied that there was and is no formal verbal instruction in Aboriginal society. Mothers certainly name people and things a lot to their children and there is verbal instruction at ceremonial times and there is much telling or reciting, but all of these examples of verbal teaching are different from the two-way process of student and teacher being verbally involved and responding to each other. It is a matter of proportion: most learning in Aboriginal society was achieved informally.

The observations reported in this paper about Aboriginal learning styles were made at Milingimbi in North-East Arnhem Land in the Northern Territory.

NOTE 2

The concept of a 'functional learning system' was developed partly to counteract the concept of the 'deficit model' of learning by ethnic minorities.

We should not become uneasy about the recognition of difference on the grounds that it begins to look like 'deficit' difference. Difference is a fact of life in Aboriginal communities. The deficit model implies that the problem is in the emptiness of the child's head, and the responsibility for failure lies with the child. The difference model claims the child already has learned skills and knowledge that are functional in his situation; and that he needs more and different skills for the new situation; and that the responsibility for failure lies more with the teacher. The resultant ethical justice and attitude change by teachers add up to important classroom gains.

NOTE 3

To prevent the theme of this paper from becoming too complex the basic contrast of formal versus informal learning has been used most of the time. However, in some ways this is an over simplification which the chart (Appendix 1) may partially overcome for those interested in analysing the contrast further.

REFERENCES

- Harris, S.G., 1980: *Culture and Learning : Tradition and Education in North-east Arnhem Land*. NT Department of Education, Darwin, NT.
- Harris, S.G., 1982: Traditional Aboriginal education strategies and their possible place in a modern bicultural school. In J.Sherwood (Ed.): *Aboriginal Education: Issues and Innovations*, Creative Research, Perth.
- Harris, S.G., 1982: Towards a sociology of Aboriginal literacy. In D.Burns, A.Campbell and R.Jones (Eds): *Reading, Writing and Multiculturalism*, Australian Reading Association.
- Harris, S.G. (to be published): The Aboriginal way of teaching reading. *Teaching in Arnhem Land*
- Brandl, M., 1980: A certain heritage : women and their children in North Australia. Paper delivered at ANZAAS, Adelaide.
- Knapp, P., 1981: School, cognition and the Aboriginal child. *Developing Education*, Vol. 9;1, Darwin, NT.
- Coombs, H.C., Brandl, M. and Snowdon, W.E., 1983: *A Certain Heritage*. Centre for Research and Environmental Studies, Australian National University, Canberra (especially Ch.3).
- Scribner, S. and Cole, M., 1973: Cognitive consequences of formal and informal education. *Science* 182:4112.
- Cohen, R.A., 1969: Conceptual styles, cultural conflict and non-verbal tests of intelligence. *American Anthropologist* 71:5.
- John, V.P., 1972: Styles of learning - styles of teaching: reflections on the education of Navajo children. In C.Cadzen, V.P.John, and D.Hymes (Eds) *Functions of Language in the Classroom*. Teacher's College Press, Columbia University, NY.

- Christie, M.J., 1980: Keeping the teacher happy. *The Aboriginal Child at School*, 8 (4). Dept. of Education, University of Queensland, St Lucia.
- Christie, M.J., 1982: Teaching purposeful reading to Aboriginal children. *The Aboriginal Child at School*, 10 (2). Dept of Education, University of Queensland, St Lucia.
- Christie, M.J., 1983: The ritual reader: guiding principles for teaching meaningful reading to Aboriginal children. In J.Anderson and K.Levett, (Eds): *Teaching Reading and Writing to Every Child*. Australian Reading Association, Adelaide.
- Cummins, J., 1981: *Schooling and Language Minority Students*. Evaluation, Dissemination and Assessment Centre, California State University, Los Angeles, California, USA, 90032.
- Gray, B., 1982: Developing a language program for urban Aboriginal children. Paper presented to the Seventh Annual Congress of the Applied Linguistics Association of Australia, Perth, 21-26 November.
- Holdaway, D., 1979: *The Foundations of Literacy*. Ashton Scholastic, Sydney.
- O'Brien, G., Plooiij, D. and Whitelaw, A., 1975: *Culture Training Manual for Teachers in Aboriginal Communities*, Flinders University, Adelaide.
- Tough, J., 1980: *Focus on Meaning: Talking to Some Purpose with Young Children*. George Allen and Unwin, London.
- Graham, B., 1984: Finding meaning in maths: an introductory program for Aboriginal children. *The Aboriginal Child at School*, 12 (4), Department of Education, University of Queensland, St Lucia.
- Wells, G., 1981: *Learning Through Interaction*. Cambridge University Press, ch. 7.
- Graham, B., 1984: *Language Power: Towards Better Teaching Methods for Developing Language and Literacy in Aboriginal Bilingual Schools*. N.T. Department of Education, Darwin.

.....

APPENDIX 1

THE INFORMAL - FORMAL LEARNING CONTINUUM

CONTEXT EMBEDDED
CONTEXT - REDUCED

PRIMARY SCHOOL EDUCATION

<u>Informal</u>	<u>Planned - Informal</u>	<u>Semi-formal</u>	<u>Formal</u>
.Incidental learning.	.'Real-life' or concrete experiences where teachers consciously plan to 'live' what has to be learned, e.g. learning to read by reading approaches.	.'Real-life' or concrete experiences which are talked about before they happen; while they are happening; after they have happened.	.Teachers lecture
.Real-life experience.			.Students learn from text books and written instructions.
.Participating: doing, watching, imitating, etc.			
.No pressure or time limit on learner to learn.	.No pressure on students to perform or overt time limits.	.Both teachers and children asking and answering a wide range of questions.	.Context-reduced verbally mediated learning: abstracted from everyday life.
.No institutionalised office of teacher.	.Teacher conscious of imparting knowledge.	.Children involved and responding in two-way conversation about the learning.	.Highly conscious learning.
.More learning of wholes rather than parts; successive approximations to efficient end product.	.Planned use of informal learning strategies.	.Observation, participation etc. accompanied by verbal comment, analysis, sequenced learning.	.Ideas explored through language.
.Participants are living, learning is a by-product.	.Assessment part of the total experience, children unaware of being assessed.		.Vicarious experience
		.Awareness of time constraints.	.Time limits.
.Relatively unconscious.		.Increasing purposefulness in terms of realistic goals; sense of learner control and use of feedback to adjust goals.	.Purposeful learning; realistic goals, learner control, use of feedback to adjust goals.
. 'Hidden curriculum' in classrooms.			.Students become oriented towards test achievement.
A major teaching principle in L ₁ and L ₂ is that 'language skills' in context-reduced situations can be most successfully developed on the basis of initial instruction that maximises the degree of context-embeddedness. (Cummins, 1981, p.14)		.Children become aware that assessment is an integral part of the learning process.	

 Chart from Graham, B, 1984: *Language Power*, Appendices, NT Department of Education, Darwin, N.T.