

How Does Learning Happen for People Participating in Adventure Training?

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Adventure training has become fashionable over the past few years in Hong Kong. Current Education Reform suggests learning should not be confined to the classroom, and adventure training is viewed as an alternative method to institutional routines for personal and group development. This paper reported a longitudinal study investigating how learning happened for four church members (out of twenty-five participants) purposively selected in an adventure team-building camp. Both quantitative and qualitative instruments were used. Results shed light on: (1) how the constructs of self-efficacy and organizational commitment helped to conceptualize what people meant by a team; (2) how qualitative findings revealed evidence of learning of the four members which could not be observed by quantitative findings; and (3) how participants experienced and learnt from adventure training.

Key Words: adventure training, experiential learning, assessment and evaluation, team-building, self-efficacy, organizational commitment

In the past few years, the fields of education, social work, counseling and therapy in Hong Kong have been paying increasingly attention to the effectiveness of adventure training. Broadly speaking, adventure-based counseling, adventure therapy and experiential learning could be categorized as adventure training. Adventure training has been viewed as an alternative to institutional routines (such as classroom teaching) and many practices have been designed for different types of learner, ranging from school children to company managers. Furthermore, many seminars and workshops, which applied different practices, have been offered to

front-line workers including teachers, social workers, counselors and therapists. Practical and theoretical considerations on the impact of adventure training have been developed (Boys' and Girls' Clubs Association of Hong Kong, 2001; Cai & Wu, 2001; Lau & Chan, 1990; Leung, 1990). However, the question of how people experience and learn from the training itself has not been deeply investigated. Therefore, assessing and finding evidence to demonstrate how participants have learned from the training was the focus of this paper.

The purpose of this study was to apply a systematic approach to assess the experience of a group of church members participating in a two-day adventure team-building camp. It dealt with how learning happened for four critical members of the team. The psychological and sociological literature on personality traits and organizational behaviour was reviewed to come up with a questionnaire and an interview. Both the questionnaire and interview were given to the participants before and a year after the camp. Four purposively selected members, whose roles in the team were both provocative and contentious, reported what they felt to be concrete learning from the training and how team spirit could

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be formed. It was hoped that by retrieving experiences of these four typical members, researchers, instructors and educators could better understand the impact of adventure training has on learners.

Literature Review

Adventure Training: A Chinese Perspective

The rationale of adventure training, which is also known as experiential learning in general, is simple and straightforward (Chapman, 1992). It aims to change the feeling, thinking and behaviour of learners through adventure-based experience and practices (Dennison & Kirk, 1990; Itin, 1996). Kolb (1984) created a 4-step model of learning which includes concrete experience, reflective observation, abstract conceptualization and active experimentation. The concrete experience and reflective observation allow individuals to describe what they have experienced physically and emotionally, analyse the implications for them, and think about what changes should be made. Noted that reflection is the “active process of exploration and discovery which often leads to unexpected outcomes” (Boud, , Keogh, & Walker, 1995, p. 1). It is the application of newly acquired knowledge and skills gained through concrete experience and reflective observation allowing learning to occur.

The most basic form of knowledge is experiential, which is gained through the process of direct and personal encounter with a subject, person or thing. In contrast to propositional and practical knowledge, experiential knowledge is an important form of personal knowledge that every single individual develops as experience increases (Burnard, 1988). However, when people attempt to clarify experiential knowledge by putting it into words, experiential knowledge would then turn into propositional knowledge. Therefore, experiential knowledge cannot be found in textbooks nor can it be conveyed through lectures.

Such an emphasis on personal or experiential knowledge and the way to acquire it echoes what the current education reform in Hong Kong is advocating, that learning should not necessarily be confined to the classroom. One of the principles of the reform mentioned that educators should take notice of the concept of ‘life-wide learning’. Students and learners in general “should be able to take part in a comprehensive range of learning activities both inside and outside the classroom” (Education Commission, 2000, p. 37). Adventure training takes place outside the classroom, and very often, in the

wilderness. It provokes learning on at least two levels. On a personal level, in the form of facing challenges and testing one’s abilities, emphasis is placed on decreasing the dysfunctions and negative actions and increasing the functions and positive actions of team members during the adventure process (Gass, 1993; Nadler & Luckner, 1992). While on a group level, emphasis is placed on the interaction between team members in accomplishing different challenging tasks. During the process, learners experience difficulties and look for possibilities, and with the proper guidance, facilitation and intervention of instructors, objectives of the training are thus met (Cai & Wu, 2001). Therefore, if learning is “everything that is left after you have forgotten everything you have learned”, adventure training has a profound influence on maximizing the learning experience by minimizing what would be forgotten.

The Church as a Team: A Conceptual Model

What ‘a team’ means and entails is controversial. There are always debates on what should be the proper beliefs to hold as well as the behaviours a member should have towards the group. The situation gets no simpler if analysis shifts from a company in the business sector to an organization in the social sector, say a church. For the latter, there is not much problem with rank, position or success; however, expectations of ability, effort, membership and commitment are still required. A review of the literature reveals that some personal and social constructs, such as self-efficacy, organizational commitment, locus of control, decision-making, creativity, and conformity, may be helpful in explaining the complex nature of ‘a team’. In particular, the constructs of self-efficacy and organizational commitment are of theoretical significance and therefore, a conceptual model, based on the above two significant factors, was created to guide the current task of assessment.

The psychological construct, self-efficacy, was first introduced by Albert Bandura as beliefs in one’s capacity to organize and execute the courses of action required to manage prospective situations (Bandura, 1977; Bandura 1997). According to Bandura’s social cognitive theory (1986), individuals possess a self-system that enables them to exercise a measure of control over their thoughts, feelings, motivations, and actions. This self-system serves as a referenced mechanism for perceiving, regulating and evaluating behaviours, which results from the interplay between the system and the environmental sources of influence. It also serves as a self-regulatory function by providing individuals with the capability to influence their own cognitive processes

and actions and thus alter their environments.

As such, how individuals interpret the results of their own performance attainments informs and alters their environments and their beliefs, which in turn informs and alters subsequent performances. In other words, how individuals behave is mediated by their self-beliefs about their capabilities and can often be better predicted by these beliefs than by the results of their previous performances. Self-efficacy is essential for understanding how an individual's perceived capabilities and it is thus related to designated types of performance. It influences not only the choices people make, but also determines how much effort they will put into an activity, how long they will persist when confronting obstacles, and how much stress and anxiety they experience when engaging in a task. Therefore, self-efficacy is the key construct in explaining the strengths and weaknesses each individual member has within a team.

In terms of organizational commitment, people usually conceive it as a positive thing. It is a term that many of us are accustomed to seeing in a variety of circumstances, including academic papers and popular magazines. As listed in the 8th edition of Webster's New Collegiate Dictionary, commitment has three main definitions. The first definition refers to the consignment or entrusting of something to someone else. The second one refers to the accomplishment of some act, and the third definition is the pledging or binding of oneself, as in committing oneself to a course of action. It is the last definition which has relevance to the present discussion. As illustrated by Kiesler (1971), commitment is best understood with both the attitudinal and behavioural aspects intruded. People are referred to being strongly or weakly committed to a behaviour, rather than being simply committed or not.

Research, on organizational behaviour, shows that commitment is an important aspect in explaining the performance of different organizations (Ghemawat, 1991). Organizational commitment is then defined as the relative strength of an individual's identification with and involvement in a particular organization (Mentor, 1995). It is characterized by at least three factors: (1) a strong belief in and acceptance of the organization's goals and values; (2) a willingness to exert considerable effort on behalf of the organization; and (3) a strong desire to maintain membership in the organization. Therefore, organizational commitment is another key construct in explaining the dynamics each individual member has within a team.

When the two constructs, self-efficacy and organizational commitment, were tabulated, categorizing team members at either a high, medium, or low level of performance on each of the two constructs, an interesting phenomenon emerged (see Figure 1). Note that the cutting points for the three levels were at the 25th and 75th percentiles since textbooks of social statistics and data analysis, such as Blalock (1979) and Bryman and Cramer (1997), suggested that the most robust representation of variables was the percentile. There were nine cells. The four corners of the table represented four distinct types of people. They were the leaders (with a high level of self-efficacy and a high level of organizational commitment), followers (with a low level of self-efficacy but a high level of organizational commitment), challengers (with a high level of self-efficacy but a low level of organizational commitment), and outsiders (with a low level of self-efficacy and a low level of organizational commitment). They were critical members of a team. Their roles were both provocative and contentious because the way they interacted with each other and the rest of

	Challenger		Leader
Self-efficacy			
	Outsider		Follower
	Low	Medium	High
	Organizational commitment		

Figure 1. Conceptual model of the church as a team

the group greatly impacted both the pace and effectiveness of the team development. Their moves were interdependent. The leaders planned the directions, the followers supported and tried their best to implement directions, the challengers criticized, and the outsiders tried to contribute as little as possible. Therefore, understanding these four groups of people could provide clues to how they experienced the training and how learning happened for them. Due to typicality, only four critical members or outliers, were purposively selected, accessed and invited to participate in the second stage of the study. The purpose of the second stage was to find out how the two constructs had changed.

Methods

The Adventure Team-building Camp and the Participating Group

The two-day adventure team-building camp was organized by The Chinese YMCA of Hong Kong in January 2000 for twenty-five members of a local church. This group of people came from the same fellowship. They met every Saturday and Sunday, received the same spiritual teaching, and had a similar religious background. The aims of the camp were to promote team spirit through various adventure-based practices, get them to commit and participate, and serve together in the church. The twenty-five participants, age ranged from 23 to 40, were divided into three groups; each group was assigned an instructor. They were instructed in various adventure-based training activities requiring them not only to test their abilities but also to work as a team to accomplish difficult tasks. These activities included climbing, orienteering, and command task exercising. At the end of the camp, a debriefing session was held to review the activities, analyse with the participants the implications of the tasks, and look for possible ways for individual members to work as a team.

Methods for Assessment and Instruments Used

A one-group pretest-posttest design (Best & Kahn, 1998) and a follow-up interview (Fielding, 1993; Fontana & Frey, 1994; Measor, 1985) were used for this research for assessing how participants experienced and learned from the adventure training. The advantage of the pretest-posttest experimental design was that by comparing results of the two tests, primarily evidence of whether the four critical members had learned from the training could be seen. However Campbell & Stanley

(1963) suggested that this type of pre-experimental design was under serious threat as to internal and external validity, and the most obvious ones were maturation and testing. Maturation refers to the fact that the subjects being tested may change biologically and psychologically over a period of time, and these changes may be confused with the effect of the independent variables under consideration. Testing refers to the fact that the process of pre-testing may have produced a change in the subjects being tested, very often making the subjects more proficient in the post-test performance (Best & Kahn, 1998).

In order not to exaggerate the results and to look thoroughly into the way the four groups of members learned, how they experienced and what they learned, each of them was interviewed further. Qualitative interviewing was employed for several reasons. First, it provided more supportive and illuminating evidence to the task of assessment. Second, it focused on a natural setting and emphasized the process of social interaction. Third, it helped to add inner perspectives to outward behaviours. Last of all, it enabled respondents to talk in their own terms about topics that were relevant to the research. Qualitative interviewing could allow researchers to probe, clarify misunderstandings and to increase the accuracy of responses (Fielding, 1993; Fontana & Frey, 1994; Measor, 1985). Overall, qualitative interviewing was useful to further illustrate and illuminate what might not be easily observed through quantitative methods in this research.

The instrument used for the one-group pretest-posttest design was a 20-item questionnaire measuring self-efficacy and organizational commitment in a 5-point Likert scale of *strongly disagree*, *disagree*, *no comment*, *agree*, and *strongly agree*, with numerical values of 1 to 5 assigned respectively for later analysis. For self-efficacy, one's competence to deal with challenges encountered, Schwarzer's (1992) 10-item scale was adopted. However, the original scale was measured in a 4-point Likert scale of *strongly disagree*, *disagree*, *agree*, and *strongly agree*, with numerical values of 1 to 4 assigned respectively. This scale has been tested across thirteen cultures, including Hong Kong, and was found to be reliable both internally (multiple-items to scale) and externally (over time) (Schwarzer & Born, 1997). For organizational commitment, one's relative strength to identify with and be involved in the church, Mentor's (1995) 15-item scale was used. Items were limited from 15 to 10 and modified to the context of church organization. Mentor's scale was originally measured in a 7-point Likert scale, with numerical values of 1 to 7 assigned. All the 20 items were translated from English to Chinese and from Chinese to English, until the Chinese wordings best

matched the original English meanings. This 20-item questionnaire was also used for the purpose of selecting the four critical members conceptualized earlier for the second stage of investigation.

For the follow-up interview, a semi-structured interview schedule was developed. This schedule involved questions and sub-questions asking individuals: (1) to briefly introduce themselves (for warming up); (2) to comment on the training camp, the adventure-based practices, and the critical position given (for recalling memory); (3) to trace if they recognized any changes (or learning) in their self-efficacy and organizational commitment since the camp started, and to give examples and comments if their learning was related to the training (for seeking learning evidence); and (4) to raise any concerns which they thought were relevant to the assessment (for closing).

Fieldwork and Methods of Analysis

The questionnaire was first administered to all participants as the pre-test at the beginning of the camp, before they engaged in any of the training activities (N = 25). To avoid socially desirable responses, participants were told that the assessment would only be used for academic purposes. Reliability and many other statistical analyses were conducted (Bryman & Cramer, 1997), and the software Statistical Package for Social Sciences (SPSS) was used for this study, especially for the location of the four critical members.

At the end of the camp, the twenty-five participants were given back their questionnaire with scores on the two constructs measured. The importance of developing one's competence to deal with challenges encountered (self-efficacy) and one's strength to identify with and be involved in the church (organizational commitment) were debriefed.

Twelve months later, the four critical members were contacted and invited to further participate in the study. These four members were the outliers of the two constructs being measured and, as mentioned, they were purposively selected because of their typicality. Moreover, the invitation of these four members fulfilled several pragmatic criteria for qualitative research: (1) negotiating entry to the site with gatekeepers, (2) maintaining an unobtrusive presence at the site through appropriate activity, and (3) being trusted by the participants (Hammersley & Atkinson, 1983). The twelve-month period was considered to be long enough to eliminate the ad-hoc effect of the camp and thus suitable for the administration of the post-test and the follow-up interview. The four critical members were asked to fill out the same questionnaire, as the

post-test, and the scores of the two tests were compared (N = 4). Shortly after this, they were interviewed over the phone for about twenty to thirty minutes. The interviews were in Cantonese and all interviews were taped and transcribed. The written transcripts were analysed, compared and contrasted for significant themes. For identification purposes, each of the four cases was assigned with a code. They were RsptL for leader, RsptF for follower, RsptC for challenger, and RsptO for outsider. Only interpretative summaries with illustrative quotes were used for the discussion of results in later sections. This was intended to help readers understand how the four respondents answered the questions, the meaning of these themes, and the experience and learning they had in the training (Bryman & Burgess, 1993; Miles & Huberman, 1994).

Results and Discussion

Analysis of the pre-test, post-test and the interviews revealed three important findings. First, the current assessment task of retrieving how learning happened for the four critical members was valid. Second, differences in the pre-test and post-test scores indicated two out of the four critical members did learn and shift to a new position because, as interview data suggested, they considered participation as necessary to commitment. Third, the learning that happened for the four members was apparently more substantial and prominent than what was disclosed by the standardized tests.

Validity of the Assessment

Validity of assessment is defined as the extent to which an assessment measures what it claims or purports to assess (Garrett, 1937; Zeller, 1990), and this study adopted the above definition of validity. Two basic forms of evidence were considered necessary to show that the present assessment was valid. Firstly, there must be evidence that the quantitative instrument, with two 10-item scales, was really measuring the constructs of self-efficacy and organizational commitment. Secondly there must be evidence that the conceptual model built from the constructs was indeed locating and selecting the four critical members for further investigation.

First, reliability analysis of the pre-test scores of the twenty-five participants showed that the self-efficacy and organizational commitment scales were reliable when applied to this target group. Cronbach Alpha values were 0.77 and 0.81 respectively. Spearman's rank-order correlation coefficients

between the items and the total score ranged from 0.37 to 0.66 for self-efficacy and from 0.37 to 0.77 for organizational commitment. Psychometrically speaking, the items contributed to a significant degree to the formation of the scales, and thus free the scales from errors of measurement. The two scales were, therefore, reliable in a sense of having a high degree of internal consistency. Content validity was another criterion used to determine if the scales were assessing the two constructs. Results were supportive given that the items looked valid to the researcher and people who were invited to comment on the instrument. However, as reminded by Wiliam (1993), when analysing the National Curriculum Assessment, content validity should not only be concerned with the test items but also with the answers elicited. The two scores were therefore further explored. For self-efficacy, the mean score was 33.40 with a standard deviation of 5.23 and the 25th and 75th percentiles were 30.5 and 37.5 (N = 25). For organizational commitment, the mean score was 35.65 with a standard deviation of 4.93 and the 25th and 75th percentiles were 32.0 and 39.0 (N = 23 as there were two missing cases). Summary statistics of the two scores and the scatter-plots of the participants with the four critical members located were shown in Table 1 and Figure 2 respectively. Pearson product-moment correlation between the scores was not significant ($r = -0.11$, $p = 0.63$, $N = 23$). This highlighted the fact that there should not be any necessary association between an individual's self-efficacy and organizational commitment. The scores were further examined under the one-sample Kolmogorov-Smirnov Z normality test to see if the assumption of normality was rejected. Results were negative ($p = 0.97$ & 0.91). Scores were normally distributed. The scales had a high degree of discriminating power in differentiating participants with the

constructs being measured.

In assessing the conceptual model built from the constructs, validity was referred to how suitable and convincing this model was in guiding the current task of assessment and in tracing the four critical members of a team. The qualitative interview data was used to discuss this point. First of all, responses to the warming up question indicated the four people selected were very different. RsptL was a lecturer in a post-secondary college who found him/herself very energetic. S/he was very committed to the church by teaching Sunday schools and doing a lot of services. RsptC said s/he was as an open-minded, creative, sporty and analytical person but also emphasized that s/he did not care much about the feelings of others. Both RsptL and RsptC were confident people. The way these two members introduced themselves was positive. However, for the other two members who were identified as having a relatively low level of self-efficacy gave comments that were quite different. RsptF said s/he was a nice, approachable but pessimistic person. RsptO found him/herself very quiet and passive. These four people appeared to be very different in personalities, from active to passive, from energetic to quiet, and from open-minded to pessimistic. This further confirmed the earlier findings that the two constructs demonstrated a high degree of discriminating power.

The validity of the conceptual model was further supported when the four members were asked to recall and comment on their critical position given a year ago. Except RsptF, the three other members in general agreed to their given position and gave good reasons to support their views. RsptL agreed that s/he was a leader since s/he was smart and did a lot of services in the church. H/She said, "I found myself outstanding when compared with peers of the same age, and I always try my best to finish a given task as I value the appreciation of others". RsptC agreed s/he was a challenger who took nothing for granted. S/he said, "I hate routines. I find great satisfaction when I can change the rules and find new or better ways to do things". RsptO also agreed s/he was an outsider because at the time when s/he joined the camp s/he did not participate much in church. However, for RsptF who did not agree to the position of a follower, s/he insisted that s/he was quite a confident person. S/he said, "I am willing to stand out and take up the responsibility if it is the church's decision in which I am comfortable in doing". No matter how inappropriate s/he felt towards the expression, the condition given by him/her to take up responsibilities was that those responsibilities should be the organizational objectives or the church's decisions. Conformity played a significant role in modeling his/her behaviours towards and describing his/her

Table 1. *Summary statistics of self-efficacy and organizational commitment scores of the participants*

	Self-efficacy (N = 25)	Organizational commitment (N = 23)
Minimum	23.0	28.0
25th Percentile	30.5	32.0
Median	33.0	35.0
75th Percentile	37.5	39.0
Maximum	42.0	45.0
Mean	33.40	35.65
Standard Deviation	5.23	4.93

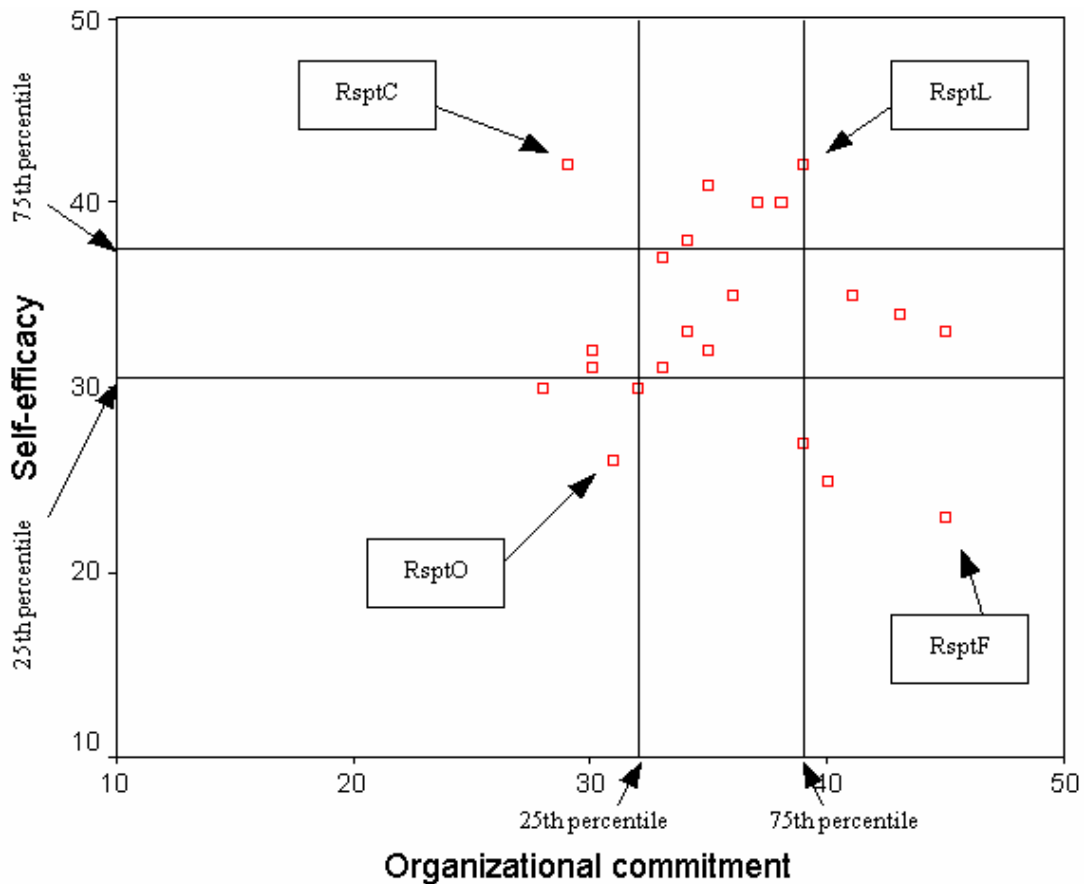


Figure 2. Scatter-plots of self-efficacy score by organizational commitment score of the participants (N = 23)

identification with the team. This certainly did not go with what others would expect from a leader and therefore, the position of a follower was more suitable for RsptF. Clearly supported by the interview data, the conceptual model was convincing since there was a match between the characteristics of the selected members and the roles of their critical positions.

The analyses of the pre-test scores of the twenty-five participants of the quantitative instrument and the responses of the four purposively selected members of the interviews demonstrated that the current assessment task of retrieving data on how learning happened for four critical members was valid.

Why They Shifted (or Did Not Shift) in Position: Commitment as Participation and Doing Services

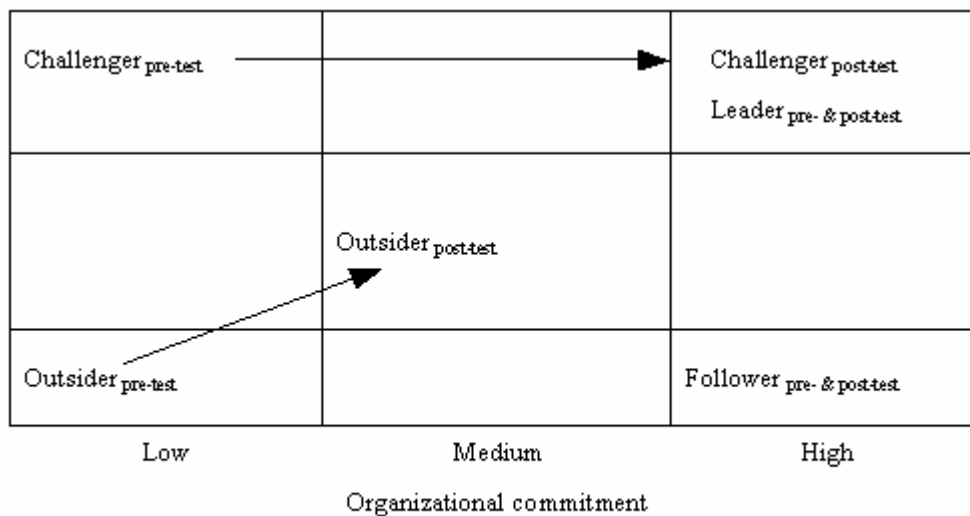
Going back to the questions of whether the four critical members had learned from the training and in what directions, the results of the one-group pretest-posttest design told us the

answers. Comparison of the two tests indicated there was a change in the self-efficacy and organizational commitment scores of the four critical members over the twelve months. (Pre-test and post-test scores are shown in Table 2.) Most of the changes were minor ($\pm 1 - 5$ points), except a marked increase in the organizational commitment score of RsptC from 29.0 to 44.0 (+15 points). However, when the pre-test and post-test scores were plotted in the same graph, with reference to the 25th and 75th percentiles obtained earlier, an interesting finding emerged (see Figure 3). There was a shift in the position of RsptC and RsptO. RsptC shifted to the position of a leader with a very high level of organizational commitment. RsptO shifted to the middle position of the team with a slightly higher level of self-efficacy and organizational commitment.

Qualitative interview data helped to explain the case. The four critical members in general enjoyed the training camp. Through direct and personal encounters with a wide range of

Table 2. *Self-efficacy and organizational commitment (pre-test and post-test) scores of the four critical members*

	Self-efficacy		Organizational commitment	
	Pre-test score	Post-test score	Pre-test score	Post-test score
RsptL	42.0	40.0	39.0	38.0
RsptF	23.0	28.0	45.0	44.0
RsptC	42.0	40.0	29.0	44.0
RsptO	26.0	30.0	31.0	33.0

Figure 3. *Mobility of the four critical members*

activities, each of them benefited in a unique way. However, in contrast to RsptL and RsptF who were already very committed to the church and thus enjoyed using individual time for one's spiritual growth, RsptC and RsptO enjoyed the time working with others by participating in different group activities that required them to cooperate with others. As mentioned by RsptC, "now I have learned how to get involved in church". Though s/he kept wondering why s/he was participating and committing more and more in church, s/he did realize a change in his/her past habit of challenging things. S/he said, "I have now learned to commit. I have learned not to challenge so often, not to take over others' roles but to motivate them instead". The implication was that cooperation and motivation made things better while challenges could only make things worse.

In a similar way, RsptO also perceived the training positively. Through the training, s/he understood the importance of cooperating with others and also, the belief of his/her ability became stronger. Originally RsptO did not indicate a strong

desire to exert considerable effort on behalf of the church. However, after the camp, s/he realized the vital first step for him/her was to participate more. In contrast, the other two members did not find any changes in their commitment to the church. RsptL commented that, "there isn't much change [in organizational commitment] after the camp. I'm still a key member in the church who takes up lots of important services". RsptF also said, "I'm still very committed to the church, taking up quite a lot of services". They were still very committed because they were doing a lot of services. Commitment imposes both an appropriate attitude and behaviour towards the organization, which means cooperating with others and participating in serving others for critical members. In conclusion, because they considered participation and doing services important, these two critical members learned (or claimed they did not learn) and shifted to a new position (or remained in the same position) over the twelve months.

How They Experience and What They Have Learned: The

Proper Attitude, Skills and Beliefs in Handling Problems

The quantitative results indicated that two members did learn and shift to a new position. However, interview data revealed significant evidence that the learning that took place was more substantial and prominent than the quantitative results showed. Responses on whether the four critical members recognized any changes in their self-efficacy and whether the changes were related to training were discussed in this section.

The four members were first asked to disclose how they understood and interpreted the construct of self-efficacy. According to their definition, self-efficacy meant one's ability, competence and confidence in handling and solving problems. Their perceptions of what happened since the camp started helped them realize that they all had learned the proper attitude, skill and belief in handling problems in the camp. As RsptL said, "I learned how to solve problems on my own". Although RsptL thought s/he was as an outstanding person, s/he always lacked confidence in his/her physical fitness. The adventure-based activities, however, made him/her realize that s/he was physically fit and could handle the tasks. In his/her words, "the camp made me realize that I'm capable of handling those demanding activities. It's very encouraging". For RsptF, who termed him/herself as pessimistic, learned to be patient, relaxed, and optimistic when handling difficult tasks. In other words, RsptF found that no matter how difficult the problem was, there should be solutions. RsptC's comment was close to this and helped to illustrate the case. RsptC said, "the camp reminded me of a scene in the movie 'Philadelphia', where Tom Hank's brother encouraged Tom Hank (who had AIDS) by saying that any problems have solutions". Contrasting his/her past habit of challenging things, RsptC also learned not to jump to conclusions. S/he said, "I learned to be patient. I learned to look for as many solutions as possible when tackling a problem ... for example talk to other people and don't get frustrated so easily". Generally speaking, the strategy for searching more thoroughly for a solution is significant, especially when the task to be accomplished is tough and challenging. RsptL got the same insight that, "I learned to tackle problems via different angles. There are always solutions, just like the way I handled the demanding activities in the camp". After the camp, RsptO said, "I started to believe more in my ability". Though there was not any behaviour or action which showed RsptO managed to exercise his/her beliefs over the environment, the change did happen in the cognition of a very quiet and passive person, in his/her self-system which used to provide referenced mechanism for

perceiving, regulating and evaluating behaviours. The more positive experience s/he had over the exercise of his/her beliefs, the more s/he would believe in his/her capacity to organize and execute the courses of action in prospective situations.

By providing learners with a chance to test their abilities and face challenges, the changes these participants documented were the things that adventure training was trying to make. To conclude, the interview data revealed significant evidence showing more substantial and prominent learning took place in the four critical members. They experienced an increase in their strengths and learned the proper attitude, skill and belief in handling problems.

Conclusion and Commentaries

To summarize, this study provided findings of which researchers, instructors, as well as educators should pay attention to. First, the two constructs of self-efficacy and organizational commitment and the conceptual model that was built from them were found to be significant and valid in conceptualizing what 'a team' meant and entailed. Based on the conceptual model, the task of assessing how learning happened for people participating in the adventure training was made possible.

If adventure training is profound and somehow superior to the institutional routines in promoting personal and group development, its effectiveness should not merely rely on the intuition of instructors. To assess the impact that adventure training has on learners is as important as the task of designing a programme for a particular group of learners. Researchers and instructors should therefore focus more and work closely on this. It is important to remember that more training will not help when people have already learnt how to perform, but are merely not performing as desired. Time needs to be set aside for analysing the learners as well as thinking about the objectives of the training and looking for assessment tools that best allow participants to achieve the training objectives.

Second, qualitative interviews helped to reveal the learning experiences that could not be observed by quantitative methods. Though data never speaks for itself alone and is always subjected to the interpretations of researchers, qualitative comments can provide more room to make accurate, precise and meaningful claims (Fielding, 1993; Fontana & Frey, 1994; Measor, 1985). This current study was methodical in a sense that 'methods triangulation' encouraged a single phenomenon should be tackled by different methods and angles.

Third, the four members benefited and learned from the adventure team-building camp. One important thing they

learned from the camp was that they should participate more in their church by doing more services so that they could identify themselves more with the church. They also learned to believe in one's ability, to realize one's capability when solving a difficult task, to be patient when accomplishing it, and to look more thoroughly for solutions to a problem. Generally speaking, adventure training allows learners to experience the 'cannot' and learn how to achieve the 'can'. It is in a better position "to provide [learners] with comprehensive and balanced learning experiences" (Education Commission, 2000, p. 37), and to help them to develop all-round abilities and positive attitudes in preparing for lifelong learning. Under the slogan of reforming education, educators are recommended to think and rethink the possibilities of adventure training in promoting learning and experiential knowledge in general.

There is no doubt that the results of this study could be very useful when applied to education. When schools replace traditional teaching by providing students with more opportunities for adventure education, students will not only learn more about the specific knowledge in a more direct way, they will also be able to increase their self-efficacy and be more committed to their class or school. It is logical to think that when students have high self-efficacy and are willing to commit in certain tasks, the effort they spend of the tasks may be high. Therefore, it is important for students to have an increase on these two constructs.

In fact, adventure education could be a very good strategy for teaching values and moral education to students. Instead of using values inculcation to impress on the minds of students a specific set of predetermined values through frequent and emphatic repetition and reinforcement of these values (Good & Brophy, 1995), adventure education allows students to have the opportunities to discuss and also actually be involved together as a group to construct value and moral understanding in set-up environment under the guidance of teachers. Very often, through adventure education, students are also able to learn more about social roles, attitudes, and values that are not planned in the intended curriculum. For example, through different activities and practices in the adventure education, students may learn both interpersonal and intrapersonal relationships. Obviously, interpersonal relationship refers to how people get along with each other in a group. Intrapersonal relationship deals with how an individual gets along with self, self-concept, spiritual, self-efficacy, etc. It is essential for students to learn to develop these two relationships when they are still in schools.

Unlike traditional teaching, adventure education can be fun, enjoyable, and it depends a lot on students' intrinsic

motivation, which nowadays, students' motivation on learning focuses a lot on extrinsic motivation, such as grades and praise. Moreover, adventure education involves some risks, which means that the outcomes must have some uncertainty. In this changing society, students must be prepared to face unpredictable situations and outcomes, and the best way to prepare them is to let them participate in adventure education since traditional classroom learning rarely allow this to happen. Based on the elements of the adventure curriculum (for example an atmosphere of mutual support, involves a significant amount of cognitive work related directly to abstractions and questions, success orientation in which growth is supported and encouraged, and the use of a learning laboratory that is more complex and engaging, etc.) (Miles & Priest, 1990), teachers, principals, and educators should definitely make good use of adventure education so as to encourage students to learn and develop in a more holistic way.

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Notes

1. This paper was originally presented at the 11th World Congress of Comparative Education: "New Challenges, New Paradigms, Moving Education into the 21st Century" held by the World Council of Comparative Education Societies in the Korea National University of Education, Chungbuk, South Korea in July 2-6, 2001. The research instruments are available from the first author, Sammy K. F. Hui.

Received September 4, 2003
Revision received May 2, 2004
Accepted June 30, 2004

Acknowledgement

This study could not have been carried out without the support of staff of The Chinese YMCA of Hong Kong and instructors of the Adventure Training and Research Centre Limited who initially organized the camp. We thank the four respondents for their contributions and the other church members who wished to remain anonymous. We are grateful to them for their time and commitment to participation in the work. We also thank the reviewers of *Asia Pacific Education Review* and *Journal of Experiential Education* for reading the manuscript and giving invaluable advice.