Global Explorers Journaling and Reflection Initiative

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Abstract: Research suggests that journaling will increase reflection and improve program outcomes (Bain, et al, 1999; Duerden, et al, 2012) This study involved a partnership with a non-profit, Global Explorers (GEx), which provides international immersion experiences for youth. Their programs are designed to teach youth participants principles of leadership, environmental awareness, service, and science. This study, which tested whether teaching journaling techniques to youth program facilitators would have a positive impact on participant outcomes, addressed the following hypotheses: 1) Greater training in reflective thinking among participants would be associated with higher outcome scores, and 2) Participants in the intervention group (facilitators trained in journaling pedagogy) would show greater increases in reflective thinking than comparison group members. Results based on participant self-assessment were significant in testing the first hypothesis; reflective thinking is positively associated with outcome measures, but the intervention group did not show increases in reflective thinking.

Introduction

Research suggests that youth participants in adventure, travel, service, leadership, environmental and other experiential programs often do not receive sufficient opportunities or possesses the necessary skills to fully reflect on their experiences (Duerden, Witt, & Taniguchi, 2012). Reflective journaling may help students make meaning out of experience, but often group leaders are trained in recreation management, educational leadership, science, or other subjects, but not in the pedagogy of reflective journaling. Some leaders may believe that journaling requires skills that are innate or intuitive, so while many groups use a journal, they do not intentionally use this valuable tool as efficiently as they might.

Consequently teaching group leaders more intentional reflective journaling techniques may improve their efforts to incorporate this approach in their programming and ultimately help their youth participants get more out of the experiences they provide. Therefore, the purpose of this study was to test the assumption that reflective journaling interventions for youth program facilitators would have a positive impact on participant outcomes.

Literature Review

Research on journaling pedagogy is extensive and reports varied success in outdoor education. The most universal positive outcome of journaling is enabling students to engage with their surroundings (Dyment & O'Connell, 2007). The less-structured format of journaling (as opposed to a formal writing assignment) can help to release the creativity of students as they write, helping them to reflect effectively on their experiences and find meaning (Beidler, 1985). Murray (1995) indicates the usefulness of journals in recording and organizing experience, enabling the writer to process events as they occur and act as a "mirror" to reveal his or her "true" self.

Birngerger, McCullagh, and Howick (2005) have published work on reintroducing the naturalist's journal to scientific education. They demonstrated it to be successful in increasing student engagement with nature and ultimately connecting it to what they are learning in the classroom. Journals have even been used successfully at the elementary school level for students to synthesize their out-of-class experiences, such as family road trips (Curtis, 2013). Additionally, a group journaling activity in which participants took turns writing in a journal each day and read their writing to the group was successful in creating group unity and raising group issues (Asfeldt, 2012).

However, much of outdoor educators' experiences with integrating journaling into outdoor activities is limited to only increasing participant engagement. Dyment and McConnell used Lefebvre's criteria for sustainability education to measure whether their goals for journaling were being met. While the goal of helping participants to "interact with/in nature and learn about nature" was achieved, most participants in the study did not use journaling to
- make connections between social, economic, and environmental issues;
- explore connections between their program and their communities;
- move toward taking action for social change (Dyment & McConnell, 2007).

Dyment and McConnell used Bloom's Taxonomy to measure the level of writing of program participants. Most participants, with no guidance on journaling, tend to write at the lowest level

(knowledge) of Bloom's Taxonomy (Dyment & McConnell, 2003). While this is useful and makes excellent groundwork for further thinking and writing, it falls short of the hopes of outdoor educators in making programs and experiences more meaningful.

Other research suggests that journaling can be made a more useful and meaningful activity for participants if educators are trained in reflective journaling. In naturalist's journals, Birngerger, McCullagh, and Howick recommend leaving space in journals for synthesis writing to be completed after field experiences are completed (2005). Taniguchi, Freeman, & Richards studied the traits of meaningful outdoor experiences in a wilderness writing program. In this program, educators, including an English professor, taught journaling and essaying techniques to students. All but one of the participants found the experience meaningful overall (2005).

In another analysis of the same program, the authors noted that having educators be involved in the entire students' writing process, including journaling, discussion, writing exercises, and personal essays produced very vivid, meaningful writing, which can be taken as an indicator of a meaningful experience (Bennion & Olsen, 2002). Dyment and McConnell (2003) also suggest that integrating journaling with other education methods, such as lectures, field trips, laboratory sessions, guest speakers, etc. may increase the effectiveness of journaling for many outdoor program participants.

In order to contribute to the current body of literature on journaling this study tested the following hypotheses:
- Greater reflective thinking among participants would be associated with higher outcome scores.
- Participants in the intervention group would show greater increases in reflective thinking than comparison group members.

Methods

This study involved a partnership with a non-profit, Global Explorers (GEx), which provides international immersion experiences for youth. Their programs are designed to teach youth participants principles of leadership, environmental awareness, service, and science. Programs consist of a preparatory course often held as part of an afterschool program and a two- to three-week international field expedition to locations such as Cambodia, Tanzania, and Peru. Before the Summer 2012 season researchers trained a sub-sample of GEx leaders in techniques for prompting reflective journaling. The participants in the programs overseen by these leaders over the course of the summer served as the intervention group for this study. The remaining participants served as the comparison group. Using this quasi-experimental design we tested whether this kind of training would make a difference on participant outcome scores.

In May 2012 one of the researchers met with GEx directors and trained the leaders of the intervention group in techniques for facilitating reflective journaling. The training involved teaching the following principles:
1) Meditative writing can increase the self-judgment that experience was meaningful, possibly prompting greater personal growth.
2) Leaders are meditative writing coaches who are willing to watch students, listen to them, engage them in conversation, focus on their growth, and create a relaxed environment.

Leaders were directed to have the students write every day (1/2 hour blocks of time, 1-2 times). They were taught to provide a writing time and place, seat the students in a circle, urge students to read out loud from their journals, and move students from guided exercises to less guided exercises. These leaders or writing coaches were taught how to design writing prompts to fit the curriculum goals for the specific program, because GEx uses different kinds of writing in different contexts. Coaches were taught the three general aims of journaling exercises: writing to reinforce and retain knowledge, writing to create bridges between knowledge and experience, and writing which prompts personal wandering or reflection. Journal coaches were asked to follow a specific process: discussing the prompt and linking it to the educational goals, giving the prompt, giving the students writing time, asking for volunteers to read their journal entries out loud, discussing each entry read to emphasize the educational goals.

During their expeditions the leaders used these techniques with the intervention group and kept a log describing the incidence and quality of the journaling experiences. The comparison group also used a journal, which is already a part of the GEx curriculum, but the leaders of those groups were not encouraged to give more time to journaling and were not trained in a process of facilitating journaling. Both the intervention group and the comparison group took the standard GEx program retrospective pre-test (Sibthorp, Paisley, Gookin, & Ward, 2007) evaluation, which included a number of reflective thinking scales (Table 1). These included a four-item reflection scale and four-item critical reflection scale from a larger reflective thinking questionnaire (Kember et al., 2000) along with a two item non-purposive reflection scale developed by the researchers. The reflection scale asked respondents to consider or reflect on their actions and the actions of others in their group. The critical reflection scale focused on how participants feel their experience had changed them. The non-purposive reflection questions asked them to describe whether they let their minds wander, discovering something new about themselves and others.

Table 1
Reflection Measures

Reflection
1. I sometimes question the way others do something and try to think of a better way.
2. I like to think over what I have been doing and consider alternative ways of doing it.
3. I often reflect on my actions to see whether I could have improved on what I did.
4. I often re-appraise my experience so I can learn from it and improve for my next performance.

Critical Reflection
1. As a result of this GEx program I have changed the way I look at myself.
2. This GEx program has challenged some of my firmly held ideas.
3. As a result of this GEx program I have changed my normal way of doing things.
4. During this GEx program I discovered faults in what I had previously believed to be right.

Non-Purposive Reflection
1. I sometimes let my mind wander, often discovering something new about myself.
2. Sometimes I discover new ideas about people, places, or ideas by reflecting about them.

Pre and post-test data were collected on the reflection and non-purposive reflection scales whereas only post-test data was collected on the critical reflection scale. Cronbach's alphas

ranged from .72 to .78 for the reflection scale, .82 for the critical reflection scale, and .65 to .69 for the non-purposive reflection scale. The outcome measures used in this study were ecological affinity (Larson, Green, & Castleberry, 2008), civic engagement (Lough, McBride, & Sherraden, 2009), and social and cultural awareness (Off Bound Adventures, 2011). Cronbach's alphas for these scales ranged from .87 to .89.

Results

Data were collected from 154 intervention group members (112 females, 42 males, 1 did not report gender, mean age = 16.09) and 163 comparison group members (98 females, 65 males, mean age = 14.61). To test the first hypothesis, that greater reflective thinking among participants would be associated with higher outcome scores, three hierarchical regressions were conducted. For each regression the T2 outcome was regressed upon gender and age (step 1), T1 outcome means of the same measure (step 2), and the three T2 reflection means (step 3). Results from the analysis supported hypothesis number one. The three reflection measures were significant predictors of all three T2 outcome means after controlling for gender, age, and T1 outcome means. Full results of these analyses are in Table 2.

Table 2
Hierarchical Regression Results

Step/Predictor (T2 Eco Affinity)	R^2	$R^2\Delta$	ΔF	B	SE	β
1 Gender	.00	.00	.05	.01	.06	.01
Age				-.001	.02	-.07
2 T1 Eco. Affinity	.287	.287	122.2**	.33	.03	.45**
3 Reflection	.464	.177	33.1**	.15	.04	.18**
Critical Reflection				.29	.05	.27**
Non-Purposive Reflection				.10	.05	.11*
Step/Predictor (T2 Civic Engagement)	R^2	$R^2\Delta$	ΔF	B	SE	β
1 Gender	.045	.045	7.24	-.18	.06	-.11**
Age				.02	.02	.05
2 T1 Civic Engagement	.306	.26	113.9**	.29	.03	.44**
3 Reflection	.50	.20	39.8**	.22	.04	.27**
Critical Reflection				.26	.06	.22**
Non-Purposive Reflection				.13	.05	.12**
Step/Predictor (T2 Soc/Cul Awareness)	R^2	$R^2\Delta$	ΔF	B	SE	β
1 Gender	.02	.02	3.09	-.06	.05	-.06
Age				.02	.01	.06
2 T1 Soc./Cul. Awareness	.190	.17	63.57**	.20	.03	.40**
3 Reflection	.294	.10	14.71**	.07	.03	.12*
Critical Reflection				.14	.04	.18**
Non-Purposive Reflection				.09	.04	.13*

Note: Significant values and unstandardized and standardized regression coefficients reflect the results of the final regression equation. *p < .05. **p < .01.

In order to test the second hypothesis, that participants in the intervention group would show greater increases in reflective thinking than comparison group members, ANOVA's were conducted on the reflection and non-purposive reflection change scores and T2 critical reflection means between the intervention and comparison groups. Results indicated no significant differences at the .05 probability level between the two groups on any of the reflection measures although the difference on non-purposive reflection change scores was approaching significance ($p = .94$).

Discussion

The results from this study partially supported the stated hypotheses. While reflection measures were positively related to end of program outcome measures, no differences were found between the intervention and control groups on the three reflection measures. In other words, reflection did appear to influence program outcomes but the reflective journaling intervention did not seem to significantly impact the measured reflection constructs. This may have been due to a variety of factors related to the implementation of the reflective journaling, including lack of adherence to the stated protocols (Dane & Schneider, 1998) and inadequate program differentiation between the intervention and control groups (Dusenbury, Brannigan, Falco, & Hansen, 2003). For example, intervention leaders may not have fully implemented the designed reflective journaling protocols and or the journaling that was occurring in the control group was too similar to the reflective journaling done in the intervention group. The findings do support the general importance of reflection during youth programs. As previous research has noted (Duerden, et al., 2012), youth program participants do not always receive adequate opportunities for reflection, which this study's findings show, can support the promotion of targeted program outcomes.

Practical Implications

Youth programs have the ability to offer participants a wide variety of impactful experiences. While program providers often focus on providing youth enough experiences in the program to keep them engaged, space needs to be provided for reflection opportunities. Without the opportunity to reflect on what they are experiencing youth participants may not recognize the ways in which they are learning and growing. Reflection opportunities within programs should be intentionally incorporated and structured as opposed to being an afterthought or completely left out all together. While this study does not offer insights into the best type of reflection opportunities it does offer the finding that more reflective participants experienced greater targeted outcome growth. Although some participants may be naturally more reflective than others, programs can potentially promote more reflection across all participants if they intentionally structure reflection opportunities. There may also be ways to use social media as a way for youth to journal and reflect about their experiences both during and after programs.

Suggestions for Future Research

While this study's quasi-experimental design offered a strong methodological approach to investigating the role of journaling and reflection in youth programs, the aforementioned lack of differentiation between intervention and control groups may have contributed to the non-significant treatment effect finding. Future research in this area needs to employ a more differentiated treatment approach to ensure the dosage of journaling intervention received by

the intervention group is distinct from the comparison group. For example, one group with and one group without journaling as part of the program, may represent a stronger approach. Researchers could also consider comparing the effects of journaling coupled with within program reflection groups as opposed to reflection groups without journaling. In order to control for leader effects it would be ideal to have the intervention and comparison groups facilitated by the same leaders.

Conclusions

The best youth programs may not always be the ones with non-stop schedules. Although keeping youth engaged is important, they also need opportunities to reflect on what they are experiencing and learning within the program. While adult leaders may sometime feel youth are too young to fully grasp the impact of some experiences (Duerden, et al., 2012), this study's findings suggest reflective youth, at least in the observed program, appear to reap greater benefits from participation. While more research is needed to understand the most effective methods for promoting reflection within youth programs, this study offers initial support for the important role reflection can play within these contexts.

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