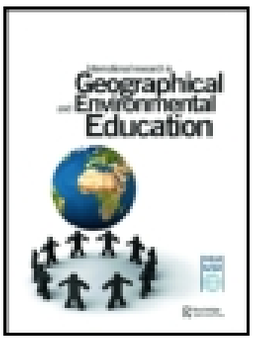

International Research in Geographical and Environmental Education

ISSN: 1038-2046 (Print) 1747-7611 (Online) Journal homepage: https://www.tandfonline.com/loi/rgee20

Fostering place attachment through selecting and presenting favorite places

Minsung Kim & Soyoung Lee

To cite this article: Minsung Kim & Soyoung Lee (2019): Fostering place attachment through selecting and presenting favorite places, International Research in Geographical and Environmental Education, DOI: 10.1080/10382046.2019.1647943

To link to this article: https://doi.org/10.1080/10382046.2019.1647943

Published online: 07 Aug 2019.

INTERNATIONAL RESEARCH IN GEOGRAPHICAL AND ENVIRONMENTAL EDUCATION
https://doi.org/10.1080/10382046.2019.1647943

Fostering place attachment through selecting and presenting favorite places

Minsung Kim[a] and Soyoung Lee[b]

[a]Department of Geography Education, Pusan National University, Busan, South Korea; [b]Department of Geography Education, Seoul National University, Seoul, South Korea

ABSTRACT

The development of place attachment is an important learning objective in geography education because it plays a significant role in people's behaviors toward protecting and acting on behalf of places. This study demonstrates the effects of selecting and presenting favorite places (SPFP) strategy in enhancing students' place attachment. The SPFP activity was expected to establish the participants' positive stance toward their chosen places and promote the consistent maintenance of their initial attitude. It builds on the preference for consistency, or the desire and tendency to behave predictably by acting similarly across diverse situations. We asked the participants to select their favorite places in a city, to visualize them using Google Earth, and to present their activities. As a result, the participants increased their place attachment, which is composed of place identity and place dependence.

KEYWORDS

Place attachment; place identity; place dependence; favorite place; preference for consistency; Google Earth

Introduction

Just as people are concerned with whom they love, they are also concerned with places to which they are attached. Stedman (2002, p. 577) argued that "we are willing to fight for places that are more central to our identities and that we perceive as being in less-than-optimal conditions." People with a higher level of place attachment participate more actively in social issues, such as urban revitalization (Brown, Perkins, & Brown, 2003). Place attachment has been noted in a wide range of fields, including urban planning (Manzo & Perkins, 2006) and pro-environmental activity (Ramkissoon, Smith, & Weiler, 2013).

Research regarding the development of place attachment has increased (Lewicka, 2011), and researchers have found that place attachment can be improved through learning (Semken & Freeman, 2008). The development of place attachment deserves attention because place attachment plays a significant role in people's behaviors toward protecting and acting on behalf of places, which is one of the critical objectives in geography education (Kudryavtsev, Stedman, & Krasny, 2012). In particular, this study investigates the effect of selecting and presenting favorite places (SPFP) to

CONTACT Soyoung Lee lsy4707@snu.ac.kr Department of Geography Education, Seoul National University, Gwanak-ro 1, Gwanak-gu, Seoul, 08826, South Korea

promote place attachment. The SPFP strategy builds on the preference for consistency, representing the desire and tendency to behave predictably by acting similarly across diverse situations (Brown, Asher, & Cialdini, 2005; Losch & Cacioppo, 1990). People want to be consistent in their responses after they take a certain position. As an initial activity to foster place attachment, we asked students to select their favorite places in their town. Then, the students were required to visualize the chosen places using Google Earth and to present their activities. We assumed that the students would establish a positive stance toward the chosen places and furthermore that they would maintain their positive feeling under the pressure for consistency.

This study represents an initial attempt to connect the psychological principle of preference for consistency as a pedagogical strategy with the development of place attachment. We expect that the SPFP strategy can be widely incorporated by researchers because of its simplicity and that it can provide insight into other topics, such as territorial attachment.

Place attachment

Humanistic geographers have emphasized the importance of place. Tuan (1974) described a place as a center of meaning imbued with individual experiences: space becomes place when one's experiences are constructed in it, and therefore a place is significant in one's meaningful life. Because place emphasizes one's affection toward a particular environment, it naturally leads to the notion of place attachment, which is understood as "an emotional bonding between people and places" (Davenport & Anderson, 2005, p. 628). In a related vein, Proshansky, Fabian, and Kaminof (1983, 90) defined place attachment as "a sense of belonging and purpose which give meaning to [one's] life." Place attachment is "the emotional attachments people form with a locale and implies a need to know a place in what Tuan terms 'topophilia', a love of place" (Urquhart & Acott, 2014, pp. 4–5).

Why is place attachment important? People with a high level of place attachment tend to preserve the place and act on its behalf (Warzecha & Lime, 2000). Ardoin (2006) maintained that place attachment can play a crucial role in developing people's willingness to protect places. It is reasonable to expect that people will be more concerned with places to which they are attached. People "fight for places" important to them (Stedman, 2002). Tani and Surma-Aho (2012, p. 188) said:

> The feelings which we attach to certain types of environments affect our ways of valuing certain types of environments while some other environments are felt to be less important.

Research has reported positive relationships between place attachment and the willingness to protect places, particularly environmentally sensitive areas (Halpenny, 2010; Scannell & Gifford, 2010). According to Vaske and Kobrin (2001), place attachment is a useful predictor for students' pro-environmental behaviors. In a study conducted in an Australian national park, Ramkissoon et al. (2013) found that place attachment had a positive relationship to both low-effort (e.g., learning about a national park's natural environment) and high-effort (e.g., volunteer for projects that help a national park) pro-environmental behaviors. Cheng, Wu, and Huang (2013)

and Tonge, Ryan, Moore, and Beckley (2015) also reported the role played by place attachment in promoting environmentally responsible intentions or behaviors. Furthermore, place attachment serves as a critical motive for involvement with that place. Vorkinn and Riese (2001) found that place attachment explains a significant proportion of people's attitudes toward a proposed development plan: people with a higher level of place attachment were more sensitive to a plan that could have environmental impacts. Brown et al. (2003) reported that place attachment affects people's neighborhood revitalization efforts: those who had established emotional connections to the place were more committed to their neighborhood. That is, people's thoughts, feelings, and beliefs about their local community, which are the backbone of place attachment, influence their participation behaviors in that community (Manzo & Perkins, 2006). Overall, these studies indicate that place attachment represents a critical factor in people's favorable behaviors in relation to places.

In sum, place attachment, a positive emotional linkage between people and places, plays a crucial role in people's behavior in protecting and acting on behalf of places. Thus, the development of strategies to promote place attachment deserves attention in education. This study is an attempt to demonstrate the effects of the SPFP strategy, a straightforward tactic for developing place attachment. The SPFP strategy builds on the preference for consistency in that it emphasizes the establishment of an initial favorable attitude toward a target place.

Preference for consistency

The SPFP strategy is based on the rationale that students who form a positive stance to a certain place will maintain this attitude consistently. Most people feel physiological arousal and subsequent discomfort when confronting inconsistencies (Brown et al., 2005; Losch & Cacioppo, 1990). Once a person takes a certain position, he/she tends to determine his/her feelings and behaviors in a way that matches that position. People committed to a specific stance "attempt to act in line with their initial decision" (Guéguen & Pascual, 2015, p. 113) and feel psychological pressure to follow their previous selections (Fazio, Blascovich, & Driscoll, 1992). Researchers have conceptualized this trait as the "preference for consistency," or the desire and tendency to behave predictably by acting similarly across diverse situations (Comello, Myrick, & Raphiou, 2016; Guadagno & Cialdini, 2010). People feel pressure for consistency after expressing their opinions (Cialdini, 2009). For example, a company sponsors testimonial contests in which people are asked to write a short paragraph about why they like a product, such as a refreshing beverage, and pays well for the testimonials. Considering the quality of the contestants' work, the reason for the company to host the contests is questionable. Through this event, the company aims not to obtain excellent writing but to make people write that they like the beverage. After the participants write a reason for liking the product, they are likely to maintain their positive attitude toward the beverage under the pressure for consistency.

Therefore, it is critical first to make people take a desired stance if the intention is to encourage them to behave a certain way. Research has noted that people tend to maintain their initial attitudes when relevant simple activities are performed first

(Cialdini, 2009; Dolinski, 2012). In a seminal study by Freedman and Fraser (1966), housewives were more willing to allow examiners to investigate their kitchen supplies if they first completed a short questionnaire concerning their consumption. Guéguen (2002) found that university students who allowed an initial small request (helping convert a file format) were more likely to accept a costly request (helping conduct statistical analysis) than those who did not receive the initial small request. The students who accepted the first simple request might have established an image of being kind people and then might have felt the pressure to act consistently. Comello et al. (2016) asked participants to judge whether they are supporters of cancer awareness. The experimental group received this task after taking a short quiz about cancer awareness, while the control group simply received the task. The results showed that the reaction time to judge their self-concept as a supporter was significantly shorter for the experimental group because the short quiz made the participants believe that they were interested in supporting cancer-related projects. The preference for consistency is so powerful that people comply even with problematic requests, such as helping steal a road sign (Pascual, Guéguen, Pujos, & Felonneau, 2013) or notifying someone that he/she left a pornographic magazine on a bench (Guéguen & Pascual, 2015). These studies indicate that people want to be consistent in their responses once they take a certain position.

In sum, people feel psychological pressure after they take a certain stance. This research adopts this notion of preference for consistency. As a relevant initial activity to foster place attachment, this study asked students to select their favorite places in their town. We expected that the participants would establish a positive stance toward the places they selected and furthermore would be likely to maintain their initial stance.

Methods

Participants

Ninety-five high school students in South Korea participated and were divided into three groups. Students in the experimental group ($n = 32$) were asked to select their favorite places in the city of Gumi, where the participating school was located. Specifically, the experimental group received the following instruction: "Please select one or more places you like or would like to introduce people to when they visit Gumi." Students in control group 1 ($n = 30$) were asked to choose places they would not like to show visitors to Gumi, and students in control group 2 ($n = 33$) were allowed to choose any place in the city.

Questionnaire

This study used a test instrument modified from Williams and Vaske (2003), one of the most widely used questionnaires to measure place attachment (Lewicka, 2011; Tonge et al., 2015). Some scholars believe that measuring place attachment is meaningless or even impossible (Lewis, 1979). However, the number of researchers who argue that place attachment is a measurable construct and emphasizing the necessity of developing effective test instruments is increasing (Kim & Yoon, 2013; Semken,

Table 1. Questionnaire.

Dimension	Question
Place identity	1. I feel that "Gumi" is a part of me.
	2. "Gumi" is special to me.
	3. I identify with "Gumi."
	4. I like "Gumi."
	5. Living in "Gumi" helps me know who I am.
	6. "Gumi" means a lot to me.
Place dependence	7. "Gumi" is a good place for what I like to do.
	8. No other place can compare to "Gumi."
	9. I get more satisfaction out of living in "Gumi" than living in another place.
	10. Doing what I do in "Gumi" is more important to me than doing it in any other place.
	11. I wouldn't substitute "Gumi" for any other area to do the types of things I do in "Gumi."
	12. I can enjoy what I do in "Gumi" more than in any other place.

Source: Modified from Williams and Vaske (2003, p. 835).

2005; Semken & Freeman, 2008). A wide range of researchers has conducted studies to examine place attachment from a quantitative perspective (Hwang, Lee, & Chen, 2005; Kaltenborn, 1998; Kyle, Graefe, & Manning, 2005). Efforts to examine place attachment quantitatively are helpful for clearly understanding this vague and multi-faceted concept (Kim & Yoon, 2013; Shami, 1991). Through quantitative analysis, for example, researchers have identified subdimensions of place attachment, which helps in grasping the meaning of place attachment and diverse aspects of the concept. Furthermore, quantitative findings offer a basis and focus that can be corroborated by qualitative data in mixed methods research.

Researchers have identified the two main components of place attachment as place identity and place dependence (Brown & Raymond, 2007; Jorgensen & Stedman, 2001; Kyle, Absher, & Graefe, 2003). Williams and Vaske (2003, p. 831) defined place identity as "the symbolic importance of a place as a repository for emotions and relationships that give meaning and purpose to life" and place dependence as "the importance of a place in providing features and conditions that support specific goals or desired activities." In conceptualizing place identity, place becomes a person's ground for understanding who he/she is. People identify, express, and affirm their identity in places (Tonge et al., 2015), and place dependence indicates that they utilize place to perform desired activities. Place provides a setting for achieving personal goals.

We first translated the items from the instrument of Williams and Vaske (2003), comprising the subdimensions of place identity and place dependence, into Korean and modified them based on the cultural background, research context, and students' cognitive level. Then, the translated version was reviewed by two Korean teachers to confirm whether the test was understandable by secondary students. Table 1 shows the instrument used in this study. The test asked the participants to indicate their opinions via a five-point Likert scale, from strongly disagree (1 point) to strongly agree (5 points). The questionnaire was implemented twice: before and after the main activity.

Procedures

First, a preliminary session was conducted in which the participants learned about techniques for using Google Earth, such as combining text, images, and animation.

We offered this stage because for the task in this study, students would be asked to visualize and present their activities using Google Earth. One of the authors delivered a lecture regarding how to use Google Earth, after which a hands-on laboratory session was offered to familiarize the participants with the technology. Then, the pretest was completed.

Two months after the preliminary session, the students performed the main activities. As previously described, the three groups of students received different tasks. They individually selected their places, depending on the task, and visualized their selections through Google Earth. After completing the task, each student presented his/her activities to his/her peers in the classroom. Feedback was provided at this stage. To finalize the research, the posttest was conducted. Finally, follow-up interviews were conducted with several students from each group to complement the questionnaire responses.

Analysis

This study used mixed methods research, or "the research paradigm that encourages the combined use of qualitative and quantitative research elements to answer complex questions" (Heyvaert, Maes, & Onghena, 2013, p. 659). As a practical strategy to combine the questionnaire and follow-up interview data, we adopted the "follow-up qualitative methods in a quantitative study" approach in which a smaller number of in-depth interview helps interpret quantitative findings (Morgan, 1998). In-depth interviews were therefore designed to follow the questionnaire survey sequentially (Felizer, 2010).

First, we examined the reliability of the place attachment questionnaire. Prior research reported the validity and reliability of the test instrument of Williams and Vaske (2003). However, this study modified the instrument, and it had not previously been applied in a South Korean context. To determine the reliability of the instrument, therefore, we calculated the Cronbach's alpha values of the questionnaire.

Then, this study analyzed the pretest and posttest questionnaires quantitatively. The mean differences between the pretest and posttest for each group were analyzed using the *t*-test. In addition, we computed the effect size, the Cohen's *d* value (which denotes the magnitude of differences between the two scores), to investigate the students' responses in depth (Thompson, 2006). The follow-up interviews were analyzed qualitatively to examine whether the interviews corroborated the questionnaire findings and further to determine whether other pedagogical effects exist (Palinkas et al., 2011). First, we transcribed the interviews, and two researchers identified the main themes through iterative content analyses. Then, the themes that had been identified were compared, and we finalized the main themes.

Findings

Questionnaire findings

The overall Cronbach's alpha value for all 12 items in the instrument combined was 0.94. The values of the subdimensions place identity and place dependence were 0.94

Table 2. Mean difference between the pretest and posttest (experimental group, $n = 32$).

	Pretest mean	Posttest mean	Mean difference	Cohen's *d*
Place identity	3.30	3.54	0.24*	0.27
Place dependence	2.88	3.29	0.41**	0.45
Total	3.09	3.41	0.33**	0.36

*$p < 0.05$.
**$p < 0.01$.

Table 3. Mean difference between the pretest and posttest (control group 1, $n = 30$).

	Pretest mean	Posttest mean	Mean difference	Cohen's *d*
Place identity	3.34	3.23	−0.12*	−0.11
Place dependence	3.08	3.09	0.01	0.01
Total	3.21	3.16	−0.05	−0.05

*$p < 0.05$.

Table 4. Mean difference between the pretest and posttest (control group 2, $n = 33$).

	Pretest mean	Posttest mean	Mean difference	Cohen's *d*
Place identity	3.60	3.85	0.26**	0.24
Place dependence	3.22	3.57	0.35*	0.29
Total	3.41	3.71	0.30**	0.27

*$p < 0.05$.
**$p < 0.01$.

and 0.86, respectively. The internal consistency of the questionnaire was therefore confirmed.

The mean score differences between the pretest and posttest were analyzed by groups. Table 2 presents the differences between the experimental groups. The score differences in both the total and the two subdimensions were statistically significant, indicating that the participants' place attachment increased after performing the SPFP activity. To supplement this interpretation, Cohen's *d* was calculated. The magnitude of increase was greatest in the place dependence dimension (0.45, medium effect size), followed by the total (0.36, medium effect size) and the place identity (0.27, medium effect size) dimensions (Huck, 2008).

Tables 3 and 4 offer analytical results for control groups 1 and 2, respectively. For control group 1, the place identity dimension score decreased significantly, but the Cohen's *d* value was small. The place dependence and total scores remained almost the same, and the differences were not significant. All of the Cohen's *d* values were small. The results for control group 2 are interesting. The students in this group increased their scores statistically significantly in both the total and the two subdimensions, but the Cohen's *d* values were relatively smaller than those of the experimental group. Recall that the students in control group 2 were allowed to select any place in the city. As a result, participants in this group increased their place attachment scores, but the size of the increase was smaller than that of the experimental participants who were explicitly asked to choose their favorite places. This finding indicates that the SPFP strategy was more effective in developing students' place attachment.

To further analyze students' responses, we computed each group's mean score differences and Cohen's *d* values by test item (Table 5). The pattern generally follows

Table 5. Score comparison by test items.

		Posttest and pretest mean differences			Cohen's *d*		
Dimension	Item number	Experimental	Control 1	Control 2	Experimental	Control 1	Control 2
Place identity	1	0.38	−0.07	0.21	0.40	−0.06	0.19
	2	0.06	−0.07	0.27	0.07	−0.06	0.25
	3	0.25	0.00	0.33	0.27	0.00	0.32
	4	−0.03	−0.20	0.21	−0.04	−0.19	0.22
	5	0.49	−0.20	0.24	0.56	−0.20	0.23
	6	0.31	−.017	0.27	0.35	−0.17	0.26
Place dependence	7	0.50	−0.03	0.55	0.56	−0.03	0.46
	8	0.44	−0.07	0.42	0.46	−0.07	0.34
	9	0.38	−0.10	0.36	0.42	−0.09	0.30
	10	0.56	0.13	0.52	0.65	0.12	0.44
	11	0.47	0.27	0.36	0.51	0.24	0.31
	12	0.13	−0.13	−0.12	0.14	−0.14	−0.11

the results described above. Most Cohen's *d* values were greater for the experimental group, meaning that the experimental participants increased their place attachment significantly more. In particular, students in the experimental group showed greater increases in the place dependence items. For some items (2, 3, and 4), however, the participants in control group 2 increased their scores further than the students in the experimental group. The Cohen's *d* values for control group 1 were mostly negative, with a few small positive ones; control group 1 participants decreased their scores from the pretest to the posttest, but the Cohen's *d* values were very small for most items, meaning the differences were negligible.

In sum, the experimental group participants increased their place attachment scores significantly more than the control groups. In particular, the place dependence dimension showed great improvement. The control group 2 participants also improved their scores, but the magnitude of the increase was relatively smaller. The control group 1 students decreased their place attachment scores in most items, but the size of the decrease was negligible. Overall, the findings indicate that the SPFP approach is an effective strategy to improve students' place attachment.

Follow-up interview analysis

To supplement the quantitative findings, we conducted follow-up interviews. Five participants from the experimental group and two each from control groups 1 and 2 took part in the interviews. Overall, the interviews confirmed the quantitative findings.

Most experimental group participants responded that the task allowed them to understand the meanings their living places represented to them. Furthermore, the SPFP activity increased their affection for Gumi. For example, one experimental group student said that the activity offered him a chance to know himself better (I: interviewer, P: participant):

> I: How did you feel when you made a mash-up of your favorite place?
>
> P: Usually, I do not think of favorite places and their meaning to us. While doing the activity, I reflected on my thinking and felt that I came to know myself better.

I: You mean in finding the place you like in the town, you realized that you know yourself further?

P: Exactly.

A student in the experimental group expressed a positive feeling toward her home and expressed satisfaction about living in the town:

I: How did you feel after you selected your favorite place?

P: My feeling toward home changed. I have lived in this place from my second year in elementary school, so I thought that I did not have any special feeling about it. However, after the activity, I recognized that I like my home a lot, and now I like it much more. I do not want to move.

I: Did you have a plan to move?

P: Not now, but I will enter university, and then I will have to leave this place. I do not want to do that.

Another participant similarly increased his affection toward Gumi through this activity:

I: What is your feeling after visualizing your favorite places on Google Earth?

P: It was excellent to see my home from above. I seldom examine the place where I live. This activity made me observe the place from a new perspective. In doing the activity, I renewed my feeling toward Gumi, and I like it more.

In contrast, most of the participants in the control groups responded that the Google activity was interesting but did not affect their thinking toward the city. Even the control group 2 participants were not explicit in their change in place attachment:

I: How did you feel doing the activity?

P: I realized that there are many factories in the city. Usually, I do not see the town from above, but this activity made me examine Gumi. I found that there are a lot more factories in the town than I expected.

I: Is there any change in your thinking about the city?

P: Nothing. It is just as it was. I have lived in Gumi for a long time, so I know the geography of Gumi pretty well. No change for me.

The following two excerpts offer similar responses:

I do not think that there is any change in my feeling toward Gumi. Simply, I recognized that something existed there. The Google activity itself was refreshing, but it did not change my thinking about the town.

No change because it was the place where I have lived. I am simply there as I have been, so I could not find any other feelings.

In sum, the follow-up interviews supported the quantitative findings. The experimental group participants responded that the activity provided them with

opportunities to know themselves better and to realize or increase their affection for the town. The control group students showed interest in the activity itself but reported no change in their place attachment.

Conclusion

This study demonstrated that the SPFP strategy represents an effective technique for enhancing place attachment. The experimental group participants, who were asked to select places they like or would like to introduce people to when they visit Gumi, increased their place attachment scores significantly more than the other participants. The control group 2 students, who were allowed to choose any place, also increased their place attachment, but the magnitude of the increase was smaller than that of the experimental group participants. The control group 1 participants, who were asked to introduce places that they would not like to show people who visit Gumi, decreased their scores in most items, but the size of the change was negligible. Overall, these results suggest that the SPFP tactic was effective in promoting place attachment. The SPFP strategy is based on the idea that people want to behave predictably by acting similarly across diverse situations. The activity in this study builds on the rationale that people feel pressure for consistency after they express their opinions (Cialdini, 2009). The experimental group participants chose their favorite places and presented their activities. The participants established and expressed a positive stance toward their chosen places and might feel pressure to maintain the attitude.

An advantage of the SPFP strategy is that it is straightforward and does not require much time to implement. When a new strategy requires considerable time or effort, it is unlikely that practitioners will employ it widely. In this regard, the SPFP strategy merits inclusion in the curriculum. Depending on the context, some parts of the activity, such as the Google Earth component, can be omitted, shortening the activity time. Another advantage of the SPFP strategy is that it can be linked to other important educational topics. For example, in the South Korean context, the development of territorial attachment is a crucial educational goal. Although further investigation is required, we expect that place attachment shares similar traits with territorial attachment and that place attachment can play an important role in enhancing territorial attachment.

This study provided useful insight into the development of place attachment, but it also warrants further research. First, it represents a preliminary attempt to examine the effects of the SPFP strategy in the context of place attachment. Future research will need to explore the benefits of the strategy with larger samples in various contexts. The long-term effects of the strategy on students' behaviors also require further investigation. Second, even though the general pattern demonstrated the benefits of the SPFP strategy, some variations existed in the responses at a finer level. For example, the experimental group students increased their scores more in the place dependence dimension than in the place identity dimension. In addition, the control group 2 participants showed more increases in certain items in the place identity dimension than the participants in the experimental group. These variations require further investigations in the relationship between the strategy and participants'

responses. Finally, differences were found in the places chosen across groups. Most of the experimental group students selected personally meaningful places, such as their schools, neighborhoods, and homes, while the control group 2 participants tended to choose well-known places in Gumi, such as Gumoland (an amusement park), Gumi station, and the public library. That is, it appears that the differing task demands directed students' attention to choices made on different scales. The relationship between the task demand and place choice may provide insight for research in place attachment.

Disclosure Statement

No potential conflict of interest was reported by the author(s).

References

Ardoin, N. M. (2006). Toward an interdisciplinary understanding of place: Lessons for environmental education. *Canadian Journal of Environmental Education*, *11*(1), 112–126.

Brown, B., Perkins, D. D., & Brown, G. (2003). Place attachment in a revitalizing neighborhood: Individual and block levels of analysis. *Journal of Environmental Psychology*, *23*(3), 259–271.

Brown, G., & Raymond, C. (2007). The relationship between place attachment and landscape values: Toward mapping place attachment. *Applied Geography*, *27*(2), 89–111.

Brown, S. L., Asher, T., & Cialdini, R. B. (2005). Evidence of a positive relationship between age and preference for consistency. *Journal of Research in Personality*, *39*(5), 517–533.

Cheng, T.-M., Wu, H. C., & Huang, L.-M. (2013). The influence of place attachment on the relationship between destination attractiveness and environmentally responsible behavior for island tourism in Penghu. *Journal of Sustainable Tourism*, *21*(8), 1166–1187.

Cialdini, R. B. (2009). *Influence: Science and practice* (4th ed.). Boston, MA: Pearson Education.

Comello, M. L. N. G., Myrick, J. G., & Raphiou, A. L. (2016). A health fundraising experiment using the "foot-in-the-door" technique. *Health Marketing Quarterly*, *33*(3), 206–220.

Davenport, M. A., & Anderson, D. H. (2005). Getting from sense of place to place-based management: An interpretive investigation of place meanings and perceptions of landscape change. *Society & Natural Resources*, *18*(7), 625–641.

Dolinski, D. (2012). The nature of the first small request as a decisive factor in the effectiveness of the foot-in-the-door technique. *Applied Psychology*, *61*(3), 437–453.

Fazio, R. H., Blascovich, J., & Driscoll, D. (1992). On the functional value of attitudes: The influence of accessible attitudes on the ease and quality of decision making. *Personality and Social Psychology Bulletin*, *18*(4), 388–401.

Felizer, M. Y. (2010). Doing mixed methods research pragmatically: Implications for the rediscovery of pragmatism as a research paradigm. *Journal of Mixed Methods Research*, *4*(1), 6–16.

Freedman, J. L., & Fraser, S. C. (1966). Compliance without pressure: The foot-in-the-door technique. *Journal of Personality and Social Psychology*, *4*(2), 195–202.

Guéguen, N. (2002). Foot-in-the-door technique and computer-mediated communication. *Computers in Human Behavior*, *18*(1), 11–15.

Guéguen, N., & Pascual, A. (2015). Foot-in-the-door technique and problematic implicit request for help. *Swiss Journal of Psychology*, *74*(2), 111–114.

Guadagno, R. E., & Cialdini, R. B. (2010). Preference for consistency and social influence: A review of current research findings. *Social Influence*, *5*(3), 152–163.

Halpenny, E. A. (2010). Pro-environmental behaviours and park visitors: The effect of place attachment. *Journal of Environmental Psychology*, *30*(4), 409–421.
Heyvaert, M., Maes, B., & Onghena, P. (2013). Mixed methods research synthesis: Definition, framework, and potentia. *Quality & Quantity*, *47*(2), 659–676.
Huck, S. W. (2008). *Reading statistics and research* (5th ed.). Boston, MA: Pearson Education.
Hwang, S. N., Lee, C., & Chen, H. J. (2005). The relationship among tourists' involvement, place attachment and interpretation satisfaction in Taiwan's national parks. *Tourism Management*, *26*(2), 143–156.
Jorgensen, B. S., & Stedman, R. C. (2001). Sense of place as an attitude: Lakeshore owners attitudes toward their properties. *Journal of Environmental Psychology*, *21*(3), 233–248.
Kaltenborn, B. P. (1998). Effects of sense of place on responses to environmental impacts. *Applied Geography*, *18*(2), 169–189.
Kim, M., & Yoon, O. (2013). Development and application of a sense of place test instrument: A case study of gender differences of elementary students. *Journal of the Korean Association of Geographic and Environmental Education*, *21*(2), 17–28.
Kudryavtsev, A., Stedman, R. C., & Krasny, M. E. (2012). Sense of place in environmental education. *Environmental Education Research*, *18*(2), 229–250.
Kyle, G., Absher, J. D., & Graefe, A. R. (2003). The moderating role of place attachment on the relationship with activities and settings. *Leisure Sciences*, *26*(2), 123–142.
Kyle, G., Graefe, A., & Manning, R. (2005). Testing the dimensionality of place attachment in recreational settings. *Environment and Behavior*, *37*(2), 153–177.
Lewicka, M. (2011). Place attachment: How far have we come in the last 40 years? *Journal of Environmental Psychology*, *31*(3), 207–230.
Lewis, P. (1979). Defining sense of place. In W. P. Prenshaw & J. O. McKee (Eds.), *Sense of place* (pp. 24–46). Jackson, MI: University Press of Mississippi.
Losch, M., & Cacioppo, J. (1990). Cognitive dissonance may enhance sympathetic tonus, but attitudes are changed to reduce negative affect rather than arousal. *Journal of Experimental Social Psychology*, *26*(4), 289–304.
Manzo, L. C., & Perkins, D. D. (2006). Finding common ground: The importance of place attachment to community participation and planning. *Journal of Planning Literature*, *20*(4), 335–350.
Morgan, D. L. (1998). Practical strategies for combining qualitative and quantitative methods: Applications to health research. *Qualitative Health Research*, *8*(3), 362–376.
Palinkas, L. A., Aarons, G. A., Horwitz, S., Chamberlain, P., Hurlburt, M., & Landsverk, J. (2011). Mixed method designs in implementation research. *Administration and Policy in Mental Health and Mental Health Services Research*, *38*(1), 44–53.
Pascual, A., Guéguen, N., Pujos, S., & Felonneau, M. (2013). Foot-in-the-door and problematic requests: A field experiment. *Social Influence*, *8*(1), 46–53.
Proshansky, H. M., Fabian, A. K., & Kaminof, R. (1983). Place identity: Physical world and socialization of the self. *Journal of Environmental Psychology*, *3*(1), 57–83.
Ramkissoon, H., Smith, L. D. G., & Weiler, B. (2013). Relationship between place attachment, place satisfaction and pro-environmental behavior in an Australian national park. *Journal of Sustainable Tourism*, *21*(3), 434–457.
Scannell, L., & Gifford, R. (2010). The relations between natural and civic place attachment and pro-environmental behavior. *Journal of Environmental Psychology*, *30*(3), 289–297.
Semken, S. (2005). Sense of place and place-based introductory geoscience teaching for American Indian and Alaska Native undergraduates. *Journal of Geoscience Education*, *53*(2), 149–157.
Semken, S., & Freeman, C. B. (2008). Sense of place in the practice and assessment of place-based science teaching. *Science Education*, *92*(6), 1042–1057.
Shami, S. (1991). Sense of place: An empirical measurement. *Geoforum*, *22*(3), 347–358.
Stedman, R. C. (2002). Toward a social psychology of place: Predicting behavior from place-based cognitions, attitude, and identity. *Environment and Behavior*, *34*(5), 561–581.

Tani, S., & Surma-Aho, O. (2012). Young people and the hidden meanings of the everyday: Time-space path as a methodological opportunity. *International Research in Geographical and Environmental Education*, *21*(3), 187–203.

Thompson, B. (2006). *Foundations of behavioral statistics*. New York: The Guilford Press.

Tonge, J., Ryan, M. M., Moore, S. A., & Beckley, L. E. (2015). The effect of place attachment on pro-environment behavioral intentions of visitors to coastal natural tourist destinations. *Journal of Travel Research*, *54*(6), 730–743.

Tuan, Y.-F. (1974). *Topophilia: A study of environmental perceptions, attitudes, and values* (2nd ed.). Englewood Cliffs, NJ: Prentice Hall.

Urquhart, J., & Acott, T. (2014). A sense of place in cultural ecosystem services: The case of Cornish fishing communities. *Society & Natural Resources*, *27*(1), 3–19.

Vaske, J. J., & Kobrin, K. D. (2001). Place attachment and environmentally responsible behavior. *The Journal of Environmental Education*, *32*(4), 16–21.

Vorkinn, M., & Riese, H. (2001). Environmental concern in a local context: The significance of place attachment. *Environment and Behavior*, *33*(2), 249–263.

Warzecha, C. A., & Lime, D. W. (2000). Place attachment in Canyonlands National Park: Visitors' assessment of setting attributes on the Colorado and Green Rivers. *Journal of Park Recreation Administration*, *19*(1), 59–78.

Williams, D. R., & Vaske, J. J. (2003). The measurement of place attachment: Validity and generalizability of a psychometric approach. *Forest Science*, *49*(6), 830–840.