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The symbolic uniqueness of wilderness participation

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Abstract

In the field of adventure therapy the curative powers of natural environments are too often not recognised as therapeutic in itself. Compared with the ecological and experiential values of wilderness the symbolic values thereof have largely been overlooked. Through restoration, physical self, primitiveness, humility, timelessness, solitude, privacy, freedom of choice, personal self and spiritual upliftment, this study aims at determining whether wilderness can be experienced as symbolically unique and whether this natural world can be considered a necessity for achieving therapeutic outcomes. In doing so, this study compared a centre-based adventure programme with an expedition-based wilderness programme, using a crossover research design with a mixed-method approach. For a meaningful adventure experience, results showed that the experience of above-mentioned components made the most important contribution during the expedition-based wilderness programme and that this programme is most effective in creating this very aspect. However, it is possible to also experience the above components during a centre-based adventure programme, but to a lesser extent and with a different meaning.

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Introduction

In defining wilderness therapy, mention is often made of the purposeful implementation of strategic adventure components (such as real and perceived risk, uncertainty regarding outcome and personal decision making) which is intended to bring about sustainable change (Ewert, Mccormick & Voight, 2001). According to Gillis and Ringer (1999), the adventure-directed component attached to it presents a concrete, action and experience-based medium for therapy. What is prominent to Beringer and Martin (2003) is that change often is only ascribed to action and experience. In this respect, Miner (2003), Cole (2005), Berger and McLeod (2006) and Hill (2007) are of the opinion that the symbolic significance^a of the wilderness

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^a According to Cole (2005), the primary general value of wilderness is as a symbol of a humanenvironment relationship characterised by restraint and humility.

experience and the therapeutic role thereof is often overlooked or ignored, compared to the ecologic and experiential value thereof.

To Cole (2005), the symbolic significance of the wilderness is its most unique quality and holds the opinion that wilderness experiences are mainly viewed as opportunities for escape and recreation, but to many, "educational" or "spiritual" is a more accurate description of it. To Miner (2003) the outdoors is the foundation of adventure, yet the inclination is to move away from the outdoors as the "classroom". Although natural environments have for a long time presented the opportunity for adventure education and therapy (Beringer, 2004), it is often not acknowledged as the decisive programme component. Further to this, Beringer (2004), Epstein (2004), Berger and McLeod (2006) and Hill (2007) contend that the value of simply "being in nature" is not given enough credit as an important component for personal development, restoration and therapeutic success.

In this respect Fredrickson and Anderson (1999), Russell (2000), Ewert *et al.* (2001) and Schroeder (2007) mention that participants often cannot translate their wilderness experience into words, and as a result, a unique connection with the environment (wilderness) is developed, which is often referred to as "sense of place" (Borrie & Birzell, 2001; Pryor, 2003). Such a relationship differs radically from the type developed during experiences in less natural environments (eg a centre) (Pryor, 2003). Regarding this, several authors are convinced that the wilderness experience presents unique opportunities for the personal experience of restoration (Kaplan, 1995; Laumann, Gärling & Stormark, 2001), physical self (Berger & McLeod, 2006; Caulkins, White & Russell, 2006), primitiveness, humility, timelessness (Cole, 2005; Johnson, Hall & Cole, 2005), solitude, privacy, freedom of choice (Borrie & Roggenbuck, 2001), personal self (Russell & Farnum, 2004) and spiritual upliftment (Irvine & Warber, 2002; Berger & McLeod, 2006).

Pohl, Borrie and Patterson (2000) and Yoshino (2005) point out that compared to other types of adventure programmes, very few studies focus on the effect of wilderness-based programmes and that few of the advantages reaped from adventure experiential learning focus on the effect of the wilderness. Hence McKenzie (2000) recommends that future research focus on comparing the role of the physical environment during programmes that take place in the wilderness, unfamiliar non-wilderness environments (such as rope course programmes) and familiar environments (such as the classroom or work environments). Therefore, by means of a comparative study (Priest, 1996; Priest, 1998; Williams, 2000) with a mixed methodology, it is the aim of this study to determine whether the personal experience of restoration, physical self, primitiveness, humility, timelessness, privacy, freedom of choice, solitude, introspection, personal self and spiritual upliftment are symbolically unique to wilderness participation. The positive findings of this study in this regard can be an important indication to researchers that the environment in

which adventure experiential learning programmes take place are indeed essential programme components.

Methods

Research Design

The cross-over research design was used for purposes of this study, which consists of a mixed method which De Vos (2005) refers to as a combination of qualitative and quantitative research in a single study. In a cross-over research design all the participants are exposed to both experimental interventions (Simon, 2002), which in this case is a centre-based adventure programme^b and an expedition-based wilderness programme^c. To confirm findings, triangulation was used which, according to Padgett (2004) and Russell (2006), obtains the ratification of two or more types of data of, amongst others, interviews, participant observation and documents in writing to investigate the same phenomenon. In this respect, the concurrent triangulation strategy of Creswell (2009) is used in which both quantitative and qualitative data are captured and compared simultaneously to determine whether any similarities, differences or combinations occur. The advantage of this is that most researchers are familiar with this method and that it often leads to valid and trustworthy findings.

Investigation population

The entire investigation population comprises 28 third-year students (14 male and 14 females) of the North-West University (Potchefstroom Campus) between ages 20 and 23 years ($\bar{x} = 21.6 \pm 0.7$). This group (N=28) was further subdivided into two separate groups (n=14) which consisted of 7 men (n=7) and 7 women (n=7) each. Simon (2002) believes that a control group is not necessary with a cross-over research design, since each group serves as its own control group. Participation in this programme was on a voluntary basis.

Procedures

Subjects were identified by means of an availability sample and were randomly allotted to the separate experimental groups which were, in this case, those participating in the CBAP and EBWP. Questionnaires, focus group and one-on-one interviews were conducted after each programme. All test opportunities took place under supervision and control of the researcher. To limit the transfer effect to the minimum and to ensure the availability of participants, a period of five months (contrary to the three and six months as recommended by Priest and Lesperance (1994)) was allowed between Test 1 and Test 2, which took place during university holidays in April and September. Both programmes took place in collaboration with

For purposes of this study the term centre-based adventure programme(s) CBAP will be used throughout.

^c For purposes of this study the term expedition-based wilderness programme(s) EBWP will be used throughout.

"Outward Bound South Africa" and "The Teambuilding Institute" which was led by professionally qualified facilitators. Regarding the duration of the programmes, the CBAP lasted two days, whereas the EBWP extended over seven days. Programmes of different duration (as in the case of the two groups that participated in both programmes) are comparable.

Ethical approval was given by the North-West University (Potchefstroom Campus (NWU-0010-08-S1) for the execution of this research project. The parents of the participants were informed of the research project via an information letter and along with this, informed permission and medical and indemnity documents were completed.

Measuring instruments

To determine the personal experience of restoration, physical self, primitiveness, humility, timelessness, solitude, privacy, freedom of choice, personal self and spiritual upliftment in both programmes, an adapted rendition of the Recreation Experience Preference Scales (Manfredo, Driver & Tarrant, 1996) was used. Cronbach Alpha values between 0.75 and 0.97 were found for this measuring instrument. This scale is aimed at establishing the motivation for adventure-directed participation which, according to Manfredo et al. (1996), can provide the answer to the questions as to why people participate in outdoor-directed adventure, what people are searching for during such experiences and how they are influenced by it. Questions were structured to determine whether the personal experiences are important components for obtaining a meaningful adventure experience and how effective each programme (CBAP and EBWP) is for reaching it. All questions are based on relevant literature (Russell & Phillips-Miller, 2002) and are compiled in the form of a 5-point Likert scale. The participants' views, ideas, feelings or convictions regarding a specific programme/intervention cannot be measured prior to participation in it. Hence frequencies, means, percentages and standard deviations are only determined after completion of the programme.

Semi-structured one-on-one and focus group interviews (Greeff, 2005) as well as participating observation (Strydom, 2005) were utilised for the qualitative survey. Due to the multidimensional nature of adventure experiential learning, Epstein (2004) recommends that a variety of research methods be used, which include a combination of qualitative and quantitative approaches. In this regard Fontana and Frey (2000) argue that qualitative research methods enable the researcher to investigate meticulously, to clarify uncertainties and to increase the accuracy of feedback.

d See http://www.outwardbound.co.za.

e See http://www.team.co.za

Data analysis

The quantitative data were analysed statistically with the help of Statistical Consultation Services of the North-West University (Potchefstroom Campus). The data collected by means of the questionnaire were analysed by means of the computer programme of the SAS Institute Inc. (2003). With reference to restoration, physical self, primitiveness, humility, timelessness, privacy, freedom of choice, solitude, introspection, personal self and spiritual upliftment, the data was analysed such that the difference in the experience regarding the importance (extent to which mentioned factors contributed to having a meaningful adventure experience) and effectiveness (extent to which the programmes were effective in bringing to the fore the indicated factors) could be determined. Regarding this, PROC MIXED in SAS (SAS Institute Inc., 2003) was applied to determine whether there was a sequence and/or period effect regarding the programmes, and whether differences occurred in the experience of these components between the two programmes. Sequence effect indicates whether the sequence of participation (eg participation in the CBAP first and visa versa) affected the outcome, whilst the period effect indicates whether any seasonal influences (weather conditions, autumn as opposed to spring) had occurred. Due to the specialised nature of the adventure programmes it was impossible to deal with more than 14 participants per group. It could possibly be too few to ensure discrimination ability of tests on a 5% level of significance; therefore statistical significance is investigated at a 10% level of significance. Statistical significance does not necessarily mean that the result is also important in practice. Practical significance can be understood to be a large enough difference to have an effect in practice. A natural way of considering practical significance is by reporting on the standardised difference between means (effect sizes) (Steyn, 2005). In these results effect sizes of approximately 0.2 are regarded as small, 0.5 as large enough to be observed, while effect sizes of more or less 0.8 and larger are considered practically significant (Cohen, 1988).

The qualitative data collected during the interviews and participating observation were transcribed to capture striking and general tendencies. To be able to produce the coherence of the entire investigation, these tendencies were categorised into themes and subthemes that are related to one another (Tesch, 1990; Poggenpoel, 1998). Interpreting data analysis (Tesch, 1990) was applied, which consisted mainly of two steps, namely decontextualisation and recontextualisation.

Results

Table 1 displays the experience of restoration, physical self, primitiveness, humility, timelessness, privacy, freedom of choice, solitude, introspection, personal self and spiritual upliftment between the two groups with regard to importance and effectiveness. Here it is evident that the importance and effectiveness of all the components were experienced positively in the sense that participant means of between three and five were observed. The lowest mean was observed with

privacy/freedom of choice (importance) and primitiveness/humility/timelessness (effectiveness), whilst the effectiveness of primitiveness/humility/timelessness was highest in the EBWP. The importance of measured factors for participants and the effectiveness of the programmes to bring to the fore the experience thereof can be inferred from Figure 1. By giving attention to the p-values and means of evaluation tests it can be seen that the two programmes differ relatively little from each other regarding the sequence and period effects. However, with respect to programme effects, the two programmes differed in practically every case.

In respect of importance, a single statistically and practically significant period effect (privacy/freedom of choice, d=0.56) was observed, whilst in the case of effectiveness, no period effects were observed. This indicates that there were no seasonal effects and that the results of Test 1 and Test 2 can be combined (Figure 1). As opposed to this, statistically medium and practically significant sequence effects were observed in both importance and effectiveness. Regarding importance, one statistically significant and one statistically significant sequence effect (physical self, d=1.03) was observed, whilst regarding effectiveness, statistically medium, and practically significant sequence effect was observed regarding restoration (d=0.56), primitiveness/humility/timelessness (d=0.33), solitude/introspection (d=0.40) and personal self (d=0.70). Group 1, which participated first in the EBWP, fared less positively in the CBAP after Test 2. The same tendency was found regarding Group 2, which first gave a relatively high evaluation of the CBAP and following the EBWP, gave a very high evaluation compared to the CBAP. This fact can explain why Group 2 evaluated both the programmes higher than Group 1.

Furthermore, statistically and practically significant differences were observed between the two programmes regarding importance and effectiveness (Table 1 and Figure 1). Regarding importance, statistically as well as practically significant difference observed respect restoration were with (d=0.92). primitiveness/humility/timelessness (d=1.28), privacy/freedom of choice (d=0.90), solitude/introspection (d=1.62) and spiritual upliftment (d=0.96). In respect of effectiveness, statistically and practically significant differences were observed restoration (d=0.87),physical self (d=0.69),primitiveness/ regarding (d=2.19),privacy/freedom humility/timelessness of choice (d=1.22),solitude/introspection (d=1.71), personal self (d=0.69) and spiritual upliftment (d=1.80).

In all cases, the EBWP performed better than the CBAP with regard to experiencing these components. The largest differences in importance of the EBWP were observed regarding solitude/introspection, primitiveness/humility/timelessness and spiritual upliftment. Also regarding effectiveness, the largest differences were observed regarding the EBWP in respect of primitiveness/humility/timelessness, spiritual upliftment, solitude/introspection and privacy/freedom of choice.

Table 1: Descriptive statistics of importance and effectiveness of CBAP and EBWP on both test opportunities

						Importance	tance								
	,		Test 1	st 1					Tes	Test 2				D	
	Gro	Group 1 (EBWP)	BWP)	Gro	Group 2 (CBAP)	3AP)	Gro	Group 1 (CBAP)	(AB)	Grou	Group 2 (EBWP)	WP)		r-values	
Component	u	ıx	SD	п	١χ	SD	п	١χ	SD	n**	ıx	SD	Sequence	Period	Programme
Restoration	14	4.5	0.4	14	4.2	0.5	14	4.3	9.0	13	4.6	0.4	0.9725	0.2556	0.0013*
Physical self	14	4.3	0.5	14	3.6	6.0	14	4.3	9.0	13	3.9	6.0	0.0311*	0.3966	0.3551
Primitiveness/Humility/Timelessness	14	4.5	0.5	14	3.8	0.8	14	3.6	6.0	13	4.6	0.4	0.4089	0.9362	<0.0000*
Privacy/Freedom of choice	14	3.7	9.0	14	3	9.0	14	3.5	8.0	13	3.7	0.7	0.1791	0.0421*	0.0021*
Solitude/Introspection	14	4.3	0.3	14	3.6	9.0	14	3.6	0.7	13	4.3	0.4	0.7733	0.8714	<0.0000*
Personal self	14	4.3	0.4	14	4.3	0.5	14	4.3	0.7	13	4.5	0.4	0.3877	0.1981	0.1749
Spiritual upliftment	14	4.4	0.5	14	3.7	9.0	14	3.9	8.0	13	4.5	9.0	0.4651	0.6469	0.0026*
* p=0.1 Statistical significance at a 10% level ** One participant in Group 2 withdrew due to l	6 level v due to h	health reasons	sons												
						Effectiveness	'eness								

Programme

Period 0.3538 0.2172

Sequence 0.0305*

SD

SD

14

Group 2 (EBWP)

Group 1 (CBAP)

P-values

0.0028*

0.0101*

<0.0000*

0.3234

0.5109

0.1

<0.0000*

0.4430 0.2282 0.8680

0.2534 0.0195* 0.0369* 1.0000

0.0011*

14

6.0

4 4 4

4 4 4

Privacy/Freedom of choice Solitude/Introspection *00000.0>

0.2566

Personal self Spiritual upliftment

^{*} p=0.1 Statistical significance at a 10% level

^{**} One participant in Group 2 withdrew due to health reasons

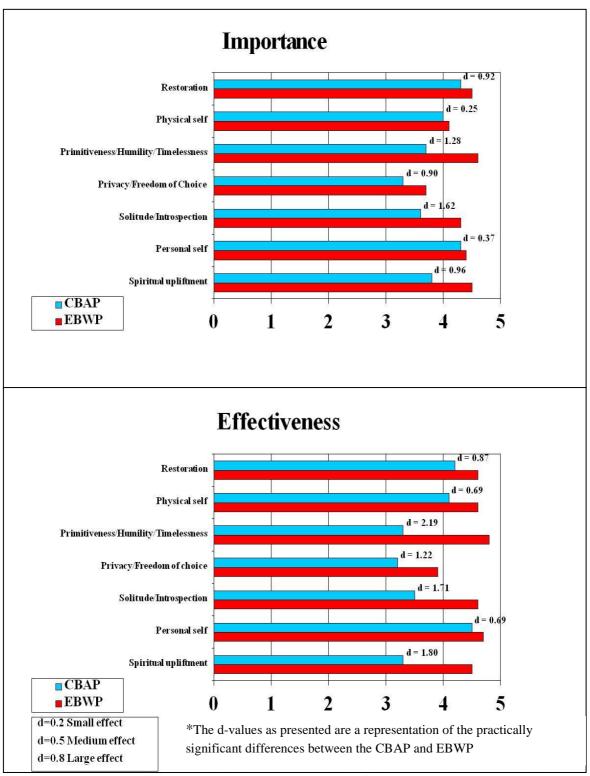


Figure 1: Mean values of constructs in both test opportunities of the CBAP and EBWP regarding importance and effectiveness

Discussion

Taking into account that the experience of measured constructs was positive during the CBAP, it was found that the outdoor environment in which this programme took place was not responsible for it. For experiencing this, all the participants accentuated the wilderness environment (during the EBWP) as the decisive programme component, which was described as follows:

"As I said, to me the environment is the strongest component here. Uhm ... we also discussed this last night, uhm ... I know certainly for a fact that I would not have been so connected to the people, had it not been for the environment. Understand, we could have sat in a room for five days, and I would have sat in the corner right through the events and maybe have said something now and then. But ... uhm ... I think the environment just has such a huge effect on one that you half forget about everything and ... I think ... not only the environment as such, but exactly the physical challenge inherent in it ... "

"In the mountains (EBWP) the environment is the activity ... it is this ... it is the challenge. There the environment is the huge determining factor and it challenges you not only physically ... it challenges you personally – it also challenges you in a group."

Contrary to this, the opinions of the participants regarding the CBAP were as follows:

"The outdoor environment ... to me it was not a determining factor. This is not what it was about there (CBAP). The focus was not based on it."

The Wilderness Act (USA, 1964)⁶ indicates that wilderness sites must offer excellent opportunities for a "primitive and unconfined type of recreation." To Roggenbuck (2004) the extent of primitiveness is determined by the extent to which living, eating, sleeping and travelling during extended outings are not accompanied by motorised transport, mechanical, electrical devices, modern facilities, modern equipment or guidance. With reference to the wilderness, Cooley (1998) and Pryor (2003) point out that when someone competes with it, finds his/her way in it, starts feeling comfortable and safe in it, a relationship is developed with the "place". By these means the participant becomes physically and psychologically hardened, independent and self-confident (Roggenbuck, 2004). To the participants, maintaining a primitive life style was the most important component during the EBWP. In this respect it can, however, be argued that it is self-evident that such a type of experience is not possible during a CBAP. However, the fact is that the value of a primitive experience

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The explanation of wilderness in South Africa is based on the United States of America's Wilderness Act of 1964 (Krüger & Crowson, 2004).

has to be realised and that it cannot be overlooked as a significant programme component. With regard to this, some respondents indicated that growth would hardly have taken place, had it not been for the "primitive" challenge.

"... I think the largest part to me is that one is challenged ... and I think this is where one grows. If one is never challenged, one will never grow and I think ... yes I missed those things ... for instance a kettle and those types of things, but I think it is exactly what made it nice – to escape from those things."

"It makes one realise what one has. It makes one realise how easy it is to ... especially water ... I open the tap and drink water, but there are many people out there who ... as I struggled to get hold of water, have to struggle to get water every day. Therefore it just gets you thinking, thinking a little more about your fellow human beings, fight more for others. Because my life is too easy."

During such events it is possible for the participant to forget about the fast pace of modern life and to step into an experience that is unmeasured, unlimited and timeless. Coupled with this, opportunity and time can be found to view and to reflect (Borrie & Roggenbuck, 2001). What further comes to the fore from this is that the participant realizes his insignificance, and because man is not in control of his environment (nature), it is a strong message that man only forms a small particle of a larger whole (Cumes, 1998; Borrie & Roggenbuck, 2001). Such significant relationships with natural environments often give lead to spiritually uplifting experiences that bring about a feeling of connectedness with something far larger and gives meaning to life, says Schroeder (1996). To Kaye (2006), the wilderness is a refuge to that part of humanity that is seeking connectedness, livelihood and origin. The wilderness is not only a mirror of everything that is natural, free and wild, but also a place and a system man can go to in order to try to understand his place or role in a larger whole. Although spiritual upliftment is not approached from a religious point of view, all the participants accentuated this quality of the wilderness and mentioned that it makes a valuable contribution to strengthening their belief (Christianity).

"That I deepened in my belief, is how amazing and almighty God is ... it just strengthened that perspective a bit."

"... ever since we arrived here, I have felt that ... and ... usually when you are in the city or wherever you are, you now and then think ... usually only if you need help, then you go to God and seek help. But here, permanently when I see something beautiful then I know ... then I think of God, immediately."

"Here you cannot feel big. Occasionally you get into your own things to such an extent, you feel you are the only person on earth, but then you

arrive here, then you realise you are actually nothing. You are only very minute."

Taking into consideration the practically significant difference between the CBAP and the EBWP regarding spiritual upliftment (d=0.96), the experience of this also contributed positively to the upliftment of a significant adventure experience during the CBAP. Seen from another angle (during the CBAP), McDonald and Schreyer (1991) contend that spiritual upliftment experiences also lead to social awareness, which can bring about a heightened extent of connectedness in the individual. This connectedness can be with the wilderness, a community, a nation, or in this case, a group. Put differently, a sense of harmony with a collective other develops. In this respect one of the participants' opinion was as follows:

"I think, not in the same sense as on the Drakensberg (EBWP). But here (CBAP) I realized that man, in humanity itself, is a small part. What I mean is that you saw yourself as a small particle of a group of fourteen people. Thus, you did not see yourself in a bigger picture, maybe smaller than a mountain (EBWP), for instance, but you saw yourself smaller in the entire respect of humanity."

Due to the sheer extent of the wilderness, excellent opportunities are offered for temporary physical isolation or solitude (Kaye, 2006). Such experiences, which Potter (1992) refers as times of silence away from others, can be applied as a powerful instrument for personal reflection. Distance from external distractions, routine and social interaction coupled with a new refreshing environment can present the participant opportunities for introspection and for reflecting on their wilderness experience, the environment, themselves and their relationship with others. According to White and Hendee (2000), participants indicated that the more developed the environment (such as one with roads, structures and facilities) and the less the opportunities of being alone (e.g. more encounters with others), the better the chance of obtaining less of the specific advantages.

"I never saw other people on that mountain ... and it is massive and, yes, I thought we would see other people, but we did not. So yes, it is definitely ... we were isolated I mean, that is why we could focus on ourselves, actually."

However, it is possible to have periods of solitude during the CBAP. While participants stressed the necessity and meaning of solitude during the EBWP, it was further mentioned that if periods of solitude were needed during the CBAP, opportunity was created and that the facilitator needs to place the participant in such a situation. This statement is illustrated as follows:

"No one can tell you what you must do. Here (EBWP) you have so much solitude time it actually is lovely, because you can ... you can think

about all kinds of things ... how you are and how you wish to be and the changes you need to make to be who you wish to be. Here (EBWP) it is as if it ... brings to the fore the you."

"To me, personal development at the mountain ... was very ... a person thing ... I think one has ... one was in no way in the position where I needed to develop personally, so one's personal development depended on oneself, depended on one's reaction ... whereas at TBI (CBAP) one was placed in a position where one had to develop personally. Certain questions were posed where one was forced to do introspection and to wonder about certain things ... whereas at the mountain, it came half naturally."

Although periods of solitude were scarce during the CBAP, opportunities for personal reflection (personal self) were still abundant and important (on average 4+ on a 5-point scale, Figure 1). Such opportunities were mainly found during group discussions and reflection sessions which took place throughout during the programme. This component of the CBAP was accentuated by the participants as the most important so that learning could take place and was even considered more important than the activities themselves.

"... each activity's talking one could carry forward to each aspect of one's life. There one could ... if one just thought a bit one could really make it applicable to all aspects."

"At TBI (CBAP) ... I think growth rather came from the discussion afterwards. Here (EBWP) the discussion was afterwards ... it also contributed to it, but it was more ... it was not as strong, as good, as at TBI. At TBI an activity would not have done much, to my mind, the discussions did it. But here (EBWP), if one only did the activity (hike), it would already have done the work."

Although the meaning of the term *solitude* can indicate feelings of loneliness or privacy, it is better defined, according to Kaye (2006) as a state of mind which is promoted by physical isolation. Coupled with this, "being alone" is to Long and Averill (2003) not necessarily a requirement for experiencing solitude. For a more appropriate view of wilderness solitude, Koch (in Hollenhorst & Jones, 2001) identifies three qualities, namely (1) physical isolation, (2) social freedom and (3) reflection. According to Long and Averill (2003) and Simon (2003), this view of solitude is used to indicate a type of privacy or freedom of choice, which Westin (1967) defines as a voluntary and temporary psychological and physical withdrawal of a person from his/her social environment to a state of isolation or small-group intimacy or, when in larger groups, to a state of anonymity or withdrawal. The results of this study support those of Hammitt, Backman and Davis (2001) who found that

nature-based solitude and privacy are discriminative qualities of wilderness participation. In this respect the opinion of one of the respondents was as follows:

"... one does not really have to talk to someone. I know I did it often and thought many things, even while we were hiking ... and I think the environment, one sort of loses oneself in an environment and then one looks and forgets about the people surrounding you and then one thinks about the things that are happening."

Because successful participation in a CBAP requires total involvement (which is not forced) it seems that the meaning of privacy and freedom of choice is rather interpreted in the context of "challenge-by-choice". "Challenge-by-choice" refers to the right to voluntary participation in activities within the field of adventure experiential learning (Priest & Gass, 2005). Exactly because total involvement is essential during the CBAP, it seems that the true meaning of Westin's (1967) definition of privacy and freedom of choice cannot be experienced in its true sense during this type of programme. The opinion of all the participants is well captured by the following remark:

"Yes definitely, ... that about ... I am green, red or yellow ... that was very important ... if you do not want to or if you cannot, then you just say you cannot, you want to stop. It was very important to me ... you can choose how you wish to participate in the activities ... "

Although the difference between the CBAP and EBWP with regard to restoration is practically significant (d=0.92), it is still clear that the experience thereof during both programmes was very important and that both programmes are very effective for obtaining this (a mean of 4+ on a 5-point scale, Figure 1). This theory, known as the attention-restoration theory (Kaplan & Kaplan, 1989), is founded on the assumption that escape to natural environments is favourable for feeling refreshed or restored. To Kaplan and Kaplan (1989) it is not sufficient for restoration to only escape physically to a place, but to also escape in a conceptual manner in the sense that someone must free him/herself from their normal intellectual activities that require directed attention. In spite of the EBWP, this study supports this assumption, but it was found that escape can take place at a conceptual level without breaking away to natural environments. During the CBAP all the participants stressed participation in activities as well as the other way of thinking as restoring.

"Yes because you follow a completely other way of thinking, understand, like I who always is just searching for facts, now I need to apply logic. One uses a complete different part of your brain ... I have a creativity of nil ... it made me think creatively."

"... to me it felt like an island where we were there (CBAP) on our own and, I could ... my brain was very active but in another way than here

(university), and uhm ... I once again received strength to carry on ... to me this really was a restoration as a person, the circumstances in which one found oneself and the demands set for you ... made you realise ... you can do it ... you can do anything you really want to."

As in the case of restoration, it seems that physical self was also very important to both groups, despite the intensity thereof (a mean of 4+ on a 5-point scale, Figure 1). It supports the statement of Ewert *et al.* (2001) that, when people become involved in adventure experiential learning programmes (such as rope course programmes or wilderness-based programme) and whether it takes place indoors or outdoors, it often results in an improvement in general physical health.

With regard to effectiveness the study claims that it is this information that portrays the true uniqueness of the wilderness. As previously referred to, the EBWP was in all cases more effective than the CBAP in bringing to the fore the experience of restoration, physical self, primitiveness, humility, timelessness, privacy, freedom of choice, solitude, introspection, personal well-being and spiritual upliftment. What illustrates the uniqueness of the wilderness is that experiencing it comes to the fore naturally. Beringer and Martin (2003) believe it is not the "contrast", the remote setting, the unusual lifestyle, physical challenge, the processing of it, the facilitator, the group or the social interaction that takes place that brings about change. It is all these components in relation to the strong effect of the environment that brings about restoration and growth. In this respect some of the respondents even indicated that an EBWP will still have a strong effect without a group, any social interaction or the presence of a facilitator.

"All those things (factors under discussion) were there for me ... I feel you do not need to specifically go out and make provision for it. I feel it comes sort of automatically, the whole thing. I would say it comes with the environment. TBI (CBAP) will make provision for certain things, but you need to plan. But here I think ... it comes naturally."

"... I think the environment ... I mean if it now was only me that had to be there outside and only I had to had to erect my tent or whatever ... you are completely isolated ... there is no instructor, there are no group members or whatever. The environment will have an influence ... you are still going to feel you are isolated and it will bring about that you think and things like that also. If all those other things were not included and it was you only in the environment you will definitely return as a different person. You will be calmer and you will feel you were free ..."

These findings support those of Russell and Farnum (2004) who believe that the wilderness functions independently to produce psychological advantages. In this sense the last-mentioned researchers refer to the wilderness as the single and only facilitator. To Harper (1995) the wilderness is something that facilitates leaderless

and that forces change onto no-one. All personal transformations take place within oneself. The same was found during this study.

"... there was no-one guiding us. There was no-one telling us, now think about this or now think about that. *Nature* spoke to us. That *environment* just created it so that one just must or can do it."

Conclusions

The lack of research regarding the role of the physical environment for the rapeutic or educational purposes is reflected by the tendency that compared to the ecological and adventure-directed value thereof the symbolic meaning is overlooked or ignored. From this study it is evident that the wilderness is symbolically unique and that it was the most important component of the EBWP that led to growth and change. With specific reference to this type of programme it was a clear indication that the role of the physical environment cannot be discounted for a meaningful adventure experience. Exactly how the personal experience of restoration, physical self, primitiveness, humility, timelessness, solitude, privacy, freedom of choice, personal self and spiritual upliftment influences the participant with regard to promotion of self should be further researched. However, it is important to take into consideration that experiencing these components can indeed be obtained to a certain extent in environments similar to that in which the CBAP had taken place. However, the manner in which it is obtained differs radically from that of the EBWP. This study supports Beringer's (2004) view that programmes focusing on the participants' environments can become the cornerstone of adventure experiential learning. It is therefore essential that the focus of future research in the field of adventure experiential learning should follow a more qualitative methodology.

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