"Evaluation of Adventure Training Methods in Team Development"

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Abstract

Teamwork, and the efforts made by organisations to promote it, is considered to be a fundamental part of organisational success today. Experiential Learning in general and Adventure Learning in particular have become a major tool in the development of organisational teamwork. Evaluation that includes data on the effect of training on workplace behaviour is being demanded by organisations who need to prove that every investment made is having an effect on improving this key organisational skill. There is a dearth of thorough evaluation studies of Adventure Learning programs, which affects the ability of managers and vendors to justify the investment involved.

This study evaluated Adventure Learning team development training interventions that were carried out with five teams from different organisations, and quantitatively tested what effect the training had in general on team development and on five key team development factors. The tool used was the Team Development Inventory, a questionnaire that was administered before and after the training intervention.

Evaluation results indicate a significant positive change in overall team development as well as in two specific factors - storming and performing. The other factors improved only marginally. The results are important in that they may help managers justify the outlay made as well as assist vendors in proving their product's worth and strengthen the viability of the industry. Specific factors that were changed will assist clients and vendors in identifying exactly which areas were more likely to change. As well, the study shows the feasibility and validity of evaluating training as a function of behaviour changed at the workplace.

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Chapter One: Introduction

Companies and organisations today define teamwork as being a strategic tool in the achievement of business goals. Katzenbach & Smith (1993) claim that teams outperform individuals acting alone or in larger organisational groupings, especially when performance requires multiple skills, judgements and experiences. From senior management frameworks to short term projects, workers are demanded to work in team structures that require behavioural skills such as listening, constructively responding to points of view expressed by others, giving others the benefit of the doubt, providing support to those who need it, and recognizing the interests and achievements of others. Katzenbach & Smith (1993) In order to train people in this method of working, many experiential and in particular adventure programs are used.

Tuval, a training company situated in northern Israel, in a major strategic shift in 1996 decide to invest heavily in the adventure learning field and today represents the major income generator for the center with more than 1.1 million shekels in income in 2001. Tuval is only one of the many vendors in the field in Israel indicating the significance of this tool in the Israeli training landscape.

In this researcher's experience, adventure learning frameworks provide a powerful platform for the discussion, practicing and learning of key team skills, so vital in the promotion of many so many business goals today.

The problem for vendors of such programs is that if they cannot prove their program's effectiveness then their very existence will be in question. The long-term future is threatened by comments that this kind of training is often seen as "edutainment" rather than as a real agent for organisational change. (Gloskenos, 2000). Wagner at al (1991) asks the question: is outdoor training a revolution or a fad? The authors go on to comment that skeptics contend that such programs are at best a waste of time and at worst harmful to managerial effectiveness. For those who want to learn more about adventure training in the corporate setting in general and evaluation in particular, there are few resources.

Indeed there is a paucity of thorough evaluation studies of Adventure or Outdoor Management programs. Moreover, many of them are run by the providers themselves

and often are conducted at a superficial level, with the post "happiness sheet" most common. Ibbetson & Newell (1999)

The Tuval Seminar Center, a pioneer in this field, needs to research this issue and publish findings in order to guarantee the organisation's long term viability: it needs to prove the relevance of what it does to promote its clients' corporate goals. If research is not carried out, there is the danger that Corporate Adventure Training in Israel will become another training fad.

Clients also need to develop models for program evaluation. Corporate Adventure Training costs around $100 per day in Israel for a group of around 15 people – even more for smaller groups. Ibbetson & Newell (1998) state that "…the message must be that you ALWAYS need to evaluate training and development initiatives systematically if you want to avoid throwing money away…"

In the world, the model for evaluating training interventions is still very much under development and Holton (1996) claims that many of the models developed have received incomplete implementation and little empirical resting. Very little research has been done in the field of training evaluation in Israel (Olivkovich, 2001) and no research has been carried out in the field of effectiveness of Adventure Learning here.

The Research Questions

Much money is spent on Team Building Interventions in general and Adventure Learning in particular. In its October 2001 Report the ASTD reports that $19.3 billion will be spent on paying outside providers for training products and services in that year. According to Training magazine (October 2001) 12% of US companies sent some employees to an outdoor experiential program in the year 2000. Many of the people ordering such programs want to improve the ability of team members to work together and to increase team productivity. Few expect short-term interventions to independently make dramatic changes but they often expect that group processes will

be speeded up and that communication will be improved. The key questions addressed in this research are:

Do adventure team interventions improve team development processes?

Which team abilities are more likely to be improved?

The Theoretical and Practical Aims of the Research

Theoretical Aim
- To explore the third level (transfer) of Kirkpatrick's (1959) evaluation model and its feasibility and validity in Adventure Learning evaluation.

Practical Aims
- To explore the effect of organisational adventure learning programs on the improvement of effective teamwork within organisations.
- To ascertain which areas are more likely to improve as the result of such training.

The chosen research method was of a quantitative nature using a quasi experiment with pre and post questionnaires being administered to subjects. Five separate organisations were surveyed representing a wide range of business, government and community settings.

This paper will begin with an in-depth study of the literature concerned with organisational teamwork, teambuilding and training evaluation models. Following, the methodology of the research will be presented as well as the findings of the research. Finally, the findings will be discussed and concluded, with recommendations for future research.

Chapter Two: Literature Review

Teams, Team Building and Training Evaluation

The literature review looks at the issues of teams, effective team models, barriers to teamwork, team building, adventure based training, factors affecting training effectiveness and teambuilding evaluation and models.

Teams and organisations

Teamwork has many advantages for an organisation, including co-ordination and innovation. Nurmi (1996) suggests that teamwork can add to the horizontal flow of communication and co-ordination in an organisation that is primarily vertical in its structure. He also adds that teamwork can be seen as "a splendid instrument of innovation," whereby the team achieves "synergy or the 1+1=3 effect". Nurmi (1996)

This idea of synergy confirms the statement that the performance of teams is superior to that of individuals acting alone or in larger organisational groupings, especially when performance relies on multiple skills, opinions and experiences. Katzenbach & Smith (1998)

Some other advantages to teamwork are the following: teams provide collective support for individuals, decision making is more participative, resulting in higher feelings of commitment and motivation and more creative solutions to problems are found. Stott & Walker (1999)

Effective Teams

Teamwork is a co-operative process that allows ordinary people to achieve extraordinary results. Synergy, in which the efforts of the co-operative group surpass individual efforts is often cited as one of the hallmarks of effective teams. Scarnatti (2001) and Harris & Harris (1996). By sharing a common goal or vision the team can accomplish what individuals cannot do alone.

The literature puts emphasis on the common goal as being essential to effective teamwork. Bennis (1997) states that great groups need tangible projects. They can coalesce only around something to which every member contributes but that exists only outside of the minds of the members, something that can only be achieved collectively.

Effective teams have been proven to be those that are empowered. Herman (1999) Empowered teams are those that have inherent authority to act and implement their decisions without prior approval from higher levels.

Teams are effective when they produce outstanding results, despite all the difficulties Harris & Harris (1996). Synergy results because individuals have created a real team culture, attitudes, climate, customs, norms and practices which fosters the accomplishment of the team's mission. The characteristics of high performing teams can be seen as:

Output - i.e. synergy that produces more than the individuals could do in isolation.
Objectives – member's understanding of their purpose and shared goals.
Energy – taking strength from one another to build on the capabilities of their fellows.
Structure – Mechanisms for dealing with roles, control, leadership, and procedures.
Atmosphere – Members create a spirit and culture that is open and supportive of risk taking and allowing confidences to be shared.

Katzenbach and Smith (1998) claim that groups form teams only through disciplined action. They agree upon a common purpose, set performance goals, form a common working approach, complement each others' skills, and are mutually accountable for results. Effective teams work toward a clear and common goal or performance which is at the centre of the team's raison-d'être.

Senge (1990) makes his case for investing in solid team practices. A crucial feature of dealing with the complexity of the contemporary business environment is the extent to which a senior management team feels able to discuss this complexity openly in a non-threatening way, testing assumptions as they debate, and learning as they make plans to achieve success.

<u>Barriers to Effective Teamwork</u>

In spite of the need for effective team work as detailed above, it would appear that there are many barriers to people working in teams. The literature tries to map those barriers and has created parctical models to lower them.

Western society seems to reinforce the value of individual achievement and responsibility over group performances. Throughout our lives, we are rewarded or punished according to individual and not collective performance. Katzenbach & Smith(1998) Some people are not comfortable with working in groups and do not have confidence in the advantages of teamwork. They see it as risky, wasting time and results are uncertain. We are wary of trusting others and our self-preservation on the individual level is paramount. Katzenbach & Smith(1998)

Most organisations also support individual endeavour "through individual reward systems, individual appraisal and individual supervisory responsibility. Such dominant practices run contrary to the co-operation and collaboration central to team approaches." Stott & Walker (1999) If teamwork is desirable, the climate and structure of an organisation must include the elements that will support teamwork. Katzenbach and Smith (1998) outline some of these elements. Organisations must provide meaningful performance challenges. These challenges must be clearly and consistently demanded by the organisation. Teamwork per se should not be the objective. If the emphasis is on performance and improvement of outcomes, including the necessary discipline required to stick to the objectives, the organisation won't have a problem incorporating teamwork in its work. Stott & Walker (1999) support these claims and further describe the ideal climate for teamwork as one that is "characterized by openness, trust and participation," and where emphasis is on "co-operation rather than competition among groups." In addition appraisal systems need to be adapted. Stott and Walker (1998) claims: "We need to adopt team-based approaches to performance appraisal: approaches which focus on team performance and each team member's contribution to that performance."

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The literature seems to support the fact that teamwork has advantages for organisations in the realms of improved motivation and work performance. "Effective teamwork is an essential element of modern management practices such as empowerment, quality circles and total quality management, and how groups manage change." Mullins (1999)

Effective Team Models
From the following, it can be seen that the literature and the business world places significant emphasis on forming effective models for team work.

Jackson (2002) researches a learning process model in the prediction of team performance. His results indicated that a model based on team learning as described by Kolb (1984) is predictive of team success. The assumption made is that an optimal team is one that has at least one team member that scores highly on each team role: activists, reflectors, theorists and pragmatists. Participants in the study were first administered a questionnaire testing their individual learning styles. Then, random teams competed against each other. The results showed that a team designed to achieve a balanced team learning process is strongly related to team performance. Rather than look at the "learning team" it is preferable to look at the contribution of each team member to the learning process.

Margerison (2001) takes a different approach. He claims that there is misplaced over emphasis on individual competency levels and not enough attention paid to team competency. No one person can be expected to be equally competent in all areas, therefore it requires team competency and teamwork. The author developed nine factors that need to tested and trained:
1. Advising – gathering and reporting information
2. Innovating – creating and experimenting with new ideas
3. Promoting – exploring and presenting opportunities
4. Developing – assessing and testing new approaches
5. Organizing – arranging how things will work
6. Producing – making and delivering results
7. Inspecting – controlling and delivering the working systems
8. Maintaining – upholding and safeguarding standards and processes.

9. Linking – coordinating and integrating others.

The model is used to self diagnose and self correct and provides a checklist for action. The author claims that if the appropriate analysis is performed, problems may be avoided rather than only learning about them after the damage has been done.

Glass (1998) details the models of how groups form and conveys the message that we should not expect groups to function well immediately as they are formed; they have to go through a development process, a process that needs to be managed. Tuckman (1997) describes these stages as Forming, Storming, Norming, Performing, while glass (1998) describes them as Birth, Childhood, Adolescence and Maturity. Teams need to understand the dynamics of group formation so that they will be less likely to get irreparably caught up at one of the intermediate, less productive stages. Glass (1998) explains that many teams get stuck at the storming phase – they fail to resolve internal conflicts. Any time a controversial issue comes up the personality or style clashes rapidly resurface. These groups, about to make significant progress, suddenly relapse into storming. Bronson (1992) claims that teams should be able to function at all of these levels in order to deal with the various challenges faced.

Klein & Napier (2001) devised a model based on the concept of courage to measure team effectiveness. Their "Courage Quotient" measures the five key factors of team and organisational courage:
Mission - the courage to pursue lofty and audacious goals; Will- the courage to inspire hope, optimism and spirit; Rigour - the courage to invest, refine and stick to protocols; Risk - the courage to empower, trust and invest in relationships; Candour - the courage to speak and hear the truth.

These factors are not only measured by the authors, they are also developed and practiced through a series of experiential based simulations together with exercises from the Adventure Learning repertoire. They proscribe that a training program must contain hands on practice, immediate feedback, personal insight and awareness, an opportunity to request and offer assistance and support from one another, open dialogue, fun and transfer mechanisms in order to succeed in bringing about learning.

Team Building

In order to gain the benefits of working in teams as stated above, a body of theory and practice including an entire industry called team building has been developed.

Harris & Harris (1996) define team building as being a behavioural science technology for achieving many of the positive team characteristics discussed in the above section (Effective Team Models) in work groups. It is best accomplished through the use of a third-party facilitator, preferably a trained consultant. Team building can be used to improve either intra or intergroup relations. Team building is most essential in situations when task forces are established that cross-conventional lines in organisations and utilize a wide variety of skills, ranks, responsibilities and disciplines.

There is a difference between team building in new and veteran teams. In new and start up teams, high performance through better management of complexity, better quality of decisions and more rapid response could be the aims. In experienced teams whose members are comfortable with each other the emphasis is on honing the proven relationships, skills and systems so as to capitalize on their collective strength. Harris & Harris (1996)

A key consideration for team building lies in the makeup of the team. Glass (1998) comments that a number of failures in British companies can be ascribed to management groups who have gone to the same schools and universities being unable to handle an increasingly complex business environment. There must be diversity that should be as complex as the environment that is operated in.

A further consideration is the management of the various phases and indeed modes that teams move through. Tuckman's (1997) model (forming, storming, norming, performing and adjournment) is widely quoted and even used by researchers in assessing team development. Bronson (1992), Sheard & Kakabadse (2002) It is essential to understand this process and to manage it.

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Sheard & Kakabadse (2002) embellished Tuckman's model and considered the first four stages in terms of nine key factors creating a nine by four matrix named the "team landscape" as it comprised the landscape that must navigate during its transformation. The nine key factors (clearly defined goals, priorities, roles and responsibilities, self-awareness, leadership, group-dynamics, communication, context, infrastructure) and the four stages of development create 36 links that comprise everything that is important to the transformation from a loose group to an effective team.

A six-point framework is presented by Kipp & Kipp (2000). Areas that need to be worked on to improve effectiveness include goal definition, role expectations, rules setting, relationship expectations, result measurement, and rewards. Organisational effectiveness can be enhanced through team building. Groups can attain a great deal from these interventions if they truly intersect with a particular team's issues and the leader's intent. Four good reasons for teambuilding are offered for the bringing about of:
1. New group formation and improved relationships
2. Problem solving in group dynamics
3. Removing barriers to goal attainment
4. Resolution of goals and game plan creation.
All team building needs to target communication styles, problem solving, decision-making, conflict management and the appropriate use of power.

Nixon (1995) presents a model for team meetings. Drawing on many years of team building he notes that adversarial behaviour as well as lack of respect for difference, willingness to face conflict, rigour and discipline, attention to process and obstructions to creative strategy formation, problem solving, and personal and organisational learning may ultimately threaten the organisation's survival. Teams need to work on all of these issues. Most teams work on the task and have a blind spot about the process and associated feelings.

Finally, there are those who minimize the role of team building in the face of the important role of the manager. If a direct manager of a group is not aware of the latent

power of a team and is not capable of stimulating, generating and maintaining the climate for its growth, an effective team will not be born. Rabey (2001).

Rabey (2001) believes that the team building industry in general is nearing the apex of its growth. This is due to the rapidly changing business environment. At the core of the organisation's response, in the area of training as well as that of business strategy, is the ability to be decisive, adaptive, and flexible. This means that the reflective process needs to be short and should include the following steps – awareness, decide response, take action. This replaces a longer training decision making process. As well, continuing organisational restructure and downsizing has meant that workers are more likely to be motivated by individual goals rather than collective ones.

Rabey (2001) concludes that you cannot create a team but you can create a situation and environment in which a work group will, by their own efforts, develop the skills and experience of a winning team. But they will first need a leader and a coach. The real priority is not to build teams but to develop and coach better managers to shape and lead them. It is the primary responsibility of managers to develop a work climate and culture that will create teams who work purposely and in harmony. As well, for their own self-worth people need to feel productive in the pursuit of an agreed purpose. They want to feel good about what they do, be informed on what is happening and what is likely to be happening, have their effort recognized and remunerated, be challenged and the opportunity for self-development. Actions must be taken by a direct manager in order to achieve this. Rabey's claims certainly put some of the long term and heavy investment into team building per se into question as effectiveness is mostly affected by the environment and goals created.

Adventure Based Training

In order to train for the issues raised by Klein & Napier (2001), Nixon (1995) and Kipp & Kipp (2000) many consultants and companies opt to use adventure training methods.

Adventure Training is an interdisciplinary approach that blends organisation development (OD) practices; experiential learning techniques; intellectual and emotional challenges that invite risk-taking; and process intervention skills. Smallowe

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et al (1999). Priest & Gass (1997) go on to define experiential learning as "learning by doing with reflection." Adventure Learning usually occurs in, but is not restricted to, the outdoors.

Other development approaches may include several of these elements but only adventure-based training potentially incorporates all of these salient features that result in superior learning outcomes:

1. emotional intensity;
2. psychological safety;
3. consequentiality;
4. enhanced self confidence;
5. use of metaphors;
6. unpredictability;
7. experiencing peak performance;
8. multiple knowledge;
9. developing the whole person; and
10. focus on transfer.

McEvoy & Buller (1997)

Priest and Gass (1997) detail the affective aspects of adventure training as being:

Enhanced cooperation, more effective communication skills, greater trust in others, increased sharing of decision making, new ways to resolve conflicts, improved problem-solving skills and enhanced leadership skills

Adventure Based Training is also consistent with the way adults learn. It takes adults where they are, confronts them with the problems to be resolved and allows immediate feedback on the success or failure of their actions. This cycle of experiential learning, also described in Smallowe et al (1999), has proved effective in many types of training. Most importantly this form of learning sustains the interest, attention, and motivation of participants.

Experiential Activities are seen to fall into the intersection of three interrelated learning processes that managers learn through – their cognitions, emotions and behaviours. Mullen (1992). Mazany et al (1995) state that the most powerful educational activities

that managers experience often incorporate learning from all three learning processees. Adventure Learning for example falls into this overlap area and therefore is considered more powerful than other conventional tools.

Alvin Ng (2001), Mazany et al (1995) and Bronson (1992) have all researched the effectiveness of using this tool in teambuilding. Alvin Ng (2001) for example used the tool and showed that there were improvements in task participation and social support that led to changes in team spirit and improved identification with the organisation. Mazany (1995) proved that in an ad hoc team created at the beginning of an MBA program, team performance indicators can be dramatically improved through one short intervention.

Ibbetson & Newell (1998) carried out an intensive study measuring various team development factors before, immediately after and four months after the workshop in two separate organisations. They showed that the programme (Outdoor Management Development) had a very positive and immediate impact on the delegates from both companies – they felt that they were working better as a team and that they had learned from the workshop. The data collected also suggested that many of the perceived positive aspects of both programmes have been actively transferred to the workplace and may have impacted the bottom line.

Already in the early 1990's the reputation of outdoor training was being put into doubt. Wagner et al (1991) notes that skeptics contend that such programs are at best a waste of time and at worst harmful to managerial effectiveness. Wagner et al (1991) quotes the Wall Street Journal as saying that "building outdoor party games when the real work to be done is all around, should be grounds for malpractice indictments."

Factors Affecting Training Effectiveness
Many studies have tried to identify and research the various factors that affect training effectiveness in general and adventure learning methods in particular.

Tracey et al (2001) concentrated on the evaluation levels of reaction and knowledge acquisition. They proposed a model of evaluation that tested the influence of job

involvement, organisational commitment and the work environment on pre-training self-efficacy; the connection between pre-training self-efficacy and pre-training motivation; the influence of pre-training motivation on the two levels of training reactions and learning; and the hierarchical relationships between the levels of training reactions and learning.

Bennet, Wayne, Lehman & Forst(1999) and Catriona & Birdi (1999) and Ibbetson & Newell (1998) focus on issues that affect training transfer as being dependent on factors outside of training. Bennet et al (1999) studied in depth the issue of work climate. A helpful transfer climate reported significantly more customer orientation.

Other factors studied have included the effect of the absence of a team's leader in training on behaviour change after training. In this case the presence of the leader had a dramatic improvement of on the training's success. Wayne Boss (2000)

Ibbetson & Newell (1998) found that organisational barriers such as the organisational climate, turbulence of the organisation environment and position within the hierarchy directly affected transfer in Outdoor Management Development programmes. Other factors tested in such programs include the weather, competition, and position in the competition. Ibbetson & Newell (1999)

Further, employees experiencing role ambiguity are less likely to report customer focus in Total Quality implementation. Role negotiation is critical to the success of change driven training. Catriona and Birdi (1999) investigated both individual and organisational characteristics that might predict outcomes at the reaction, learning and job behavior levels. As with Bennet et Al (1999) learning confidence and transfer climate independently affect learning. Catriona and Birdi(1999) studied the effects of age on outcomes and found that it had a negative impact. A person's confidence or self-efficacy have also been proven to predict learning outcomes.

The utility factor is focused on in the study of Morgan & Casper (2000). They suggest that participant reactions are multidimensional and that utility judgements represent an underlying dimension.

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In general, it can be seen that the factors that affect training effectiveness can be divided into those that occur at the time of the training, and those that are rooted in the participants themselves or the workplace.

Organisational Training Evaluation

Training practitioners are more and more demanded to prove the worth of their programs to provide real value for the company. One of the key methods in achieving this is to implement training evaluation systems. Goldwasser (2001)

In 1959 Donald Kirkpatrick identified the four steps for evaluating training: reaction, learning, behavior and results. Morgan and Casper (2000) go on to detail these levels as "Level One represents the reactions of participants training…at the conclusion of the training program. Level II consists of measures of actual learning in the training program. This usually involves post-training measures of knowledge, skill or attitude change. Level III evaluation is focused on gauging the extent to which learning is transferred to the job…Level IV evaluation assesses changes to organisation outcomes (revenue, profit, turnover and so on)". Most training evaluation relates to one or more of these levels.

Mann (1996) states that the evaluation of effectiveness of training programs is "critical" because, without it, "organisations have no good way to know whether training dollars are being spent wisely." Rarely are pre and post-tests or follow up questionnaires used. Few companies are actually determining whether the training produced the desired results. Mann (1996) goes on to discuss the barriers to effective training evaluations as being the difficulty of knowing how and what to evaluate. Training directors often do not have the skills to conduct evaluations. While many methods are documented, the evidence in favour of one or other method is patchy and often contradictory. The aim of evaluation should be to help improve programmes rather than to declare them good or bad.

Mann's (1996) study aimed to investigate the utility of various methods for evaluating training programs. Questionnaires were used before the training (computer related),

immediately after it and by post one month later in order to measure knowledge, attitudes and self-efficacy. The findings included:

- Knowledge tests administered immediately after a program may indicate that training has been successful in the short term, but does not mean that there will be any long-term improvement in their skills as a result of the training program.

- Even if subjects have very positive reactions after trainings, they will not necessarily have learned more or be able to perform the trained skills any better than will subjects with less positive reactions.

- Evaluating training at the learning level has no value in predicting how well people will believe (i.e. self-efficacy) after one month that they can perform in the trained skills.

- A way to evaluate training is to measure self-efficacy regarding the trained tasks which correlates with actual performance.

- Overall, the data of this study casts doubt on the value of collecting data from the learning and reactions levels.

Morgan & Casper (2000) state that participant reactions *are* useful criteria in evaluation of training programs. Post training questionnaires should examine participant reactions to critical aspects of the training and not just focus on whether the participant enjoyed the training. Participant reactions to the extent to which their training can be used on the job have merit and should be incorporated into comprehensive reaction forms.

Plant & Ryan (1992) conclude that many researchers have questioned the value of evaluating the level one reactions to training. Recommended is a method based on self perceived skill gap measurement which also allows for deficiencies to be monitored over time. This allows monitoring and gives management a control measure to which training can be assessed. Ibbetson & Newell (1998) also question the validity of level one "smiley sheets" and suggest a model that lasts up to four months after the intervention.

Team Building Evaluation and Models

Research into the effectiveness of team building interventions is developing with the growing popularity of such interventions and the need to prove their effectiveness to

management. Research into teambuilding interventions in general, and adventure based interventions in particular, is fraught with problems. The research to date can be seen as attempts to establish an acceptable model. Most programs that do offer evaluation appear to be almost entirely dependent on post-event participant questionnaires. Wagner et al (1991)

Team Training Evaluation Methods have included the following:
Mazany et al (1995) link the content (business strategy) and process in their study of team building in an MBA program. Case studies were used at the beginning and at the end of a three day workshop to test the change in team ability to problem solve a business strategy scenario. Questionnaires were used to test the participants' perceptions of team ability and development. The case study outcomes were marked according to various criteria. Participants showed an increase on almost all process variables but none on case study outputs – explained in the study by the limited time frame involved. Even though ad hoc, non-rigorous interviews took place at the end of the MBA program which suggested that the effects measured were enduring, there was no empirical research made as to long term effects.

Bronson (1992) in his pre and post questionnaires model tested the participants for improvements according to Tuckman's (1977) five-stage team development level. He found that the experimental group showed significant change on eight out of the ten items. The lack of change in two factors (acknowledging & confronting conflict and consulting one another on challenges) is explained due to unsolved tensions within the group.

Currie, C (1994) used a mix of quantitative and qualitative methods. A questionnaire was completed before the program and six months after the program. As well, action plans were made at the end of the program and followed up by self – report forms at the end of the program. Currie (1994) goes on to qualify the results of the study by detailing that the success observed in the program might be over-stated due to:
a. Changes in behaviour and individuals that may not be attributable to training.

b. The questionnaire completed in pre-training may be inaccurate due to the individual's assessment of behaviour being contaminated by the upcoming training.

c. The suspicions that participants had of management's motives. Some may have thought that management was using the tool for personnel evaluation and filled in the form in order to find favour in their eyes.

Rushmer (1997 a) argues that all levels of data and evidence gathering can never constitute 100 per cent proof of a casual link between OD interventions and resultant changes in the organisation. Often OD interventions take place as only one part of several OD changes being introduced. It is claimed that before and after measures ignore the change process that is taking place as the team becomes effective. A good relationship with the facilitator can also affect results. Most importantly, although short term evidence can prove effectiveness, in the long term the initiative fails. Finally, often the intervention is seen as the end of the process – a process that many organisations just do not know how to support. Rushmer (1997 b) goes on to postulate that if we can identify what is happening to the team and individuals during the intervention, this might give assistance to the organisation as to what support practices and resources are needed for ongoing improvement. In this study, qualitative measures are used because "hard" measures are inappropriate in the evaluation of a "soft" intervention.

In order to moderate the effects of the many intervening variables in the research process the literature presents a range of experience. In Mazany et al (1995) a control group of a team-based project in another university course, without team building, was tested and found to show no change. Bronson (1992) also used a control group in the same company that was not undergoing training. Pre and post questionnaires were used on small control and experimental groups. The groups chosen were of similar rank and responsibility in order to prove that any changes in the experimental group would be due to adventure training and not due to environmental factors.

Bronson(1992) administered the questionnaires (Team Development Inventory) a week before and four weeks after in order to neutralize the effect of individual anxiety and post program euphoria. In order to lower anxiety, anonymity was guaranteed by coded

stamps. Qualitative interviews were used in order to provide support for quantitative findings. Currie (1994) also used the delayed evaluation approach to overcome the problem of a possible action gap between the euphoria at the end of the course and what happens when learning returns to the real world of work.

There are some specific problems in evaluating adventure programming. For example, the "challenge by choice" that many programs operate under affects the possibility of random sampling. (For example the team member who is most cynical just may not show up.) Small groups used in such training require non-parametric (distribution free) tests that are less accepted by scholars. Obtaining control groups is extremely difficult as the participants "contaminate" the control groups by sharing their experiences. The phenomena studied are mostly human which are not easily measured in a quantitative manner. Few valid and reliable instruments exist so that the use of qualitative methods is preferable. Also, research can interrupt the program itself. In drawing conclusions, researchers must be careful not over generalize because of the lack of random sampling techniques. In spite of all these pitfalls, evaluation is critical in proving effectiveness and to sustain the viability of the field and the industry. Priest & Gass (1997)

Conclusion

Significantly, none of the current or previous studies attempt to research the factors that effect the *results* level of Kirkpatrick's model. Morgan & Casper(2000) claim that the identification of a single training activity as the cause of observed changes is logically dubious and as a result systematic level four evaluation has hardly been researched.

In business settings more accent is being placed on "Return On Investment" (ROI) measures although this mostly takes place as a result of sales and marketing training. Proving results on this level is a very expensive business and often training executives will rely on ROE – return on expectations…did the training meet the ordering executives expectations and how much money does that executive believe it was worth to the company? Evaluations should include financial performance, as well as operational measures such as employee satisfaction and turnover. Goldwasser (2001)

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In summary, the literature is rich with theories about the way teams work and should work. There is still debate about what creates good team work and in the past ten years there is more of a focus on evaluating those actions taken by organisations to improve teamwork.

This study focused on evaluating one such method – Adventure Learning – that claims to improve team effectiveness back on the job. The study used level three research and tested changes in behaviour back on the job.

Chapter Three: Research Method – Training Evaluation in Action

<u>Research Rationale</u>

Training evaluation is very much a developing field. In particular, "there is a paucity of thorough evaluation studies of Outdoor Management Development programmes" Ibbetson & Newell (1999). Whilst the difficulties in proving a connection between the training and the change are difficult, this should not stop researchers from looking for an appropriate model, even if it is by trial and error and according to the personal taste of the researcher. Over time the weight of research should give an indication as to what effect the training has on team development. The research surveyed in the literature review relating to team development interventions takes highly controlled small samples of participants. In this research, greater and more diversified groups were used thus providing a greater sample to ascertain whether training interventions have the desired effect on a wide range of people and organisations.

<u>Research Variables</u>

Adventure Based Training is an *independent* variable.

Nominal Definition

Kolb (1992) describes this as being "…a form of organisational development which uses specially designed outdoor activities to foster calculated risk taking in individuals and creative problem – solving, trust and teamwork within groups" According to Mullen (1992) this form of learning operates concurrently on a cognitive, emotional and behavioural level.

Operational Definition

For the purposes of this study Adventure Based Training took the form of one day workshops carried out at the Tuval ropes course and included games and initiatives commonly practiced in such programs. These events and activities required that teams work together as teams to collaboratively solve problems and that individuals learn to relate to one another in new ways, using only their available resources. After each event, activity and task groups were debriefed with the help of an experienced facilitator, learning by reflecting on their experiences.

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Workshops of this type are based on Mullen's (1992) three types of learning – cognitive, emotional and behavioural. Team and workplace-based discussions and problem solving provide the cognitive material while outdoor (and some indoor) activities provide the emotional and behavioural learning experience as metaphors for the normal teamworking environment.

Team behavioural transfer is a behaviour based variable type. It is also a *dependant* variable that will change in response to other variables.

Nominal Definition

Catriona & Birdi (1999) explain the focus on behaviour transfer as being the behaviour at work after the program.

Operational Definition

These included: What changes occurred in the five stages of Tuckman's (1977) work on the team development model: Forming, Storming, Norming, Performing and Adjourning? Teams not only move through these stages as they develop, they should be able operate on all of these levels in order to perform effectively over time. Bronson (1992) and Sheard & Kakadse (2002)

Newstrom & Davis (1997) elaborate on these stages:

- Forming is where the members of as group get to know and accept each other and turn their attention to the group's tasks.
- Storming is where members compete for status and control and argue about appropriate directions for the group. Tensions arise between individuals as they assert themselves.
- Norming represents the group working together in a cooperative fashion. Group norms are set and cooperative feelings are increasingly evident.
- Performing is where the group matures and learns to handle complex challenges. Roles are set and exchanged.

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- Adjourning can represent a permanent end to the team that involves dissolving intense social relations. It also can represent the completion of a task and celebrating achievements.
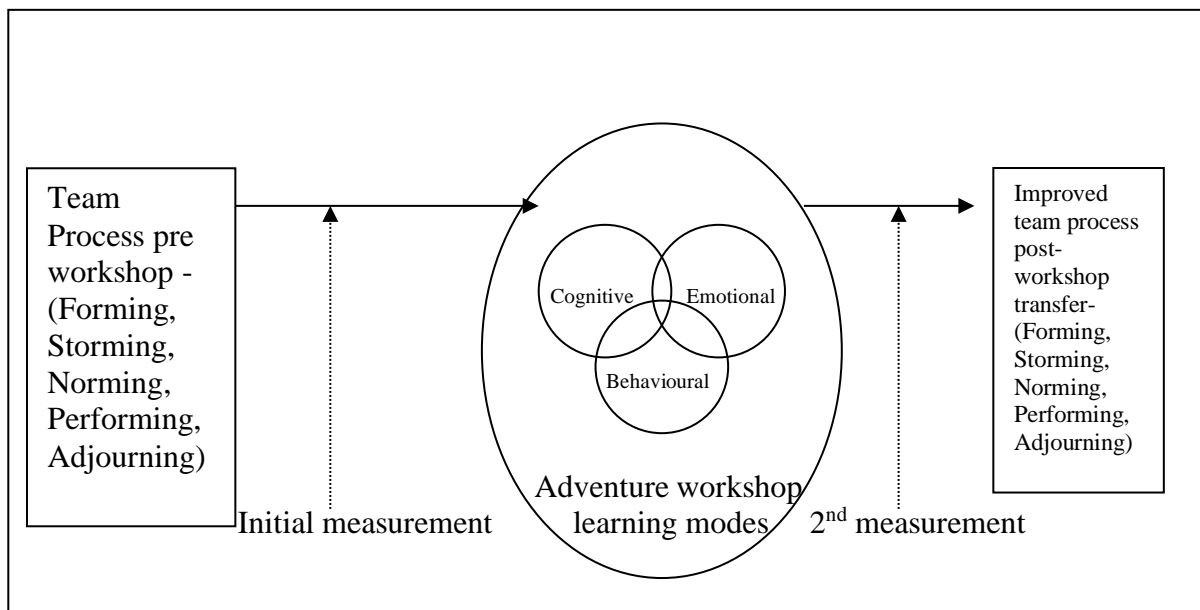
According to Tuckman (1997) the model covers all stages of team states of being and should give a valid reflection of pre and post team performance states. This was registered quantitatively on a quasi interval numeric scale measuring the percent of time that the respondent feels the team is engaged effectively in a particular type of behaviour.

Research Theoretical Model
The research utilized the third level of Kirkpatrick's (1959) model – transfer.
The research model is a modification of Mazany et al (1995)

Diagram 1 – The Research Model

Team Process pre workshop - (Forming, Storming, Norming, Performing, Adjourning)

Cognitive Emotional

Behavioural

Adventure workshop learning modes

Initial measurement   2nd measurement

Improved team process post-workshop transfer- (Forming, Storming, Norming, Performing, Adjourning)

<u>Research Hypotheses</u>

Hypothesis A: That Corporate Adventure Training has a positive affect on team development.

Hypothesis B: That the rate of improvement will be lower in the area of "storming".

This is due to the findings of Bronson (1992) as well as the experience of the researcher that this is one of the behavioural changes that is hardest to sustain.

<u>Research Methodology</u>

The Research Population

The population included all participants in Tuval adventure based organisational team development programs.

<u>The Sample</u>

The sample was made up of five organisationally based teams who undertook training at Tuval – cluster sampling. A total of 76 people were involved in the survey. 51 returned the questionnaires both before and after the training intervention. The questionnaires of respondents who failed to return the follow up survey were discarded.

<u>Cluster Details</u>

<u>Group G –</u> was from a governmental organisation engaged in classified activity. The unit involved gives technological and logistical support to the organisation.

<u>Group Z –</u> was from a community-based organisation and included managers of branches from around a major city.

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Group S – was from a hi-tech organisation and included participants from the R & D, engineering and product departments. Here the aim was to develop teamwork across departmental divides.

Group B – was from a financial organisation and included heads of various departments in a particular division.

Group D – was from a service and sales based industry and included the members of a service product department.

Research Field Accessibility

The accessibility was determined by clients of the centre being willing to participate in the project. The author assumed that organisations would only be pleased to receive feed back about their teams and the effectiveness of the training programs that they participate in.

During the research process only one organisation refused to be involved. They believed that the disturbance caused by the survey could confuse the participants and affect their ability to "trust that what was said and written down would not be held against them." Needless to say that this was an organisation that was in a particularly sensitive state.

In all cases anonymity for the organisation and individuals was assured and a letter was sent to the organisation representative explaining the research aims, process and controls on data. In all cases either the direct manager of the respondents or other senior manager involved such as the Vice President of Human Resources gave official permission for the research to take place.

There were a number of difficulties incurred in the collection of data:

Data collection occurred during the slow winter period making the pool of possible groups for the research small. Also, only certain groups were suitable for the research. For example, groups participating in leadership workshops were not approached.

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As well, the deteriorating political and security situation in Israel affected not only the number of groups during the survey period but affected the ability of respondents to reply when they were, for example, actually in the army.

The follow up survey occurred at least one months after the intervention and as a result people were moved from their previous position in certain organisations or even down sized making their ability to reply impossible.

In general, collecting the follow up survey proved more difficult. It would appear that respondents were more motivated to fill in the surveys before the training than afterwards. As the researcher did not have direct access to the respondents, the collection of forms was left up to the representative. Interestingly, where direct access was possible (through electronic mail) answer rates were slowest and lowest throwing into doubt the promise this media has in research activity.

Sampling Problems Ramifications

Due to the small nature of the groups, the fact that not all participants did complete both questionnaires could affect the results. The relative affect of each questionnaire on the results of a group of ten is quite high. As well, it might be assumed that people who were satisfied with the training and its affect are more likely to fill in the second survey meaning that it is possible that participants with a more negative attitude were not represented in the results. In all of the 5 cases surveyed the individuals "volunteered" to participate which of course affects the random nature of the sample. As well, there was a 67% response rate that raises the margin of error.

Sample Suitability in Testing the Hypotheses

The clusters – groups - were selected randomly however they only partially represent the full population (groups at attending team building workshops at Tuval). Due to the time constraints and the limited number of groups that could be chosen from, the representativeness of the sample was reduced. Overall, one can assume that the sample represents the groups that underwent the intervention and it may be possible to

generalize to the population of groups at Tuval. It will be difficult to generalize outside of the Tuval client population as there was not data collected for this study and indeed it is outside the limits of this research.

<u>Secondary Sources of Information</u>

These included notes taken during training on flip charts, interviews with managers before and after the training and comments added to the questionnaire.

The Research Approach

Indeed there is debate in the literature about whether qualitative or quantitative measures should be used in team building intervention evaluation. Rushmer (1997 b), as result of her research experience, contends that qualitative measures should be used. "Hard" measures are inappropriate in the evaluation of a "soft" intervention (as Outdoor Management Training is usually termed) Gass (1997) also states that the phenomena studied are mostly human in nature and are not easily measured in a quantitative manner. Since few valid and reliable instruments exist, the use of qualitative methods to measure qualities appears most logical. Wagner (1995) warns that managers often become overly reliant on the "statistics", and ignore the analysis or the message. Even current business practices are turning to qualitative methods in training evaluations for example in Goldwasser (2000) an ROE (Return On Expectations) is used whereby the ordering manager is interviewed as to whether the expectations that he or she had of the training were met.

Still, Mann (1996), Warr Catriona(1999), Mazany et al (1995a) and Bronson (1992) have all embarked on the quantitative trail, using quasi-experiments – measuring some aspect of team behaviour or attitude before and after the specific training. All of these studies detail the limitations of quantitative that have been further detailed in chapter two.

The research approach used is quantitative and deductive. Apart from the theoretical limitations, the small-scale nature of this research project did not allow for the interviews or observations that would have needed to take place in a qualitative study. In addition, it is not clear that the organisations surveyed would have been willing to

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commit their people's time to the extensive interviews or other qualitative methods needed (e.g. observing staff meetings) in order to research the phenomena involved.

Space was left on the questionnaire for people to make comments about team performance before and after the intervention although only very few related to these. Some of these comments appear in Chapter Five.

The Research Method

A quasi-experimental method was used. Surveys were administered before (up to one week) and after (from one month to 6 weeks) the "experiment" (the training at Tuval). All the variables were given values and were checked over time and in relation to each other. This incorporated 5 teams who underwent training.

The Data Collection System and Research Tool Description

The tool to be used was a ten point questionnaire translated into Hebrew of the "Team Development Inventory" (TDI) Bronson (1992). There were two questions for testing individual perception of each stage of team development according to the stages identified by Tuckman (1977).

Two questionnaire administrations were used:

1) Administration one week before the workshop. (T1) This collected initial data about the participants and their perception of the team's development.

2) A second questionnaire was administered at least one month after the workshop (T2). This was the same questionnaire. The aim was to ascertain what changes occurred.

Face Validity in the English version has been established for the Team Development inventory and has an equivalent forms reliability of .95 (Bronson 1992). In Hebrew a pilot group outside of the test groups was tested and the Alpha Cronbach Coefficient was found to be .83 using the SPSS for windows program (version 10). For the test groups themselves the questionnaire was tested and found to have a result of .90

using the Alpha Cronbach Coeffiecient. A result of .65 and above shows that the tool is reliable.

See attached Questionnaire. (Appendix 1) and the English translation (Appendix 2)

Chapter Four: Results

Descriptive Statistics

Team Development Score

In order to check the hypothesis that there is a positive effect of Adventure Learning interventions on team development, for each subject the overall score for the Team Development questionnaire was calculated both before and approximately one month after. The score was calculated as a mean of the subject's answers in the questionnaire before and after the intervention.
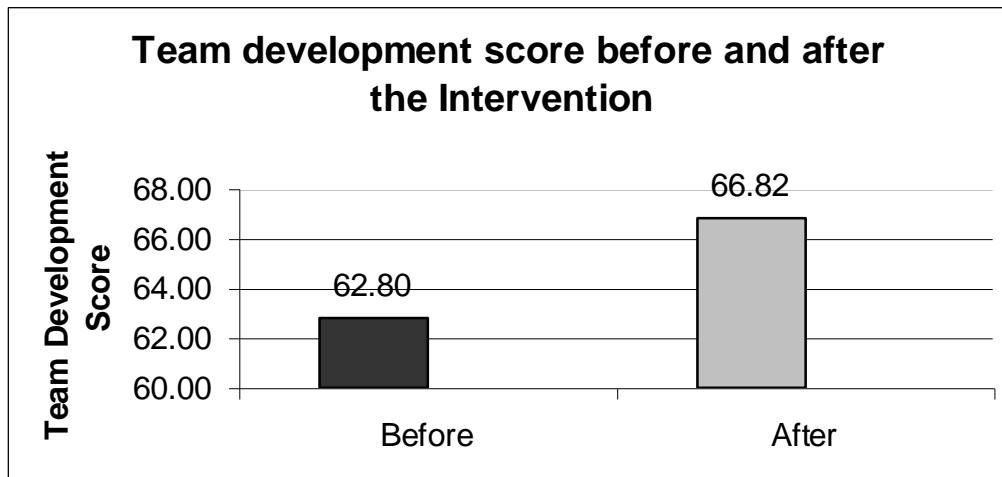

Graph 1. (*n=51*)

From the graph it may be seen that the mean Team Development Score after the training intervention is higher than the score before the intervention.

Team Development Factors

In addition, the mean score was calculated for each subject for each of the five team development factors and stages: Forming, Storming, Norming, Performing, Adjournment before and after the intervention. The scores were calculated as a mean of the subject's answers for the questions that dealt with each factor.

Graph 2 presents the means scores of each of the five factors before and after the intervention.

Graph 2. (*n*=51)

Mean Score For Each Team Development Factor
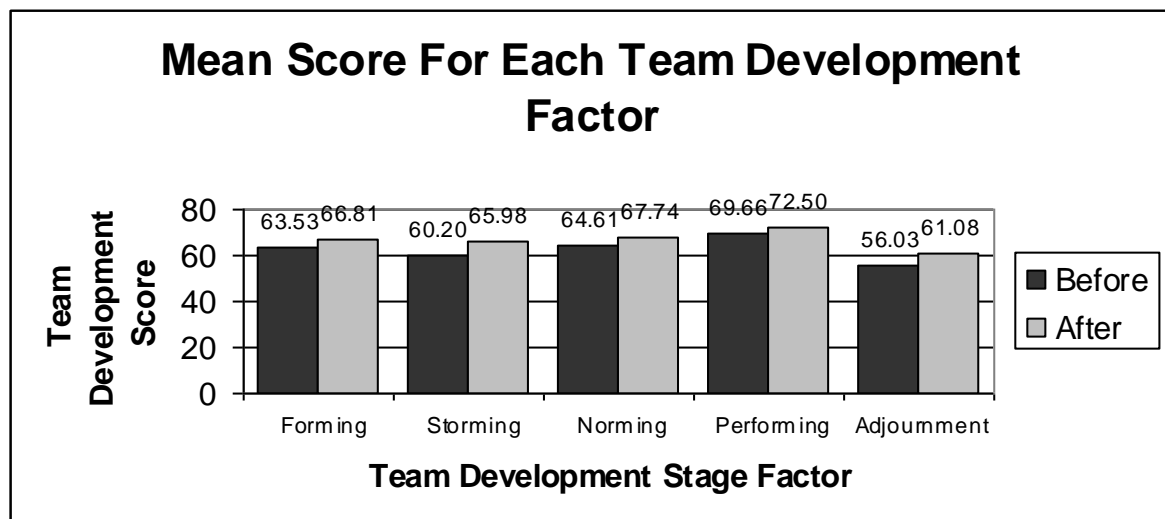
It can be seen in graph two that all factors showed higher scores after the intervention. It also can be seen that the "performing" factor received the highest score both before and after the training and the adjournment factor received the lowest score both before and after the intervention.

Hypothesis Testing

Hypothesis A

Hypothesis A: That Corporate Adventure Training has a positive affect on team development.

In order to test the hypothesis that Corporate Adventure Training has a positive affect on team development, a paired T-test was carries out on the two samples. From an analysis of the results it was found that the Team Development Score after the intervention (M=66.82, SD=15.38) was higher than the Team Development Score before the intervention (M=62.80, SD=13.21). It was found that the difference was *significant* [t (50) = -2.11, $p < 0.002$]

Hypothesis B

Hypothesis B: That the rate of improvement will be lower in the area of "storming."

In order to test the effect of the intervention on each if the five factors of team development, five paired T Tests were run on the data. The results of the five tests are summarized in table three:

Table 3: T test results for assessing the effect of the intervention on each of the five factors of teamwork. (*n*=51)

Team Development Factor	Pre Intervention Score	Post Intervention Score	T	Sig
Forming	63.53 SD=14.83	66.81 SD=18.48	1.35	**0.092**
Storming	60.20 SD=14.28	65.98 SD=15.82	2.25	**0.007**
Norming	64.61 SD=13.65	67.75 SD=16.20	1.50	**0.069**
Performing	56.03 SD=20.26	61.08 SD=20.84	1.71	**0.046**
Adjournment	69.66 SD=13.78	72.50 SD=15.68	1.44	**0.078**

In order to test whether there is a difference in the Forming variable before and after the intervention, a paired T test was carried out. From analysis of the results it was found that the Post Intervention Forming factor (M=66.81, SD=18.48) was found to be

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higher than the Pre Intervention Forming factor (M=63.53, SD=14.84). It was found that the difference is marginally significant. [t(50)=1.35, p< 0.092]

In order to test whether there is a difference in the Storming variable before and after the intervention, a paired T test was carried out. From analysis of the results it was found that the Post Intervention Storming factor (M=65.98, SD=15.82) was higher than the Pre Intervention Storming factor (M=60.20, SD=14.28). It was found that the difference was significant. [t(50)=2.52, p< 0.007]

In order to test whether there is a difference in the Norming variable before and after the intervention, a paired T test was carried out. From analysis of the results it was found that the Post Intervention Norming factor (M=67.75, SD=16.20) was higher than the Pre Intervention Norming factor (M=67.75, SD=16.20). It was found that the difference was marginally significant. [t(50)=1.50, p< 0.069]

In order to test whether there is a difference in the Performing variable before and after the intervention, a paired T test was carried out. From analysis of the results it was found that the Post Intervention Performing factor (M=61.08, SD=20.84) was higher than the Pre Intervention Performing factor (M=56.03, SD=20.26). It was found that the difference was significant. [t(50)=1.71, p< 0.046]

In order to test whether there is a difference in the Adjourning variable before and after the intervention, a paired T test was carried out. From analysis of the results it was found that the Post Intervention Adjourning factor (M=72.50, SD=15.68) was higher than the Pre Intervention Adjourning factor (M=69.66, SD=13.78). It was found that the difference was marginally significant. [t(50)=1.44, p< 0.078]

In summary, the results show that in the storming and performing areas there was significant improvement. In the forming, norming and performing there was only marginal improvement.

Chapter Five: The effect of Adventure Training on teamwork development.

Hypothesis A: That Corporate Adventure Training has a positive affect on team development.

The results show that in the period after the training intervention, there was an overall positive improvement in the way the participant's perceived teamwork processes. As the difference was found to be significant, it can be said that this hypothesis was vindicated. This certainly is in line with the literature. Bronson (1992) McEvoy & Buller (1997), Ibbetson & Newell (1996) & (1998) and Alvin Ng (2001) all found significant positive changes in teamwork development in the period after a training intervention. Although significant, the average of change on the entire sample was only an increase of 4 percentage points or a 6 percent increase on the initial questionnaire administration. This is similar to the results found by Alvin Ng (2001) who found a 4% increase with a tool that used a 7 point likert scale. Bronson(1992) reported that improved team development did occur for an intact work unit on eight out of ten items on the TDI (Team Development Inventory).

Standard Deviation before (15.38) and after (13.21) show that the different participants did not highly differ in their perceptions and that after the intervention there was a rise in agreement. An increase in agreement might also be one of the outcomes of such a process. The most important information is that the respondents' perception as a whole of team processes through the TDI rose over the test period.

Hypothesis B: That the rate of improvement will be lower in the area of "storming".

Here the results proved to be surprising to the researcher. In all factors there was improvement although only the Storming and Performing areas were found to be significantly improved. In the Forming, Norming and Adjourning areas only marginal significance was found.

These findings are very different to what the researcher expected. In Bronson's (1992) research he found that probably due to the "deep rooted dysfunction of this particular group in relation to their past history of being strongly divided," the area of conflict resolution (storming) showed insignificant improvement. The writer of this report also hypothesized that this area would show less improvement due to his experience that in a one day workshop conflict resolution is one of the more difficult skills to sustain without ongoing interventions. In the case of this study, storming and performing were significantly improved.

These results could shed new light on the effects of such interventions. Trust is one of the cornerstones of teambuilding in general and adventure learning in particular Smallowe et al (1999). When participants trust the framework, the facilitator and their teammates, the chances of conflict being raised and dealt with are improved. Often clients want their teams to "ventilate" and be able to express controversial and conflicting views. According to the results of this research, for the participants involved the training may have been instrumental not only in creating one off ventilation but also in the ability of teams to raise and deal with conflicts in an ongoing manner.

This could be explained by some of the following comments that were written on the questionnaire (translated from the Hebrew):

"Everything that was in fact kept inside my stomach came out and was said – most of this is due to the workshop."

"During the last month many things that were hidden rose to the surface which very much helped the general feeling of the team. I feel that I have greater involvement in the team work and that we really have a common purpose."

"There is a greater readiness for things and to deal with existing problems and to improve and solve problems."

"In the last month there is discussion of team problems and desire to give and receive feedback."

The significant improvement in performing was expected. Performing according to Glass (1998) is when the group is a cohesive unit, individual members know and accept their roles, they associate with the group's interests rather than their personal agendas, people start to bond and they can usefully make progress with the task they were formed to address. This is a key area that clients are interested in – the raising of the ability of team to perform and produce bottom line results. It is one of the hallmarks of adventure learning – that in the "here and now" of the learning setting teams are able to perform tasks effectively and raise self efficacy Smallowe et al (1999). In general the trainers at Tuval strive to reach moments of performing. On the one hand it often comes as a result of hard work invested by the participants, on the other, facilitators often manipulate proceedings to ensure that participants do not go home feeling failure.

That the feeling of performing is transferred back in the workplace is also of value to all in the industry – clients and vendors. Quantitative evidence of team performance improvement is critical to this method of learning surviving in the business workplace.

The other three areas (forming, norming adjournment), were found only to be marginally significant.

Forming, "the initial formation of the group" Glass (1998) is possibly a less critical element as perceived by the participants of the groups in the experiments. All the participants tested are part of teams that have been operating for at least a year, many of them for longer periods. This is very different to the type of groups tested by Mazany et al (1995a & b) and Ibbetson & Newell (1999) which involved team members that had met only for the first time. For participants who are in veteran teams it could be that "forming" improvement is not as significant because people already know each other quite well, are familiar with the aims of the team, and a one day workshop is not necessarily going to expose a lot of new material in this area.

It is surprising that norming, where members find new ways of working together Glass (1998), was not significantly improved. Much of the discussions at Tuval workshops concentrate on this issue – how can the team improve the way they work together?

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Often though, this process is left unfinished due to the limitations of a one day workshop Gloskenos (2000). For example, the detail that one needs to go into in order to achieve effective decision making may not possible.

Adjourning, which represents the completion of a task and celebrating achievements Newstrom & Davis (1997) is, in the experience of this researcher a difficult behaviour for Israelis to adopt. Giving thanks, positive feedback and encouragement are promoted during the workshop although it would appear that the effects of this are not long term and are relatively difficult to sustain back at work.

This study also set out to explore the feasability and validity of implementing Level III training evaluations. According to the experience of the researcher in this study, level three training evaluations can be carried out and are effective in evaluating programs and helping management draw conclusions. Indeed some of the information from this study was passed onto clients who displayed great interest as to whether the money invested brought about behavior changes on the job, as percieved by the participants.

As with this study, in all of the quantitative Level III studies reviewed in this work, before and after surveys are used. Hattie et al (1998) found that adventure learning methods have a lasting impact in Level III evaluation – as long as 18 months after the intervention. Ibbetson & Newell (1998) went further and compared the learning transfer in two different companies and found that the transfer was much less effective in a company where there were greater organisational barriers. Only a level three systematic program evaluation would have shown light on this issue and helped this company to decide whether the cost of such a program was worth it when the aims of the project (improved teamwork) were doomed to failure, given the negative organisational culture.

Chapter Six: Conclusion and Recommendations.

Implications for Tuval, Managers and the Adventure Learning industry

The most important finding here is that Adventure Learning interventions significantly improved the score using the Team Development Inventory for the participants surveyed. This is important for Tuval. If participants from five different organisations showed improvement then it may be possible to generalize this result to other clients of the Tuval Seminar Center. As expressed in the introduction, Tuval may now use this information in order to prove that this form of organisational learning is not just a fad but a serious tool for organisational change.

There are limitations to this generalization. As factors affecting training effectiveness were not researched the findings may not be appropriate to all organisations or circumstances. Generalizing the findings to other vendors would be difficult as they were not part of this research and their methods and tools may differ.

Managers searching for effective tools for change will also be able to make use of the results of this research. HR and other managers who believe in the power of the tool can now also show how it has been effective in an Israeli setting.

The results that showed significant change in the areas of storming and performing could provide Tuval with more focused outcomes when explaining to clients what to expect as a result of the intervention. Clients as well may be assisted by this information when setting specific goals for training.

Further Directions for Research.

This research's importance is that this is the first attempt in Israel to assess the effectiveness of Adventure Learning in organisational settings (to the best of the author's knowledge.) Alvin Ng (2001) researched the effect of Asian culture on the transfer of Adventure Learning suggesting that researchers need to probe in order to make conclusions for a specific culture. Israel is a mix of east and west with its own special socio-economic make-up warranting distinct treatment. It would be unwise only

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to draw conclusions from other western societies in a field such as organisational learning which is rooted in culture.

As can be seen in the Literature Review, only during the 1990's methods of evaluation began to be developed and implemented. As well, the scope and depth of this study was quite limited and further research needs to be done in order to assist vendors to create more effective programmes and for managers contemplating adventure learning processes to make the best decisions in order to maximize the investment made.

In this study no attempt was made to assess the factors that affected learning transfer. Some have been researched and discussed in this paper and could include the effect of the male female ratio in the participant make-up, the effect of different types of organisations (e.g. government department, business setting, schools) or technical issues such as program length or number of participants. This paper looked at one-day interventions that did not include any Tuval provided follow up activity. More longitudinal studies and associated interventions will assist Tuval and other vendors to raise the acceptance of this tool as a legitimate agent of change in organisational development.

In all of the research including this piece, researchers study one vendor and in future studies a review of different types of vendors or different types of facilitation could be looked at. Also, only team interventions were studied. Research also needs to be done on the effectiveness of the tool when used as part of management development programs whose aim is solely to improve management skills. E.g. Research should be carried out as to whether management skills that are practiced during the workshops get applied back at the workplace.

An attempt was made in this study to look at which factors were improved by the intervention. In future, it will be worth investigating which type of aims, as set down by managers in advance, are best served by this type of training. This would assist managers in defining the most appropriate aims for this type of workshop that in the author's experience is a critical building block in achieving results.

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This study as well others have at best focused on using Kirkpatrick's (1959) level three transfer of learning. There are some attempts being made in the field to look at level four evaluations – improving the bottom line Goldwasser (2000), although almost none are being done at the academic level. This "barrier" needs to be broken so that academic research keeps apace with the needs of practitioners in the field, despite the difficulties of validating such research in an academic fashion. A body of research will assist human resource and training managers to prove the contribution of this form of training to the organisation "which HRD departments are constantly looking for." Ibbetson & Newell (1999)

1	867
2	5,273
3	2,118
4	770
5	1,329
6	810
Total Words	**11,167**

שאלון מדד פיתוח צוות

שם ארגון :   צוות :   תאריך מילוי : _____

קוד סודי _____ (חשוב לזכור מספר זה)

1. שאלון זה מחולק במסגרת לימודים לתואר שני במנהל עסקים באוניברסיטת דרבי ומטרתו הוא להעריך את האפקטיביות של סדנאות של לימוד חווייתי בנושא פיתוח צוות. השאלון יופץ לפני האירוע וכעבור זמן מסוים לאחר מכן.

2. נא להמציא מספר זיהוי אישי או שם ולציין אותו ליד המילים "קוד סודי" (עדיף לנצל מספר שאתה מכיר ולא תשכח כמו מס' רשיון נהיגה או יום הולדת של חבר במשפחה) נא להשתמש במספר זה בכל פעם שתמלא שאלון "מדד פיתוח צוות".

3. יש לקרוא בעיון כל משפט הרשום מטה ואז לסמן עד כמה כל התנהגות מתקיימת בצוות העבודה שלך ע"י סימון (X) על הקו בנקודה שמציגה את דעתך. חשוב מאוד לענות על כל 10 השאלות.

הנה דוגמא :
חברי הצוות נהנים מהזמן שהם מבלים ביחד בעבודה על משימות.

אף פעם לא	50% מהזמן **X**	תמיד
| --- 10 --- 20 --- 30 --- 40 --- |	--- 60 --- 70 --- 80 --- 90 --- |

     *   *   *

1. לחברי הצוות הבנה מלאה של מטרות הצוות ומחויבות להן.

אף פעם לא	50% מהזמן	תמיד
| --- 10 --- 20 --- 30 --- 40 --- |	--- 60 --- 70 --- 80 --- 90 --- |

2. חברי הצוות מתנהגים באופן ידידותי ומתעניינים באמת אחד בשני.

אף פעם לא	50% מהזמן	תמיד
| --- 10 --- 20 --- 30 --- 40 --- |	--- 60 --- 70 --- 80 --- 90 --- |

3. חברי הצוות מודעים לקיום קונפליקטים ומתמודדים איתם באופן ענייני.

אף פעם לא	50% מהזמן	תמיד
| --- 10 --- 20 --- 30 --- 40 --- |	--- 60 --- 70 --- 80 --- 90 --- |

4. חברי הצוות מקשיבים אחד לשני ומגלים רגישות והבנה.

אף פעם לא	50% מהזמן	תמיד
| --- 10 --- 20 --- 30 --- 40 --- |	--- 60 --- 70 --- 80 --- 90 --- |

5. חברי הצוות מקבלים החלטות ומיישמים פתרונות באופן מהיר.

אף פעם לא	50% מהזמן	תמיד
| --- 10 --- 20 --- 30 --- 40 --- |	--- 60 --- 70 --- 80 --- 90 --- |

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6. חברי הצוות מכירים בהבדלים בין אנשים ומכבדים אותם ואת השונות בין אחד לשני.

אף פעם לא · · · 10 --- 20 --- 30 --- 40 --- | 50% מהזמן · · · --- 60 --- 70 --- 80 --- 90 --- | תמיד

7. חברי הצוות מקיימים רמה גבוהה של עבודה באופן אישי וצוותי.

אף פעם לא · · · 10 --- 20 --- 30 --- 40 --- | 50% מהזמן · · · --- 60 --- 70 --- 80 --- 90 --- | תמיד

8. חברי הצוות נעזרים אחד בשני ונוהגים להתייעץ במצבים קשים.

אף פעם לא · · · 10 --- 20 --- 30 --- 40 --- | 50% מהזמן · · · --- 60 --- 70 --- 80 --- 90 --- | תמיד

9. חברי הצוות מכירים בהישגים צוותיים, יודעים לציינם ולחגוג אותם.

אף פעם לא · · · 10 --- 20 --- 30 --- 40 --- | 50% מהזמן · · · --- 60 --- 70 --- 80 --- 90 --- | תמיד

10. חברי הצוות מעודדים קבלה ונתינה של משוב אחד מהשני על ביצועיהם.

אף פעם לא · · · 10 --- 20 --- 30 --- 40 --- | 50% מהזמן · · · --- 60 --- 70 --- 80 --- 90 --- | תמיד

הערות נוספות על חוזקות הצוות או נושאים הזקוקים לטיפול.

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אני מודה לכם על השתתפותכם ועל שיתוף הפעולה.
ריצ׳ארד מילקי
טל׳ — 633992 — 055

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Team Development Inventory

Organization Name: _____ Team Name: _____ Confidential Code: _____

1. This survey is being distributed as part of studies toward an MBA at the University of Derby and its aim is to evaluate the effectiveness of experiential learning based team development workshops. This questionnaire will be distributed before the training event at Tuval and a period of time afterwards.

2. Please make up a personal ID number or name and enter it beside "Confidential Code" above. (You may wish to use a number only you would know and not forget, like your driver's license number or a family member's birth date.) Use this number each time you complete a TDI form.

3. Please read carefully each statement below and then indicate the extent that the behavior occurs within your work group by putting a mark (such as an X) on the line at the point which best represents your opinion. It is important to answer all 10 questions. Here is an example:

| Group members enjoy the time they spend together working on tasks.	Never 50% of the time Always
	├──10──20──30──40──┼──60──70─X─80──90──┤

1. Group members understand fully and are committed to group goals.
Never   50% of the time   Always
├──10──20──30──40──┼──60──70──80──90──┤

2. Group members are truly friendly and genuinely interested in one another.
Never   50% of the time   Always
├──10──20──30──40──┼──60──70──80──90──┤

3. Group members openly acknowledge and constructively confront conflict.
Never   50% of the time   Always
├──10──20──30──40──┼──60──70──80──90──┤

4. Group members listen closely to each other with sensitivity and understanding.
Never   50% of the time   Always
├──10──20──30──40──┼──60──70──80──90──┤

5. Group members are prompt in making decisions and executing solutions.

Never   50% of the time   Always
|——10——20——30——40——|——60——70——80——90——|
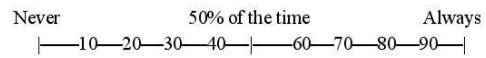
6. Group members recognize and respect individual differences or diversities.

Never   50% of the time   Always
|——10——20——30——40——|——60——70——80——90——|
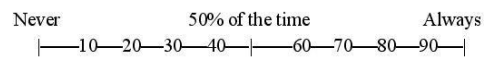
7. Group members hold high standards for their own work and group performance.

Never   50% of the time   Always
|——10——20——30——40——|——60——70——80——90——|
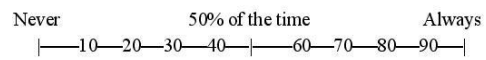
8. Group members look to one another for help and advice in times of challenge.

Never   50% of the time   Always
|——10——20——30——40——|——60——70——80——90——|
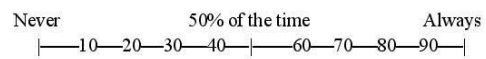
9. Group members recognize, reward and celebrate group achievements.

Never   50% of the time   Always
|——10——20——30——40——|——60——70——80——90——|
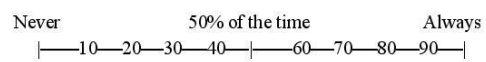
10.Group members willingly encourage and accept feedback on their performance.

Never   50% of the time   Always
|——10——20——30——40——|——60——70——80——90——|
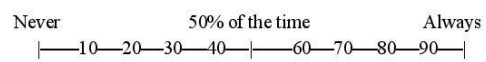
Please add any extra comments about the strengths of your team, or issues that need addressing.

_____

_____

_____

_____

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_____

Thank you for your participation and cooperation.

Richard Milecki
055-633992

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Bibliography

Alvin Ng, H (2001) "Adventure Learning Influence of Collectivism on Team and Organisational Attitudinal Changes," Journal of Management Development Vol 20(5) 424-440

Bennet Wayne, J.B., Lehman, E.K. & Forst, J.K.(1999) "Change, Transfer Climate, and Customer Orientation: A contextual model and analysis of change-driven Training" Group and Organisational Management; Thousand Oaks; Vol 24(2) 188-216.

Bennis, W. (1997) Organizing Genius Reading, MA: Addison Wesley

Bronson, J. et Al. (1992) "Evaluation of Team Development in a Corporate Adventure Training Program." Journal of Experiential Education, Boulder; Vol 15(2) 50-53

Currie, G. (1994) "Evaluation of Management Development: A Case Study" Journal of Management Development MCB University Press Vol 13(3) 22-26

Glass, N.M. (1998) Management Masterclass London: Nicholas Brearly

Gloskinos, U. (2000) "Leadership Development State of the Art – 2000" Mashabei Enosh No 156(43-47) (In Hebrew)

Goldwasser, D. (2001) "Beyond ROI" Training; Minneapolis Vol 38(1) 82-90.

Harris, P.R. & Harris, K.G. (1996) "Managing Effectively Through Teams" Team Performance Management Vol 2(3) 23-36

Hattie et al (1998) "Adventure education and outward bound: out-of-class experiences that make a lasting difference." Review of educational Research Vol 67(1) 43-87

Herman, S. (1999) "Counterpoints: Empowered Teams Work, Sometimes." Organisation Development Journal Vol 17(2)

Holton, E.F. (1996) "The Flawed Four – Level Evaluation Model" Human Resource Development Quarterly Vol 7(1) 5-21

Ibbetson, A., & Newel, S. (1996) "Winner takes all: an evaluation of adventure-based training", Management Learning Vol 27(2) 163-85

Ibbetson, A., & Newell, S. (1998) "Outdoor management development: the mediating effect of the client organisation." International Journal of Training and Development Vol 2 (4) 239-258

Ibbetson, A., & Newell, S. (1999) "A comparison of a competitive and non-competitive outdoor management development programme." Personnel Review Vol 28 (1/2) 58-76

Jackson, C.J. (2002) "Predicting Team Performance From a Learning Process Model", Journal of Management Psychology Vol 17(1) 6-13

Katzenbach, J.R. & Smith, D.K.(1993) The Wisdom of Teams Berkshire, UK: Mcgraw-Hill

Kirkpatrick, D.L. (1959) "Techniques for Evaluating Training Programs" Journal of the ASTD Vol 13(11), S9

Kipp, M.F. & Kipp, M.A, "Of Teams and Teambuilding," Team Performance Management Vol 6(6/7) 138-140

Klein, M. & Napier, R. (2001) "The Courage to Act: What it Takes to Execute New Business Strategies" Journal of Change Management: London Vol 1(3) 257-272

Kolb, D. (1992) "Mapping the Wilds of Adventure – Based Training" Presentation of the Annual Meeting of the Australia and New Zealand Academy of Management in Sydney, Australia.

Kolb , D. (1984) Experiential Learning Englewood Cliffs, NJ: McGraw-Hill

LeClair, D.T. & Ferrel, L. (2000) 'Innovation in Experiential Ethics Training" Journal of Business Ethics; Dordrecht; Vol 23(3) 313-322.

Liang, D. & Rau, R.D. (2000) "Investigating the Encoding Process of Transactive Memory Development in Group Training": Group & Organisation Management; Thousand Oaks; Vol 25(4) 373-396.

Mann, S. (1996) What Should Training Evaluations Evaluate? : Journal of Industrial Training; Vol 20(9) 14-20

Margerison, C. (2001) Team Competencies: Team Performance Management; Vol 7(7/8) 117-122

Mazany, P., Francis, S. & Sumich, P. (1995 a) "Evaluating the Effectiveness of an Experiential "Hybrid" Workshop" Journal of Management Development, MCB University Press Vol 14(1) 40-52.

Mazany, P., Francis, S. & Sumich, P. (1995 b) "Evaluating the Effectiveness of an Outdoor Workshop for Team Building in an MBA Programme" Journal of Management Development, MCB University Press Vol 14(3) 50-68.

McEvoy, G.M. & Buller, F.B. (1997) "The Power of Outdoor Management Development" Journal of Management Vol 16(3) 208-217

McEvoy, G.M. & Cragun, J.R. (1997)"Using Outdoor Training to Develop and Accomplish Organisational Vision" Human Resource Planning; Tempe; Vol 20(3) 20-28.

Morgan, R.B. & Casper, W.J. (2000) "Examining the Factor Structure of Participant Reactions to Training: A Multidimensional Approach" <u>Human Resources Development Quarterly</u>; San Francisco; Vol 11(3) 301-317.

Mullen, T.P.(1992) "Integrating Self Directed Teams into the Management Development Curriculum" <u>Journal of Management Development</u> Vol 11(5) 43-54

Mullins, L.J. (1999) <u>Management and Organisational Behaviour,</u> London: FT

Newstrom, J & Davis, K (1997) <u>Human Behaviour at Work</u>, 10th Ed. NY: McGraw Hill Series of Management.

Nizon, B. (1995) "Reflections From a Team Builder" <u>Team Performance Management</u>, Vol 1(2) 14-17

Nurmi,R. (1996) "Teamwork and Team Leadership" <u>Team Performance Management</u>, Vol 2 (1), 9-13

Olivkovich, O. (2001) "The evolution of HPT – An Historical Overview." Paper delivered at the National Training Conference, Ramat Gan (June)

Plant, R. & Ryan, R. (1992) "Training Evaluation: A Procedure for Evaluating an Organisation's Investment in Training." <u>Journal of European Industrial Training</u> Vol 16(10)

Priest, S & Gass, M. (1997) <u>Effective Leadership in Adventure Programming</u> Champagne, IL: Human Kinetics

Rabey, G. (2001) "Is the Team Building Industry Nearing the Apex of its S Curve?" <u>Team Performance Management </u>Vol 7(7/8) 112-116

Rushmer, R.K. (1997 a) "How Do We Measure the Effectiveness of Team Building? Is it good enough? Team Management Systems – a case study." <u>Journal of Management Development</u> Vol 16(2) 93-110

Rushmer, R.K. (1997 b) "What Happens to the Team During Teambuilding? Examining the Change Process that Helps to Build the Team." <u>Journal of Management Development</u> Vol 16(5) 316-327

Scarnatti, J.T. (2001) "On Becoming a Team Player" <u>Team Performance Management</u>; Vol 7(1) 5-10

Senge, P. (1990) <u>The Fifth Discipline</u>, New York, NY: Doubleday

Sheard, A.G. & Kakabadse, A.P. (2002) "From Loose Groups to Effective Teams" <u>Journal of Management Development</u>; Vol 21(2) 133-151

Smallowe et al (1999) <u>Adventure in Business,</u> Needham Heights, MA: Pearson Custom

Tracey, J.B., Hinkin, T.R., Tannenbaum, S & Mathieu, J.E. (2001)"The Influence of Individual Characteristics and the Work Environment on Varying Levels of Training Outcomes" <u>Human Resources Development Quarterly</u>; San Francisco; Vol 12(1) 5-23

Tuckman, B.W. & Jensen, M.A. (1977) "Stages of Small Group Team Development Revisited." <u>Group and Organisation Studies</u>, 2(4) 419-427

Wagner, R. (1995) "CEL Evaluation Today" in Roland, C., Wagner, R & Weigand, R.J. (1995<u>) Do It and Understand! The Bottom Line on Corporate Experiential Learning,</u> Kendall\Hunt: Dubuque, Iowa

Wagner, R., Baldwin, T., Roland, C. (1991) "Outdoor Training: Revolution or Fad?" <u>Training and Development</u> March 50-65.

Warr Catriona, P. & Kamal Birdi, A. (1999) "Predicting Three Levels of Training Outcome" Journal of Occupational and Organisational Psychology, Leicester; Vol 72(3) 351-375.

Wayne Boss, R. (2000) "Is the Leader Really Necessary? The Longitudinal results of leader Absence in Team Building" Public Administration Quarterly Vol 23(4) 471-486

Internet
Priest, S. "Corporate Adventure Training Can be an Effective Means of Developing Teams" in Experientia
http://members.tscnet.com/pages/experien/study01.html   26.04.2001

http://www.astd.org/virtual_community/library/tfaq.html#SPENT 31.10.01
http://www.trainingsupersite.com/research/   31.10.01