

CHAPTER 4

Principles of Adventure Education

What I have said suggests that mental growth is in very considerable measure dependent upon growth from the outside in. I suspect that much of growth starts out by our turning around on our own traces and recoding in new forms, with the aid of adult tutors, what we have been doing or seeing, then going on to new modes of organization with the new products that have been formed by these recodings. We say, 'I see what I'm doing now', or 'So that's what the thing is'. The new models are formed in increasingly powerful representational systems. It is this that leads me to think that the heart of the educational process consists of providing aids and dialogues for translating experience into more powerful systems of notation and ordering. And it is for this reason that I think a theory of development must be linked both to a theory of knowledge and to a theory of instruction, or be doomed to triviality.

Jerome Bruner

Those who have been involved in the process of growth in young people (and those not so young) often talk with a sense of awe about the moment of wonder they are privileged to observe when an individual discovers something as being 'real' for the first time. Such moments may be when a poem makes sense, a theorem is proved from first principles, the mystery of the sun is appreciated, or the joy of accomplishing some feat previously thought impossible. This is what Abraham Maslow was referring to when he talked of 'peak experiences': those moments of clarity when one's reality is extended and one moves to a higher plane of understanding.

Sadly these events are all too infrequent in our classrooms or in our more formal educational settings. But somehow, when the barriers are relaxed, and the learner is found in a more 'natural' environment, within a supportive relationship, then this type of learning becomes more commonplace. We have already seen how a variety of adventure education programmes have evolved over time and have had such an impact on the personality of generations of young and not so young people. There is an increasingly commonsense acceptance that adventure education is a 'good thing' and that it works. People from

all walks of life will attest to its value, and nowadays there is less need to become defensive in arguing for adventure education as an educational or social activity.

Despite this enthusiasm for and acceptance of adventure education, when the questions 'Why is it a good thing?' and 'How does it work?' are asked, a coherent answer is rarely forthcoming. Yet they are profoundly important questions. Without understanding the principles underlying the process and why it works in the way it does, how can we improve our practice? Similarly, if we do not know how to put these principles into practice, how can we continue to design and provide meaningful experiences for participants on adventure education courses?

These then are the questions we have set ourselves for this and the following chapter. In this chapter we are concerned with learning: Why does the process work in the way it does? What principles underlie the experience? In the following chapter we will look more closely at how these principles can be put into practice and used to design adventure education programmes. Although this separation is appealing in theory, it is difficult in practice to avoid overlap, but we have tried to keep the distinction in mind in the structure and writing of this and the following chapters.

Attempting to survey the whole area of learning theory as it applies to outdoor education in one chapter is most probably tempting providence! It runs the risk of over-simplification on the one hand and confusion, through over-reliance on the shorthand of jargon, on the other. Bearing these twin dangers in mind we have tried to be as jargon free as possible and to define our terms carefully. We have also concentrated on the research evidence and literature that applies to adventure education rather than psychology *per se*. That is, we are not going to review the principles of the psychology of learning and then at the end add a few paragraphs as to how it may apply to adventure education; but rather, to start with what we know about adventure education and add whatever perspectives from psychology that may be necessary to fill the gaps. In this way we hope to produce an overview of learning principles that will be helpful to practitioners because it will inform practice.

Despite this the chapter still represents a long journey – quite an adventure in itself! It may be useful at the beginning to draw a sketch map of where we are going. We begin with a few words about the importance of specifying principles and of developing a common language with which to discuss our work. We then attempt to define the concept of adventure. With this framework in mind we then turn

to research to see what we have learned about the outcomes of adventure education. Having developed some notion of the impact of adventure education programmes on the self-concept we then review the process of learning that underpins it. As these elements of learning theory are presented holistically in adventure education programmes, we discuss the experiential learning process that has become a main feature of many programmes, in rhetoric at least. With this broad picture in mind, we conclude by looking at three examples of young people who went through this process of personal growth.

The importance of specifying principles

We believe that the ability to provide personal growth experiences for a wide range of people through adventurous activities largely depends on the clarity with which the principles of adventure education are understood. It seems to us that the level of understanding and discussion of these principles is generally limited. There is a tendency to become technically very good at doing something without knowing why we are doing it. Bertie Everard (1987:4) in attempting to define 'development training', makes a similar point:

Although the basic concept is simple, its meaning runs deep, and words cannot easily capture it. Trying to describe it is rather like taking a bucket of water from a river in order to study the currents; it is easier and more effective to swim in the water and learn about the currents by experiencing them. Certainly most of those who have had a week of development training at one of the main centres know well what it is, but they cannot easily articulate it afterwards. They tend to describe the *vehicle* for learning, rather than the *journey*. So there is a genuine problem of definition, especially if we want a simple, succinct, precise one that commands general support.

It is only through becoming increasingly specific and self-conscious about what we are doing, that we will be in any position to improve our practice. In order to improve, we need more conceptual clarity over what we are about. We believe that some of the research quoted and ideas discussed in this book may help those involved in outdoor education become more precise in their search for increased effectiveness. But we must remember that research in general and other people's ideas in particular have many limitations. They become useful only when they are subject to the discipline of practice, through the exercise of professional judgment and reflection. For as Lawrence Stenhouse (1975:142) said in a slightly different context, such proposals are not to be regarded '... as an unqualified recommendation but rather as a provisional specification claiming no more than to be

worth putting to the test of practice. Such proposals claim to be intelligent rather than correct.' It is in this spirit that we now attempt to define the concept of adventure.

The concept of adventure

Much has been written about the concept of adventure, from both a philosophical and a romantic point of view. There is now a considerable literature tracing the roots of adventure education from Plato and Aristotle to William James, John Dewey, and Alfred Whitehead amongst others. There are in particular a number of British writers – of whom Tom Price, Harold Drasdo and Colin Mortlock are contemporary examples – who take a less rigorous but appealingly personal view of adventure. The quotation from Wilfred Noyce that prefaces chapter one captures this romantic view well. What these writers have in common is that they believe that the quest for adventure is an innate feeling, an instinctive drive, and that the pursuit of adventure results in the flowering of personality. This is a view to which we naturally subscribe, but we are concerned about the exaggerated claims occasionally made for adventure education as some form of panacea. We believe that adventure can be a powerful force for self discovery and personal growth, but that it is not a mystical activity, nor will it cure deep-seated personality disorders.

Whilst we were writing this book we read the introduction to a collection of North American essays on adventure education that contained an excellent definition of adventure (Miles and Priest 1990:1):

The subject of this book is adventure for the goals of growth and human development. Adventure education involves the purposeful planning and implementation of educational processes that involve risk in some way. The risk may be physical, as in a trip in a mountain wilderness where people may be caught in storms, may become lost or may be injured by falling rocks. It may be social, as in asking someone to expose their fear of speaking before groups or otherwise risk social judgement. The risk may be spiritual, as in placing the learner in a situation where he or she must confront the self or perhaps the meaning of life and death. The defining characteristic of adventure *education* is that a conscious and overt goal of the adventure is to expand the self, to learn and grow and progress toward the realization of human potential. While adventure education programs may teach such skills it is not the primary educational goal of the enterprise. The learnings about the self and the world that come from engagement in such activities are the primary goals.

Miles and Priest's view of adventure education echoes our own. We

were similarly heartened during the preparation of this book by the attitude of the Working Group for the National Curriculum in Physical Education when they wrote (1991:12 para 29):

Outdoor Education encompasses moving, living and learning in a wide variety of situations outside the classroom. The places in which these activities are undertaken include urban and rural settings on land, water and in the air. Outdoor education can make its unique contribution through: sharing experience with others, perhaps in a challenging environment; exploring personal beliefs, attitudes and values whilst living and learning with one's peers; working in small groups in a collective enterprise such as a science or arts based outdoor study or a challenging journey; and using the gifts of each individual toward the development of the group as a whole.

Although we discuss the curriculum implications of adventure education in more detail in part four, we feel it important to signal the commitment of the National Curriculum to adventure education at this stage. It is against this background that we look more closely at the concept of adventure.

It is Colin Mortlock (1973, 1978, 1984) who has been mainly responsible for defining and popularising the concept of adventure education. In a series of pamphlets and latterly a book, he described in some detail the major ideas and activities involved. His original definition of adventure education is as good a starting point as any (Mortlock 1973:4):

Adventure is a state of mind that begins with feelings of uncertainty about the outcome of a journey and always ends with feelings of enjoyment, satisfaction, or elation about the successful completion of that journey. . . .

The initial feeling of uncertainty of outcome is fear of physical or psychological harm. There can be no adventure in Outdoor Pursuits without this fear in the mind of the participant. Without the fear there would be no challenge. Fear extended to terror, however, is not adventure. This is misadventure as the journey is psychologically too demanding for the person concerned.

To Mortlock (1973:5) the archetypical adventure situation occurs when:

. . . a person has sudden fear of physical harm and no longer feels complete master of the situation. S/he feels, however, that s/he can, with considerable effort on his/her part, and given luck, overcome the situation without accidents. S/he accepts that his/her skills are about to be tested. S/he is conscious of a definite degree of uncertainty as to the outcome, and feels, as it were, poised on a knife edge between success and failure. If s/he succeeds s/he has experienced an adventure. S/he had found her/himself in a situation which becomes firmly

etched upon his/her mind – perhaps forever. S/he has feelings of satisfaction, if not elation, about the result. The degree of satisfaction and pride is proportional to the scale and intensity of the adventure.

Mortlock (with others, notably Drasdo, 1973) has extended this definition by locating any outdoor activity into one of four categories:

1. Recreation
2. Adventure
3. Misadventure
4. Skills learning.

It is the quality of experience within each of these activities which makes them different. Each of them may involve rock climbing, but the way in which the participant and the instructor approach the climbing, use particular techniques, and formulate and apply their criteria for success, distinguishes one from the others. In this sense they are not developmental stages but rather descriptive categories. Let us look at them in a little more detail.

1 *Recreation* refers to a level of activity where fewer physical, intellectual or emotional demands are placed upon the individual. An unstructured nature walk, a group enjoying an adventure playground, or a casual stroll through a boulder-strewn outcrop, are all examples of this type of activity. Such activities are often novel and exciting. The participants' responses are relaxed, and there is much enjoyment. This is unserious 'fun'.

2 *Adventure* deals with the same types of activity as the recreation stage, but it also demands a deeper emotional response from participants. It is at the adventure stage that the three aspects of our being – emotions, motor skills and cognition – are combined to focus on a single activity. It is here that danger, commitment, independence, uncertainty and judgement coalesce. It is here that the real value of adventure education lies.

3 *Misadventure* is the negative side of adventure. It combines the three elements of motor skills, cognition and emotion as in the adventure stage, but in an extreme form. Here the elements of danger, which in the previous stage created apprehension and excitement, are present to such a degree that there is serious danger of physical or emotional damage. Obviously, this level of experience lies outside the boundaries of supervised educational activity and should be avoided.

4 *Skills learning* differs from the other three activities in that it focuses

primarily on the mastery of a skill. The instructor or teacher has a clear perception of what s/he wants to teach and goes about it in a methodical and structured way. This provides a different approach to the experiential method implicit in the other activities. The existence of structure and programme means that the participant is drawing on a predictable and specific range of cognitive or motor skills. Participants usually conform to a pattern set by the teacher which involves thinking about and emulating the model presented. This approach to learning is extremely important and useful, especially when mastery of a specific skill is the goal; in this case experiential learning is not the best approach. The difference between adventure education and skills learning approaches, although these are not mutually exclusive, needs to be borne in mind.

Mention has just been made of the dangerous aspects of outdoor pursuits. It is obvious that even at the recreational level, particularly when we are dealing with activities such as rock climbing, dangerous situations may occur. It is important therefore to appreciate the critical distinction between real and apparent danger.

'Real danger' occurs when the consequences of, say, a fall whilst rock climbing would lead to injury: 'apparent danger' occurs when the consequences of a fall are not dangerous (the participant is attached to a safety line), yet real apprehension is part of the participant's experience. Abseiling is an excellent example of an 'apparent danger' activity. Typically when abseiling, a participant is attached to safety lines and is operating within a highly controlled situation, yet the apprehension felt is immediate and consequently the growth potential is very high. On the other hand, unroped rock climbing may not feel as immediately dangerous but as the possibility of a ground fall is very real then such activities should normally be avoided.

The 'real' and 'apparent' danger distinction allows the teacher to devise adventure education activities which are exciting, adventurous and potentially powerful as learning experiences, within a controlled and safe environment. Yet the growth potential of such learning situations requires more than the rather simple distinction between recreation and adventure on the one hand and real and apparent danger on the other.

This analysis represents the emerging consensus view of adventure which seems to blend romantic, philosophical and psychological views. It is that adventure by definition involves uncertainty and risk. The risk is offset by the competence of the individual so that in this sense, to quote Priest (1990:158):

... adventures are personally specific (based on personal competence) and situationally specific (based on situational risks). In other words, an adventure for one person, in a particular place, at a given time, may not be an adventure for another, or for the same person in a different place or time.

This highly personal view of the adventure experience is of course mediated through the influence of others, in particular the people with whom the experience is shared and the person who is facilitating the experience. But at this point in the evolution of the argument it is important to focus on the individual's reaction to adventure. Priest captures this key idea and the dynamic nature of the experience in his 'adventure experience paradigm' (fig. 4.1). It displays well the tension between risk and competence and the need to pitch the adventure experience at the correct level; what we call later 'the problem of the match'. Having begun to define the nature of adventure, we turn in the following section to consider what the real impact of the experience is on the individuals involved.

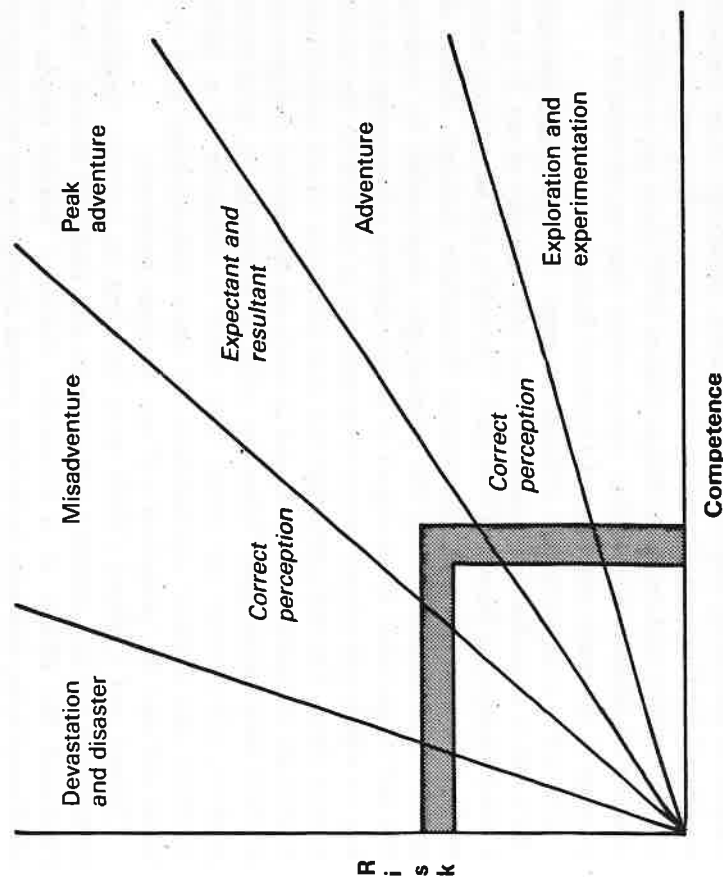


Figure 4.1 The adventure experience paradigm

The adventure experience paradigm © Simon Priest and Peter Martin 1985

The impact of adventure education on the individual

What have we learned from research about the impact of adventure? What do we know about the outcomes of adventure education programmes? What do they *do* to people? There are many anecdotal accounts and statements of belief, but despite our enthusiasm for adventurous activities we need to go beyond rhetoric if we are to fully understand the nature of the process. A good example of the rhetoric is quoted by Everard (1987:6-7) when he gives a recent definition of residential experience:

Residential experience provides the opportunity for personal development through a unique and intense community environment in which we promote growth and an increase in the individual's knowledge of his/her potential, within a challenging, stimulating and flexible set of circumstances. Through review and reflection the participants are encouraged to develop their ability to transfer learning and skills from one setting to another; to recognise opportunities and to act upon them.

This statement was constructed from the knowledge that implicit in personal development is a willingness:

- | | |
|------------------|---|
| Growth | <ul style="list-style-type: none"> ● To change ● To take some risk ● To own change ● To take decisions ● To accept and experience need for responsibility ● To develop confidence |
| Potential | <ul style="list-style-type: none"> ● To assess one's ability ● To use self-knowledge ● To develop a learning contract ● To establish goals |
| Awareness | <ul style="list-style-type: none"> ● To be aware of strengths and weaknesses ● To develop communication skills ● To develop compassion, tolerance, empathy and co-operation ● To be aware of one's own needs ● To share and support hopes and fears for oneself and others |

The aspirations contained in this statement are no doubt shared by many adventure practitioners and many of them will be achieved in practice. But are they all? And under what conditions? It is not good enough to simply base programmes on statements of belief, anecdotal evidence and aspiration. Although these are valuable sources of evidence, we need to be more rigorous in exploring the impact and

outcomes of adventure education experiences. At this stage we need to turn to the empirical research to see what it has to say.

Adventure education, in particular Outward Bound, has been subject to increasing empirical examination. Although some research studies of the Outward Bound process have been delinquent in terms of their validity and research design (Shore 1977) there are a sufficient number of reliable studies that demonstrate that an *increase in self-concept* is the main outcome of Outward Bound.

The self is a slippery and difficult concept. To appreciate the self, one's-self, is to realise the uniqueness and individuality of *me*. It is not a fixed concept; as Dewey (1959) said, 'The self is not something ready made, but something in continuous formation through choice of action'. Carl Rogers (1951), the psychologist responsible for making 'the self' respectable as an object of study, defines self-concept as the way in which individuals perceive themselves in relation to the world around them. The self comprises the characteristics which individuals believe are uniquely their own, and as such are the central component of their total experience. When we refer to a growth in, or a more positive, self-concept we mean that there is evidence of a more coherent and realistic appreciation of one's individuality: that the 'ideal self' and the 'perceived self' are in closer proximity.

Clifford and Clifford (1967) were the first to provide empirical evidence of the link between self-concept and Outward Bound. They examined the effects of a Colorado Outward Bound course on adolescent boys, and concluded that overall change in the self-concept did take place in the appropriate direction, and discrepancies between the self and ideal self were reduced. Wetmore (1972) looked specifically at the self-concepts of 219 boys at the Hurricane Island Outward Bound School, and concluded that there was, 'a distinct positive change in self-concept while in attendance at the Outward Bound School'. Koepke (1973) examined the effects of a Colorado Outward Bound School course on the anxiety levels and self-concepts of 33 male and 11 female participants. She concluded that Outward Bound participants 'view themselves more positively and possess lower anxiety levels at the end of the course'. Mary Lee Smith and her colleagues (Smith *et al* 1976) developed a research design intended to demonstrate unequivocally the results of Outward Bound. They utilised a time series design, developed their own questionnaire, 'The Inventory of Outward Bound Effects', and concluded that 'Outward Bound has a positive impact on the participant's self assertion. . . There is also evidence to support the conclusion that Outward Bound affects the participant's level of self esteem'. In a subsequent study that

also used the Inventory of Outward Bound Effects on a course at the Canadian Outward Bound Mountain School, Hopkins (1982) concluded that, 'adventure training has a positive effect on a participant's self-concept, specifically their self-esteem and self-awareness'.

This claim is supported for example by Project Adventure who have developed the Adventure Based Counselling (A.B.C.) approach. In *Islands of Healing* three Project Adventure staff describe the approach in some detail (Schoel *et al* 1988:14). A basic hypothesis of the A.B.C. program is that a series of well designed adventurous activities which focus on success experiences will help a person to break the cycles of failure that lead to negative self-concept, and bring about an increase in that person's ability to feel good about him or herself. An enhanced ability to take the risks necessary for further growth will follow from this experience.

Their own research on self-concept used the Tennessee Self-Concept Scale which was devised by William Fitts. To Fitts, 'the person with a clear, consistent, positive and realistic self-concept will generally behave in a healthy, confident, constructive and effective way . . .'. Fitts (1970:15) found that 'such persons are more secure, confident and self-respecting; they have less to prove to others; they are less threatened by difficult tasks, people and situations; they relate to and work with others more comfortably and effectively; and their perceptions of the world of reality are less likely to be distorted.'

Even a review as brief as this would be incomplete without mentioning the British research on the effects of Outward Bound. A classic study of female students at the Rhowriar Outward Bound Centre used the Cattell 16 PF Test supplemented by a self-rating questionnaire (Strutt 1966). Strutt concluded that following their course, and in comparison with a control group, the girls she surveyed, 'were more stable, less aggressive, livelier, less sensitive, more liberal and less conventional, and they thought they were more confident and more dependable.'

A larger scale study by Professor Basil Fletcher (1971) involved 3000 participants who had completed a four-week Outward Bound course. It is not possible to give a full analysis of the results in this chapter, but a key finding was that well over 75% of both sponsors and participants felt that the courses had succeeded in their aims in producing increased self-confidence, greater maturity, greater awareness of the needs of others, and a greater ability to mix well. Fletcher also concluded that the majority of sponsors and students felt that the influence of a single course was 'very persistent'.

Further evidence for this can be found in another British study

which at the time was taken as an attack on Outward Bound. Three Liverpool University sociologists, Roberts, White and Parker (1974), made an analysis of what they called 'the character training industry'. They assessed goals in terms of the sponsors' objectives, not in terms of personal growth; and found that the objective of the sponsoring agency, which was to make the student a better employee, were not necessarily being fulfilled. In fact gains in confidence and individuality often militated against being 'a good employee'. This was obviously not entirely satisfactory for British Outward Bound who relied heavily on industry, the forces and the police to provide students. Nevertheless, these researchers, whilst not providing a commercial recommendation for Outward Bound, did confirm its impact on psychological development. They concluded:

As already emphasised, it cannot be seriously questioned that courses do have longer term effects, but the evidence now available suggests that these effects are found mainly within the personalities of the trainees. Following their training most young people feel 'different', more mature, self-confident, and better capable of handling relationships with others.

Other classic studies such as those by Kelly and Baer (1968, 1969) which reported dramatically reduced recidivism rates for young offenders taking courses at the Minnesota Outward Bound School, and the reviews conducted by Godfrey (1974), Hopkins (1976), and Ewert (1982), give one enough confidence to assume that positive self-concept results from participation in an Outward Bound course, and by the same token other well-managed adventure education programmes.

Changes in self-concept therefore appear to be the major outcome of adventure education experiences. We now turn to the heart of the matter. How does the change in self-concept occur? What is the process of learning underpinning the change in self-concept?

Learning theory

There are a number of schools of thought on the psychology of learning: cognitive, behaviourist, humanistic and psycho-analytic. The cognitive psychologists, of whom Jean Piaget and Jerome Bruner are the best known, view human development as an inevitable process where the motivation for learning is innate and occurs as the result of the interaction of an individual with his or her environment. Behaviourist approaches, best exemplified in the work of B F Skinner, regard learning as being the result of the environment acting upon the individual; motivation is not innate but learning occurs as a response to, rather than in interaction with, an environmental stimulus. In

humanistic psychology individuals are regarded as being essentially 'good', there is an innate drive for self-actualisation and during this process individuals transcend their environment. We have already noted the work of Carl Rogers who is one of its major figures. So too is Abraham Maslow, whose 'hierarchy of needs' is a major contribution to our understanding of human motivation. The psycho-analytic school is based on the work of Sigmund Freud who explored the role of the unconscious in human behaviour.

None of these approaches to learning holds a monopoly of the truth! Each, we believe, has a contribution to make to our understanding of the process of adventure education and each gives us some insights as to how to facilitate and structure the process. Having said that, we feel less comfortable with behaviourist theories that imply that humans have no innate personality, and feel that the cognitive or developmental theories fit better with our overall experience. We feel strongly however that particular behaviourist approaches play an important role in learning; as do psycho-analytic theories in explaining certain reactions to adventure situations. In a similar way, although we do not take quite as optimistic a view of personal growth as the humanists, we have a great deal of affinity with their philosophy and believe that it is consistent with those underlying many adventure education programmes. In the following review we draw mainly on the theories and research of the cognitive psychologists, while acknowledging later and in other chapters the contributions from other areas of psychology.

One of the distinguishing features of cognitive psychology is a belief in the innate *curiosity* of humans, especially infants. *Born Curious* is the title of a book by Robin Hodgkin (1976) which captures well this key insight. Hodgkin's book has been enthusiastically reviewed by outdoor educators who, correctly in our opinion, see it as an admirable, if complex, synthesis of the main psychological theories pertaining to adventure education. The emphasis on this innate curiosity and motivation is central to Hodgkin's thesis, as is the primacy of learning as opposed to teaching or instructing. This idea of autonomy in learning is a key element in developmental psychology, as the trinity of qualities so neatly identified by Jerome Bruner attest: curiosity, reciprocity and mastery. A common bond is the belief in the individual's inherent motivation for learning.

Jean Piaget is probably best known for his stage theory of cognitive development. This describes the various phases an individual passes through from birth to the age of 16 or so, on their way to intellectual maturity. The detail of his theory is not of central interest to us; more

important are Piaget's ideas of how learning occurs within these stages and how movement occurs from stage to stage.

There are three key concepts central to Piaget's thinking that are very important for the process of growth in adventure education. They are: *schemata*, *assimilation* and *accommodation*. (In defining these terms we draw heavily on and quote from Child's 1973:75 helpful exposition.)

In its first few days of life a baby responds by reflex activity, which is not acquired; but soon, the baby reacts in a way which leads us to suspect purposeful behaviour. Piaget refers to these actions, which become organised into distinct patterns of behaviour, as *schemata*. The key to the formation of schemata is *action* on the part of the baby in attempting to *adapt* him or herself to the demands of the environment. Once a schema has appeared, it becomes directed to similar, parallel situations, somewhat like transfer of training.

The process of incorporating new perceptions, either to form new schemata, or to integrate them into existing schemata, is called *assimilation*. When the child is capable of modifying existing schemata to meet new environmental demands, he or she is said to experience *accommodation*.

In summary, Piaget considers that conceptual growth occurs because the child, whilst actively attempting to adapt to his or her environment, organises his or her actions into schemata through the processes of assimilation and accommodation. Thinking therefore, according to Piaget, has its origins in physical experiences which are then internalised: put another way, thought is internalised actions. The starting point of cognitive development must therefore be activity, as the child strives to adapt and structure his or her experience.

The very nature of these descriptions indicates clearly the dynamic nature of cognitive psychology – the interaction with the environment and the instinctive drive for mastery. These basic building blocks of psychological development are, we believe, of critical importance for adventure education.

The implication is that we need to take a much broader view of learning. It is this type of thinking that underlies Jerome Bruner's ideas, especially his seminal *Toward a Theory of Instruction* (1966). It also explains why we chose the particular quotation that prefaces this chapter. Bruner argues convincingly that we need to connect our ideas of how individuals develop and grow, to the ways in which they are taught. This 'theory of instruction' assumes an active approach to learning. We are most grateful to Colin Conner (1992) who summarised for us the implications of this approach to learning.

1 Learning involves an active construction of meaning

This carries implications for the management of learning opportunities. In particular that:

- an active construction of meaning requires both practical and cognitive learning opportunities;
- learning should be seen as a process as much as producing end results;
- there should be opportunities for learning to be controlled by the learner;
- 'teacher' expectations are often different from learning outcomes.

2 Learning requires interacting with prior experience

Learning is interactional and can occur only as the learner makes sense of particular experiences in particular contexts. This 'making sense' involves connecting with an individual's prior knowledge and experience. Thus, new learning has to relate to, and ultimately 'fit with', what individuals already understand. This implies that:

- teaching should start from where the learner is;
- learning involves relating present to previous experience;
- tasks must be meaningful to individuals;
- learning should involve challenge to existing knowledge.

3 The context of learning is of fundamental importance

Consideration of the context of learning and the *characteristics of the learning environment*, must also include consideration of the feelings and emotions of the learner towards the learning task and their own confidence to complete the task. Broadening the notion of 'context' in this way extends the legitimate forum for learning beyond the classroom:

- 'good' learning contexts are not easy to define;
- good relationships are vital for learning;
- learning is often a social experience and therefore group dynamics affect learning;
- learning is influenced by the school and classroom climate and environment.

4 Learning involves change

Learning is always provisional in the sense that most of what is learned is subject to revision in the light of changing circumstances. Change in

understanding may involve a basic restructuring of ideas or, alternatively, an extension of the learner's existing ideas. In either case, there is a clear implication that we need to create situations where learners feel confident enough to experiment, to be creative and intuitive and to use failure as information rather than criticism, as well as develop their own critical self-reflection.

Glaser (1991) has neatly and comprehensively summarised this approach to learning in the following quotation:

learning is an active, constructive, intellectual process that occurs gradually over a period of time. It is not simply an additive process. Knowledge cannot, to use a common metaphor, be poured into learners' heads with the hope that learning will automatically occur or accumulate. Understandings of new knowledge can only take place, or be constructed, in the minds of individual learners through a process of making sense of that new knowledge in the light of what they already know. In other words, learning is a process of constructing new knowledge on the basis of current knowledge.

Adventure education and experiential learning

With these building blocks in place we can now begin to make the links between *adventure education* and *experiential learning*. Experiential learning is a term that is often used in connection with adventure education, development training and similar activities. It is important therefore to briefly discuss its main ideas and see what they may add to the practice of adventure education. Experiential learning offers an alternative perspective on learning to the cognitive and behaviourist approaches so commonly found in psychology. It offers a view of learning that prizes the individual's response to and reflection on concrete experience. It encompasses our emotions, imagination, physical being as well as our intellect. Experiential learning is holistic in the true sense of that word.

The basic model for experiential learning has most popularly been expressed by Kurt Lewin. Lewin believed that learning, change, and growth are best facilitated by an integrated process that begins with here-and-now experience followed by the collection of data and observations about that experience. The data are then analysed and the conclusions of this analysis are fed back and used to modify individual behaviour and the choice of new experiences. Learning is thus conceived as a four-stage cycle, as shown in figure 4.2. Immediate concrete experience is the basis for observation and reflection. These observations are assimilated into a personal 'theory' from which new implications for action can be deduced. These implications or

implications or hypotheses then serve as guides in action to create new experiences. To use Piaget's terminology, this occurs much in the same way as we organise our actions into schemata through the processes of assimilation and accommodation.

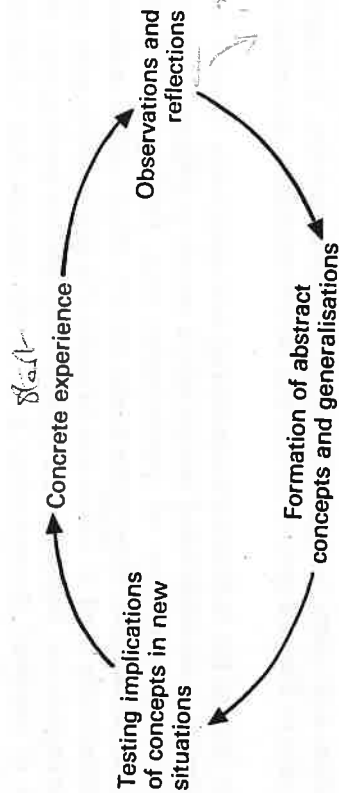


Fig. 4.2 The Lewinian experiential learning model

David Kolb's (1984) *Experiential Learning* is highly recommended for those who wish to explore the concept further. In his book Kolb sets out a number of propositions that characterise experiential learning. Phrases such as 'learning is best conceived as a process, not in terms of outcomes', 'learning is a continuous process grounded in experience' and 'learning is the process of creating knowledge' give a flavour of the approach. Tom Boydell's (1976) monograph also entitled *Experiential Learning* and the collection of essays edited by Boot and Reynolds (1983) are similarly detailed and instructive.

Although widely used in outdoor education and development training circles the Lewinian model has a major drawback: it is static and circular, and confines movement and growth to a particular situation i.e. the learning loop in the diagram. For this reason we find the D.T.A.G. model more helpful, with its arrows suggesting application of the learning to other areas of an individual's experience (see fig. 4.3). It is perhaps even better to think of experiential learning three dimensionally, as a continuing spiral of action and reflection. There are obvious parallels here with Bruner's notion of the spiral curriculum, where the adventure activities are specifically designed to build on each other and so extend an individual's range of experience and cognition over time. This is *active* learning, as opposed to *passive* teaching. People learn by doing things in a group. With the help of tutors, they articulate their reactions to the experience, review how

they worked together, draw conclusions and apply these to their real life experiences elsewhere.

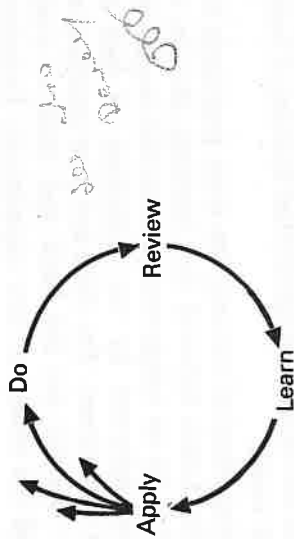


Fig. 4.3 The D.T.A.G. model of experiential learning

The philosopher John Dewey was, as one would expect a philosopher to be, concerned with the nature of thinking. As a pragmatist, he regarded thinking as problem solving. Problem solving is regarded by many as being the pinnacle of learning. Gagne (1965) for example, defined problem solving as:

the ability to use the rules and concepts at one's disposal, to tackle situations new to the learner – and which require thinking out. In other words, the ability to think about the situation and transfer learning is fundamental.

For Dewey, knowing is not merely an intellectual process, it also involves emotional stimulation, intellectual integration and practical action. The following review of his approach based on Joe Nold's *A Primer on Outward Bound Theory* (1978), provides a helpful summary of the experiential learning process compatible with the psychological theories we have already reviewed.

- *Learning begins with an impulse*: something is the matter, there is a problem.
- *The impulse arouses curiosity and creates interest*: the impulse is raw, impulsive, emotive, and is transformed through thinking into curiosity which defines the interest and raises the question, 'What should we do about it?'
- *Interest generates a hypothesis*: this addresses the question of ends. 'What are possible solutions and means?' 'How do we get there?'
- *The hypothesis and its alternatives are then tested*: this is the

action phase of learning. Hypotheses are tested in action by doing.

- *Consequences are produced*: this is the result of testing the hypothesis in action; something has happened.
- *We generalise from this and form new theory*: these are applied to new problems arising out of impulsive action which create a new set of interests and a new basis for the solving of new problems.

There is a danger that the process of experiential learning as we have described it so far, although obviously dynamic, may appear too smooth, continuous or inevitable. That once the cycle has been entered then all will progress towards self-actualisation! This is not necessarily the case, particularly in adventure education. For as we know from experience, adventure educators intervene in the process of experiential learning to enhance the outcomes for participants. Let us in concluding this section, briefly review how this occurs.

There is, as Donald Hebb (1955) argues, a basic human drive for stimulation. If there is too little, the individual will seek more; if there is too much, we will seek less. McVicker Hunt (1960) develops this argument into the case for intrinsic motivation using the 'incongruity dissonance principle'. Here the individual establishes patterns of behaviour from past experience and compares them with what is happening now. When there is incongruity or dissonance between them, we adapt by expanding or changing our behaviour patterns. This is what occurs in an adventurous situation; one's experience is insufficient, a new pattern of behaviour is developed to meet the new situation, and a new 'construct' is added to one's repertoire. This again is similar to Piaget's notion of schema, accommodation and assimilation.

The idea of the individual formulating new constructs to meet new experiences is an established notion which occurs in different forms in the work of a number of psychologists (e.g. Festinger 1957). In adventure education, dissonance is also the key. High impact activities are consciously used to focus and broaden the gap between past and future experience. Boydell and Pedlar (1980) call this 'pushing past the limits of comfort' *perturbation*. It is at this margin that adventure education works most effectively.

Most learning occurs incrementally, that is by gaining a series of perceptions or insights. These are usually accommodated relatively easily into the learner's overall view of the world or frame of reference. From time to time however, major events or experiences occur which cannot be accommodated in this way. Such events may

lead to a high level of perturbation, and the individual's frame of reference may have to change quite radically to accommodate the new insights and capacities so gained. As a result personal value systems and subsequent behaviours may be fundamentally altered (Putnam 1985).

When changes of this magnitude occur they may be described as qualitative and transformative, rather than incremental. Creating the conditions for this type of learning is the crucial challenge for adventure educators. This is what we call in the following chapter, 'the problem of the match'. Mary Cox, in the same context, talks helpfully of 'step-jump' learning (Cox and Putnam 1982). So although the experiential learning process is in theory continuous, interventions at the point of 'dissonance' or perturbation can enhance the learning potential for the individual. As we mentioned earlier, it is learning episodes such as these that Abraham Maslow so appropriately called 'peak experiences'.

The process of self-concept change

Much of the discussion in this chapter has inevitably been conducted at the theoretical level. By way of contrast, we thought that it may be helpful to illustrate the process of change through some case examples taken from our research (Hopkins 1976). Although the research was conducted during a traditional four week Outward Bound course in British Columbia, we believe that these comments are illustrative of the more general process of personal growth through adventure.

Time and again we have heard comments like this:

You cannot lie to yourself.

Nobody fakes it out here.

You are put into conditions where you have to be yourself.

The Course gives me the chance to come out front and see myself. I have no car or mother to hide behind, just me and me alone, so I am forced to be myself.

This facing up to the self is remarked on by most students. In the study they claimed that they were continually being confronted by their real selves, and that this was an unusual occurrence. In one discussion a group of students made the distinction between the ideal and real self, and felt that as a result of the experience their appreciation of the self became more realistic.

You have set up an ideal picture of yourself before your adventure, and after your adventure your ideal picture has changed quite a bit.

In the city you can hide behind things, here your feelings stand out. Here you have to get yourself sorted out.

Why did this happen? The students were in no doubt, it was the stress, the intensity, the adventure:

You have to put everything into an experience, you cannot half-arse, cannot let up.

The course has given me insight into myself, it was the stressful situations that helped me see.

When you are doing stuff together, like running together, being dirty, and even in mild stress situations, you cannot fool yourself, you really see what you are like. When you are lost with the group on a mountain, you cannot fake being suave or anything.

These quotations reflect the experience of a range of students. It may now be interesting to see how these reactions are reflected in individual experiences. The following case studies add some vitality to the anonymity of the quotations and illuminate the unfolding of the process of personal growth. The students' names however, have been changed.

Roger

Roger was an older member in the group with the highest mean age; but he was dour, and withdrawn from the group. He had a background of violence, his medical report spoke of manic depression, and on one occasion when aroused he took on four police officers before he was subdued. At the start of the course he had to suffer the humiliation of giving his instructor medication which he had to be given, if his 'trouble' re-occurred. On the course he was quiet, gentle, a little broody, but showed great determination, and was physically very strong.

He wrote:

I see myself as quite a frustrated and unsuccessful person. I have no career ambitions. I am not trying to be some kind of tycoon; I am just a regular working person.

I am not from a well-off family, so since I have been conscious of such things I have noticed shabby clothes, lack of new car, older semi-run-down house, and a lazy attitude. These things have come to bother me less.

At 21 living at home, fitfully unemployed at best, no car, not pursuing an education, I see myself in the social strata as if not a loser, at least one who has little future, is perhaps lazy and never will become a booming success. If I am to be stereotyped, or rated somehow, I will say I am a person who has

accomplished little, and tends to drift along taking things as they come. I feel I am of little worth to others, I do not enjoy self analysis, except as a joke maybe.

I am not over-confident or over-assured of my outdoor knowledge or experience, and so would say that this course has been not an entirely gruelling experience but a lot of it has been challenging to me, in particular the rock-climbing. It has expanded my view of hiking and has created in me a desire to see more wild countryside.

I am in a healthier state of mind and body because of the course and the activity. Earlier I had thought I might say how this new experience had taken me out of my cycle of life and dissolved a lot of my old routine - in effect somehow saving me from my life. I really do not think this is so though.

My fears were probably perfectly good, and there is nothing wrong with my life really. Although it may not seem too great to some scrutineer's eyes.

David

David was a different case. Although from a rich background there were problems. His father was in gaol, and he himself a week prior to the course had at an inquest been held criminally negligent for the suicide of a girl friend. The probation officer had recommended Outward Bound and he was on the course with two day's notice, still thinking it was a summer camp. This background, together with the normal stress of Outward Bound compounded his problems, because it continually confronted him with a reality he was trying to avoid. This resulted in an attitude of bravado towards his peers, and in the group he became a disruptive influence, with mild bullying, and smoking both nicotine and marijuana, and encouraging others to do the same (smoking was against the Outward Bound Contract which every student entered into and was regarded seriously as a part of trust). The result of this was that one young student took a combination of drugs which resulted in a mild blackout. This was a crisis for David, and the tension expressed itself in hysteria and avidly anti-social behaviour. With the release of tension, some counselling and the opportunity to be away from the group for a few days (while they were on their unaccompanied expedition), David was able to reappraise his problems, and had time to come to terms with them. This he did, and for a 15-year-old in a quite mature way.

Thereafter his attitude towards the group and course became more positive, his relationship with others less turbulent and one-sided, and his overall contribution vastly increased. Perhaps more importantly he was able to see himself and his problems more clearly and positively.

I regard myself on this course as a person who has screwed up, but that is in the

past, so I would like to forget about what I have done. I know it was stupid and uncalled for but it happened so that is that.

Naturally he was still reticent about such personal and intense experiences as his father's gaol sentence, the girl's suicide, and his relationship with his mother and family.

Yes there has been a change a personal one, and so I do not really want to talk about it.

However his reaction to a 36-hour solo bivouac was more expressive, *Really weird man.* Expanding on this he felt that the 'Solo' had given him time to clear his head, and an opportunity to sort out the weights bearing on him. And he talked long about his father, the family, the girl and his life. Finally referring to the course he concluded.

Cannot see the change - you just feel it I guess . . . and it is more than just not smoking or drinking.

As he continued on the final expedition, he became far less aggressive, more co-operative, hard working and responsible.

With this movement there was increasing maturity and reflection on his 'self', and a more realistic appreciation of his own reality. On the last day of the course, when he was under fire during a discussion on trust, he said,

I trust more than two people . . . I do not trust myself all the time, not all the time . . . 'cos I found it out on this course, but that is my business, but, I trust a lot of . . . I trust everybody in this group you know, in different senses you know, in different ways.

This is an honest and brave statement, untypical of the bravado characteristic of the David who started the course. Obviously there was a long way to go, but as was written in his personal appraisal.

Once the crisis had been reached and passed, he approached his own problems and the course with a maturity unusual for a 15-year-old. Whilst the rest of the course was not perfect, it was characterised by a calmness and increasing maturity of thought and action. David showed himself to be a young man of intelligence and sensitivity, who could approach problems in an adult fashion. He still lacks self-discipline, and has not fully learned the importance of weighing consequence before action. But he recognises this, and it is felt from his behaviour here he could, with the right guidance, easily develop into a fine and responsible member of the community.

None of these are shattering success stories; indeed it was a recurring comment by students, that Outward Bound was not a panacea, and

mere enrolment did not guarantee the blinding white flash of total personality transformation. This expectation is more a result of over-zealous advertising and perhaps over-optimism by parents weary of the problems of adolescence. These individual accounts however are reflections of growth. They are testimonies to the potential that adventure education has for allowing the individual to tentatively grope towards a more realistic perception of self. This opening up of the self can be both a liberating and disturbing experience, but it was a feature of the interviews, discussions and diaries that eventually there was an acceptance and appreciation of the self, and the start of a conviction that the realistic self was alright. To know their selves was a profound experience for most of the students.

The main conclusion to be drawn from this chapter is that the primary outcome of adventure education is enhanced self-concept. This is not to say that all other claims are fiction, but that the most likely outcome is on the way the individual regards him or herself. It may be helpful to distinguish between primary and secondary outcomes. Primary outcomes are the inevitable outcome of adventure education experiences – the change in self-concept. Secondary outcomes are either derivative of the change in self-concept, or the result of other programme objectives. These are most commonly regarded as being changes in skills, knowledge, attitude and values. The critical point is that the impact of the adventure experience is on the self-concept, whereas the other changes will be more the result of the design of the programme. The crucial issue of values in adventure education will be discussed in part four. It is to the complexities of designing adventure education programmes that we turn in the following chapter.

CHAPTER 5

Principles into Practice

It seems reasonably clear that for learning of the sort we are discussing it is necessary that students, of whatever level, be confronted by issues which have meaning and relevance for them. In our culture we tend to try to insulate the student from any and all of the real problems of life, and this constitutes a difficulty. It appears that if we desire to have students learn to be free and responsible individuals, then we must be willing for them to confront life, to face problems. Whether we are speaking of the inability of the small child to make change, or the problem of his older brother in constructing a hi-fi set, or the problem of the college student and adult in formulating views on international policy, or dealing effectively with interpersonal relationships, some real confrontation by a problem seems a necessary condition for this type of learning.

Carl Rogers

There is much to be said for the view that no one can teach anyone anything. This chapter is therefore about *creating the conditions within which others can learn*. This is an approach that is consistent with the learning theories reviewed in the previous chapter. So although for convenience we use the words teaching-teacher, instructing-instructor, we are aware that they do not convey our real meaning. We see the role of the instructor, teacher, group leader, mentor – call them what you will – as one of facilitating learning, of establishing an environment in which others can grow, rather than didactic instruction. In the same way as there are principles that underpin learning, so there are principles that can help us facilitate learning through designing appropriate experiences – and that is what this chapter is all about. In this chapter we will explore how the principles underlying the learning associated with adventure education can be put into practice within the context of adventure education programmes.

We begin by briefly revisiting the problematic nature of experience, and then discuss in some detail models of the adventure education process that build on the learning theories previously discussed. The focus then turns to curriculum design and the professional judgements

required in pacing and sequencing adventure education experiences. We then address the role of the instructor, the nature of teaching and the fundamental challenge for facilitators of adventure education experiences – the ‘problem of the match’. This is followed by a discussion of the nature of confrontation-based activities, the central components of the adventure education experience. Reviewing, another key activity, is then discussed, as is the importance of group process. Towards the end of the chapter we describe a method of assessing how experiential an experiential programme really is.

The nature of experience

There is as we have already seen a problem over the nature of experience itself. We discussed in the introductory chapter the difficulties that over-reliance on experience for experience’s sake can create for us. An over-emphasis on process at the expense of content can lead us into situations that have little meaning for participants beyond their immediate contexts. Without more transferable power the adventure experience can soon lapse into insignificance. As we think about the design of our adventure education programmes, we must remember that the design of the programme, if it is to have the outcomes we wish for it, must include process and content, as seen in figure 5.1.

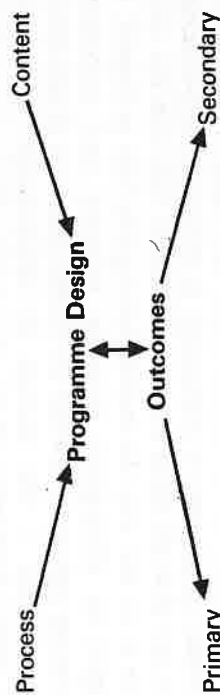


Fig. 5.1 Process and content in an adventure education programme

By outcomes we refer to the increases in self-concepts described in chapter four as well as any ‘secondary outcomes’ specific to a particular programme. We know that the adventure education *process* can deliver a change in self-concept; and the *content*, the particular focus of the programme e.g. management training, the secondary outcomes. The way in which the process and the content are linked together is through the design of the programme. Programme design is therefore a vital aspect of adventure education, it is the way in which

the benefits of the experience are delivered. As an instructor, mentor or teacher it is the major variable at your disposal, so treat it with care! This is why we have devoted a whole chapter to considering its various elements and how the whole programme comes together.

Process models

The discussion in the previous chapter provides a basis for deriving some principles for programme design. John Dewey (1938) in his book *Experience and Education* sets out a number of principles for developing a model adventure education programme. Joe Nold (1978) describes it thus:

The experiential instructional model must address itself to what Bruner calls the three phases of the instructional process:

- creating the proper disposition for learning;
- structuring the learning situation; and
- reinforcement or transfer of learning.

Dewey’s instructional model particularly as outlined in *Experience and Education* is the basic construct. Dewey wrote that:

- learning begins with the *learner*;
- all learning is social and involves interpersonal interaction with peers, the teacher and the community or *group*;
- the learning process is an interaction with the *environment*;
- learners need to engage in *problem-solving situations*;
- problem solving is followed by the *reconstruction of experience* (see Dewey’s theoretical learning model as described in chapter four);
- this results in a *redirection of future experience*.

This general approach described by Nold can be summarised as seen in figure 5.2. Two points should be noted about this model. The first is that all educational experience should be forward looking. The experiential approach is predicated on helping the learner adapt to future events. In Dewey’s theory there must be ‘futures’. Past and present experience need to affect the future for experience to be considered educative. The second point is that not all experience is necessarily good. This realisation, which is a continuing theme of this book, emphasises the main point of this chapter: that to be educative, experiences need to be planned for, in the sense that they need to be structured and thought through, and not left to chance. This however is not to deny that unplanned experiences can offer potential for useful learning.

It was, we believe, aspirations like these that led Vic Walsh and

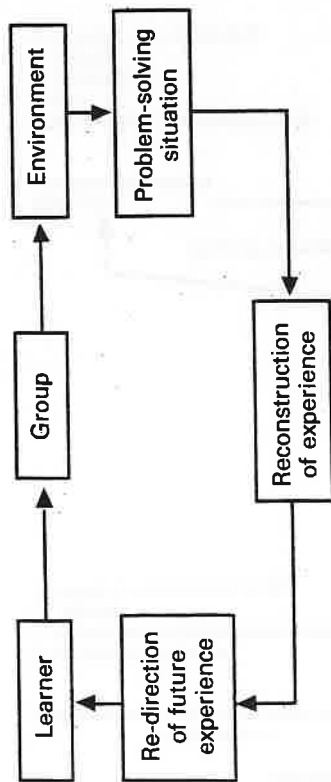


Fig. 5.2 Nold's (1978) interpretation of Dewey's instructional model

Gerry Golins to develop their model of the Outward Bound or adventure-based education process that builds on Dewey's approach. Their rationale for the model provides a good explanation of the approach we also take to programme design:

There seems to be a lot of misunderstanding as to what constitutes the Outward Bound process. It is not something which is necessarily 23 days in length; has training, expedition phases, a solo, final expedition, and a marathon; or is conducted by an Outward Bound school. Nor is it the values, such as: self-preservation, self-actualization, perseverance, initiative, reflection, experimentiveness, etc. These values which are expressed often through and about participation in an adventure-based educational experience are important, but they do not give a practitioner much operational leverage. Indeed, they do or could apply to other processes as well. Instead we are talking about the structures, components, and conditions that aid the persons involved in reaching the objectives intended.

Walsh and Golins make the important distinction between programme, process and principles in this way:

A knowledge of the process will permit one to strengthen program. First, it helps refine what it is the program does, and, indeed, can do. Such refinement increases the probability of pertinent evaluation; necessary for responsive programming. Second, the clarification of process gives the adaptor predictive criteria with which to design goals and objectives, and the possibility to reorganize them as the needs of the parties involved in the program change.

It is important at the outset to distinguish what is meant by process from what is meant by program. People have a tendency to confuse program with process.

A *process* exists as a generalized series of conditions, events and objects which interact to produce a desired effect. A *program*, on the other hand, is a

distillation of the process. It exists as a specific set of activities, sequence of events, for a specific population, which is limited in space and time.

Keeping this generic description in mind, the adventure based education process functions as characteristic problem-solving tasks set in a prescribed physical and social environment which impel the participant to mastery of these tasks and which in turn serves to reorganize the meaning and direction of his life experience.

Walsh and Golins then elaborate on this general definition. First they consider the learner. Second, they describe the physical and social environment. Third, the characteristic problem-solving tasks are outlined, and fourth, the interaction which elicits the conditions for mastery. They then consider the instructor. Last to be explored is the significance of mastery peculiar to adventure-based experience and how it reorganises the meaning and direction of a learner's experience. Space precludes a detailed description of all the elements of their model, but a detailed summary is found in figure 5.3.

This approach should now be familiar to those who have read the previous chapter. We regard Walsh and Golins' model as being generically correct, and agree with Nold that they have applied the Dewey paradigm to the adventure-based education process very effectively. Like Nold however, we would add two further thoughts:

... the cyclical nature of the process rather than its being a linear one. I'd also give greater emphasis to the problem of transfer, the redirection of future experience. The importance of the model is that it is integrative; it allows for the tapping of learner curiosity and interest, for the addressing of the symbiotic, social needs of the learner, of the inherent motivation for reciprocity, and the problem-solving situations allowing for mastery.

Although both Nold and Walsh/Golins base their work on the Outward Bound experience, they claim, and we concur, that the principles they articulate are pertinent to all adventure education programmes. They have made a seminal contribution to thinking in this area and their papers should be compulsory reading for all those interested in the process of adventure education. We use the Walsh/Golins model as our point of departure in this chapter and in the following sections of this chapter intend to amplify aspects of the process.

Curriculum design

Talk of programme and process has a slightly North American ring. These terms cover the same territory as the curriculum, principles of

procedure and curriculum development; which we suppose have a somewhat educational tone! Lawrence Stenhouse (1975:4-5) defines the curriculum as 'an attempt to communicate the essential principles and features of an educational proposal in such a form that it is open to critical scrutiny and capable of effective translation into practice.' He continues:

A curriculum is rather like a recipe in cookery. It can be criticized on nutritional or gastronomic grounds - does it nourish the students and does it taste good? - and it can be criticized on the grounds of practicality - we can't get hold of six dozen larks' tongues and the grocer can't find any ground unicorn horn! A curriculum, like the recipe for a dish, is first imagined as a possibility, then the subject of experiment. The recipe offered publicly is in a sense a report on the experiment. Similarly, a curriculum should be grounded in practice. It is an attempt so to describe the work observed in classrooms that it is adequately communicated to teachers and others. Finally, within limits, a recipe can be varied according to taste. So can a curriculum.

But analogies should be abandoned before they cause indigestion. A curriculum is the means by which the experience of attempting to put an educational proposal into practice is made publicly available. It involves both content and method, and in its widest application takes account of the problem of implementation . . .

How does one go about developing an adventure education curriculum? We suggest the approach to curriculum development seen in figure 5.4 (Hopkins 1989). There are seven major stages to the model; each stage has its own kind of task, its own kind of process and its own product.

At any point in curriculum development, difficulties may emerge which require returning to an earlier cycle and redoing the work. Alternatively, an opportunity for a major improvement may emerge which makes reconsideration of the earlier work desirable. When the whole cycle is successfully completed, so much will have been learned in the process that the curriculum developer will be well equipped to begin again. Although the cycle has seven major stages it is, of course, not necessary to complete each stage in order to produce an effective product. An individual instructor might only engage in the formulation, teaching strategy and production stages if s/he simply wanted to design a new activity. Alternatively, a fairly major programme change would most probably require work in each cycle.

By way of summarising this section it may be helpful to briefly describe the approach we have taken to curriculum development when working with clients on designing specific adventure programmes.

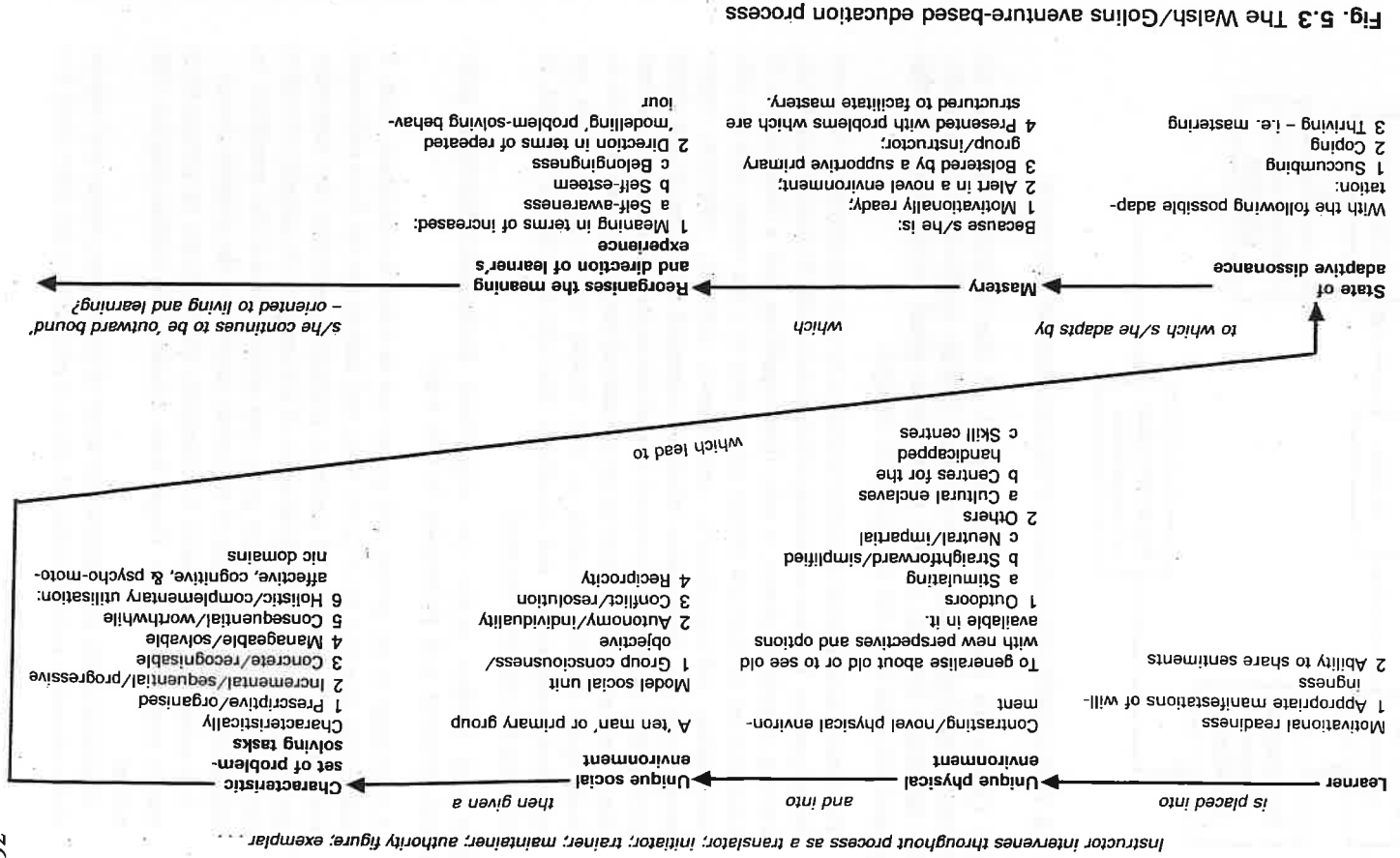


Fig. 5.3 The Walsh/Gollins adventure-based education process

Task	Process	Product
1 Identify what job the curriculum has to do	Analyse the situation	A clear purpose
2 Formulate a means of achieving the purpose	Design a curriculum concept	A promising theoretical model of the curriculum
3 Select appropriate teaching and learning strategies	Establish principles of procedure for learners and facilitators	A series of specific teaching/learning strategies
4 Produce the curriculum	Develop the means required to present and maintain the curriculum	An operational curriculum
5 Implement the curriculum	Change general practice to the new curriculum	A widely-used curriculum
6 Evaluate the effects of the curriculum on participants	Evaluate how effective the curriculum is	A proven curriculum
7 Modify the curriculum	Refine the curriculum through reflection and regular improvements	A refined curriculum

Fig. 5.4 The seven stages of curriculum development

1. Assess the needs of the client.
2. Define programme objectives.
3. Develop the programme.
4. Run the programme.
5. Review the programme with participants, especially after first attempt.
6. Continue to monitor the implementation of the programme.

We have found that there is a very steep learning curve between running the first and second programmes. It is important to regard the first programme as an experiment. Thereafter we have not had too many surprises, but continual review is still important. This is what we have called 'the experiential learning cycle for course design'.

A note on rhythm and sequencing

The previous section dealt with the broad issues of curriculum planning, but there is also the question of rhythm, pacing and sequencing in the delivery of adventure education programmes. Rhythm is about maintaining contrast and variety within the programme. We have found that a sequence such as *intensity - quiet - intensity - recover/rest - intensity* is the most suitable for adventure

programmes. Action should always be followed by reflection. If the pace is unrelenting then learning always suffers. Reflection can however take a variety of forms. The opportunity of time for talking on the trail is often as valuable as more formal review sessions.

The action-review cycle applies to both the individual and the group. Because the activities elicit a range of behaviours, feelings, and attitudes, the instructors' observations of what is going on with a specific individual or group are the key to sequencing and pacing. No two individuals or groups are the same. Just because there are similar overall characteristics to each programme does not mean that each participant or group should not be treated individually.

During the preparation of this book we read *Islands of Healing* (Schoel *et al* 1988), which describes the adventure education approach known as 'Adventure-based counselling.' Their approach to curriculum development is to produce an 'adventure wave plan' in which sequencing and pacing play an important part. We have adapted some of their material in this section in order to give an indication of how rhythm can be integrated into programme development:

1 *Programme goals and outline* First define the general goals of the programme in terms of the anticipated learner outcomes. Keep in mind that as you define your programme goals you should think of them as ideals.

- Establish goals and objectives
- Make a list of suitable activities
- Consider the available days and the need for *briefing - activity - debriefing*.

2 *Adjusting the 'Adventure Wave Plan'* A rigid sequence is not appropriate. Each group must be respected for where they are at any given time. The group might require something more intense than was originally planned. Particular individuals may also require specific attention.

3 *Adjusting for intensity* Adjusting the activity also relates to how intense the activity may be. Just how far do you want to go with a particular activity, or how complicated do you want to get? Any change to the programme can be made by either moving activities up or down, or substituting new activities, or simply focusing on new issues within the already constructed 'Wave Plan'. If you look at the whole picture each time you make a change, you can keep a rhythm to your planning. It also gives you an easier mind regarding 'What am I going to do today?'

What is the instructor's role in the learning process?

The role of the instructor or facilitator is not just confined to programme design or sequencing. One of the major factors that contributes to the learning process and the enhanced self-concept of participants in adventure training programmes is the role and personality of the group leader. This is something that we have learned over and over again in our work as practitioners and students of the adventure education process. An excellent summary of the role of the instructor or facilitators is given by Roger Greenaway and Caroline Bill (1989:2) in their booklet *Competences of Development Trainers*. They maintain that the main contribution of the instructor is to help the learner move through the learning cycle, without inhibiting the participants' natural ability to learn. Their scale of trainee-trainer involvement in learning as seen in figure 5.5 clearly argues for the instructor acting as a facilitator of learning.

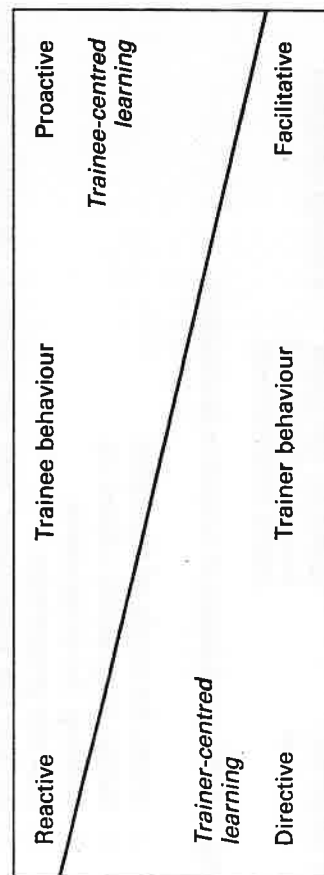


Fig. 5.5 The trainer's role in the learning process

Following from this Greenaway and Bill (1989:2) argue that as facilitators in the learning process instructors must:

- be sensitive to the group's and individual's emotion – know when and how to intervene, and when to take a back seat;
- show empathy towards learners (who are experiencing novel events);
- confront their own and the group's feelings and not remain distant;
- be capable of 'letting go' of control in reviews;
- provide facilitation without feeling redundant as trainees take increasing responsibility for their own learning;
- act as a role model for others to follow, e.g. continually review their own experience.

They also maintain that in acting as a facilitator in the learning process, the instructor must ensure a whole 'climate' is created which is conducive to learning. Greenaway (1986), identified six elements which create an effective learning climate.

- Optimism, high expectations of the learner.
- Respect for learner's individuality and unique experience.
- Variety, balance, integration.
- Risk, novelty, challenge, endeavour, enterprise, with learners stretching themselves and exploring the unknown.
- Negotiation, with learning objectives regularly reviewed and modified to maximise relevance.
- Imagination, using modes of experience and expression other than language.

These instructional styles are obviously not the exclusive preserve of adventure education! They are also, for example, characteristic of the classic counselling role. By the same token it is helpful to look elsewhere for our models of instruction. For some time we have been impressed by the contribution humanistic psychology has made to our understanding of how the facilitator can contribute to personal growth. Carl Rogers' book *Freedom to Learn* (1969, 1983) is a prime example. In the following extract, from another publication, Rogers (1973:58–60) describes some conditions which facilitate 'Learning to be free'. These conditions, we believe, get to the heart of the instructor's role:

Confronting a problem

In the first place, if this self-initiated learning is to occur, it seems essential that the individual is faced with a real problem.

A trust in the human organism

If we trust the capacity of the human individual for developing his or her own potential, then we can permit him or her the opportunity to choose his or her own way in learning. Hence it is evident that this kind of learning would be possible only for a teacher who holds a somewhat confident view of humanity.

Realness in the teacher

Another element of the teacher's functioning which stands out is his or her sincerity, realness and absence of a facade. S/he can be a real person in his or her relationship with students – angry, sensitive and sympathetic.

Unconditional acceptance

Another attitude which stands out is a prizing of the student, a prizing of his or her feelings and opinions. Such a teacher can be fully accepting of the fear and

hesitation of the student as s/he approaches a new problem, as well as of the satisfaction s/he feels in achievement.

Empathy

Still another element in the teacher's attitude is his or her ability to understand the student's reaction from the inside, an empathic awareness of the way the process of education and learning seems to the student.

Providing resources

These then are the essential attitudes of the teacher who facilitates learning to be free. There is one other function performed by such a teacher which is very important. It is the provision of resources. Instead of organizing lesson plans and lectures, such a teacher concentrates on providing all kinds of relevant raw material for use by the students, together with clearly indicated channels by which the student can avail himself of these resources.

This gives a fairly rounded picture of the qualities required by those who facilitate adventure education experiences. These qualities are also consistent with the findings of our own research. In one study we found that one group out of the three which comprised this particular Outward Bound course exhibited negative or no movement on the self-concept scales (Hopkins 1982). This result was explained by the personality of the group's instructor who was competitive, confrontational and unsympathetic. An empathic climate, however, was characteristic of the other two groups. This climate is characterised by an instructional approach that is non-judgemental and encourages the participant to confront a problematic situation within a supportive group setting. The teaching approach of the instructors whose groups showed positive changes in self-concept had a number of characteristics in common. They:

- conducted activities within a parameter of safety (nb. real v. apparent danger);
- showed empathy towards the student;
- utilised the supportiveness of the group setting;
- adopted a problem-solving approach and matched the problem with the capabilities of the learner;
- made certain that each activity challenged the students into action;
- remembered that doing is better than listening;
- moved from simple to more complex activities;
- gave plenty of feedback and encouragement;
- taught for transfer;

- realised that over-learning or repetition is sometimes necessary for basic/fundamental skills.

A coda on teaching

At this point we digress briefly from the mainstream of the argument to discuss the qualities of the teacher and how these qualities can be acquired. A central component of quality in teaching is the teacher's ability to use intelligently a variety of teaching approaches, to match them to different goals, and adapt them to different student styles and characteristics. Competence in teaching stems from the capacity to reach out to differing people and to create a rich and multi-dimensional environment for them.

In their *Models of Teaching* (1986), Bruce Joyce and Marsha Weil describe four families of teaching approaches: the information-processing; the personal; the social interactional; and the behavioural models. They argue that 'since no single teaching strategy can accomplish every purpose, the wise teacher will master a sufficient repertoire of strategies to deal with the specific kinds of learning problems he or she faces'. They suggest that teachers begin by mastering one model from each family, and then add others as they are found useful to each individual's particular teaching speciality. It is easier to learn models in collaboration with others (e.g. a colleague or student teacher), because the other person can help coach you (and vice-versa) on the finer points of teaching style.

In mainstream education as well as adventure education, there appears to be insufficient attention given to the acquisition of a repertoire of teaching styles. Yet the research evidence is overwhelming in its support for an explicit link between the acquisition and application of a range of teaching styles and student outcomes (Joyce and Showers 1988). Unfortunately new teaching styles are not easily acquired and need to become subject to a systematic staff development programme. There are a number of training components which, when used together, have a proven power to increase an individual's repertoire of teaching skill. These major components of training are as follows:

- Presentation of theory or description of skill or strategy.
- Modelling or demonstration of skills or models of teaching.
- Practice in simulated and classroom settings.
- Structured and open-ended feedback i.e. provision of information about performance.

- Coaching for application i.e. hands-on assistance with the transfer of skills and strategies to the teaching situation.

The implication of this is that any staff training programme should have teaching and facilitation as one of its key activities and include in its design a combination of these training components. As well as assisting the instructor to acquire a repertoire of teaching strategies, staff training programmes should also help instructors to reflect on their preferred teaching and learning styles, and develop that fine sense of judgement that enables them to set the right level of activity for each member of their group. This involves creating the appropriate level of 'dissonance' for each individual in any particular learning situation. It is to this vital task – the problem of the match – that we turn in the following section.

The problem of the match

Having discussed the characteristics of the adventure situation, let us try to understand a little more clearly what happens to the individual when confronted by an adventurous activity. By definition the participant, let us call her Jessica, is in a situation which is novel, frightening and over which she has little control; she, to use the jargon of this book, is in a state of potentially creative dissonance. What we mean by this is that because the situation is novel, her previous experience cannot predetermine what it is she should do; this results in dissonance, which in turn, because of the structure of the situation compels her to create new behaviour to meet the challenge.

Jessica is standing on a ledge, she knows that she has 15 feet to climb to the top of the cliff, but has never dealt before with the type of climbing problem that she is now faced with. In this case the motivation to climb is so great that Jessica discovers a new way of moving. A new behaviour has been added to her repertoire.

This simple illustration contains the essence of what adventure education is all about. Figure 5.6 puts this illustration into a more theoretical form. When the individual is involved in an adventurous activity, they are in a situation which is novel, frightening and over which they feel they have little control. Previous experience cannot predict action, dissonance occurs, and as a result new behaviour is acquired to deal with the situation. When this occurs the individual, Jessica, is operating at her optimal adventure level, as we see on the diagram at point B. At this level, she produces behaviour which deals satisfactorily with the situation, and in so doing changes her knowledge and behaviour in order to encompass that experience.

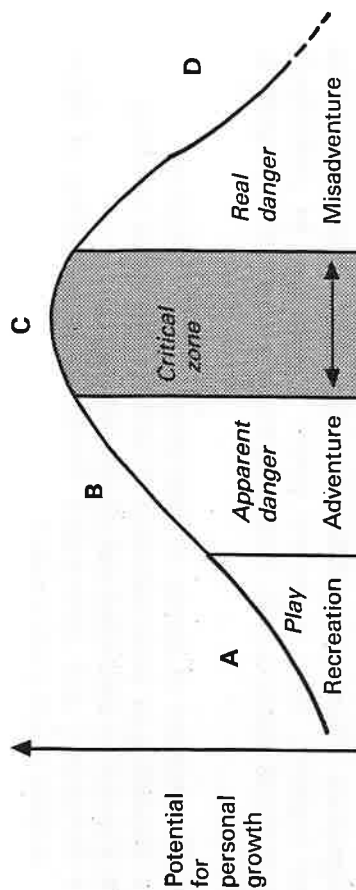


Fig. 5.6 The problem of the match

The diagram is also able to explain the stages of adventure described in the previous chapter. At point A on the curve the nature of the activity is essentially play. The individual is relaxed, the situation non-hazardous, and the required level of supervision low. At point B, as we have seen, play and discovery turn into adventure. If however, the situation produces an adventure stimulus at point C on the diagram, the individual is in the 'critical zone' where she becomes increasingly anxious and fearful, but the situation can usually be retrieved. Instructor judgement is of paramount importance here. When one passes through the 'critical zone' the situation often runs out of control, negative effects and possibly physical damage may well be the result. This is misadventure; point D in the figure.

These ideas go some way towards providing an explanation of why we seek out adventure situations and why they are so beguiling. There are also links with other theories of learning such as Bruner's (1966) concepts of curiosity, competence and reciprocity as being necessary to any learning event. Curiosity provides the individual with the initial motivation to see what is going on, to look at the rock, and to begin climbing. Competence is the drive to control the environment, that is, to learn how to climb, to learn how to use the hold and to use one's body; and reciprocity refers to the adaptation where s/he takes the skill, adapts it to the particular environment, and so develops his/her own individual and personal style. As we have suggested, curiosity, competence and reciprocity are essential components of the adventurous situation. Curiosity gets us there in the first place, competence is the range of skills we bring to bear upon the situation and reciprocity adapts the skill to the specific task in hand.

All of this leads to what we consider to be the most critical issue in designing and facilitating adventure education programmes – *the*

for the establishing of even greater competence. Such experiences not only involve the creation of new learned behaviours, but also serve to define the individual's perception of him/herself. This is the end result of adventure education, a form of personal growth, where the individual develops competence and confidence.

The ability to match students to an activity which suits their particular needs and requirements is an essential characteristic of the adventure education instructor. In the example, Gwen had a great concern for her group. She was able to discern the amount of apprehension Jessica was feeling and responded to her needs in an empathic and supportive way. *The importance of an understanding teacher cannot be over-estimated.* The empathic teacher is also able to use the group effectively. By carefully choosing the four people in Jessica's group, Gwen was able to make sure that Jessica had supportive people around her when she was attempting to climb. The reciprocity of the group dynamic is, as we shall see later, a fundamental component of the adventure education experience. Gwen was also consciously helping Jessica to think about herself. An individual's natural egocentricity is complemented by an instructor who is able to focus the experience upon the individual's own needs and help her articulate them to herself.

In the example Gwen was consciously helping Jessica to think about herself. An individual's natural egocentricity is complemented by an instructor who is able to focus the experience upon the individual's own needs and help her articulate them to herself.

Let us try and summarise what is happening here. In attempting to resolve the 'problem of the match' the individual is taken as the prime focus. Motivated by the prospect of an adventurous high impact activity, he or she is placed into a novel physical environment whose parameters are associated with apparent not real danger. This physical environment is complemented by a social environment which is probably also new to the participant, particularly as it is moderated by a group within a supportive and empathic climate. With this as background the learner is then 'matched' with an adventurous situation which (by definition) involves a characteristic problem-solving task.

If this adventure situation has been properly matched with the learner, then he or she will experience a state of creative dissonance. If the match has been carefully facilitated, the learner will strive for mastery, which results in the reorganisation of the meaning and direction of their experience. This is the increase in confidence and competence referred to earlier, which encourages the learner to tackle

problem of the match. The big advantage of adventure education is that the activities involved are initially exciting for both children and adults. There is usually some motivation towards or curiosity about an activity that is perceived as being difficult or unobtainable. This initial motivation is sustained when the instructor enables the participant to operate at their optimum level of challenge. This means that the activity must be sufficiently demanding and that there is a balance between fear and boredom. This in short is 'the problem of the match'. The problem is best solved by breaking the activity down into a number of sequential steps. Each of these steps will be small enough to provide transition from one to the other, and yet big enough to keep the motivation and the excitement high. This may all sound somewhat abstract, so let us give a simple illustration.

Jessica, who we have met before, is a comprehensive school student. She is on an outdoor activities week. Gwen, the group leader, has taken the participants to an area where there are a number of rock boulders, all varying between six and 12 feet high. Gwen surmises that Jessica lacks a certain amount of self-confidence, and has decided to use this activity to help her. On arrival at the site, Gwen divides the group of 12 into three and each quartet works together on an individual boulder. Gwen first explains some basic safety rules and then invites the participants to 'have a go' at climbing. She purposely did not demonstrate the skills involved beforehand, in order to give the participants the excitement of discovering the moves involved for themselves. At this stage Jessica was having some problems; she could see that the holds were not quite as big as she had thought and did not realise that she could stand on, or pull herself up by them. So Gwen took Jessica and her group to a smaller boulder and had them practice on a piece of rock with very large holds. Once they had done this, she took them back onto rock which was a little steeper but still with big holds, and then progressed on to a similar face with small holds, and then back to the bigger face. As a result, by the end of the afternoon Jessica (and others) were moving quite confidently up the 12 foot boulder, and feeling very good about themselves and their expertise as 'mountain climbers'.

This 'feeling very good about themselves' is more than a transitory feeling of self-satisfaction. Although there is always a certain euphoria associated with success, the effect often goes a lot deeper. It can involve a deep and fundamental reorganisation and extension of the individual's experience and behaviour patterns. By confronting a novel situation and successfully overcoming it, the individual has learned a new behaviour which can subsequently provide a foundation

I ever thought possible. I did under-estimate myself about not being able to do as well on this course as I have done, and so I have learnt that you never know how far you can go in something until you really try and to the limit.

The feeling of elation associated with physical success provides continuing motivation for the future, and a source of inspiration in often trying situations. As another student said:

It is great to work hard all day and reach a summit then get the view, it is fantastic - makes you feel like a king.

Walsh and Golins (nd) call these activities such as rock climbing and abseiling, 'the primary events in the adventure education process'. They use, as we have seen, the term 'characteristic problem-solving tasks', and describe them as being: organised, incremental, concrete, manageable, consequential and holistic. These are the characteristics that we also have imputed to them. In a real sense they are the building blocks of the adventure education curriculum.

Reflection and reviewing

If the problem-solving tasks are the building blocks then reflection is the glue that creates meaning out of these apparently disparate experiences. But how does one facilitate reflection? Joe Nold (1978) phrases the question in this way:

The problem of traditional schooling is to draw upon the motivational power of experience, to connect with it, to relate intellectual growth with the inherent urge to curiosity, reciprocity, and mastery. Experiential education in its turn has the opposite problem. Having motivated a student, drawn upon innate, primitive and primordial emotions, how do we free the learner from the immediacy of that experience? The emotive quality of experience can be so powerful that it becomes an end in itself, a type of addiction all be it a positive one. How does climbing a mountain become a broader metaphor of climbing the mountains of the mind, or the deeper moral and intellectual abstraction of man the eternal seeker, climber, discoverer?

This extract begins to address what for us is the major issue surrounding adventure education. How can we ensure that the immediate experience affects the participants' ongoing behaviour patterns? The key lies in reflection, which as a process will differ from individual to individual. We reviewed much of the relevant theory and research in chapter four, but we thought it important in this chapter to document how the process of reflection works from the perspective of

104 more demanding experiential tasks which similarly result in personal growth.

Confrontation-based experience

We have not as yet said much about the type of adventure activities participants engage in. This is deliberate, for as we noted in the first chapter, this is not a 'how to do it' book; although there are a number of descriptions of specific activities contained in the case studies of the part three. We should however say something about the *nature* of the adventure activities that instructors use to resolve the 'problem of the match'. The implicit assumption in what we have said so far is that the instructor must put activities into a concrete and confrontational form. In adventure education the activities are an immediate problem which participants have to solve. There's no room for evasion, they have to 'face it and do it'. This is the confrontation-based experience.

What we mean by this phrase is well illustrated by this quotation from a discussion on rock-climbing:

*If I have climbed up Grip Tight (the name of a rock climb), I know I can do it.
Falling off Grip Tight is more important though.
The Mckeen Ridge and Cathedral (also rock climbs) are good because they give us confidence and trust.*

The nature of the activity forces the individual to see him or herself. So often our lack of self-confidence manifests itself in a belief that we can never quite live up to our expectations. The power of adventure learning however, is that it can provide us with this evidence, and in such a way that we can use this now established fact in other spheres.

This notion is reflected in the principle of adventure education programming that provides a graded series of experiences at which the individual can succeed, then reflect on and use in the future. It is a continuing theme. A tough juvenile delinquent, on one of our courses, realised:

I did not know I could do these things... I thought this stuff was impossible for me to do.

Another said:

I gained more confidence in myself - because of the activities, and more responsibility.

A student who thought he knew himself fairly well wrote:

I can see that I can do much more and to a greater extent in many activities than

the participant and to suggest some ways in which reflection can be encouraged and focussed.

Here are a few quotations from our research which illustrate that the process of thinking and reflecting about problem-solving experiences, as well as engaging in them, is of fundamental importance:

I have never been faced with the stress you guys are putting us through ... Everyone is capable of the physical stress, but not the mental stress.

Looking back on myself during the Solo, I see an intelligent, egotistical, obnoxious even abusive, individual, who had drive but no sort of initiative or stimulus what-so-ever ... This course has given me the stimulus to take initiative and overcome my faults. There are ample challenges and hardships to overcome ... you can see yourself much more clearly.

That is the whole point of the course, to show you your limitations - you can reflect on those experiences. I did it, why can't I do it again?

An older, more reflective, student was convinced that:

... now I am prepared to handle situations which call for the right decision. I am now much more prepared as a leader ... I will not hesitate to step out and take care of things, even if it has to be done on my own. With the elements of danger, you learn to appreciate being alive ... with this knowledge one then must share it, what good is knowing, if you cannot tell someone else?

And another wrote so memorably (quoted in Putnam 1985):

If I wanted to do the course full justice I would need a full book of paper. 'So much in so little', and I don't only mean the rucksacks. One of the first things you notice about the course is that there seems to be very little authority; the people who work here have this 'gentle-but-firm' attitude. There's this feeling of being air-lifted out of our warm comfortable habitats, and placed in a strange environment which by the end we all love ... All through my life everything I do will somehow be related to this course; that's why I say 'so much in so little' it somehow seems appropriate. In another way - we have so much in ourselves and yet we use so little.

Reflection was obviously important to these young people and a major contributor to their personal growth. But how is the process of reflection facilitated? Reviewing is the current vogue word given to structured reflection. Reviewing is the activity that attempts to create meaning out of the individual adventure activities and to give the total experience a holistic quality. Roger Greenaway (1990) in his excellent book *More than Activities*, writes of reviewing as 'the process of reviewing experience'. In the book he goes on to describe a variety of practical activities for reviewing; the book as whole is an invaluable

resource for the outdoor educator. Besides this book there is a growing literature on reviewing (e.g. Quinsland and van Ginkel 1988; Greenaway 1992a, 1992b; Spragg 1984). Space precludes a detailed discussion of reviewing activities, although once again more detail will be found in part three. The following extract from a paper by Derek Spragg (1984) however, gives a flavour of some of the activities involved in reviewing:

- Creative work, representation and communication of ideas either individually or as a group.
- Drama and the development of personal/group ideas and feelings through improvisation games, role play etc.
- Personal counselling and individual reviews, with tutor or peers.
- Personal note making, logs of experience, group charts/diaries, self and peer assessment instruments.
- Simulation exercises or group tasks to highlight issues or learning points.

We began our lives as Outward Bound instructors well before 'reviewing' became fashionable. Almost intuitively we built many of these activities into the work with our groups. It is interesting for us now to see the sophisticated self-review logs and instruments that are given to Outward Bound students as a normal part of their course material. In addition we are delighted to see how review activities are becoming an increasingly established part of the adventure education process. To misuse T. S. Eliot's phrase, participants on adventure education courses are now no longer likely to have had the experience but missed the meaning!

The reciprocity of the group

As well as the problem-solving activities, the qualities of the instructor, reflection and reviewing, it is the reciprocity of the group that accounts for the self-concept change that is part of the adventure education experience (Hopkins 1985). The following quotations from student reports and discussions gives a flavour of the importance of the group:

One of the biggest challenges in this course is not so much the physical aspect of it ... I found that being able to get along with other people in a stress situation and trying not to blow-up, that this is the challenge on the course. Physically I could go on, but there are weaker people in the group and you have to follow the group - I find that trying to keep the group together and keep it going as a group is extremely challenging ... and trying not to blow-up.

Discussions conducted as part of our research suggested that students felt that the group situation; *made us more conscious of our responsibility towards each other. If we got things pretty easy man, we would not have to depend on each other . . . it would just be normal.* Also being a member of a group made self-assessment more realistic, *to be yourself is more important with others, you can learn to be yourself more.* It is here that the adventurous and arduous aspects of the course merge with the interpersonal:

we had to depend on each other . . . so that it took an effort from everybody to get through there. (It was) no use griping because there were three other guys with soreness and blisters just like you.

During our ongoing work in adventure education it has been possible to produce some evidence to support commonly-held notions of group development. We also remain convinced of the utility of 'the ten person group'. If there are fewer than eight members, the range of interactions are restricted; if there are more than 12, the group is too cumbersome and eventually fragments. Given a ten person group or equivalent there seems to be a characteristic pattern.

At the beginning of a course the group is extremely cohesive, drawn together by insecurity and unfamiliarity with the activities and environment. As the course progresses, individuals become more confident and assert their independence; the experience of close and stressful communal living puts strains on individual differences and the bickering begins. This is a self defeating process, for the more acrimony there is in the group, the less effective it becomes, which leads to increased frustration and so on. At this stage the instructor is playing a less dominant role within the group, and with more responsibility for their own survival, the group realises it needs its individual members, 'warts and all'. This realisation is complemented by the increasing acceptance of the self by individuals which is highlighted by review activities. Here is a chance to reflect on the self, the course and the group, and the usual result is an increase in mutual regard and a closer group spirit. This is different from the initial unity of the group, it is a more mature, deeper relationship, where the individuals are appreciated for what they are, and what they can contribute. There is less of the cloying closeness that feeds on insecurity, but the acceptance of individual differences and idiosyncrasies, in response to a unity of purpose and the sharing of stress.

One student we talked to, summed it up like this:

the group came together at times when it really mattered, although there was

some discontent underneath, everyone was getting together, and it was more cohesive at the end of the course than it was at the beginning.

This description of the group process is supported by the literature on group dynamics (e.g. Belbin 1981, Harman and associates 1974, Spott 1967). It also conforms to the well known pattern of group evolution: *forming, storming, norming and performing.*

The purpose of this discussion is not to document the process of group dynamics, examples of which are also contained in part three. It is rather to emphasise that just as there is a movement towards realism in the self, so this movement is paralleled in the life of the group. So characteristic is this movement, it is almost as if the group develops a personality of its own, and in so doing challenges the individuals within it. Obviously such an evolutionary process takes time, and the pattern of group development just described does not usually occur within a weekend. On shorter courses therefore, one has to be clear about one's objectives and adjust them to the time available. The challenge to the instructor is to use this dynamic to support the process of personal growth of the individuals within the group.

How experiential is your experiential education programme?

It may be helpful in bringing this chapter on programme design to a close to reflect on the experiential quality of many so-called experiential programmes. A few years ago Maurice Gibbons with one of us (Gibbons and Hopkins 1980) elaborated a scale which measures the level of experience in experiential programmes. It is included below as a guide to programme design. Although most adventure education programmes claim to be experiential, the degree of experientiality among them varies considerably.

When such a wide range of different programmes are referred to as experiential, the term loses meaning and opens the field to misinterpretation and malpractice. A term that does not distinguish between a nature walk and a mountain climbing expedition, for example, is too vague. Then critics can select weaker forms of experiential education through which to attack the whole concept; the term is too vulnerable. One solution to these problems is to create a scale of experientiality.

By creating a scale with clearly defined categories, we not only make clearer the nature of the field and the distinctions between different kinds of programmes, but we can solve other problems as well. First, the scale will give prospective participants a framework for critically examining programmes. Second, it will help them to select an appropriate step on the scale for entry into experience-based program-

ming. Third, the steps will provide a pattern that teachers and others can follow in developing programmes that progress from simple beginnings to a full-scale experiential curriculum. Too often experiential education is a one-shot affair, ending after the bloom of newness and the air of excitement pass.

All educational programmes are composed of experiences; some experiences, however, are more experiential than others. The question is, what criteria can we use to scale learning events according to their degree of experiential potential? One criterion is that experience becomes fuller when it is less mediated – by language for instance – and more directly sensory in nature. We experience objects, forms, features and processes when we are in direct contact with them in their most natural form. A learning event also becomes more experiential when we are involved in the planning and execution of the activity. The degree of experience increases as the participant becomes more responsible for the experience that occurs, and more responsible for mastering the activity involved to the fullest possible extent. Experience-based programmes reach their highest level when they contribute directly to the growth of individuals as persons by helping them to establish initiative, industry, competence, and identity; to negotiate the transition from adolescence to adulthood; and to meet the other challenges of the maturing process as they occur. At its upper register, the scale of planned experience-based learning merges indistinguishably with the activities of life. The scale we devised translated these aspects of experiential learning into five modes, each representing a major increase in the fullness of experience involved. Since the scale is cumulative, each mode can include the kinds of experience in the preceding modes, but adds an important new dimension to the potential quality of the experience involved.

These models can be broken down further into different kinds of activities, as seen in figure 5.7 (two for each mode). The five modes are:

- 1 *The receptive mode* Experiences, or representations of them, are presented to participants who remain a passive audience throughout.
- 2 *The analytic mode* Participants conduct field studies in which they apply theoretical knowledge and skill in order to study some event, analyse some aspect of the environment or solve some practical problem.
- 3 *The productive mode* Participants generate products, activities and services which have been assigned or are of their own devising.

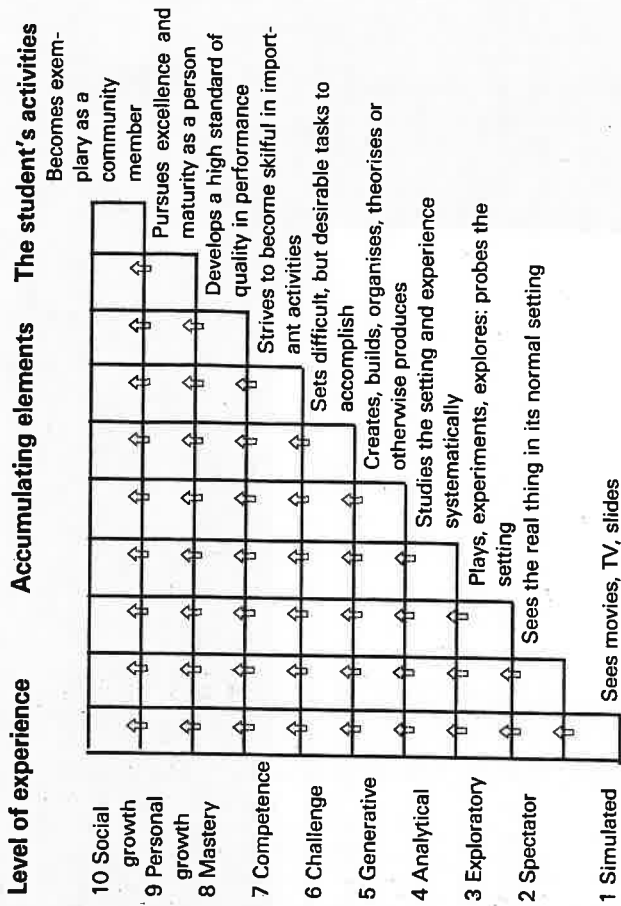


Fig. 5.7 A scale to measure the level of experience in an experience-based programme

4 *The developmental mode* Participants pursue excellence in a particular field by designing and implementing long-term programmes of study, activity and practice.

5 *The personal growth mode* Participants learn to understand themselves and their relationships with others. They accomplish the tasks presented by their stage of development toward maturity and make contributions to the lives of others.

Although it is the scale of experientiality which is emphasised in the figure, we must also recognise that the demands of quality and the participants' capacity to respond are equally important considerations. Taken together with the Nold and Walsh/Golins models, and the discussion in this chapter, this scale goes some way towards providing a planning tool for programme development.

In summary, the research that we have previously undertaken on the process of adventure education suggests that it is the existence within the adventure experience of factors such as the opportunity to bare the self, the reciprocity of the group, the use of confrontation-based experiences and the empathic personality of the facilitator, that causes

the positive change in self-concept. These elements are not exclusively the preserve of adventure education, and can form the basis of any experiential learning situation. The corollary is that if these elements are combined in any learning situation then the individual's self-concept will be enhanced. These parameters are useful for defining the adventure situation and for programme planning. They also suggest a framework for individual development that depends on the 'matching' of an adventurous activity to an individual within a supportive group setting. The challenge to the instructor is to create a learning environment true to these principles.

In this and the previous chapter we have attempted to sketch out what these principles of learning and programme design are. This has been the 'theory'. In part three of the book, with the aid of a series of case studies, we look at the 'practice'. In reflecting on these more theoretical chapters and in looking forward to the cases, we are reminded of Kurt Lewin's dictum that 'there is nothing so practical as good theory'. We hope that in this part of the book we have remained true to that principle!

PERSONAL GROWTH THROUGH ADVENTURE

David Hopkins and Roger Putnam

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