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Cultivating the Skill of Savoring: An Internet-Delivered Intervention  
to Promote Well-Being

So Yeon Park

A thesis submitted to the faculty of  
Brigham Young University  
in partial fulfillment of the requirements for the degree of  
Master of Science

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## ABSTRACT

### Cultivating the Skill of Savoring: An Internet-Delivered Intervention to Promote Well-Being

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The skill of savoring is one practice from the positive psychology literature that appears to facilitate well-being and happiness (e.g., Cazanescu, Tecuta, Candea, & Szentagotal-Tartar, 2018). Given such findings and the emerging evidence in favor of delivering positive psychology interventions via the Internet (Layous, Nelson, & Lyubomirsky, 2013), the potential feasibility of providing researched-based savoring instruction using self-directed online resources warrants empirical examination. This pilot study examined the feasibility of a self-directed online module of instruction and exercises intended to aid in cultivating individuals' savoring abilities. The two primary aims of the present study were: 1) to examine the feasibility and preliminary outcomes of delivering an online 21-day savoring intervention through the website [www.mybestself101.org](http://www.mybestself101.org) (Savoring Module), and 2) to collect descriptive/qualitative feedback on the module content for further improvement of these resources. A supplemental aim was to establish convergent validity of the newly developed Savoring Questionnaire with an existing measure of savoring beliefs. Results indicated that participants completing the 21-day self-directed content and exercises in the Savoring Module reported positive and significant changes in savoring skills and subjective well-being. However, only 22% of consenting participants completed the 21-day sequence of content and exercises on their own. The majority of participants who completed the study found both the informational content and the strategies of the module to be "very helpful" or "extremely helpful." Overall, findings indicate that a self-directed savoring intervention delivered via the Internet can produce an increase in savoring skills and subjective well-being.

Keywords: savoring, internet intervention, well-being, positive psychology intervention

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Cultivating the Skill of Savoring:  
An Internet-Delivered Intervention to Promote Well-Being

**Introduction**

Traditional efforts in psychological science have focused primarily on exploring psychopathologies and the challenges that naturally characterize the human experience. Given such attention to the challenges of life, much of the research efforts had focused on understanding the impact of adverse human experiences (Balsam & Mohr, 2007; Miller et al., 2017) and ways to ameliorate or prevent such experiences from occurring (Johnstone, Kemps, & Chen, 2018). In recent years, the new subfield of positive psychology has emerged, emphasizing an examination of human flourishing, strengths, and virtues. With the emergence of positive psychology and a growing interest toward self-improvement (Ernst, 2000), there is a growing field of well-being that has gained momentum among researchers (Seligman & Csikszentmihalyi, 2000). Such research efforts emphasize that the absence of suffering does not equate to a life of flourishing, given that flourishing is a multidimensional construct comprised of life satisfaction and meaning (Schotanus-Dijkstra et al., 2016). One area of positive psychology shown to produce increase in well-being is savoring (Salces-Cubero, Ramirez-Fernandez, & Ortega-Martinez, 2018), which will be the main focus of the present study. The present study aims to add to the literature on savoring by exploring the feasibility of savoring in promoting subjective well-being using a self-directed internet resource.

**Positive Psychology Interventions**

Positive psychology interventions are born out of the idea that happiness is something that can be improved and changed (Lyubomirsky, Sheldon, & Schkade, 2005). Positive psychology intervention studies have commonly examined the feasibility of implementing

positive psychology interventions to promote overall well-being. A meta-analysis of multiple positive psychology interventions has shown an increase in well-being and reduction in depressive symptoms (Sin & Lyubomirsky, 2009). A later examination of positive psychology interventions also found similar outcomes of increase in subjective and psychological well-being as well as decrease in depressive symptoms (Bolier et al., 2013), with the positive outcomes in subjective and psychological well-being lasting for three to six months past the interventions. Previous positive psychology intervention studies highlighted in the meta-analyses have implemented various forms of interventions focused on areas of resilience, optimism, hope, gratitude, mindfulness, self-management, and more.

Literature on positive psychology interventions also evidence promising results for simple behavioral strategies and structured positive psychology intervention programs. Studies on behavioral interventions (i.e., showing kindness toward others) have shown to result in greater flourishing compared to control (Nelson, Layous, Cole, & Lyubomirsky, 2016) in adults and increased life satisfaction in preadolescents (Layous, Nelson, Oberle, Schonert-Reichl, & Lyubomirsky, 2012). More structured programs that incorporated findings from previous literature (PERMA model, mindfulness practice, flow, reflecting on happiness, etc.) have resulted in a reduction in stress and an increase in well-being (Greenawalt, Orsega-Smith, Turner, Goodwin, & Rathie, 2018) as well as a reduced sense that happiness is fragile (Lambert, Passmore, & Joshanloo, 2018). These studies suggest that both simple positive psychology interventions as well as more structured programs can improve well-being, suggesting a promising future for other positive psychology intervention research efforts and their possible utility.

### **What Is Savoring?**

Savoring is defined as the act of enhancing positive experiences, drawn from three temporal orientations, by prolonging and deepening the experiences (Bryant & Veroff, 2007), which allows individuals to maximize on pleasant experiences (Quoidbach, Berry, Hansenne, & Mikolajczak, 2010). In other words, savoring is the act of bringing awareness to positive experiences and showing appreciation for them to have more enriched experiences. Thus, savoring is seen as shifting from being on an “autopilot” to becoming more aware of the good that happens in life. Savoring draws on positive experiences in the present moment through present-focused savoring, past-focused savoring through reminiscing, and future-focused savoring through anticipating, which comprises the three temporal orientations of savoring (Bryant & Veroff, 2007). Savoring has unique components that distinguishes it from other positive psychology constructs. For one, savoring is a controlled process that requires individuals to take deliberate steps to bring greater awareness to the positive experiences (Bryant, 2003). Rather than passively living as things happen, savoring is the act of consciously focusing in on or bringing awareness to the positive experiences. Another key component of savoring is the ability to slow down. Comparing savoring to flow helps to illustrates this point. Flow, a state of full concentration and involvement, requires a full immersion into the happiness-inducing event, in which one loses track of the passage of time (Bryant & Veroff, 2007). Contrarily, savoring requires mental and physical slowing down in order to step back and notice the good that is happening (Bryant & Veroff, 2007). As such, savoring is seen as a deliberate and carefully performed act.

### **Psychological Benefits of Savoring**

The literature on savoring suggests that the relationship between psychological well-being and practicing savoring is positive. The link between savoring and well-being is based on the assumption that attention to the positive details of human experience relates to experiencing happiness and overall sense of well-being, which has also been demonstrated in empirical studies (Bryant, 2003; Hurley & Kwon, 2013; Smith, & Hollinger-Smith, 2015). Jose, Lim, and Bryant (2012) demonstrated the relationships among momentary positive events, momentary happiness, and momentary savoring to one another. A positive relationship was found between momentary savoring and momentary happiness, especially when the occurrence of momentary positive events was low. It is worth emphasizing that the researchers were able to detect positive changes in happiness and savoring. Given these findings, intervention studies on savoring naturally emerged to explore the possibility of increasing well-being through cultivating savoring.

The positive link between savoring and well-being can be better understood from studies that reveal how savoring relates to some of the largely researched topics of psychology, namely well-being, resilience, and depression. The positive relationship of savoring to well-being (e.g., Beaumont, 2011; Cazanescu et al., 2018; Chen & Zhou, 2017) appears to contribute to two-part benefits of both promoting well-being and also lessening negative experiences. In fact, savoring is seen as a protective factor against depressive symptoms (Hurley & Kwon, 2012) and a promoter of greater meaning in life (Bryant & Smith, 2015). Perhaps, with a greater effort to savor, individuals are also better able to identify with the positive aspects of life rather than identifying with the distressing factors in their lives. In fact, savoring moderates the negative relationship between daily demands and multiple psychological benefits, including resilience (Sytime, Britt, Sawhney, Wilson, & Keith, 2018). Savoring appears to aid in responding to

challenges that may detract individuals from experiencing greater well-being, by generating positive affectivity (Croft, Dunn, & Quoidbach, 2014; Jose et al., 2012). Savoring has been shown to protect against depressive symptoms (Chen & Zhou, 2017) even in those who exhibit lower dispositional resilience (Smith & Hollinger-Smith, 2015). In those already experiencing depression, savoring helped individuals to cope with the symptoms of depression (Santos et al., 2013). These findings are promising given that many individuals experience dispositional or circumstantial challenges, such as low resilience or depressive symptoms, that is likely to lead to negative experiences. The literature supports that savoring can be developed in individuals and also relates to many aspects of well-being.

### **Savoring Interventions**

Savoring, similar to other positive psychology constructs, can be cultivated through practice. In fact, a number of studies have examined the outcomes of savoring interventions on differing samples using differing lengths and types of interventions. An 8-week long savoring intervention was implemented to a sample of older adults to teach participants to identify and savor positive moments through weekly group sessions (Friedman et al., 2017). The participants were instructed on identifying positive events and taught skills to sustain and restore positive feelings. For at-home activities, participants were instructed to record positive events. At the end of the intervention, the participants reported multiple benefits, which included an increase in life satisfaction and well-being, as well as a reduction in sleep complaints and depressive levels. A savoring intervention has also been implemented as a short 1-week program in a group of older adults (Smith & Hanni, 2019). The participants were asked to set aside 5 minutes at two different points each day (morning and evening) to identify something positive, notice positive feelings that arise as a consequence of identifying something positive, and appreciate the

experience. Individuals who completed the daily activity at a higher rate (at least 6 out of the 7 days) saw improvements in resilience, depressive symptoms, and happiness. These findings were contrary to those who completed 5 days or less, who did not report an increase in resilience or well-being. Despite the short duration of the intervention, the participants were able to experience a boost in well-being.

A study of an intervention on increasing savoring the moment among a group of undergraduate students for a duration of 2 weeks (Hurley & Kwon, 2012) also found positive results following the intervention compared to the control group. The intervention group received psychoeducation on positive psychology using an audio recording and a written material on savoring the moment and also provided with ways of savoring with relevant examples. The participants were asked to recall and record three positive events from the past week, then list possible ways they could have savored these positive events. The purpose of this portion of the intervention was to help the participants recognize possible events to savor in the future. The participants were instructed to use example strategies or personalized strategies in their practice to savor naturally occurring events. The participants recorded the number of times they savored each day using a tracking form. The participants received daily reminder e-mails with tips on savoring. The intervention group reported a significant decrease in depressive symptoms and negative affect compared to the control group, although no change in positive affect was reported.

In another study of savoring intervention in a group of college students, students were randomly assigned to either reminisce using cognitive imagery, reminisce using memorabilia, or think about current concerns (Bryant, Smart, & King, 2005). The participants were instructed to savor for 10 minutes twice daily for a week quietly in their residence. The individuals in the

cognitive imagery condition were instructed to choose positive memories they previously wrote down to think about the details surrounding the memories while imagining the event. In the memorabilia condition, the participants were instructed to pick a memento to think about the memory related to the memento. The control group was instructed to think about any events and let their minds wander freely with details. The reminiscing groups reported a greater increase in the amount of times they felt happy compared to the control group, with the cognitive imagery group experiencing greater happiness overall. The results indicate that savoring the past contributes to experiencing an increase in well-being.

Savoring interventions have also been tested as a possible treatment for dysphoric symptoms (McMakin, Siegle, & Shirk, 2011). The study was conducted using a sample of 27 female college students who were instructed to savor using the Positive Affect Stimulation and Sustainment (PASS) Module or assigned to the control group. The PASS group was instructed to write about positive experiences using feelings and emotions. The participants were then instructed to recall the positive events in their minds with details to re-experience the feelings, and consider how the experience could lead to future positive events. Then, the participants were asked to identify how they contribute to positive events and asked to make positive attributions. The PASS group experienced increase in positive affect compared to the control group who experienced a decrease in positive affect. These existing savoring intervention studies indicate that savoring can indeed be taught to promote greater well-being and even reduction in negative experiences in a variety of samples using differing savoring strategies.

### **Technology-based Interventions**

Internet-based therapy platforms have gained increasing attention in mental health service dissemination literature in recent years (Catreine, Ahern, & Locke, 2010; Kobak, Mundt, & Kennard, 2016; Piscotty, Kalisch, & Gracey-Thomas, 2015; Vaughn & Beers, 2017). The evidence on the efficacy of internet-delivered therapy suggests that clients receiving this method of interventions have reported positive outcomes (e.g., Christensen, Griffiths, & Jorm, 2004; Morrison, Walker, Ruggeri, & Hughes, 2014; Sharry, Davidson, McLoughlin, & Doherty, 2013), although in varying degrees. Despite the initial reluctance from both clients and therapists (Adler, Pritchett, Kauth, & Nadorff, 2014), both clients and therapists reported comparable experience to that of traditional therapy (Germain, Marchand, Bouchard, Guay & Drouin, 2010), suggesting that internet-delivered therapy is a viable alternative to a traditional psychological intervention.

**Positive Psychology and Internet-delivered Interventions.** The emerging literature suggests that internet-delivered positive psychology interventions may also be viable. Given that the internet-delivered positive psychology interventions are created appropriately for the intended population (Redzic et al., 2014), internet-delivered interventions may be a feasible method of delivering resources (Walsh, Szymczynska, Taylor, & Priebe, 2018). In fact, a study on positive psychology intervention methods suggests that the delivery of a positive psychology intervention via the Internet produced comparable results to that of in-person intervention delivery, thus providing support for internet-delivered positive psychology interventions (Layous et al., 2013).

A study conducted by Hintzelman and colleagues (as cited in Diener & Biswas-Diener, 2019) implemented a 11- to 12-week long well-being program called ENHANCE where



participants were instructed to attend to multiple areas of their life to improve well-being either via the Internet or through workshops. Some examples of the intervention include providing compliments to others, actively listening to others, identifying and focusing on positive events, savoring, and expressing gratitude for others. The participants in the ENHANCE program, in comparison to the control group, showed higher life satisfaction throughout the entire duration of the program, which lasted 3 months past the programs. This study indicated that well-being can be taught via the Internet and produce higher well-being. It is also worth noting that the highlighted intervention utilized multiple positive psychology-based interventions to increase well-being, which has been shown to protect against falling back to a baseline level of well-being (Antoine, Dauvier, Andreotti, & Congard, 2018; Bao & Lyubomirsky, 2014).

### **Measuring Savoring and Well-being**

Although secondary to examining the feasibility of the Savoring Module and obtaining participant feedback, a supplementary aim of the present study is to examine the convergent validity of a newly developed Savoring Questionnaire. The Savoring Beliefs Inventory (SBI; Bryant, 2003) is one of two existing savoring questionnaires. The SBI was created with the intent to measure the respondents' control over positive emotions (the ability to manipulate positive events for greater benefit) with the belief that savoring is distinctively different than having control over negative emotions. The SBI includes three subscales for the three temporal orientations, although the three temporal orientations did not equally and distinctively correlate with the intended constructs when analyzed. The SBI focuses on directly measuring the beliefs on the ability to savor, unlike the Ways of Savoring Checklist that was created to measure the frequency of strategies used (Bryant & Veroff, 2007). The SBI can be used for measuring savoring in a wide range of adult population regardless of age. In fact, the SBI has been used in

many savoring-related studies (e.g., Beaumont, 2011; Cazanescu et al., 2018; Geiger, Morey, & Segerstrom, 2017). The Savoring Questionnaire was developed in conjunction with the My Best Self 101 website as a measure that could be brief, valid, and sensitive to change in tracking an individual's savoring abilities.

### **Limitations of Previous Research**

The evidence on savoring appears to suggest that practicing savoring largely relates to and promotes well-being. More nuanced works suggest that individuals can be taught to savor with minimal intervention to experience greater well-being and that it may be possible to provide resources to savor via the Internet. Despite these promising findings, there are limitations to the previous research. Savoring intervention studies are still limited in number with no existing online savoring intervention study aimed at increasing well-being in the general adult population. Further, many of the studies have focused on providing savoring interventions to older adult or university student samples. Given the evidence that savoring can produce positive results in a wide range of samples, an intervention geared towards increasing savoring in a broader age group appears to be necessary. Additionally, the previous literature does little to obtain direct feedback from the participants on how they experienced the resources provided to teach and encourage savoring. To examine the feasibility of an interventions, collecting participants' experience on using the intervention would add more nuance in constructing and ensuring the quality of the savoring experience. As such, more research efforts need to focus on responding to these limitations in the savoring intervention literature.

### **Study Aims**

Given the promising findings on both savoring and internet-delivered positive psychology interventions, the primary aims of the present study are as follows: 1) to examine the

feasibility and preliminary outcomes of delivering self-directed internet-delivered savoring intervention for the duration of 21 days through the website [www.mybestself101.org](http://www.mybestself101.org) (Savoring Module), and 2) to collect descriptive/qualitative feedback on the module content for further improvement of the Savoring Module. Supplemental to these two aims, the present study also aims to examine the convergent validity of newly developed Savoring Questionnaire. The present study hopes to add to the emerging literature on self-directed positive psychology interventions, more specifically to the savoring intervention literature.

### **Hypotheses**

Given findings in the existing literature, the hypotheses are as follows:

1. Hypothesis 1: The level of savoring will be higher at the end of 21 days of savoring intervention compared to the baseline savoring level.
2. Hypothesis 2: The level of subjective well-being will be higher at the end of 21 days of savoring intervention compared to the baseline subjective well-being level.
3. Hypothesis 3: Those who utilized more savoring strategies will report higher subjective well-being and savoring.
4. Hypothesis 4: Those who spend more time savoring will report higher subjective well-being and savoring.
5. Hypothesis 5: Participants will find the Savoring Module to be helpful.
6. Hypothesis 6: The proposed savoring questionnaire will be comparable to the existing savoring measure in a test of convergent validity.

## Methods

### Participants

A total of 128 participants consented to participate in the study and completed the pretest survey. Of the 128 individuals, 66 were undergraduate students enrolled in psychology courses at a university in the Intermountain West who signed up through the SONA recruitment system to indicate interest in participating in the study. Fifty-seven of the participants were recruited through social media recruitment posts and flyers distributed through the same university in the Intermountain West. Participants recruited through social media posts and flyers, emailed the researcher indicating interest. There were five participants who joined the study without directly contacting the researcher or signing up through the SONA recruitment system.

Of the 128 participants who self-selected to start the study, the intervention was completed by 28 participants consisting of adults (age  $M = 26.07$ ,  $SD = 10.70$ ). Twelve of the completers signed up to participate via the SONA recruitment system, while the other 16 were recruited through social media recruitment posts and distributed flyers. The total sample was imbalanced favoring females (23 females and 5 males).

### Savoring Module

The Savoring Module is a part of larger set of online resources currently being developed to promote human flourishing (see [www.mybestself101.org](http://www.mybestself101.org) for details). The Savoring Module is intended to interactively teach the major components of savoring, explain how savoring contributes to well-being, provide a menu of research-based savoring strategies, and offer additional resources to continue learning about savoring. As such, the purpose of the Savoring Module is two-fold: to educate the users on the principles of savoring (psychoeducation) and also encourage the practice of savoring in daily living (behavioral intervention).

The Savoring Module consists of 8 subheadings and allows the users to freely go through the different subheadings. The psychoeducation portion of the module provides research-based information on the main components of savoring. It includes videos and stories intended to simply and interactively introduce savoring to those with minimal prior knowledge on the topic. More nuanced information, such as, the obstacles to savoring, the three temporal orientations of savoring, as well as the effects of savoring are also discussed in the Savoring Module. The psychoeducational content of the module is intended to provide basic knowledge on savoring as a foundation for users to continue expanding their knowledge and understanding. The behavioral intervention portion of the module provides an outline of steps involved in savoring, a menu of possible savoring strategies to use, and a general guide for users to start their own practice of savoring based on the Savoring Module (see <https://www.mybestself101.org/savoring> for details on the Savoring Module). The menu of savoring strategies was not intended to be the only strategies for the participants to use. Rather, the participants were encouraged to pick from the menu of strategies and/or use personalized strategies.

## Measures

**Demographics.** The demographic information collected for the present study consisted of age and gender. The information provided basic demographics of the participants and were used in comparing the completers to the non-completers.

**Savoring Questionnaire.** The Savoring Questionnaire (referred to as the SQ from this point on) was created to capture the change in the overall savoring ability. The SQ consists of 8 items answered on a 7-point Likert scale (1 = Strongly Disagree, 7 = Strongly Agree). Items include statements such as, “I very often pause to savor the good moments in my life” (see Appendix A). Two of 8 items were reverse-coded. The possible range of scores were from 8 to

56, calculated by summing the scores across the items for each participant. The same method was used to obtain the possible range of responses for all questionnaires included in the study. The SQ has a Cronbach's alpha of .82 based on a psychometrics study, indicating high internal consistency.

**Savoring Beliefs Inventory.** The Savoring Beliefs Inventory (SBI; Bryant, 2003) is a 24-item questionnaire measured on a 7-point Likert scale (1 = Strongly Disagree, 7 = Strongly Agree; see Appendix B) intended to measure the perceived ability to savor positive experiences. The SBI was included to measure change in savoring and to compare against the SQ. The possible range of the scores ranged from 24 to 168. A multiple examination of the SBI produced high Cronbach's alpha levels ranging from .88 to .94. The items on the SBI positively correlated with the intended constructs to establish convergent validity (see Bryant, 2003 for details).

**SURvey on Flourishing.** The SURvey on Flourishing (SURF) is a 17-item questionnaire intended to capture subjective well-being, and yielded a Cronbach's alpha level of .95 based on a separate psychometrics study. The SURF was created as part of a larger internet-delivered positive psychology intervention resource along with the SQ. The SURF is scored on a 7-point Likert scale (1 = Strongly Disagree, 7 = Strongly Agree; see Appendix C). Items include statements such as, "My life is full of joy." Three items were reverse-coded. The possible range of scores ranged from 17 to 119.

**Subjective Happiness Scale.** The Subjective Happiness Scale (SHS; Lyubomirsky & Lepper, 1999) is a 4-item questionnaire scored on a 7-point Likert scale (1 = Strongly Disagree, 7 = Strongly Agree; see Appendix D) intended to measure global subjective happiness. The possible range of scores were 4 to 28. The SHS is well-validated questionnaire yielding a Cronbach's alpha level of .86 in a U.S. adult community sample and the convergent validity

ranging from .52 to .72, depending on the sample, compared to other questionnaires on happiness. The SHS also moderately correlated, ranging from .36 to .60, with theoretically and empirically-related constructions (e.g., optimism, self-esteem, positive emotionality).

**Satisfaction with Life Scale.** The Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) is a 5-item questionnaire intended to measure global cognitive judgment on one's satisfaction with life and scored on a 7-point Likert scale (1 = Strongly Disagree, 7 = Strongly Agree; see Appendix E), with scores ranging from 5 to 35. This questionnaire was included to measure participants' perceived level of life satisfaction. The SWLS has a high Cronbach's alpha score of .83 (Pavot, Diener, Colvin, & Sandvik, 1991). The correlation of SWLS to other life satisfaction scales produced correlations ranging from .42 to .81.

**Savoring Module Feedback Questionnaire.** The Savoring Module Feedback Questionnaire was created to capture the participants' overall experience of using the Savoring Module. The questionnaire includes two 5-point Likert scale items (1 = Not at all helpful to 5 = Extremely helpful) as well as three open-ended items. The feedback questionnaire was created to obtain feedback for possible future modifications to improve the Savoring Module (see Appendix F).

### **Procedure**

The study was conducted entirely online for the duration of 21 days (rolling enrollment from September-December 2018). Upon indicating interest in participation through either the SONA recruitment system or by directly contacting the researcher, the participants received an email from the researcher with an outline containing links to the pretest and posttest surveys and the Savoring Module (see Appendix G), as well as a time and activity tracking form (see

Appendix H). Upon completing the pretest survey, the participants were directed to proceed to the psychoeducation step of the study by learning from the Savoring Module. Participants were then instructed to go through the contents of the Savoring Module for the first seven days of the study. Participants were rewarded \$10 in Amazon gift card for completing the pretest survey.

For the remaining 14 days, the participants were instructed to practice savoring strategies for a minimum of 20 minutes each day. The participants were encouraged to choose strategies from the menu of strategies provided in the Savoring Module or come up with personalized savoring strategies. During the entire duration of the study, the participants were instructed to keep track of time spent savoring as well as the strategies practiced using the time and activity tracking form. The time and activity tracking forms were emailed back to the researcher at the end of 21 days. At the conclusion of 21 days, participants completed the posttest survey. The participants who completed the study in entirety were compensated with an additional \$50 in the form of an Amazon gift card. Participants completed these steps on their own without prompting or contact from the researcher. Although multiple recruitment procedures were used, all participants were given the same instruction.

### **Data Analysis**

Preliminary to running the main statistical analyses, the data were prepared by reverse-coding items and finding the total scores for each of the questionnaires across all participants. The main analyses of the present study were conducted using a sample of 28 completers. A preliminary analysis indicated there were no significant differences in gender ( $t(126) = -.36, p = .717$ ) or age ( $t(126) = -.32, p = .750$ ) between completers and non-completers. The scores on the pretest survey were also not statistically significant between completers and non-completers: SQ ( $t(126) = 1.37, p = .172$ ), SBI ( $t(126) = 1.26, p = .211$ ), SURF ( $t(126) = -.15, p = .880$ ), SWLS



( $t(126) = -1.42, p = .158$ ), and SHS ( $t(126) = .70, p = .488$ ). Although more participants signed up through the SONA recruitment system ( $n = 66$ ), SONA-recruited participants dropped out at a higher rate (81%) compared to those recruited through social media post and flyers (72%). Of 128 participants who began the study, 22% completed the study in its entirety. Due to the low number of completers, power analyses were conducted retrospectively. For all the measures that were included in the study, the power ranged between .98 to 1.0.

A series of t-tests and regressions were conducted to examine potential changes in the questionnaire scores before and after completing the practice of savoring using the Savoring Module. Paired samples t-tests were used to compare the change in total scores of the well-being measures and the savoring measures. Regressions were conducted to predict for posttest savoring and well-being total scores for all questionnaires as predicted by corresponding pretest scores, number of strategies used, gender, and time spent savoring. The number of strategies refers to the number of unique strategies (i.e., savoring with loved ones, savoring while eating, savoring through music, etc.) used by the participants during the entire duration of the intervention.

A supplemental aim of the present study was to establish the convergent validity of the SQ against the SBI. As such, the total scores of the two questionnaires obtained at baseline and post-intervention were correlated.

## Results

### **Hypothesis 1: The Level of Savoring Will Be Higher at the End of 21 Days of Savoring Intervention Compared to the Baseline Savoring Level.**

To test this hypothesis, the savoring abilities as captured by the SBI and the SQ were used in the analysis. The change from baseline savoring level to the savoring level at the end of 21 days was in the positive direction (see Table 1, Figure 1, Figure 2) and statistically significant

with large effect sizes (Cohen's  $d$ ) as captured by both savoring questionnaires (SBI  $t(27) = 6.28$ ,  $p < .001$ ,  $d = 1.18$ ; SQ  $t(27) = 7.83$ ,  $p < .001$ ,  $d = 1.48$ ). The results indicate that savoring did significantly increase from baseline after 21 days of savoring intervention. As such, Hypothesis 1 was supported.

Table 1 Means and Standard Deviations of Pretest and Posttest Scores for SQ and SBI.

	SQ		SBI	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Pretest	32.821	6.225	115.107	20.766
Posttest	42.214	6.094	130.571	21.450

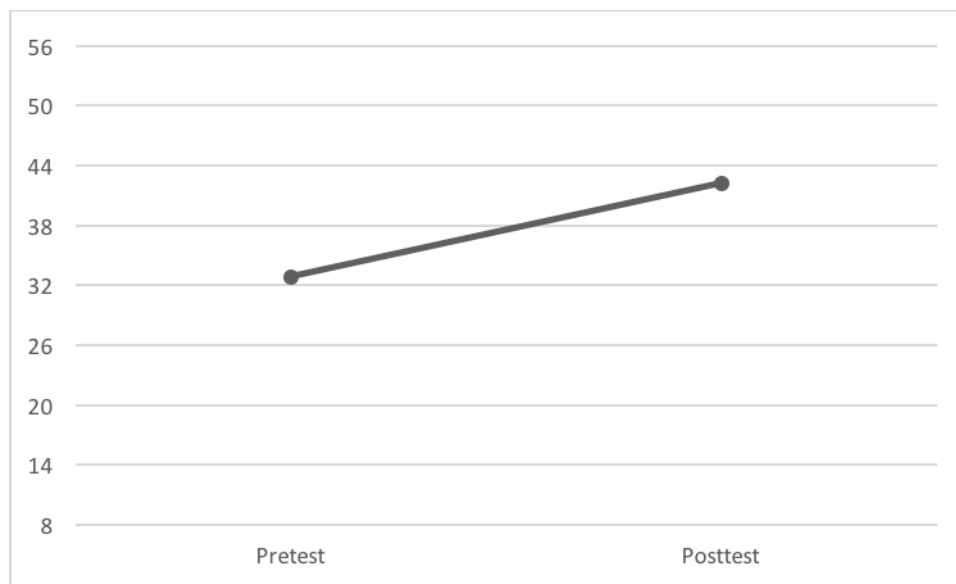


Figure 1 Change in savoring from pretest and posttest as measured by the Savoring Questionnaire.

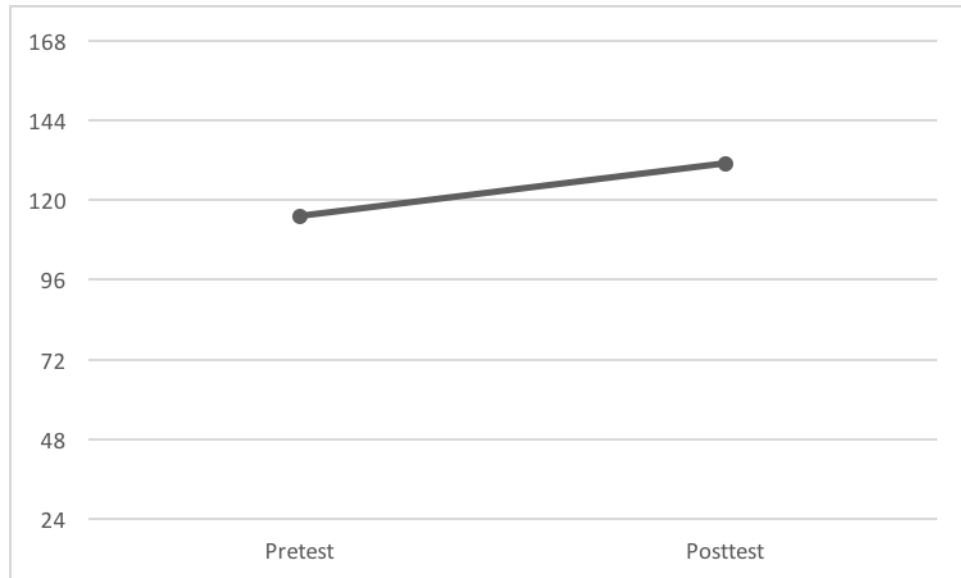


Figure 2 Change in savoring from pretest and posttest as measured by the Savoring Beliefs Inventory.

**Hypothesis 2: The Level of Subjective Well-being Will Be Higher at the End of 21 Days of Savoring Intervention Compared to the Baseline Subjective Well-being Level.**

Change in well-being was examined using the SHS, the SWLS, and the SURF scores. The changes in total scores were in the positive direction (see Table 2, Figure 2, Figure 3, Figure 4) and statistically significant with the effect sizes ranging from medium to large effect: SHS  $t(27) = 3.69, p = .001, d = .70$ ; SWLS  $t(27) = 3.74, p < .001, d = .71$ ; SURF  $t(27) = 5.19, p < .001, d = .98$ . Similar to savoring, the participants reported greater subjective well-being after 21 days of using the Savoring Module and savoring strategies. The results support Hypothesis 2.

Table 2 Means and Standard Deviations of Pretest and Posttest Scores for SURF, SHS, and SWLS.

	SURF		SHS		SWLS	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Pretest	81.607	15.557	18.179	4.937	25.071	5.470
Posttest	93.464	16.601	20.464	4.350	28.286	4.799

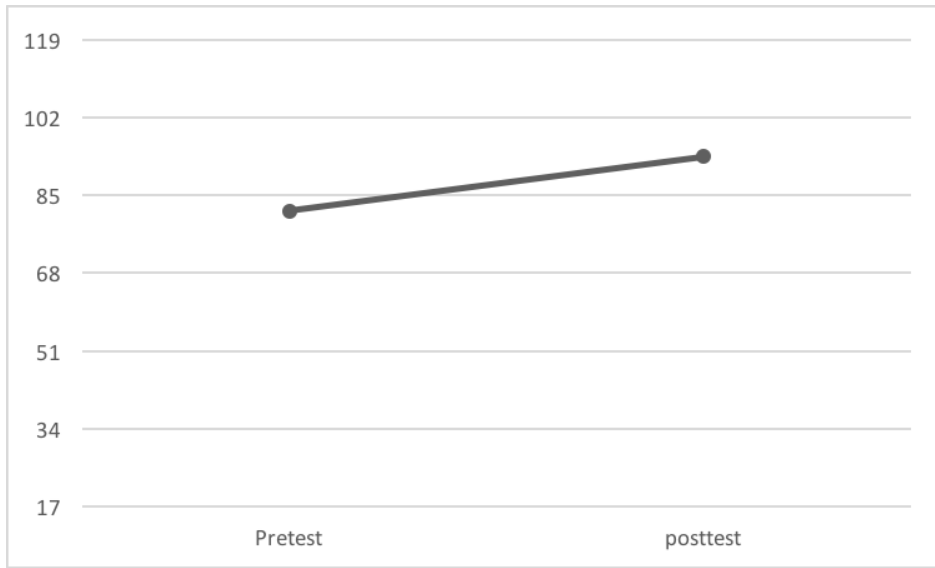


Figure 3 Change in well-being from pretest and posttest as measured by the SURvey on Flourishing.

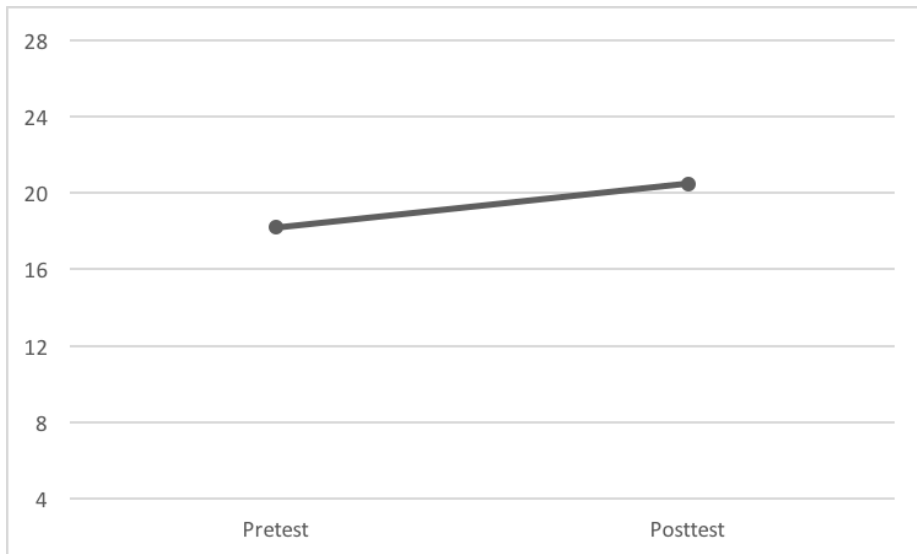


Figure 4 Change in well-being from pretest and posttest as measured by the Subjective Happiness Scale.

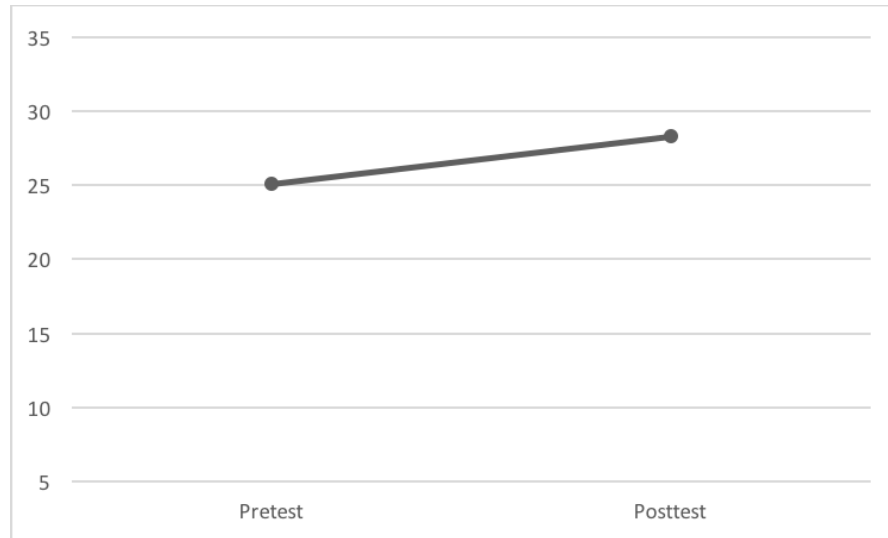


Figure 5 Change in well-being from pretest and posttest as measured by the Satisfaction with Life Scale.

### **Hypothesis 3: Those Who Utilized More Savoring Strategies Will Report Higher Subjective Well-being and Savoring.**

Preliminary to running the analysis to test Hypothesis 3, a qualitative analysis of the strategies was conducted. The total number of strategies used ranged from 4 to 22 ( $M = 12.74$ ,  $SD = 4.231$ ). Although the participants were encouraged to self-direct their practice, the report from the participants suggested commonly used savoring strategies across participants. The most commonly used strategies were savoring time spent with others, savoring mealtime/cooking, savoring their surroundings, and reminiscing through past memories. Participants indicated making efforts to spend undistracted time with family members and noticing the intensity of feelings that came from focusing on being with their loved ones. Participants also commonly used mundane activities to savor such as cooking and eating, with one participant noting making conscious efforts to attend to the experience of eating rather than getting distracted by technology. Many individuals reported purposefully taking the time to note the details of their surroundings while walking. One participant noted, “I went for a walk around campus for the first time in the semester without my music and made a point to look up and around rather than

down at my feet.... I was able to pause to think about my life and to [appreciate] the beauty that is around campus.” Participants also savored through reminiscence. One participant reported using pictures from past events to think back to the positive memories associated with the individuals in the pictures.

The overall SQ regression model for the posttest savoring level was statistically significant,  $F(4, 23) = 2.34, p = .04$ , and accounted for 34% of the variance. The SBI model was significant,  $F(4, 23) = 11.98, p < .001$ , with 68% of the variance explained. The SURF regression model was significant,  $F(4, 23) = 8.03, p < .001$ , and accounted for 58% of the variance. The SHS model was significant,  $F(4, 23) = 11.98, p < .001$ , and accounted for 68% of the variance. The SWLS model was also significant,  $F(4, 23) = 5.34, p = .003$ , with 48% of the variance explained. However, in all of the models, the only significant predictors were pretest scores for the corresponding questionnaires (see Table 3). As such, Hypothesis 3 was unsupported, indicating that the number of savoring strategies used did not significantly predict for posttest savoring and subjective well-being scores.

Table 3 *OLS Regression Analyses of Prediction of Posttest Savoring and Well-being.*

Variable	SQ			SBI			SURF			SHS			SWLS		
	B	S.E.	<i>p</i>	B	S.E.	<i>p</i>	B	S.E.	<i>p</i>	B	S.E.	<i>p</i>	B	S.E.	<i>p</i>
Pretest															
Total	.46	.17	.013	.84	.13	.000	.74	.145	.000	.66	.11	.000	.55	.13	.000
Avg.															
Time	.01	.03	.717	.00	.06	.997	.02	.056	.762	.02	.01	.254	.03	.02	.133
Spent															
Gender	-4.98	2.78	.086	-3.67	6.82	.596	-9.97	5.994	.110	-1.59	1.42	.274	-1.65	1.92	.400
Number															
of	-.03	.28	-	-.58	.67	.393	.37	.589	.541	.19	.14	.172	.02	.19	.934
Strategies			1.79												
Constant	29.85	7.20	-.11	44.80	18.19	.022	33.95	16.204	.047	4.68	3.55	.200	10.96	4.96	.037
F	2.90		.044	11.98		.000	8.03		.000	11.98		.000	5.34		.003
R <sup>2</sup>	.34			.68			.58			.68			.48		

**Hypothesis 4: Those Who Spend More Time Savoring Will Report Higher Level of Subjective Well-being and Savoring.**

To test for Hypothesis 5, the same regression models from Hypothesis 3 were used. The time spent savoring ( $M = 168.48$ ,  $SD = 44.49$ ) measured in minutes did not significantly predict for the posttest savoring and subjective well-being scores (see Table 3).

**Hypothesis 5: Participants Will Find the Savoring Module to Be Helpful.**

The majority of the participants found the Savoring Module to be helpful overall. Of the total completers, 82% ( $n = 23$ ) of the participants found the informational content to be either “very helpful” or “extremely helpful.” More specifically, only one participant found the informational content to be “a little helpful”. The other participants indicated that it was “moderately helpful” ( $n = 4$ ), “very helpful” ( $n = 16$ ), or “extremely helpful” ( $n = 7$ ). Seventy-nine percent ( $n = 22$ ) of the participants reported the suggested strategies to be “very helpful” or “extremely helpful.” The other participants reported the strategies to be “a little helpful” ( $n = 1$ ), “moderately helpful” ( $n = 5$ ), “very helpful” ( $n = 12$ ), and “extremely helpful” ( $n = 10$ ).

There were some common themes that were observed from the participants’ feedback. One of the questions asked, “What things did you find most helpful about the Savoring module?” The most commonly report feedback was on the helpfulness of the savoring strategies in the Savoring Module. One participant noted, “Savoring was a new concept to me.... So the strategies provided were the most helpful for me so I could understand where I should start.” The feedback also indicated that most participants liked the presentation of information through the use of videos and stories. Less commonly, the participants provided general feedback that the overall content was helpful.



The second open-ended question sought to understand what changes could be made to the Savoring Module: “What would make the Savoring module more helpful for you?” Most commonly, participants indicated wanting more strategies and examples of what using specific strategies might look like in practice. One participant indicated, “I would like more sections that go into detail about what savoring can look like.” Less common but noteworthy feedback indicated wanting more guidance for practicing savoring. The present study was intended to be self-guided in nature and provided minimal instruction to allow the participants to freely choose how they practice savoring. However, several participants indicated wanting clearer idea of how savoring may be carried out. Additionally, there were comments on wanting more resources for further development of knowledge on savoring (see Appendix I for a full list of the responses).

**Hypothesis 6: The Proposed Savoring Questionnaire Will Be Comparable to the Existing Savoring Measure in a Test of Convergent Validity.**

The total scores of the SBI and the SQ were calculated by summing the responses for all items across participants. The correlation of the total SBI and SQ scores were significant for both the pretest ( $r = .62$ ) and the posttest ( $r = .74$ ) at a  $p < .05$  level. The results indicate that the newly developed Savoring Questionnaire is significantly related to the previously-validated SBI.

**Discussion**

Literature on savoring consistently shows that savoring relates to perceived well-being and various other psychological benefits (e.g., reduced depressive symptoms, overcoming low resilience; Sin & Lyubomirsky, 2009). Positive psychology intervention programs incorporating savoring strategies have been shown to increase overall well-being that lasts beyond the duration of the intervention (Bolier et al., 2013). Additionally, studies have shown that the delivery of positive psychology interventions via the Internet is a viable option (Layous et al., 2013).

However, the literature on savoring interventions through a self-directed online resource is largely unexplored. Further, the participants' experience of using such interventions may be worth exploring as it is currently largely unknown. Based on the previous findings and the limitations in the existing literature, the present study sought to demonstrate the feasibility of a self-directed internet-delivered savoring intervention in promoting well-being and collect descriptive/qualitative feedback on the content and the experience of using the Savoring Module. Secondly, the present literature also sought to establish the convergent validity of the proposed Savoring Questionnaire.

The first primary aim was to examine the feasibility of the Savoring Module and preliminary outcomes of delivering a self-directed savoring intervention for a duration of 21 days via the Savoring Module, an online resource created to promote subjective well-being. The present study found support for the feasibility of implementing the Savoring Module by demonstrating positive and significant changes in both savoring and well-being. The simultaneous increase in savoring and subjective well-being is not surprising given that the positive relationship between savoring and well-being has been stated by multiple studies (Jose et al., 2012). This finding indicates that individuals are able to experience improved subjective well-being via savoring without following a strict protocol or a professional guidance as indicated by previous literature (Bryant et al., 2005). The findings provide preliminary support that savoring interventions are suited for self-directed practice delivered as an online resource. More specifically, the results provide support for the feasibility of promoting subjective well-being using the Savoring Module. This is a noteworthy finding given that the participants were not contacted by the researcher to intervene with the savoring process and the participants were in charge of how they practiced savoring.

Further, the present study examines the factors that contributed to increases in savoring and well-being after using the Savoring Module. The present study found that the number of unique activities used and the amount of time spent savoring did not significantly predict for increased savoring or subjective well-being, as indicated by all the questionnaires included in the study. This finding is contrary to a previous study that indicated that using multiples strategies may contribute to improved well-being (Bao & Lyubomirsky, 2014). Perhaps, the time spent savoring and the activities used in the present study did not vary widely enough to adequately predict for outcomes in savoring or subjective well-being. It is possible that with a wider range of strategies used and time spend on savoring, we may be able to detect more nuanced effects of these variables on savoring and subjective well-being.

A second primary aim was to use the descriptive/qualitative feedback from the participants on the Savoring Module for further improvement of the resources in the Savoring Module. The participant feedback suggested that most of the participants positively rated the helpfulness of the Savoring Module, likely suggesting that both the informational content and the strategies were able to appropriately guide the participants in starting their own practice of savoring. The open-ended responses, which provided even more nuanced feedback, further supported the helpfulness of the strategies that were included in the Savoring Module. Further positive comments were made regarding the resources in the Savoring Module. Overall, the participants reacted positively to the Savoring Module as a whole even with minimal contact from the researcher to encourage savoring.

Although the present study was intentionally designed with minimal guidance for savoring practice, the participants most commonly indicated wanting clearer sense of what savoring entails. Hypothetical or anecdotal examples of savoring using various strategies will

likely address such feedback while continuing to maintain the self-directed nature of the Savoring Module. Reminders from researchers with relevant tips may also address this feedback as used in the previous literature (Hurley & Kwon, 2012). Participants also indicated wanting more strategies to base their practice on. Although the participants were encouraged to come up with their own strategies of savoring, it is possible that many of the participants relied on the menu of strategies to practice savoring. A more extensive list of strategies may better aid in savoring, especially for participants with little prior knowledge on savoring.

The supplemental analysis of the newly developed Savoring Questionnaire indicates significant correlation of the proposed savoring module to an existing savoring questionnaire (SBI; Bryant, 2003). Conducting a rigorous analysis of the proposed measures were beyond the scope of the present study. However, the test of convergent validity in the present study is a promising preliminary finding for the newly developed Savoring Questionnaire.

### **Limitations and Future Directions**

The present study was a pilot study designed to examine the feasibility of an internet-delivered self-directed savoring intervention through empirical analysis and participant feedback. This study further adds to the literature on the viability of internet-delivered positive psychology intervention.

The findings of the present study were primarily limited by the small sample size due to a high attrition rate. Although the results of the present study added positive outcome for both the savoring and the positive psychology intervention literature, the results should be interpreted with caution given the small number of completers. A future study should be conducted using a much larger sample similar to that of the intervention study highlighted above (Diener & Biswas-Diener, 2019) to obtain more reliable results. Future studies should also aim to collect feedback

from non-completers to obtain data on what led to not completing the full duration of the intervention. High attrition is a commonly faced challenge of self-directed studies (e.g, Van der Mispel, Poppe, Crombez, Verloigne & De Bourdeaudhuij, 2017). Although high attrition is often not directly addressed in the positive psychology interventions literature, internet-based positive psychology interventions also susceptible to experiencing high attrition rate (Linke, Gallo, & Norman, 2011). Perhaps the participants needed more encouragement and reminders to continue their practice of savoring. Future studies should focus on identifying the possible participant factors and intervention factors leading to non-completion and possible modifications that may encourage higher completion rate.

### **Conclusion**

The present study was a pilot study examining the feasibility of using the Savoring Module, a self-directed internet-delivered savoring resource, to improve subjective well-being. The empirical analysis and the descriptive/qualitative participant feedback indicated that the Savoring Module may be implemented to increase subjective well-being. The results further indicated that individuals can experience increased well-being using the Savoring Module with minimal intervention from the researcher. The feedback from the participants further supported that the Savoring Module was indeed helpful in practicing savoring, although future modifications may improve the experience of using the Savoring Module. Secondly, the Savoring Questionnaire was similarly related to an existing savoring questionnaire. The small sample of completers likely limits the reliability of the findings. Future studies should address the reasons for the high attrition rate in similarly designed studies and examine the Savoring Module using a larger sample.

## References

- Adler, G., Pritchett, L. R., Kauth, M. R., & Nadorff, D. (2014). A pilot project to improve access to telepsychotherapy at rural clinics. *Telemedicine and E-Health, 20*, 83-85.  
doi:10.1089/tmj.2013.0085
- Antoine, P., Dauvier, B., Andreotti, E., & Congard, A. (2018). Individual differences in the effects of a positive psychology intervention: Applied psychology. *Personality and Individual Differences, 122*, 140-147. <https://doi.org/10.1016/j.paid.2017.10.024>
- Balsam, K. F., & Mohr, J. J. (2007). Adaptation to sexual orientation stigma: A comparison of bisexual and lesbian/gay adults. *Journal of Counseling Psychology, 54*, 306-319.  
doi:10.1037/0022-0167.54.3.306
- Bao, K. J., & Lyubomirsky, S. (2014). Making happiness last: Using the hedonic adaptation prevention model to extend the success of positive interventions. In A. C. Parks & S. M. Schueller (Eds.), *The Wiley Blackwell handbook of positive psychological interventions*. (pp. 373-384). Wiley-Blackwell. Retrieved from <https://www.lib.byu.edu/cgi-bin/remoteauth.pl?url=http://search.ebscohost.com/login.aspx?direct=true&db=psych&AN=2014-16613-022&site=ehost-live&scope=site>
- Beaumont, S. L. (2011). Identity styles and wisdom during emerging adulthood: Relationships with mindfulness and savoring. *Identity: An International Journal of Theory and Research, 11*, 155-180. doi:10.1080/15283488.2011.557298
- Bolier, L., Haverman, M., Westerhof, G. J., Riper, H., Smit, F., & Bohlmeijer, E. (2013). Positive psychology interventions: A meta-analysis of randomized controlled studies. *BMC Public Health, 13*. <http://www.biomedcentral.com1471-2458/13/119>

- Bryant, F. B. (2003). Savoring beliefs inventory (SBI): A scale for measuring beliefs about savouring. *Journal of Mental Health, 12*, 175-196. doi:10.1080/0963823031000103489
- Bryant, F. B., & Smith, J. L. (2015). Appreciating life in the midst of adversity: Savoring in relation to mindfulness, reappraisal, and meaning. *Psychological Inquiry, 26*, 315-321. doi:10.1080/1047840X.2015.1075351
- Bryant, F. B., & Veroff, J. (2007). *Savoring: A new model of positive experience*. Mahwah, NJ: Lawrence Erlbaum Associates Publishers.
- Bryant, F. B., Smart, C. M., & King, S. P. (2005). Using the past to enhance the present: Boosting happiness through positive reminiscence. *Journal of Happiness Studies, 6*, 227-260. doi:10.1007/s10902-005-3889-4
- Catreine, J. A., Ahern, D. K., & Locke, S. E. (2010). Appreciating life in the midst of adversity: Savoring in relation to mindfulness, reappraisal, and meaning. *Psychological Inquiry, 26*, 315-321. doi:10.1080/1047840X.20151075351
- Cazanescu, D. G., Tecuta, L., Candea, D. M., & Szentagotal-Tartar, A. (2018). Savoring as mediator between irrational beliefs, depression, and joy. *Journal of Rational-Emotive & Cognitive-Behavioral Therapy*. <https://doi-org.erl.lib.byu.edu/10.1007/s10942-018-0304-8>
- Chen, J., & Zhou, L. (2017). Savoring as a moderator between positive life events and hopelessness depression. *Social Behavior and Personality, 45*, 1337-1344. <http://doi.org/10.2224/sbp/6235>
- Christensen, H., Griffiths, K. M., & Jorm, A. F. (2004). Delivering interventions for depression by using the internet: Randomised controlled trial. *BMJ: British Medical Journal, 328*, 265-269. doi:10.1136/bmj.37945.566632.EE

- Croft, A., Dunn, E. W., & Quoidbach, J. (2014). From tribulations to appreciation: Experiencing adversity in the past predicts greater savoring in the present. *Social Psychological and Personality Science*, *5*, 511-516. doi:10.1177/1948550613512510
- Diener, E., & Biswas-Diener, R. (2019). Well-being interventions to improve societies. In Sachs, J., Layard, R., & Helliwell, J. F. *Global Happiness Policy Report 2019: Global Happiness Council*.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, *49*, 71-75. doi:10.1207/s15327752jpa4901\_13
- Ernst, E. (2000). Prevalence of use of complementary/alternative medicine: A systematic review. *Bulletin of the World Health Organization*, *78*(2), 252.
- Friedman, E. M., Ruini, C., Foy, R., Jaros, L., Sampson, H., & Ryff, C. D. (2017). Lighten Up! A community-based group intervention to promote psychological well-being in older adults. *Aging & Mental Health*, *21*, 199-205. Retrieved from <https://doi-org.erl.lib.byu.edu/10.1080/13607863.2015.1093605>
- Geiger, P. J., Morey, J. N., & Segerstrom, S. C. (2017). Beliefs about savoring in older adulthood: Aging and perceived health affect temporal components of perceived savoring ability. *Personality and Individual Differences*, *105*, 164-169.  
<http://dx.doi.org/10.1016/j.paid.2016.09.049>
- Germain, V., Marchand, A., Bouchard, S., Guay, S., & Drouin, M. (2010). Assessment of the therapeutic alliance in face-to-face or videoconference treatment for posttraumatic stress disorder. *Cyberpsychology, Behavior, and Social Networking*, *13*, 29-35.  
doi:10.1089/cyber.2009.0139



- Greenawalt, K. E., Orsega-Smith, E., Turner, J. L., Goodwin, S., & Rathie, E. J. (2018). The impact of “the art of happiness” class on community dwelling older adults: A positive psychology intervention. *Activities, Adaptation & Aging*.  
<http://dx.doi.org/10.1080/01924788.2018.1493898>
- Hurley, D. B., & Kwon, P. (2012). Results of a study to increase savoring moment: Differential impact on positive and negative outcomes. *Journal of Happiness Studies*, 13, 579-588.  
doi:10.1007/s10902-011-9280-8bh
- Hurley, D. B., & Kwon, P. (2013). Savoring helps most when you have little: Interaction between savoring the moment and uplifts on positive affect and satisfaction with life. *Journal of Happiness Studies*, 14, 1261-1271. doi:10.1007/s10902-012-9377-8
- Johnstone, K. M., Kemps, E., & Chen, J. (2018). A meta-analysis of universal school-based prevention programs for anxiety and depression in children. *Clinical Child and Family Psychology Review*. <https://doi-org.erl.lib.byu.edu/10.1007/s10567-018-0266-5>
- Jose, P. E., Lim, B. T., & Bryant, F. B. (2012). Does savoring increase happiness? A daily diary study. *The Journal of Positive Psychology*, 7, 176-187.  
doi:10.1080/17439760.2012.671345
- Kobak, K. A., Mundt, J. C., & Kennard, B. (2016). ‘Integrating technology into cognitive behavior therapy for adolescent depression: A pilot study’: Erratum. *Annals of General Psychiatry*, 15. doi:10.1186/s12991-015-0089-4
- Lambert, L., Passmore, H. A., & Joshanloo, M. (2018). A positive psychology intervention program in a culturally-diverse university: Boosting happiness and reducing fear. *Journal of Happiness Studies: An Interdisciplinary Forum on Subjective Well-being*.  
<http://dx.doi.org/10.1007/s10902-018-9993-z>

- Layous, K., Nelson, S. K., & Lyubomirsky, S. (2013). What is the optimal way to deliver a positive activity intervention? The case of writing about one's best possible selves. *Journal of Happiness Studies, 14*, 635-654. Retrieved from <https://doi-org.erl.lib.byu.edu/10.1007/s10902-012-9346-2>
- Layous, K., Nelson, S. K., Oberle, E., Schonert-Reichl, K. A., & Lyubomirsky, S. (2012). Kindness counts: Prompting prosocial behavior in preadolescents boosts peer acceptance and well-being. *PLoS ONE, 7*, 1-3. Retrieved from <https://doi-org.erl.lib.byu.edu/10.1371/journal.pone.0051380>
- Linke, S.E., Gallo, L. C., & Norman, G. J. (2011). Attrition and adherence rates of sustained vs. intermittent exercise interventions. *Annals of Behavioral Medicine, 42*, 197-209. Retrieved from <https://doi-org.erl.lib.byu.edu/10.1007/s12160-011-9279-8>
- Lyubomirsky, S., & Lepper, H. (1999). A measure of subjective happiness: Preliminary reliability and construct validation. *Social Indicators Research, 46*, 137-155. Retrieved from <https://doi-org.erl.lib.byu.edu/10.1023/A:1006824100041>
- Lyubomirsky, S., Sheldon, K. M., & Schkade, D. (2005). Pursuing happiness: The architecture of sustainable change. *Review of General Psychology, 9*, 111-131. doi:10.1037/1089-2680.9.2.111
- McMakin, D. L., Siegle, G. J., & Shirk, S. R. (2011). Positive affect stimulation and Sustainment (PASS) module for depressed mood: A preliminary investigation of treatment-related effects. *Cognitive Therapy and Research, 35*, 217-226. Retrieved from <https://doi-org.erl.lib.byu.edu/10.1007/s10608-010-9311-5>
- Miller, A. B., Eisenlohr-Moul, T., Giletta, M., Hastings, P. D., Rudolph, K. D., Nock, M. K., & Prinstein, M. J. (2017). A within-person approach to risk for suicidal ideation and

- suicidal behavior: Examining the roles of depression, stress, and abuse exposure. *Journal of Consulting and Clinical Psychology*, 85, 712-722. doi:10.1037/ccp0000210
- Morrison, C., Walker, G., Ruggeri, K., & Hughes, J. H. (2014). An implementation pilot of the MindBalance web-based intervention for depression in three IAPT services. *The Cognitive Behaviour Therapist*, 7. doi:10.1017/S1754470X14000221
- Nelson, S. K., Layous, K., Cole, S. W., & Lyubomirsky, S. (2016). Do unto others or treat yourself? The effects of prosocial and self-focused behavior on psychological flourishing. *Emotion*, 16, 850-861. Retrieved from <https://doi-org.erl.lib.byu.edu/10.1037/emo0000178.supp>
- Pavot, W., Diener, E., Colvin, C. R., & Sandvik, E. (1991). Further validation of the satisfaction with life scale: Evidence for the cross-method convergence of well-being measures. *Journal of Personality Assessment*, 57, 149-161. Retrieved from [https://doi-org.erl.lib.byu.edu/10.1207/s15327752jpa5701pass:\[\\_ \]17](https://doi-org.erl.lib.byu.edu/10.1207/s15327752jpa5701pass:[_ ]17)
- Piscotty, R. J., Kalisch, B., & Gracey-Thomas, A. (2015). Impact of healthcare information technology on nursing practice. *Journal of Nursing Scholarship*, 47, 287-293. doi:10.1111/jnu.12138
- Quoidbach, J., Berry, E. V., Hansenne, M., & Mikolajczak, M. (2010). Positive emotion regulation and well-being: Comparing the impact of eight savoring and dampening strategies. *Personality and Individual Differences*, 49, 368-373. Retrieved from <https://doi-org.erl.lib.byu.edu/10.1016/j.paid.2010.03.048>
- Redzic, N. M., Taylor, K., Chang, V., Trockel, M., Shorter, A., & Taylor, C. B. (2014). An internet-based positive psychology program: Strategies to improve effectiveness and

- engagement. *The Journal of Positive Psychology*, 9, 494-501. Retrieved from <https://doi-org.erl.lib.byu.edu/10.1080/17439760.2014.936966>
- Salces-Cubero, I. M., Ramírez-Fernández, E., & Ortega-Martínez, A. R. (2018). Strengths in older adults: Differential effect of savoring, gratitude and optimism on well-being. *Aging & Mental Health*. Retrieved from <https://doi-org.erl.lib.byu.edu/10.1080/13607863.2018.1471585>
- Santos, V., Paes, F., Pereira, V., Arias-Carrión, O., Silva, A. C., Carta, M. G., ... Machado, S. (2013). The role of positive emotion and contributions of positive psychology in depression treatment: Systematic review. *Clinical Practice and Epidemiology in Mental Health*, 9. Retrieved from <https://doi-org.erl.lib.byu.edu/10.2174/1745017901309010221>
- Schotanus-Dijkstra, M., Pieterse, M. E., Drossaert, C. H. C., Westerhof, G. J., de Graaf, R., ten Have, M., ... Bohlmeijer, E. T. (2016). What factors are associated with flourishing? Results from a large representative national sample. *Journal of Happiness Studies: An Interdisciplinary Forum on Subjective Well-Being*, 17, 1351–1370. <https://doi-org.erl.lib.byu.edu/10.1007/s10902-015-9647-3>
- Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive Psychology: An introduction. *American Psychologist*, 55(1), 5-14.
- Sharry, J., Davidson, R., McLoughlin, O., & Doherty, G. (2013). A service-based evaluation of a therapy-supported online cognitive behavioral therapy program for depression. *Journal of Medical Internet Research*, 15, 26-40. doi:10.2196/jmir.2248
- Sin, N. L., & Lyubomirsky, S. (2009). Enhancing well-being and alleviating depressive symptoms with positive psychology interventions: A practice-friendly meta-analysis.

- Journal of Clinical Psychology*, 65, 467-487. <https://doi-org.erl.lib.byu.edu/10.1002/jclp.20593>
- Smith, J. L., & Hanni, A. A. (2019). Effects of a savoring intervention on resilience and well-being of older adults. *Journal of Applied Gerontology*, 38, 137-152. Retrieved from <https://doi-org.erl.lib.byu.edu/10.1177/0733464817693375>
- Smith, J. L., & Hollinger-Smith, L. (2015). Savoring, resilience, and psychological well-being in older adults. *Aging & Mental Health*, 19(3), 192-200.
- Sytine, A. I., Britt, T. W., Sawhney, G., Wilson, C. A., & Keith, M. (2018). Savoring as a moderator of the daily demands and psychological capital relationship: A daily diary study. *The Journal of Positive Psychology*. <https://doi-erl.lib.byu.edu/10/1080/17439760.2018.1519590>
- Van der Mispel, C., Poppe, L., Crombez, G., Verloigne, M., & De Bourdeaudhuij, I. (2017). A self-regulation-based eHealth intervention to promote a healthy lifestyle: Investigating user and website characteristics related to attrition. *Journal of Medical Internet Research*, 19, 27-39. Retrieved from <https://search.ebscohost.com.erl.lib.byu.edu/login.aspx?direct=true&db=psych&AN=2017-34341-002&site=ehost-live&scope-site>
- Vaughn, M. & Beers, C. (2017). Using an exploratory professional development initiative to introduce iPads in the early childhood education classroom. *Early Childhood Education Journal*, 45, 321-331. Doi:10.1007/s10643-016-0772-3
- Walsh, S., Szymczynska, P., Taylor, S. J. C., & Priebe, S. (2018). The acceptability of an online intervention using positive psychology for depression: A qualitative study. *Internet Interventions*, 13, 60-66. <https://doi.org/10.1016/j.invent.2018.07.003>

## Appendix A

## Savoring Questionnaire

Please indicate how much you agree with each of the following statements, based on your experiences over the past few weeks.

1 = Strongly Disagree 2 = Disagree 3 = Somewhat Disagree 4 = Neutral 5 = Somewhat Agree  
6 = Agree 7 = Strongly Agree

1. I very often pause to savor the good moments in my life.
2. I often take the time to reminisce about positive experiences in the past.
3. \*I probably miss many opportunities for enjoyment because I'm racing through the day.
4. When I eat a delicious meal, I purposely slow down to savor it.
5. \*I often don't let myself enjoy a good experience, because I'm worried that it will end.
6. When I see something that is beautiful or awe-inspiring I usually pause to appreciate it.
7. I get a lot of joy out of anticipating positive future events.
8. I frequently make it a point to slow down and enjoy the moment.

[\* = reverse-scored]

## Appendix B

## Savoring Beliefs Inventory

Instructions: For each statement listed below, please circle the one number that best indicates how true the particular statement is for you. There are no right or wrong answers. Please be as honest as you can.

1 = Strongly Disagree 2 = Disagree 3 = Somewhat Disagree 4 = Neutral 5 = Somewhat Agree  
6 = Agree 7 = Strongly Agree

1. Before a good thing happens, I look forward to it in ways that give me pleasure in the present.
2. It's hard for me to hang onto a good feeling for very long.
3. I enjoy looking back on happy times from my past.
4. I don't like to look forward to good times too much before they happen.
5. I know how to make the most of a good time.
6. I don't like to look back at good times too much after they've taken place.
7. I feel a joy of anticipation when I think about upcoming good things.
8. When it comes to enjoying myself, I'm my own "worst enemy."
9. I can make myself feel good by remembering pleasant events from my past.
10. For me, anticipating what upcoming good events will be like is basically a waste of time.
11. When something good happens, I can make my enjoyment of it last longer by thinking or doing certain things.
12. When I reminisce about pleasant memories, I often start to feel sad or disappointed.
13. I can enjoy pleasant events in my mind before they actually occur.
14. I can't seem to capture the joy of happy moments.
15. I like to store memories of fun times that I go through so that I can recall them later.
16. It's hard for me to get very excited about fun times before they actually take place.
17. I feel fully able to appreciate good things that happen to me.

18. I find that thinking about good times from the past is basically a waste of time.
19. I can make myself feel good by imagining what a happy time that is about to happen will be like.
20. I don't enjoy things as much as I should.
21. It's easy for me to rekindle the joy from pleasant memories.
22. When I think about a pleasant event before it happens, I often start to feel uneasy or uncomfortable.
23. It's easy for me to enjoy myself when I want to.
24. For me, once a fun time is over and gone, it's best not to think about it.



## Appendix C

## SURvey on Flourishing

Please indicate how much you agree with each statement below.

1 = Strongly Disagree 2 = Disagree 3 = Somewhat Disagree 4 = Neutral 5 = Somewhat Agree  
6 = Agree 7 = Strongly Agree

1. My life is full of joy.
2. Other people genuinely appreciate me and care about me.
3. \*I often feel like I should be happier than I am.
4. The things I do in life are valuable and worthwhile.
5. I am very satisfied with the way I am living my life.
6. I usually wake up excited for the day ahead.
7. I feel a strong sense of purpose and meaning in my life.
8. My relationships are supportive and rewarding.
9. \*Most days, I experience more negative emotions than positive ones.
10. I feel a genuine sense of connection to other people.
11. I regularly spend time doing things I enjoy.
12. \*I often feel like no one understands me.
13. I feel happy and peaceful most of the time.
14. There is very little (if anything) I would change about my life.
15. I do many things that contribute to others' well-being.
16. I feel intense gratitude to be alive.
17. I would say I'm making very good progress in life.

[\* = reverse-scored]

## Appendix D

## Subjective Happiness Scale

For each of the following statements and/or questions, please circle the point on the scale that you feel is most appropriate in describing you.

1. In general, I consider myself:

1	2	3	4	5	6	7
Not a very happy person						A very happy person

2. Compared to most of my peers, I consider myself:

1	2	3	4	5	6	7
Less happy						More happy

3. Some people are generally very happy. They enjoy life regardless of what is going on, getting the most out of everything. To what extent does this characterization describe you?

1	2	3	4	5	6	7
Not at all						A great deal

4. Some people are generally not very happy. Although they are not depressed, they never seem as happy as they might be. To what extent does this characterization describe you?

1	2	3	4	5	6	7
Not at all						A great deal

## Appendix E

## Satisfaction with Life Scale

Below are five statements that you may agree or disagree with. Using the 1 - 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

1 = Strongly Disagree 2 = Disagree 3 = Somewhat Disagree 4 = Neutral 5 = Somewhat Agree  
6 = Agree 7 = Strongly Agree

\_\_\_\_\_ In most ways my life is close to my ideal.

\_\_\_\_\_ The conditions of my life are excellent.

\_\_\_\_\_ I am satisfied with my life.

\_\_\_\_\_ So far I have gotten the important things I want in life.

\_\_\_\_\_ If I could live my life over, I would change almost nothing.

## Appendix F

## Savoring Module Feedback Questionnaire

The Savoring Module (the set of online resources you were instructed to use) is designed to help people learn about savoring and to help people practice this skill more effectively.

Overall, how helpful was the *informational content* on Savoring (not including the strategies)?

- 1 - Not at all helpful
- 2 - A little helpful
- 3 - Moderately helpful
- 4 - Very helpful
- 5 - Extremely helpful

How helpful were the *strategies* provided in learning how to more effectively practice savoring?

- 1 - Not at all helpful
- 2 - A little helpful
- 3 - Moderately helpful
- 4 - Very helpful
- 5 - Extremely helpful

What things did you find most helpful about the Savoring module?

What would make the Savoring module more helpful for you?

Any other comments or feedback you'd like to provide about the Savoring module or your experience practicing the strategies?

## Appendix G

## Instruction for Study Participants

Thank you for your participation in the study.

Below is the outline of what you will be doing during your participation in this study. Please read the following information carefully.

- Before you start, please click on the following link ([https://byu.az1.qualtrics.com/jfe/form/SV\\_cvIad70Lz0thjQV](https://byu.az1.qualtrics.com/jfe/form/SV_cvIad70Lz0thjQV)). Carefully read through the consent form on the first page. Should you choose to participate in the study, please proceed by clicking the “next” button and complete the questionnaire.
- Be sure to follow the detailed instructions as outlined by the consent form.
- To access the savoring module, click on the following link (<https://www.mybestself101.org/savoring>). Read and fulfill the tasks appearing on the pages.
- Be sure to document your activities and time spent each time using the “time/activity tracking form” that is attached at the bottom of this email.
- At the end of 21 days, click the following link to complete the questionnaire ([https://byu.az1.qualtrics.com/jfe/form/SV\\_3mbgGG0p6dEPRLD](https://byu.az1.qualtrics.com/jfe/form/SV_3mbgGG0p6dEPRLD)). Then, send the completed “time/activity tracking form” via email to me (So Yeon Park) at [park46@byu.edu](mailto:park46@byu.edu).

It is crucial for you to use the links that were sent to access the questionnaires instead of the questionnaire that is embedded in the savoring module.

If you have any questions or comments regarding your participation in the study, please feel free to contact me at [park46@byu.edu](mailto:park46@byu.edu).

Thank you,  
So Yeon Park

Appendix H

Time and Activity Tracking Form

**Strategy:**

Plan:

<u>Date</u>	<u>Minutes</u>	<u>Notes (what you did, how it went, what you learned)</u>
Mon		
Tue		
Wed		
Thu		
Fri		
Sat		
Sun		
<b>Weekly Total</b>	<b>0</b>	Revisions/Enhancements for the coming week?:
Mon		
Tue		
Wed		
Thu		
Fri		
Sat		
Sun		
<b>Weekly Total</b>	<b>0</b>	Revisions/Enhancements for the coming week?:
Mon		
Tue		
Wed		
Thu		
Fri		
Sat		
Sun		
<b>Weekly Total</b>	<b>0</b>	Summary (What worked, what didn't; lessons learned):

## Appendix I

## Full List of Descriptive Responses Categorized by Questions

What things did you find most helpful about the Savoring Module?

- Specific activities suggested
- Recording my savoring moments forced me to do the activities instead of just reading about them.
- I really liked the Helen Keller story and other specific examples
- I absolutely loved the website! Seriously such a great resource and something I look back at and share with people. It does such a good job of explaining savoring and why.
- There were a lot of materials to choose from, especially in the resources section.
- The research that was presented and the information given about what savoring really is.
- It gave suggestions of specific activities as well as outlining the general principles.
- general information, videos, and strategies were good
- The TED talks were my favorite parts because they helped me understand the point of savoring.
- providing the strategies
- Getting ideas of ways to use savoring
- just a motivation and reminder to slow down and savor
- All of the information, I really liked the strategies it gave to practice.
- I liked the TedTalks, I liked the description of the activities, I liked Helen Keller's story
- Watching the videos and viewing the menu of strategies.
- the resources were excellent
- The examples that were given and the videos

- I really liked the videos that explained how to more fully appreciate the simple moments in life. I think that the best aspect of the module was that it so simply explained how to better savor life's moments by giving examples and telling simple, but scientifically proven examples.
- Having some concrete ideas of what to do.
- The most helpful was the realization that we can savor any moment throughout the day if we decide to do it consciously.
- I found that the story with Helen Keller was most helpful because it made me think about how important it is for us to use our senses and savor the moment more than we are doing.
- Savoring was a new concept to me. I had never heard of it or experienced it knowingly. So the strategies provided were the most helpful for me so I could understand where I should start. The explanation also helped me see why savoring would be important in my life, so I sought practical opportunities to savor, which I think helped me take this study seriously.
- I really enjoyed the TED talks and the ideas for savoring activities.
- The scone method. I liked the 'c' consider the context. That seems to make a big difference in feeling grateful for my particular situation. I also enjoyed the TED talks and videos.
- Practicing the exercises
- Having a strategy to focus on every day was the most helpful part of the module. I found that at the beginning I had to consciously make the effort to savor moments, but by the end I was savoring moments without making the decision to try and savor.



- Learning about slowing down and enjoying the moment.

What would make the Savoring Module more helpful for you?

- I can't really think of anything I would change
- Maybe make it longer with specific assignments for each week.
- I would love resources and ideas to be added to it. It would be cool if a tab was even added of peoples personal experiences and what a difference it made in their lives and/or the statistics from this study would be really cool.
- I would like more sections that go into detail about what savoring can look like. For example, I really liked the section that described savoring during a walk in nature. That was super helpful.
- More free resources for savoring strategies.
- More ideas of specific activities to try.
- more ideas for strategies and more information on how to actually stay in the moment. It was hard to savor for more than a few moments at a time.
- More specific ideas for savoring.
- not sure
- Probably more suggestions of things to do.
- I would like to see more videos talking about the benefits of savoring.
- There were some book suggestions, but I didn't want to spend the money, so perhaps providing excerpts from the books (as copyright allows) would be nice! Maybe more stories like Helen Keller's. Also the link didn't work for the rest of her story.
- Getting more suggestions on moments to savor something.
- I almost wanted more time to read the other books before starting the savoring practice

- More examples of things to savor, or helpful ways to come back to savoring when it's difficult to.
- I would have liked it to be more interactive on the website. I like that it's kind of a "choose your own adventure" type of feel but if there were specific things for me to focus on each day I feel that I would have learned about a wider variety of strategies.
- Have more suggestions and strategies for how to improve savoring. There were few to choose from.
- To be honest, I am not sure.
- Having examples of savoring maybe?
- Clarity between the mobile version and the version seen on the computer. I would use both, but the mobile version seemed different from the other one.
- I think more videos would be better.
- Rick Hanson has a 'heal' method that i thought of while doing this. have a good experience, enrich it, absorb it, and optionally link it to negative material. The comparison to lighting a fire, adding sticks and taking time to feel the warmth was a good picture in my mind as i practiced savoring.
- Can't think of anything
- Perhaps having a video to help explain or illustrate some of the principles discussed.
- Perhaps having them broken down day by day for reviewing.

Any other comments or feedback you'd like to provide about the Savoring Module or your experience practicing the strategies?

- I am so grateful for this in my life it could not have come at a more perfect time honestly. So grateful for this. It would have been good for me to realize the first week included

reviewing the website because that wasn't until the last page that it says the first week is to learn and study the material. Also, knowing when the first \$10 would come would be good to, to know what to expect and how the whole process works so I know I can trust in it. Overall very good though.

- Life does often get in the way, but that made it all the more rewarding to try and slow down and appreciate life.
- I was really appreciative of the exercises!
- Explain the form better
- no, good job
- I noticed that I was starting to slow down and savor even when i was not being intentional about it. I appreciated taking the time to slow down and appreciate good things that were happening around me.
- I really enjoyed this, I know that practicing these strategies will really help me to continue savoring the small things in life.
- I think I included it all above!
- It was great!!
- I found this study extremely beneficial to my well being
- No
- Great job! I'll definitely be using this as a reference throughout my life.
- This was amazing! Thank you!
- None, I think that the savoring module was very helpful and very informative
- More clarity on what I'm allowed to do would be nice. I was also confused on how many strategies to use because there were multiple tabs on the document that was sent to me, so

I got nervous after starting the experiment because I thought I had to do more different types of savoring.

- I think everything was pretty well done. It's a little bit confusing to have the links for the surveys on the savoring module, because we were instructed to use the links in the email.
- The module talked about savoring being connected to mindfulness and flow. I didn't really experience a whole lot of flow as i paracticed, but gratitude seemed to be a big component. I'd like to learn more about flow. Maybe i'm doing it but don't know it.
- No.
- Wasn't certain which strategies should be reviewed when.