

Enriching Intentional Youth Program Experiences Through Preflection, Action, and Reflection

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Abstract

We examined effects of preflection, action, and reflection sessions on youth experiences during a 4-H travel camp. The travel camp was one component of GLOBE, a 2-year Texas 4-H program with intentional goals of advancing understanding of agriculture, poverty, and world cultures. In morning preflection sessions, the 28 youth participants were instructed to take photographs during their day according to themes aligned with 1 of 2 of the program's goals: building global citizenship and understanding poverty. Each day ended with a reflection session. Youth viewed a slideshow of their themed photographs. After the slideshows, youth completed questionnaires measuring elements of the quality of their subjective experiences during the slideshow: meaningfulness, perceived value of time spent, engagement, absorption, self-affirmation, and provocation. The affirmation preflection, action, and reflection sequence yielded significantly greater meaningfulness and perceived value of time spent. Effects were mediated by immediate subjective experiences of provocation, self-affirmation, absorption, and engagement.

Key words: preflection, reflection, experience, intentional programming

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Intentional programs take place when program leaders “make decisions about exactly what they desire to happen . . . as a result of youth participating in a particular program and design the program to make those outcomes occur” (Caldwell et al., 2018, p.297; see also Sibthorp et al., 2003; Sibthorp et al., 2020). Intentional programming is extensive among providers of youth services. In the camp industry, for example, over 60% of camps report being intentional about developing social skills, character, physical activity, 21st Century life skills, and healthy eating (Wallace & Michel, 2021). Participant responses indicative of an impactful activity within an intentional program include meaningfulness of the activity, perceived value of time invested in the activity, and the quality of subjective experiences that occurred during that activity session (Ellis et al., 2016). This paper describes design and implementation of a youth photography-based preflection, action, and reflection program (YPPAR) aimed at creating meaningful, valued experiences supportive of advancing understanding of world cultures and poverty.

Context: Travel Camp Within Texas 4-H GLOBE

YPPAR was implemented through a Texas 4-H program, GLOBE (Global Leadership Opportunities Beyond Education). GLOBE is a 2-year citizenship and leadership program. The objectives of GLOBE are for 4-H members to learn about culture, poverty, sustainable agricultural systems, service learning, and leadership. The poverty component of GLOBE is directed at activating youth toward social action to address issues of poverty. During their first year, youth participate in poverty simulation activities and conduct a service-learning project. Year two includes an international travel camp experience. They travel to Costa Rica for a 1-week immersive experience focusing on the cultures and poverty of Central America.

While in Costa Rica, youth engaged in 10 structured experiences that demonstrate how cultures and conditions of poverty are different around the world. Youth volunteered at a community center to help prepare the foundation for a new meeting room, and they learned to make fresh corn tortillas alongside native Ticos (people of Costa Rica). Tours of dairy, coffee, and chocolate farms highlighted sustainable agricultural practices that have positioned Costa Rica as a global leader in agriculture while caring for the environment. Recreation was also a part of the visit. For many youth, ziplining through the Monteverde rainforest and then relaxing in the natural hot spring waters of the Arenal volcano were highlights of the week-long experience.

Related Literature

The success of intentional programs conducted over multiple sessions must be measured by participants’ attainment of the program’s targeted outcomes. For GLOBE, those outcomes

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include learning about citizenship and leadership, with focus on culture, poverty, and agricultural systems. Yet, the success of GLOBE, or any program, in achieving its intentional outcomes depends on the efficacy of the individual structured experiences comprising the overall program. Sessions, activities, and other point-of-service encounters must be absorbing, engaging, meaningful, and valued by participants. If not, attrition and disengagement from the learning opportunities presented by the program occurs (e.g., Ellis et al., 2018; Gardner et al., 2017; Reeve, 2013; Simpkins et al., 2004; Smith et al., 2006). The efficacy of individual sessions of intentional programs is reflected in the immediate subjective reactions to each point-of-service encounter: absorption, engagement, meaningfulness, and perceived value of time spent in the encounter (Ellis et al., 2016; Ellis, Jiang, Freeman, Lacanienta, & Jamal, 2020).

Measures of perceived value of time spent and meaningfulness have been developed that are minimally invasive on participants' time and experience (Ellis et al., 2016). A four-item question to measure perceived value of time spent has been used in numerous validity studies of the theory of structured experience (TSE; Ellis, Jiang, Freeman, Lacanienta, & Jamal, 2020). The TSE scale measuring perceived value of time spent builds on Zeithaml's (1988) seminal research on defining and operationalizing "value" for marketing research and practice. Questionnaire items measure participants' regard for their decision to exchange a personal resource (time) for participation in the structured, point-of-service experience. Meaningfulness was defined as a condition of continuing to think about something learned after an experience has occurred. The concept has been successfully measured with a single item (Ellis et al., 2016, p. 164).

Evidence of validity exists for both of these measures. In a study of 4-H members, meaningfulness was correlated with two dimensions of the HighScope Educational Foundation's (2005; Smith et al., 2006) indicators of overall program quality: the program provides safe ($b = .19, t = 2.82, p < .01$) and supportive ($b = .21, t = 3.11, p < .01$) environments. The scale measuring perceived value of time spent also produced significant correlations with the two dimensions of program quality: $b = .28 (p < .01)$ and $b = .25 (p < .01)$ for safe environment and supportive environment, respectively. Additional evidence of validity of inferences that can be made from scores on the perceived value scale is provided in a recent review of the theory of structured experience (Ellis, Jiang, Freeman, Lacanienta, & Jamal, 2020).

TSE proposes that perceived value of time spent increases when participants become more absorbed or engaged in a structured (point-of-service) experience. Absorption experiences are transitory states of pleasure, relaxation, and absence of demand for behavioral action or active

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thinking (Ellis, Jiang, Freeman, Lacanienta, & Jamal, 2020). Such experiences may occur when people's attention is focused on sensory stimulation, such as a beautiful image, a pleasing melody, a delicious taste, or an appealing aroma. TSE holds that activity leaders may facilitate absorption by providing or directing participants' attention to an appealing stimulus (the slideshow, in the case of YPPAR), minimizing distractions (e.g., dimming lights), and discouraging communication.

Engagement is also a transitory experience that increases perceived value of time spent. Engagement is characterized by focused attention on an unfolding story or narrative, heightened emotions, and agentic inclinations (anticipation and desire for certain outcomes; Ellis, Jiang, Freeman, Lacanienta, & Jamal, 2020, p. 589). Images within a YPPAR slideshow, for example, may evoke memories of stories that occurred during the course of their day. An image of local cuisine served for lunch that day might, for example, evoke recall of stories about how different members of the GLOBE group reacted to novel food and drinks. A brief, yet effective, engagement index can be constructed by asking participants the extent to which they felt like they were part of a story during the experience (Jiang et al., 2021).

Strategies for increasing engagement are also specified in TSE. Engagement increases in the presence of "coherent" stories, that is, stories following a distinct morphology, such as Freytag's (1898) classic pyramid: introduction, escalating tension, climax, declining tension, and dénouement. Engagement increases when the story is self-relevant, pertaining to content of genuine interest and relevance to the individual. Provocation also increases engagement. Engagement increases when new and dissonant information challenges or extends one's values, beliefs, or expectations. Leaders can structure absorption and engagement experiences strategically by introducing or highlighting self-relevant and provocative features of stories. Those strategies yield feelings of self-affirmation or provocation, respectively, and engagement increases.

Provocation strategies elicit cognitive dissonance (Festinger, 1957), an unpleasant state of tension resulting from conflicting beliefs, values, and expectations. Cognitive dissonance is not tolerable; individuals must resolve the conflict, and the process through which resolution occurs often yields meaningfulness through learning and insight. Interpreters at museums and heritage sites employ dissonance strategies when they follow Freeman Tilden's (1977) fourth principle of interpretation: "The chief aim of interpretation is not to instruction, but provocation" (p. 9). In contrast, self-affirmation strategies serve to uphold and confirm valued beliefs people have about themselves and others. Experiences that affirm individuals' beliefs and values are

meaningful. They yield pleasant emotions and may expand individuals' "self" (Csikszentmihalyi, 1988; Ellis et al., 2021).

Preflection and Reflection

YPPAR provides a context for introducing self-affirmation and provocation experiences before and after the photography phase. Preflection exercises are "reflection sessions held prior to learning experiences, to enrich learning during the activity that follows" (Brand et al., 2016; Falk, 1995; McGuire & Doty, 2010). Many strategies can be used for preflection. Brand et al. (2016) conducted preflection sessions using photographs and carefully designed question prompts to help prepare new physicians to care for aging patients. The preflection exercises elicited an expansive array of emotions (e.g., apprehensive, daunted, sad, challenged, excited, frustrated, and overwhelmed) providing a "starting point to begin to anticipate and envision how they might feel in a future geriatric medicine clinical placement" (p. 4). Falk (1995) held guided discussions with high school students prior to a day at a homeless shelter. These preflection experiences provided "anticipatory reflection," during which participants built anticipation for the activity, and considered possible processes and outcomes (Brand et al., 2016). Preflection is assumed to have many additional positive effects. It "allows [participants] to identify their attitudes and knowledge about a concept, question, or problem, and to consider possible strategies for examining an issue or tackling a problem" (Slavich & Zimbardo, 2012, p. 595), and it may facilitate development of well-reasoned solutions to problems (Smith et al., 2002). In the case of YPPAR, preflection also served as an opportunity to build anticipation for self-relevant and provocative experiences throughout the day.

Yet not all research supports the efficacy of preflection. Ifenthaler and Lehmann (2012) assigned youth to one of three experimental preflection groups (generic preactional instruction, directed preactional instruction, and control). Upon completion of their assigned preflection exercise, youth were presented with a problem to be solved. No significant differences were found between the two treatment groups, though the two preflection groups outperformed the control group on five of seven dependent variables (Ifenthaler & Lehmann, 2012).

Reflection experiences also enrich learning. Reflection is deeply imbedded in service-learning practice (Felten & Clayton, 2011) and in adventure education programs (Priest & Gass, 1997). Kolb and Kolb's (Kolb, 1984; Kolb & Kolb, 2009) experiential learning theory provides a compelling foundation for reflection activities. Kolb's theory follows John Dewey's educational philosophy. Dewey (1933) argued that greater learning results from reflection than from the learning experience itself. Kolb's perspective is fully consistent with Dewey's. "Learning," Kolb

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explains, “is the process whereby knowledge is created through the transformation of experience” (1984, p. 38). Each new experience yields information that can be integrated with current knowledge, deepening understanding.

Reflection is one of four stages of learning that occur in a cyclical manner: abstract conceptualization, active experimentation, concrete experience, and reflective observation. Reflective observation is “a structured experience, guided, purposeful or deliberate, regularly occurring, and an experience that involves active inquiry” (Shellenbarger et al., 2005). Reflection sessions invite participants to consider their thoughts, feelings, and concept development after participating in a structured experience (Flowers et al, 2019). They “provide order and meaning to [participants’] experiences” (Priest & Naismith, 1993, p. 16) and promote feelings of “ownership of the learning experience” (Hutchinson & Dattill, 2001, p. 46).

Reflection exercises may take many forms. Among these are reflective questioning, journal writing, guided discussion, drawing, drama, and photography (Ellis, Lacanienta, et al., 2020; Hutchinson & Dattilo, 2001; Luckner & Nadler, 1997). A photography-based reflection program was successfully applied to a 4-H travel camp experience to Argentina (Ellis, Lacanienta, et al. 2020). Each day for 7 days, adult leaders took photographs of that day’s venues and activities. At the end of each day, youth assembled for a slide show reflection on their day. The reflection experience was designed to promote mindfulness, a state of attention known to yield deep, meaningful learning (e.g., Langer, 2000, 2016). Leaders facilitated mindfulness by organizing brief deep breathing sessions prior to the slideshow. They also reminded youth to “be where your feet are” (Ellis, Lacanienta, et al., 2020, p. 177) and to focus their attention on “new and exciting details” (p. 177) during the slideshow. Participants reported extremely high scores on absorption, perceived value of time spent, delight, and proclivity to recommend the reflection program to others.

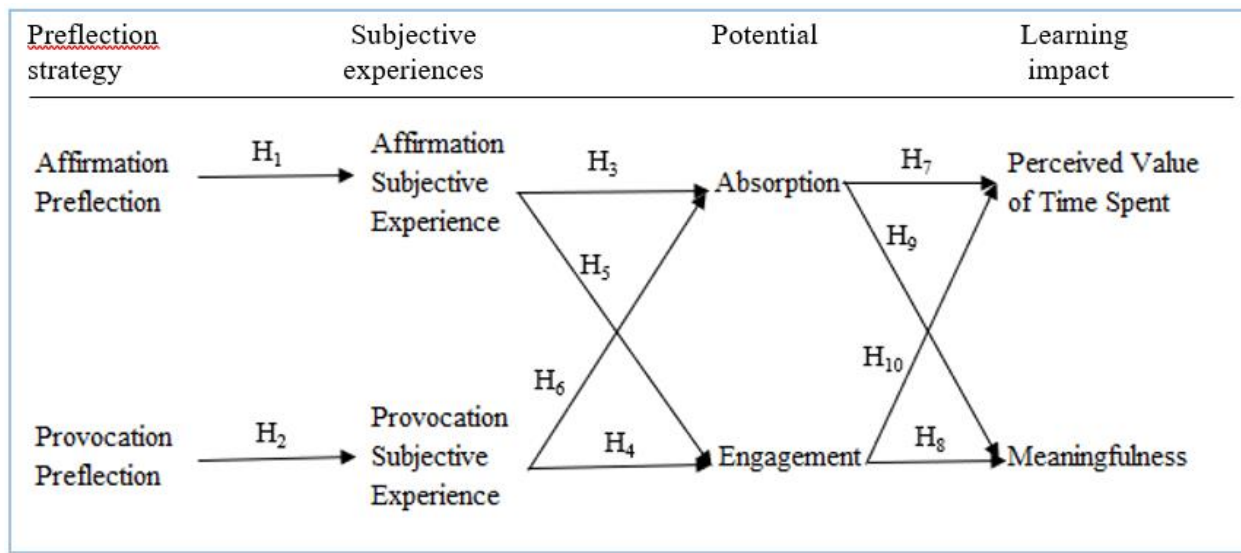
Summary and Hypotheses

Existing literature establishes that point-of-service learning can be promoted through preflection, action, and reflection sequences. Meaningfulness, perceived value of time spent, engagement, and absorption are situational indicators that the experience facilitates intentional learning outcomes. Leaders may structure impactful preflection, action, and reflection sequences by encouraging participants to focus on specific content, such as self-affirmation and provocation. The 10 hypotheses illustrated in Figure 1 follow from this reasoning. All hypotheses correspond to propositions in the theory of structured experience (Ellis, Jiang, Freeman, Lacanienta, & Jamal, 2020). As Figure 1 shows, preflection strategy is assumed to impact

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feelings of affirmation and provocation. Affirmation and provocation increase absorption and engagement which, in turn, are proposed to increase perceived value of time spent and meaningfulness of the activity.

Figure 1. Presumed Relations Among Preflection, Subjective Experiences, and Learning Impact Potential



Method

Study Setting and Context

YPPAR was implemented during the GLOBE Costa Rica travel camp. YPPAR included preflection (e.g., Brand et al., 2016; Ifenthaler & Lehmann, 2012), action, and reflection (Flowers et al., 2019; Shellenbarger et al., 2005) phases. Preflection sessions were conducted each morning. During those sessions, youth were asked to take photographs throughout the day (the “action” phase), according to one of three daily themes: strategies families and communities use to negotiate and thrive despite poverty, self-affirmation (subjects showing cultural elements youth enjoy, admire, or value), and unrestricted photography (anything they wished). Each evening, the group assembled for a reflection session. Photographs taken by all youth during that day were projected, and youth shared their reactions to those photographs. At the end of the session, youth completed brief questionnaires measuring the quality and meaningfulness of their experience in the intentional program for that day. The daily YPPAR experience journey plan (protocol) is provided in Table 1. YPPAR was administered over 5 days during the group’s visit to Costa Rica. Major attractions of each day included the following:

- Friday (Provocation theme): Orientation and review of previous GLOBE experiences
- Sunday (Provocation theme): Community service activity and guided rainforest hike

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- Monday (Affirmation theme): Finca Educativa, Don Juan Educational Farm; Don Juan Chocolate and Coffee Tour
- Tuesday (Control): Chrisley Dairy Farm; ASIS Wild Animal Rescue Center
- Wednesday (Affirmation theme): Eco Tourism, Sky Adventures Park; Baldi Hot Springs

Participants

GLOBE participants were 28 youth, ages 11 to 17. Thirteen (46%) were girls. Seventy five percent ($n = 21$) were white/Caucasian, 11% ($n = 3$) were Hispanic/Latino, 7% ($n = 2$) were Native American, 4% ($n = 1$) were African American, and one participant (4%) reported being mixed race.

Measures

Questionnaires were used to measure youth responses to each of the five YPPAR sessions. As per Figure 1, affirmation preflection and provocation preflection were expected to yield feelings of affirmation and provocation, respectively. Feelings of affirmation and provocation could thus be thought of as manipulation checks. Feelings of affirmation and provocation were predicted to increase engagement and absorption, which, in turn, were predicted to increase meaningfulness and perceived value of time spent in each day's YPPAR experience. Descriptions of these measures follow.

Feeling Affirmation

The feeling of self-affirmation was measured with three items (Jiang et al., 2021). Each began with the common stem, "Watching the slideshow made me . . .". Conclusions to this stem were "feel confident about something I believe in," "feel satisfied," and "feel good about myself." Anchors on the nine-point scale were "not at all" and "very much." Average item scores were calculated by summing across responses to the individual items, and then dividing by the number of items. The alpha reliability coefficient for the feeling affirmation scale was .87.

Feeling Provocation

Provocation was measured using seven items (Jiang et al., 2021; Ellis, Jiang, Freeman, Lacanienta, & Ellis, 2020). Youth were asked, "At the moment the slideshow ended, to what extent did you feel each of the following?" The seven items were disturbed, provoked, troubled, concerned, annoyed, angry, and offended. Responses were provided using a slider scale, with options ranging from 0% to 100%. An average item score for each youth was calculated by summing across items and dividing by seven. The alpha reliability coefficient for the resulting scale was .79.

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Engagement

An engagement index was constructed from two items: "During the slideshow, I felt like a story was being told," and, "I could relate very well with one or more characters in the slideshow." A response scale was used, ranging from 1 (*not at all*) to 9 (*very much*). Average item scores were calculated. The alpha reliability coefficient was .78.

Absorption

Absorption was measured with five items (Ellis, Jiang, Freeman, Lacanienta, & Jamal, 2020; Ellis, Lacanienta et al., 2020). Youth indicated the approximate percent of time during the evening reflection experience they felt each of the following: intense pleasure, relaxed, mindful (focused on the present), free of stress, and absorbed in the slideshow. A slider scale was used, with anchor points 0% (*never*) and 100% (*the entire slideshow*). The alpha reliability estimate for the scale was .80.

Perceived Value of Time Spent

Consistent with previous studies (Jiang et al., 2021; Ellis, Jiang, Freeman, Lacanienta & Jamal, 2020; Ellis, Jiang, Freeman, Lacanienta, & Ellis, 2020; Ellis et al., 2016), perceived value of time spent was measured with four items. Youth indicated, on a 9-point scale (*strongly disagree* to *strongly agree*), their degree of agreement that "I am glad I chose to do this reflection activity," "I chose wisely when I chose to do this reflection activity," "Doing the reflection activity was an excellent use of my time," and "Doing the reflection activity was worth the time I invested in it." The alpha reliability coefficient was .92.

Meaningfulness

Meaningfulness was measured with a single item: "I will certainly continue to think about something I noticed in this slideshow." Response options ranged from 0 (*very strongly disagree*) to 9 (*very strongly agree*). This single-item measure of meaningfulness has been successfully used in previous research (Ellis et al., 2016).

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Table 1. YPPAR Experience Journey Plan (Protocol)

Phase	Mindful affirmation	Mindful provocation	Control
Preflection	At the beginning of the day, youth will be asked to take photographs of things they particularly like: things that show something about things they enjoy, value, and care deeply about. They will send these photographs to [leader], who will organize them into an evening slide show, with music	At the beginning of the day, youth will be asked to take photographs of things that illustrate showing challenges people who live in poverty face and how they negotiate those challenges. Youth will send these photographs to [leader], who will organize them into an evening slide show, with music	We will organize two slide shows in advance of the trip. Each slide show will be an assemblage of images from previous 4-H trips in other parts of the world.
Action	Youth will take photographs corresponding to the theme described during preflection	Youth will take photographs corresponding to the theme described during preflection	Youth will not take photographs for an evening slideshow.
Reflection: Arrival	Youth will be asked to seat themselves comfortably for experiencing the slideshow.	Youth will be asked to seat themselves comfortably for experiencing the slideshow.	Youth will be asked to seat themselves comfortably for experiencing the slideshow.
Decompression	Youth will be invited to relax and converse as they wish while waiting for everyone to arrive.	Youth will be invited to relax and converse as they wish while waiting for everyone to arrive.	Youth will be invited to relax and converse as they wish while waiting for everyone to arrive.
Reception	[Leader] will welcome youth and explain that they will be watching a slide show comprised of photographs taken during the day, showing things youth particularly like and value.	[Leader] will welcome youth to the event and explain that they will be watching a slide show comprised of photographs taken during the day, showing negotiation of poverty.	[Leader] will welcome youth to the event and explain that they will be watching a slide show comprised of photographs taken from 4-H travel camps at different places in the world.

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Table 1. (continued)

Phase	Mindful affirmation	Mindful provocation	Control
Orientation	[Leader] will ask youth to “be where their feet are” by not thinking about the past or future. They will symbolically throw those thoughts away. She will explain that the photographs viewed tonight are things youth like and value. She will ask them to (a) do a “body scan” (notice their bodies tension) and (b) Take three deep breaths, feeling the air pass through their noses and mouths and deep into their lungs.	[Leader] will ask youth to “be where their feet are” by not thinking about the past or future. They will symbolically throw those thoughts away. She will explain that the photographs viewed tonight are things youth like and value. She will ask them to (a) do a “body scan” (notice their bodies tension) and (b) Take three deep breaths, feeling the air pass through their noses and mouths and deep into their lungs.	
Involvement	Youth will view the self-affirming photographs with the accompanying music.	Youth will view the poverty photographs with the accompanying music.	Youth will view the photographs with the accompanying music.
Take-away	[Leader] will ask for 2-3 volunteers to explain why they chose the photographs they chose to share. Youth will then complete the questionnaires.	[Leader] will ask for 2-3 volunteers to describe one new thing they learned, noticed, or thought about regarding poverty. Youth will then complete the questionnaires.	[Leader] will ask 2-3 volunteers to estimate the number of photographs in the show that were taken in Costa Rica. Youth will then complete the questionnaires.

Procedure

A repeated measures design was used; all youth participated in all preflection, action, and reflection sessions. At the beginning of each day, youth were asked to take photographs throughout the day to represent one of three themes: provocation (negotiating poverty), self-affirmation, and no themed photography. Reflection periods were held at the end of each day, during which youth viewed the collection of photographs. Youth completed questionnaires measuring feelings of affirmation, provocation, absorption, engagement, perceived value of time spent, and meaningfulness after viewing that day's slideshow.

Method of Data Analysis

Descriptive statistics were calculated, and visual displays of data (histograms and box plots) were created to evaluate the normality of distributions of all response variables. Hypotheses were tested using multilevel modeling. Experience observations for each evening were nested in the youth participants (the random effects variable). Each hypothesis was tested at the $p < .05$ level of significance.

Results

Descriptive Statistics

Descriptive statistics for multiple item scales are summarized in Table 2. With the exception of "feeling provoked," means were consistently higher than the center point of the response scales on which the variables were measured. The mean for feeling provoked was very low, 4.73 on a scale of 0-100. The distribution of that variable was substantially more "peaked" than the normal curve (kurtosis = 19.81). Thus, the distribution of "feeling provoked" indicated that none of the YPPAR approaches yielded high levels of provocation. It seems reasonable to assume that preflection, action, and reflection on poverty (one of the three themes) would be at least moderately provocative. The two-item "engagement" index also showed notable departure from normality. The distribution was negatively skewed and extremely leptokurtic (more peaked than the normal curve). Distributions of all other variables showed little departure from normality. Alpha reliability coefficients for the multiple item scales ranged from .78 to .92. Treatment condition means (provocation vs. affirmation vs. control) are presented in Table 3. The patterns of sample means were consistent with predictions. The YPPAR affirmation condition yielded the highest mean on feeling affirmation, and the "provocation" condition yielded the highest mean on feeling provoked.

Hypothesis Tests

Results of hypothesis tests are organized by the system of presumed causes and effects depicted in Figure 1. The first set of hypothesis tests examined relations between the YPPAR

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conditions and feelings of affirmation and provocation (Table 3). Affirmation preflection and reflection produced significantly greater feelings of affirmation than provocation preflection and reflection (affirmation preflection mean = 6.66 vs. provocation preflection mean = 5.89). The affirmation mean of the control condition did not differ significantly from the means of either of the other two conditions. Provocation preflection and reflection produced significantly stronger feelings of provocation than both affirmation preflection and control (6.85 vs. 3.91 and 2.15, respectively).

Table 2. Descriptive Statistics

Variable	<i>N</i> Exp ^a	<i>N</i> Items	Alpha	Mean	<i>SD</i>	Min	Max	Skew	Kurtosis
Absorption	112	5	.80	74.38	21.78	9	100	-0.93	0.26
Affirmation	129	3	.87	6.31	2.24	1	9	-0.71	-0.35
Provocation	126	7	.79	4.73	8.36	0	7	3.93	19.81
Perceived value of time spent	127	4	.92	6.64	2.01	1	9	-0.66	-0.36
Meaningfulness	129	1	--	6.42	2.56	1	9	-0.76	-0.57
Engagement	128	2	.78	7.14	2.15	1	9	-1.33	1.06

^a Number of experiences

Table 3. Hypothesis Tests: Effects of YPPAR on Feelings of Affirmation and Provocation

Hypothesis	Preflection strategy means			<i>df</i> ₁	<i>df</i> ₂	<i>F</i>	<i>p</i>	<i>R</i> ² _{PRE}
	Control	Provocation	Affirmation					
<i>H</i> ₁ : <i>Subjective Feeling, Affirmation</i>								
Preflection theme ^a	6.50 ^{1,2}	5.89 ¹	6.66 ²	2	99.11	3.61	.03	
Venue (Preflection)				2	99.14	1.44	.24	
<i>H</i> ₂ : <i>Subjective Feeling, Provocation</i>								
Preflection Theme ^a	2.15 ³	6.85 ¹	3.91 ³	2	96.72	5.66	< .01	
Venue (Preflection)				2	96.66	.07	.93	

^a Means with the same superscript are not significantly different at $p < .05$.

Effects of the subjective experiences (feelings) of affirmation and provocation on absorption and engagement are presented in Table 4. As feelings of affirmation increased, absorption ($\beta = .33, p < .01$) and engagement ($\beta = .49, p < .01$) increased. Feeling provoked was a significant

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predictor of absorption ($\beta = .20, p = .01$), but not engagement ($\beta = -.11, p = .19$). Absorption and engagement were significant predictors of the two indicators of learning impact potential: perceived value of time spent and meaningfulness. Standardized coefficients in predicting perceived value of time spent were .31 and .23, respectively, for absorption and engagement, both of which were significant at $p < .01$. Standardized coefficients predicting meaningfulness were .25 ($p = .01$) and .24 ($p < .01$) for these two predictors, respectively.

Table 4. Hypothesis Tests: Predictors of Absorption, Engagement, Perceived Value of Time Spent, and Meaningfulness

Model	β^a	df_1	df_2	t	p	R^2_{PRE}
<i>Absorption</i>						.25
H ₃ : Feeling affirmation	.33	1	107.99	16.43	< .01	
H ₆ : Feeling provocation	.20	1	103.72	6.51	.01	
<i>Engagement</i>						.32
H ₅ : Feeling affirmation	.49	1	111.03	35.27	< .01	
H ₄ : Feeling provocation	-.11	1	118.92	1.78	.19	
<i>Perceived value of time spent</i>						.33
H ₇ : Absorption	.31	1	105.45	14.27	< .01	
H ₁₀ : Engagement index	.23	1	102.37	10.09	<.01	
<i>Meaningfulness</i>						.11
H ₉ : Absorption	.25	1	88.11	6.46	.01	
H ₈ : Engagement index	.24	1	105.24	7.51	<.01	

^a Coefficients are calculated from standardized scores.

Discussion

Results show that preflection and reflection increase the quality of subjective experiences and thus the learning impact potential of structured experiences in an intentional program. Provocative and self-affirming cues introduced during preflection increased absorption and engagement by increasing subjective experiences of provocation and self-affirmation. Absorption and engagement, in turn, increased perceived value of time spent and meaningfulness. These results support the use of photography-based preflection, action, and reflection sessions during travel camp experiences with youth.

These results are consistent with a similar study involving a travel camp to Argentina (Ellis, Lacanienta, et al. 2020). Youth travel camp participants rated photography-based reflection

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sessions to be highly absorbing and high in perceived value of time spent. Results were similar in the current study, but significant differences were found between experimental treatment conditions. Both affirmation and provocation yielded superior engagement, meaningfulness and perceived value of time spent. Results are also consistent with Brand et al. (2016), who used a photography-based preflection program with new physicians, and with the expansive bodies of literatures advocating reflection in service learning and adventure education. As Dewey (1933), Priest and Gass (1997), and many others have stressed, reflection on experience is a powerful strategy for enhancing learning. Not all studies, though, have identified a significant preflection effect (Ifenthaler & Lehmann, 2012).

It is notable that the design of the current study confounds the effects of preflection and reflection. Although differences in absorption, engagement, perceived value of time spent, and meaningfulness were identified, the design does not allow us to attribute effects to either preflection or reflection. Notably, the control preflection condition yielded results similar to the affirmation preflection condition. The mean for “feeling affirmed” was 6.50 for the control preflection condition and 6.66 for the affirmation preflection condition. This difference was non-significant, perhaps suggesting that leaving youth to their own choices tends to result in their selecting self-affirming content for their daily photographs.

Overall, results support a number of recommendations for structuring experiences like YPPAR. The most important of these follow.

1. Preflection phase
 - a. Prepare detailed instructions that clearly communicate the daily theme or themes.
 - b. Note that three types of themes may be considered. Journey themes (e.g., Ellis et al., 2019) encourage participants to take an imaginary trip to a different time, place, or set of circumstances. “Big idea” themes (Larsen, 2003) provide an overarching framework from which to view a place, event, or phenomenon (e.g., creative use of limited resources), and motif themes (Pine & Gilmore, 2020) are defined by artistic arrangements of patterns and colors.
 - c. Provide examples of photographs representing the daily theme.
2. Action phase
 - a. Model the action of taking photographs throughout the day.
 - b. Consider intentional planning of encounters that may give rise to photographs representing the daily theme.
3. Reflection phase

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- c. During each orientation, be sure to remind youth to focus only on the slideshow and avoid letting their thoughts and attention wander. Our colleague William Zanolini recommends using the phrase, "Be where your feet are" to communicate this idea effectively to youth (Ellis, Lacanienta, et al., 2020).
- d. Minimize distractions, darken the room when possible, and eliminate unrelated sounds. Instrumental or thematic background music will likely contribute to the quality of the experience.
- e. Allow youth to enjoy the experience; do not prohibit emotional reactions, comments, and the like.
- f. Consider including a few photographs taken by leaders, in addition to those taken by youth.
- g. Consider concluding the reflection phase by briefly sharing your enthusiasm and commenting on something you learned during the reflection phase.

Future directions for research are also indicated. A study might be designed to eliminate the confounding of preflection, action, and reflection. In such a study, the effect of preflection alone could be evaluated by measuring subjective responses immediately following the photography phase, but preceding the slideshow reflection phase. Responses could also be measured on a second occasion, following the reflection phase. Another option would be to alternate days of implementing preflection and reflection sessions. Finally, programs like YPPAR might be improved by building in mindfulness-facilitating techniques, such as those used by Ellis, Lacanienta, et al. (2020).

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