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An Evaluation of the Feedback Report for the Preventive Resources Inventory

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Abstract

An Evaluation of the Feedback Report for the Preventive Resources Inventory

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Research on how individuals cope with stress has spanned numerous academic and scientific disciplines, including the fields of counseling and psychology. Investigations have more recently focused on preventive coping, or the coping strategies used by individuals to manage existing stressors and prepare for future demands. The Preventive Resource Inventory (PRI) was developed to assess coping resources for mitigating or preventing stress, rather than withstanding it. The PRI was recently revised to reflect more current theoretical perspectives in stress and coping research, including the influence of positive psychology. This revision process involved developing and testing new items and later conducting a factor analysis to create an updated measure. The present study used the updated version of the PRI to assess the utility of a feedback report for PRI users. This study also examined how individuals understand preventive coping in the context of their own personal coping efforts. Qualitative methodologies used in this study drew on principles and procedures of phenomenology.

A total of 25 graduate students and 26 undergraduate students taking a course in the College Education participated in the study, completing short answer questionnaires intended to address the study's research questions. 11 undergraduate students also participated in follow-up interviews with me to provide more depth and clarify their responses. The short answer questionnaires and interview transcripts of 27 participants (27 short answer questionnaires and 11 transcripts) were analyzed before data saturation was achieved. Based on analyses of these data, I identified specific aspects of both the report and the overall feedback process that students found to helpful and unhelpful in augmenting their understanding of their results. I was also able to identify several recommendations for improving the PRI feedback report in the future. Regarding participants' understanding of preventive coping, I used quantitative data from the short-answer questionnaires to identify and further inquire about specific preventive coping resources (i.e., Maintaining Perspective, Scanning, and Self-Acceptance) about which participants demonstrated discrepancies in their understanding and comprehension. Analyses also demonstrated ways in which participants contextualized their personal coping efforts, including the development of their coping efforts through dispositional and/or skill-based pathways.

Table of Contents

<i>List of Tables</i>	<i>viii</i>
<i>List of Figures</i>	<i>ix</i>
<i>Chapter One: Introduction</i>	<i>1</i>
<i>Chapter Two: Literature Review</i>	<i>7</i>
Perspectives on Preventive Coping.....	11
Measurement of Coping	15
Measurement of Preventive Coping.....	16
Development of the Preventive Resources Inventory	17
Recent Revisions to the PRI	18
PRI Feedback Report.	21
Assessment Feedback in Counseling Contexts	22
Rationale for Current Study	24
<i>Chapter Three: Methodology</i>	<i>26</i>
Overview	26
Methodological Rationale.....	26
Approval by Human Subjects Committee	28
Development of the Questionnaire and Interview Protocol	29
Phase One	30
Participants and Recruitment.	30
Procedures.....	32
Phase Two	33
Participants and Recruitment.	33
Procedures.....	35
Interviewer and Analysis Team.	37
Data Analysis	38
Validity Concerns.....	44
<i>Chapter Four: Findings</i>	<i>47</i>
Overview of Quantitative Results.....	47
Reactions to the Feedback Report and Feedback Process	49
Report Elements that Influenced Understanding.	49
Feedback Elements that Influenced Understanding.....	52
Suggested Improvements to the Feedback Process.	53
Understanding of Preventive Coping	54
Identified Elements of Preventive Coping.....	54
Understanding of Preventive Coping Resources.	55

Identification of Interrelatedness of Coping Resources.....	59
Understanding of Personal Coping Efforts	60
Feedback Consistent with Prior Self-Concept.....	60
Feedback Inconsistent with Prior Self-Concept.....	62
Identification of Personal Area for Growth.....	63
Identification of Personal Area of Strength.....	64
Use of Combative Coping.....	66
Development of Personal Coping Efforts	67
Coping Shaped by Culture.....	67
Coping as Dispositional.....	69
Coping as Situational or Skill-based.....	69
Coping as Both Dispositional and Skill-based.....	70
Improvement of Personal Coping Efforts.....	71
Desire to Improve Attitude Towards Stress.....	71
Desire to Improve Global Coping Resources.....	71
Desire to Improve a Specific Coping Resource.....	72
Identification of Specific Behaviors to Improve Coping.....	72
Identification of Reasons to Improve Coping.....	73
<i>Chapter Five: Discussion</i>	<i>74</i>
Research Question One: Helpfulness of the PRI Feedback Report	76
Potential Improvements to the PRI Feedback Process.....	77
Research Question Two: Participants' Understanding of Preventive Coping.....	78
Research Question Three: Participants' Understanding and Utilization of Results	80
The Role of Culture in Coping.....	82
Limitations and Delimitations	83
Implications and Directions for Future Research.....	86
<i>Appendices.....</i>	<i>88</i>
Appendix A: Preventive Resources Inventory	89
Appendix B: Feedback Report	92
Appendix C: Phase One Informed Consent	97
Appendix D: Phase Two Informed Consent Document	99
Appendix E: Phase One Short Answer Questionnaire	101
Appendix F: Phase Two Short Answer Questionnaire.....	103
Appendix G: Sample Interview Protocol.....	104
Appendix H: Participant Areas for Growth and Areas of Strength	105
<i>References</i>	<i>106</i>

List of Tables

Table 1: Demographic Information for Participants Included in Qualitative Analysis.....	42
Table 2: Frequencies for Phenomena-Related Codes.....	44

List of Figures

Figure 1: Transactional Model of Stress and Coping.....	10
Figure 2: Terms and Definitions of Preventive Coping.....	12
Figure 3: PRI Scale Comparison Measures.....	20
Figure 4: Responses to Likert-scale Questionnaire Items for All Participants.....	48

Chapter One: Introduction

In the past several decades, researchers in the physical and social sciences have emphasized the importance of prevention and early intervention in the stress management process (Lazarus, 1974; Ruotsalainen, Verbeek, Mariné, & Serra, 2015; Southwick, Vythilingam, & Charney, 2005; Williams & Berry, 1991). Stress generally refers to physical, emotional, environmental, and hypothetical demands encountered by individuals which may ultimately produce a stress response in the body (Selye, 1976). This stress response can induce a variety of effects. Physiologically, stress activates the “fight or flight” response of the sympathetic nervous system, resulting in increased respiration, heart rate, and blood pressure (Cannon, 1932). Stress may also produce alterations in mood, including increased feelings of anxiety, depression, and irritability, and may impact subjective emotional experiences of self-esteem and self-acceptance (Lovibond & Lovibond, 1995; Wilburn & Smith, 2005). Lastly, stress may affect behavior, particularly health behaviors (e.g. grinding teeth or overeating) and social behaviors (e.g. seeking social support or withdrawing from others) (DeLongis, Folkman, & Lazarus, 1988; Selye, 1976). Due to the negative impact of the stress response on the individual, recent attention has been given to efforts aimed at preventing the physiological, psychological, and behavioral effects of stress and promoting resilience during stressful situations (Southwick, Vythilingam, & Charney, 2005; Steinhardt & Dolbier, 2008). Current stress prevention approaches are rooted in occupational and public health care, where researchers and health care practitioners have attempted to ameliorate chronic stress experienced by a group of people, such as company employees or marginalized communities who are considered at high-risk (Ivancevich & Matteson, 1980; Williams & Berry, 1991). Group-level approaches to stress prevention have included support for existing community structures that promote resiliency (e.g.

funding faith-based programs with a mental health focus), development of novel programs for at-risk groups (e.g. resiliency training for military families), and organizational risk assessment and intervention (e.g. evaluation of workplace culture and making subsequent adjustments to workplace policies) (Kompier, Cooper, & Geurts, 2000; Lester, Nash, Green, Pynoos, & Beardslee, 2011; Williams & Berry, 1991). Preventive coping offers an agentic approach to dealing with stressors by averting stressful events altogether or creating conditions that promote positive approaches to stressful situations when they arise (Greenglass, 2002).

Historically, the field of stress has focused on combatting stress and coping with active stressors, rather than preventing or reducing the impact of future stressors through preventive coping (Matheny, Aycock, Pugh, Curlette, & Canella, 1986). Preventive coping has been conceptualized within the transactional model of stress and coping, which also accounts for combative or reactive coping efforts (Lazarus & Folkman, 1984; Matheny et al., 1986). According to the transactional model, stress is the result of individuals' appraisals, or perceptions, that their current demands exceed their current levels of resources (Lazarus & Folkman, 1984). Combative coping refers to coping efforts that occur after the stress appraisal process has occurred, while preventive coping impacts the individual prior to and during the appraisal process.

For example, imagine an undergraduate mechanical engineering student entering her final year of college who is planning to apply for a job after graduation. She knows the process will require a significant amount of her time and attention, and she intends to begin working on her applications far enough in advance to help manage her stress. Unfortunately, her coursework, fall internship, and part-time job and consume much of her time and ultimately divert her from this plan. She ultimately begins working on her applications six weeks before graduation, mostly by

working late into the evening and losing a significant amount of sleep. During those six weeks, she experiences moderate acid reflux and begins to take a daily heartburn medication, and she regularly vents to her partner about her frustration that many jobs, including jobs at the sites where she completed internships, are no longer available. She feels guilty for putting off the applications until the last minute even though she knows her delayed efforts were not due to idleness or procrastination.

Now, imagine a second engineering student who is also planning to apply to jobs next year. In preparation for working on her applications, she assesses her current workload. This student decides to look for a summer internship at a firm where she would ultimately like to apply for a job. She also reaches out to her previous internship sites to see if they will be hiring in the coming year. To give her more time to work on applications, she spreads out her coursework over her final semesters and cuts back on her shifts at work. She reaches out to older students and graduates from her program who have recently gone through the process for their guidance and support. She also takes time to reflect on the function on how her first job relates to her larger career goals and how she might approach the next year if she does not receive a job offer. She experiences some anxiety during this process but feels well-resourced as she completes her applications.

Both students in this example engaged in a variety of coping efforts to manage the stress of the job application process; however, their coping processes differed in significant ways. The first student began to respond to the situation after it had already become stressful, and her coping efforts were directed at managing her emotional response to stress (e.g. venting to her partner) and tackling the underlying cause of her stress (e.g. staying up late to complete her applications). The second student responded to the situation before it became acutely stressful,

and her coping efforts focused on preventing herself from becoming stressed later on (e.g. rearranging her schedule in advance). The first student experienced negative effects of stress, like heartburn and feelings of guilt, while the second student experienced a more manageable level of anxiety. It appears obvious that the second student engaged in more successful coping and experienced greater wellness during the application process than the first student; what is less clear, however, are the conditions under which the second student was able to identify potential demands and mobilize her preventative coping resources. In this scenario, the first student utilized social support, a combative coping resource, to vent her frustration and manage her emotional response to the stress she was experiencing. The second student utilized social resourcefulness, a preventive coping resource, to elicit feedback from individuals who had already completed the internship application process. These efforts allowed the second student to better navigate the stressor of completing applications while maintaining optimal wellness and avoiding some of the negative outcomes experienced by the first student.

Preventive coping involves a future-oriented focus on initiating change to avert or manage potential stress. This type of coping refers to efforts to accumulate resources and employ forward-thinking strategies that can be used to mitigate the harmful effects of stress. Preventive coping may also include a positive re-appraisal of stressful situations based on their perceived potential to promote growth, a process associated with intrinsic goal-striving (Folkman, 1997; Schwarzer & Taubert, 2002). High levels of preventive coping have been positively associated with an internal locus of control, self-efficacy, and life satisfaction (Greenglass, 2002). Preventive coping has also been associated with improved work performance and higher levels of physical and emotional well-being in non-clinical populations (Greenglass & Fiksenbaum, 2009; Sohl & Moyer, 2009).

Despite the increased attention towards prevention in the stress management process, few instruments exist that aim to assess an individual's levels of preventive coping resources. To address this need, the Preventive Resources Inventory (PRI; McCarthy & Lambert, 2001) was developed to measure an individual's resources to mitigate and prevent stress. While previous research has demonstrated validity evidence for the PRI (McCarthy, Lambert, Beard, & Dematatis, 2002), the body of research on preventive coping and related constructs has continued to progress since the original creation of the measure. In the last few years, an additional validity study for the PRI was conducted based on more recent developments in the coping literature. From this validity study, an updated version of the PRI was created (Allender, Murphy, McCarthy, Lambert, & Eyal, 2016).

With an improved set of scales and items, the next steps in research on the PRI aim to address its utility. Currently, individuals who take the PRI receive a feedback report that provides information on their level of preventive coping skills. The purpose of the report is to provide respondents with explanations of the different preventive coping resources being measured by the PRI and to help them visualize their relative strengths and areas for development among those coping resources. The report also helps respondents view how their scores compare to the scores of other individuals who have taken the PRI. Consistent with guidelines on assessment feedback from Finn and Tonsager (1997), the assessment process for the PRI is collaborative and includes in-person feedback, in group or individual format, to supplement the report. While the PRI feedback report is an important tool to help respondents understand their current levels of preventive coping resources, the clarity and usefulness of the report has not been formally evaluated. The purpose of the current study was to examine how

PRI respondents understand and use their feedback report to improve their preventive coping skills. The research questions for the study were as follows:

1. What elements of the PRI feedback report do PRI-respondents find helpful or unhelpful in facilitating their understanding of their results?
2. How do PRI-respondents understand the preventive coping constructs described in the PRI feedback report?
3. How do PRI-respondents use their results to describe ways of coping with stress, including how their coping efforts have developed and will continue to improve in the future?

Data collection occurred in two distinct phases. Results of the study will be used to revise the PRI to improve its clarity and utility, as well as provide recommendations for supplemental in-person feedback that will ultimately accompany the report.

The following chapters will include a review of relevant literature, a discussion of the research design and methodology for the present study, and an analysis, interpretation, and synthesis of results. The literature review will discuss previous research on stress and coping and preventive coping, the development of the PRI, and the role of feedback in the assessment process. The methodology for the study will be presented, followed by a presentation of the results of data analysis. The document will conclude with a discussion of conclusions, limitations and delimitations, and recommendations for future r.

Chapter Two: Literature Review

Stress has been widely studied across academic fields, including physiology, psychology, public health, and sociology. The variety of perspectives within the literature can be viewed through the multiple definitions of stress as a construct; stress has been understood as a physical response, an external event, and an intrapsychic experience (Taylor & Stanton, 2007). Stress has also been examined as both an individual and collective phenomenon (Hobfoll, 2001). In the past several decades, the field has converged on a definition of stress as resulting from an imbalance between demands and resources. Two of the most widely-accepted theories in the stress literature, Lazarus and Folkman's transactional model (1984) and Hobfoll's conservation of resources model (1989), have been termed "balance models," underscoring the idea that the experience of stress is contingent upon the demands-to-resources relationship (Meurs & Perrewé, 2001). The conservation of resources model emphasizes objective resource gain and loss as the most important component of the stress process, with stress occurring when there is a loss of resources or a threat of loss (Hobfoll, 1989). This model is viewed as an alternative to the transactional model of stress, which highlights the importance of an individuals' perceptions of demands and resources (Lazarus & Folkman, 1984). The transactional model emphasizes the experience of stress as a subjective appraisal process rather than as the tangible loss of resources. This process occurs through two consecutive cognitive appraisals, known as primary and secondary appraisals. In the primary appraisal, individuals assess their level of demands, or potential stressors. In the secondary appraisal, they evaluate the adequacy of their coping resources to address those demands. A stress response is triggered when demands are appraised as significantly greater than the level of resources available to meet them (Lazarus & Folkman, 1984).

According to the transactional model, stress can be mitigated by the possession of adequate coping resources, which refer to cognitive and behavioral efforts to manage stress (Taylor & Stanton, 2007). Coping may encompass a variety of external behaviors (e.g. seeking social support) and internal processes (e.g. optimism) that impact primary and/or secondary appraisals to help individuals master, minimize, reduce or tolerate various demands in a stressful environment. A robust repertoire of coping resources may serve a protective function, providing a buffer against potential stressors; however, researchers have noted that the coping literature has primarily focused on strategies for combating existing stressors rather than strategies aimed at preventing stress (Matheny et al., 1986; Taylor & Stanton, 2007). More recently, coping research has distinguished between combative and preventive coping. Combative coping refers to coping responses to a past or present stressor and the use of immediate resources to eliminate or tolerate the stressor, or to reduce one's internal response to stress. Preventive coping refers to coping responses to future demands and the assemblage of resources intended to resist them (Matheny et al., 1986).

Figure 1 shows the transactional model of stress and how coping intervenes during different stages of the stress process. The stress process, depicted in the dotted boxes, begins when an individual faces a set of demands, or potential stressors. For example, if an individual is preparing to move to a different city to start a new job, he may become aware of several events that could develop into stressors later on. These demands may be external events (preparing his current home to go on the market) or internal processes (feeling sad about leaving relationships behind). As he becomes aware of these demands, he makes cognitive appraisals, which Folkman, Lazarus, Dunkel-Schetter, DeLongis, and Gruen (1986) describe as, "a process of categorizing an encounter and its various facets, with respect to its significance for well-being." First, he

evaluates the potential impact of the demands on his wellness, asking himself what is at stake, or what he stands to gain or lose through the experience. Next, he estimates whether he can cope with the demands successfully. This secondary appraisal is an indication of his confidence in the current coping resources that are available to him. If he appraises the level of demands as significantly exceeding his level of resources, he will view his upcoming move as a stressor and will experience a stress response. This type of secondary appraisal is also known as a threat appraisal because, presumably, the individual perceives and focuses the potential for loss, like the loss of proximal friendships (Davey, Hampton, Farrell, & Davidson, 1992). Alternatively, if the man in the example appraises his level of resources as adequate to meet or exceed the demands he faces during his move, he has the capacity to cope effectively and experience optimal wellness. This type of secondary appraisal is known as a challenge appraisal, because the individual perceives and focuses on the potential rewards and personal growth associated with the demanding situation (Katz & Epstein, 1991; Tomaka, Blascovich, Kibler, & Ernst, 1997). If the man in the example makes a challenge appraisal, he may look forward establishing new friendships and exploring a new city.

Coping processes are represented in the striped boxes in Figure 1, indicating that coping is distinct and separate from the cognitive appraisal process. As the figure shows, combative and preventive coping occur at different stages of the stress process. Combative coping intervenes after a situation has been appraised as stressful and can be categorized as either problem- or emotion-focused. Problem-focused coping seeks to directly change elements of the stressor through problem-solving strategies like breaking a task into smaller parts. Emotion-focused coping seeks to manage emotional responses to stress, such as through denial or emotional expression (Lazarus & Folkman, 1984).

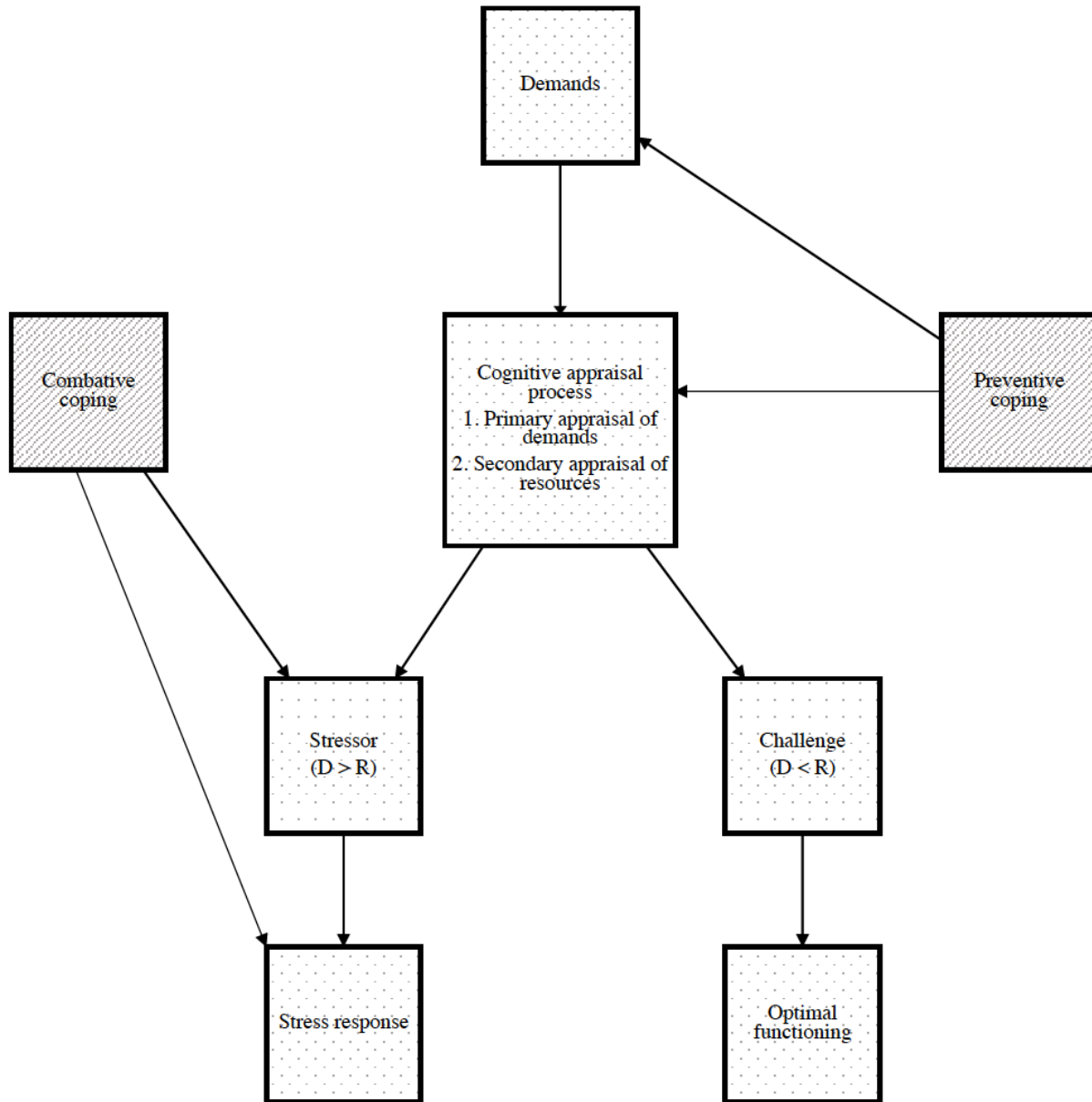


Figure 1. Transactional Model of Stress and Coping (Adapted from McCarthy, Lambert, Beard, & Dematatis, 2002).

Preventive coping, by definition, occurs earlier in the stress process, helping the individual prepare for uncertain events with the potential for stress. Preventive coping can occur when the individual first becomes aware of demands (i.e. being able to identify a potentially stressful encounter), during the appraisal process (i.e. having high levels of perceived control), or after a demand has been appraised as a challenge (i.e. eliciting and using feedback to meet the

challenge). While preventive coping appears to impact the stress response in various ways, the various mechanisms involved in preventive coping have been investigated and debated by researchers for several decades.

Perspectives on Preventive Coping

Although the term was originally identified by Matheny and colleagues in 1986, preventive coping remains an emerging concept in stress and coping research. While literature on the topic is limited, several researchers have explored various models of preventive coping, which has also been termed preventative coping and proactive coping. An outline of the terminology and definitions related to preventive coping is summarized in Figure 2. Matheny and colleagues originally defined preventive coping as, “preventing potential stressors and building resources for resisting them.” Aspinwall and Taylor (1997) identified a similar construct, proactive coping, which they defined as, “any behavior in advance of stressful event with the purpose of preventing it or modifying it before it occurs.” Aspinwall and Taylor outline five stages of proactive coping: resource accumulation (building resources and skills before any specific stressor has been identified); recognition of potential stressors (the ability to foresee potentially stressful events); initial appraisal of demands (preliminary evaluation of potential stressors); preliminary coping efforts (activities to prevent or minimize a potential stressor); and the elicitation and use of feedback (seeking and incorporating feedback on the development of a potential stressor and the success of one’s initial coping efforts). These stages link the concept of preventive coping to the transactional model of stress, explicitly defining where this style of coping intervenes during the stress process.

	Term(s)	Definitions(s)
Matheny et al. (1986)	Preventive coping	Prevention of potential stressors and building resources for resisting them.
Aspinwall & Taylor (1997)	Proactive coping	Any behavior in advance of stressful event with the purpose of preventing it or modifying it before it occurs.
Schwarzer (2000; 2002)	Preventive coping and proactive coping	Coping with an uncertain threat potential in the distant future (preventive coping); and coping with upcoming challenges that are potentially self-promoting (proactive coping).
Gan et al. (2007; 2011)	Future-oriented coping	A two-factor concept composed of both preventive and proactive coping, as defined by Schwarzer.

Figure 2. Terms and Definitions of Preventive Coping.

While Aspinwall and Taylor's definition of proactive coping overlaps significantly with Matheny et al.'s definition of preventive coping, other researchers have differentiated the two terms. Schwarzer's theory of proactive coping (2000; Schwarzer & Taubert, 2002) refers to preventive coping as the accumulation of resources and resistances for hypothetical future stressors, while proactive coping refers to striving for new challenges and actively creating opportunities to work toward challenging goals. According to Schwarzer's theory, preventive and proactive coping differ in the types of coping efforts undertaken by individuals. Greenglass, Schwarzer, Jakubiec, Fiksenbaum, and Taubert (1999) explain that individuals engaging in preventive coping efforts employ more defensive strategies (e.g. conserving resources for the future), while in proactive coping, individuals use more directive approaches (e.g. seeking out a challenging situation). In a study examining Schwarzer's concepts of preventive and proactive coping, Gan, Yang, Zhou, and Zhang (2007) identified a two-factor structure of future-oriented coping, suggesting both styles of coping fall within a larger concept of future-directed coping

efforts. While the explanation of preventive coping in Schwarzer's theory appears to mirror the definition provided by Matheny et al., the inclusion of goal-striving and challenge orientation as a component of proactive coping aligns with the concept of the "challenge appraisal" put forth by Lazarus and Folkman. A broad, inclusive definition of preventive coping considers both efforts to prepare for future stressors and the display of coping through goal-striving behaviors and mental processes.

More recently, researchers have begun to conceptualize and evaluate the use of preventive coping interventions with various populations. Bode, Ridder, Kuijer, and Bensing developed and tested a brief intervention with older adults based on Aspinwall and Taylor's proactive coping theory (2006; 2007). The four-meeting intervention trained participants to use proactive coping steps (e.g. resource accumulation; recognition of potential stressors) and successfully demonstrated improved preventive coping skills post-intervention and at three-month follow-up (Bode et al., 2007). The results of this research suggest preventive coping can be viewed as a set of abilities that can be learned and improved upon. However, this view is inconsistent with Gan, Hu, and Zhang's research (2010) examining the role of preventive coping in how Chinese students adjust to the first year of college; results of that research suggest preventive coping contains more dispositional components rather than skill-based components.

Currently, there exists limited research on the impact of disposition and personality on coping; furthermore, the existing research is fairly inconsistent. There is some evidence to suggest that stable and enduring personality, attitudinal, and cognitive characteristics significantly impact the psychological coping process, and contribute to coping responses that are relatively steady and consistent across situations (Moos & Holahan, 2003); however, dispositional coping has been described as distinct from transactional coping, which Ptacek,

Pierce, and Thompson (2006) argue places greater emphasis on the situation as opposed to the individual. Several researchers have suggested that disposition, or more generalized ‘coping styles,’ alone do not adequately predict the actual coping behavior that a person will use in a specific situation (De Ridder, 1997; Lazarus & Folkman, 1984; Ptacek, Pierce, & Thompson, 2006). Regarding research on disposition and preventive coping specifically, Lambert et al. (2006) conducted a study examining the relationship between NEO personality inventory scores and PRI scores and found that NEO scales were not correlated with any PRI scales at a level stronger than $r = .253$, suggesting minimal relationships between personality factors and preventive coping resources.

Conversely, several researchers agree that personality and dispositional coping does, in fact, have some impact on the overall coping process. Folkman (1992) appeared to recognize this point when she noted that for a coping strategy to influence a person’s health, the strategy must be reapplied over a long period of time; relatedly, Lazarus also noted that a single stressful encounter “rarely produces a crisis of dysfunction and distress” and suggested instead that chronic, recurring factors that may represent or contribute to a “faulty appraisal pattern” that would negatively impact coping (Lazarus, 2006, p. 272). In other words, dispositional and personality traits, due to their chronic and enduring nature and interaction with potentially recurring or stable environmental factors, may influence how a person generally appraises their demands and resources. While dispositional and preventive coping both focus on long-term impacts to health and wellness, more research is needed to determine the relationship between these constructs. However, despite limited research on the role of disposition in preventive coping and the design of preventive coping interventions, it appears possible that preventive coping includes both skill-based and dispositional elements.

Despite the evolving state of the literature, there appears to be consensus on several aspects of preventive coping. Researchers seem to agree that the general goal of preventive coping is to build a robust inventory of resources that can resist stress and minimize the negative effects of stress on an individual's wellbeing. In other words, this style of coping is intended to prevent, rather than withstand or survive, stress. Researchers also appear to agree that preventive coping occurs earlier in the stress process relative to other forms of coping and appears to be related to challenge-orientation and goal-striving.

Measurement of Coping

The variety of coping processes represented in the stress and coping literature has translated into different views on how to best assess and measure coping efforts. Researchers interested in measurements of coping often distinguish between coping strategies and coping resources. Coping strategies generally refer to efforts undertaken after a situation has been appraised as a stressor (Pearlin & Schooler, 1978). Following this definition, coping strategies are primarily used during combative coping, meaning they are active efforts directed towards an existing stressor. While the assessment of coping strategies is useful in understanding how people adjust to stressful situations, the measurement of coping resources is important to understanding the aspects that help people prevent stress. Furthermore, coping resources are often the foundation for coping strategies used to manage stressors (Wheaton, 1983). As previously stated, coping resources refer to the relatively stable traits and assets that help individuals avoid and mitigate stressors. Existing instruments primarily measure individual constructs (e.g. self-esteem, sense of mastery, social support) and do not examine how individuals use a collection of coping resources.

In addition to the distinction between measurement of coping strategies and coping resources, coping measures can also be categorized by whether they assess combative or preventive coping efforts. Combative coping measurement has largely overlapped with assessment of coping strategies, as both types of coping focus on existing stressors and employ direct and active interventions. Consequently, combative coping has been primarily assessed using situation-specific measures, such as the Ways of Coping Checklist (Aldwin, Folkman, Shaefer, Coyne, & Lazarus, 1980), in which respondents indicate the extent to which they would use specific problem- and emotion-focused strategies in an identified scenario. The measurement of preventive coping aligns more closely with assessment of coping resources; however, few measures of preventive coping or coping resources currently exist.

Measurement of Preventive Coping. Although several researchers have developed comprehensive models of preventive coping over the past couple of decades, few instruments have been designed to capture the range of resources that make up preventive coping. Greenglass and colleagues (1999) developed the Proactive Coping Inventory (PCI) based on Schwarzer and Taubert's model of proactive coping. The PCI is composed of six subscales: proactive coping, strategic planning, reflective coping, preventive coping, and instrumental and emotional support-seeking. Respondents are asked to rate their behavior on a four-point Likert scale, ranging from 1 (not at all true) to 4 (completely true). A representative item from the PCI preventive coping subscale is, "Rather than spending every cent I make, I like to save for a rainy day". Gan and colleagues (2007) created the Future-Oriented Coping Inventory, a 16-item measure based on the PCI to assess future-oriented coping in Chinese populations. The Future-Oriented Coping Inventory (FCI) asks respondents to indicate the extent to which an item describes their behavior on a four-point Likert scale, ranging from 1 (not like me at all) to 4 (completely like me). A

representative item from the FCI is, “After attaining a goal, I look for another, more challenging one”. Other measures have focused on specific resources associated with preventive coping, like self-acceptance and perceived control (Bond et al., 2011; Paulhus, 1983). Efforts made by researchers to distinguish between different types of preventive or future-focused coping have made meaningful contributions to the literature on coping theory; however, the dissection of the larger preventive coping construct has contributed to the development of measures that only capture part of the preventive coping process. Few, if any, measures have focused on the broad array of resources that encompass preventive coping.

Development of the Preventive Resources Inventory

The Preventive Resources Inventory (PRI) was developed to measure an individual's level of preventive coping resources. While other measures have focused on specific preventive coping efforts, the PRI assesses a broad array of preventive coping resources, which are defined as coping resources aimed at mitigating or preventing stress, rather than withstanding it (McCarthy, Lambert, Curlette, Seraphine, and Beard, 2001). The development of the PRI has attempted to capture both hallmarks of preventive coping: the preparation for future stressors and goal-striving cognitions and behaviors. Originally, Lambert, McCarthy, Beard, and Carr (2000) developed an initial pool of items based on preventive coping resources identified in the existing literature, including self-confidence and acceptance (Matheny et al, 1986; McCarthy, Lambert, & Brack, 1997). Items assessing preventive social resources were also added based on research suggesting that social support may serve as buffer against stressful life experiences (Cohen & Wills, 1985). Results of an exploratory factor analysis supported the existence of three hypothesized preventive coping resources: perceived control, self-confidence, and social comfort, which were respectively labeled Perceived Control, Maintaining Perspective, and Social

Resourcefulness (McCarthy et al., 2001). An additional factor, Self-Acceptance, was also retained due to its perceived theoretical importance and relationship to the construct of preventive coping. Lambert, McCarthy, Gilbert, Seabee, and Steinley-Bumgarner further refined the scales by conducting a factor analysis with a new sample (2006). This analysis provided support for the construct validity of the Perceived Control, Maintaining Perspective, and Social Resourcefulness scales, and provided evidence for Self-Acceptance as a higher order factor. That analysis also demonstrated reliability and validity for a new scale, Scanning, which captures the process of anticipating and recognizing potential stressors, a previously-hypothesized preventive coping resource (Aspinwall & Taylor, 1997).

Recent Revisions to the PRI

In the past several years, the PRI has undergone revisions to reflect changes in the coping literature and to improve the validity of the measure. Research conducted with the college students and teachers indicates that the PRI reliably discriminates between individuals who possess average and low levels of preventive coping resources (Allender et al., 2016); however, the measure does not appear to discriminate between individuals with average and high levels of preventive coping resources. To improve the measure, a study was conducted with the following objectives: (a) assess the construct validity of the PRI scales using existing measures of similar constructs; and (b) improve the measure's capacity to discriminate between groups of copers (Allender et al., 2016).

First, a literature review of the constructs associated with each PRI scale was conducted. This review was intended to examine recent additions to the growing body of coping research and to identify higher-order preventive coping skills. These higher-order coping resources informed the composition of items intended to be more difficult to endorse and to better identify

individuals with higher levels of preventive coping. New items were written for each PRI scale individually based on the literature relevant to that particular construct. For example, new items written for Perceived Control were based on recent literature on the role of perceived control, personal control, and self-efficacy in the coping process (Chesney, Neilands, Chambers, Taylor, & Folkman, 2006; Diehl & Hay, 2010; Frazier, Keenan, Anders, Perera, Shallcross, & Hintz, 2011). Items were written asking respondents to indicate their level of agreement with the given statement. Researchers followed several guidelines for creating items to assess higher-order skills with the intention of making the items more difficult to endorse. Guidelines included using active statements (i.e. I find others to help me when I need to) and asking about the use of coping resources in different situations (i.e. I feel comfortable reaching out to others for help in my personal life). Initial drafts of the items were reviewed by a focus group of graduate students with research experience in stress and coping. Feedback from the focus group was used to improve the clarity of the items and to increase the difficulty of endorsing the resources measured by the items. Following guidelines for developing test items, researchers frequently returned to the literature to ensure each item accurately reflected its corresponding construct of interest (Cohen, Manion, & Morrison, 2013). Ultimately, a final list of 78 new items across all five scales was tested, along with the 82 items from the original version.

Second, comparison measures for each PRI scale were identified. In some cases, a subscale, rather than the entire measure, was a better match for a particular PRI scale. In these cases, only the items from that subscale were included in the study. The comparison measure matched to each PRI subscale is summarized in Figure 3.

PRI Scale	Comparison Measure	Description
Maintaining Perspective	Cognitive Flexibility Inventory (Dennis & Vander Wal, 2010)	Measures an individual's tendency to view difficult situations as controllable and ability to generate alternative solutions for stressful situations.
Perceived Control	Spheres of Control <i>Personal Control subscale</i> (Paulhus & Christie, 1981)	Measures an individual's sense of personal achievement and efficacy
Scanning	Proactive Coping Inventory <i>Preventive Coping & Proactive Coping subscales</i> (Greenglass et al., 1999)	Assesses an individual's use of goal-setting, planning, and preparation in coping with stress
Self-Acceptance	Acceptance and Action Questionnaire II (Bond et al., 2011)	A two-factor concept composed of both preventive and proactive coping, as defined by Schwarzer.
Social Resourcefulness	Proactive Coping Inventory <i>Emotional Support Seeking & Instrumental Support Seeking subscales</i> (Greenglass et al., 1999)	Assesses an individual's use of emotional support, advice, and feedback in coping with stress

Figure 3. PRI Scale Comparison Measures.

A sample of 577 students completed the original version of the PRI, the list of new items for each scale, and comparison measures. Data were analyzed using the Rasch Rating Scale Model (Andrich, 1978) with Winsteps software (Linacre, 2012). Analysis was conducted for each PRI scale by comparing the scales of the original PRI to scales including the new items. Comparisons were conducted across a series of indicators of reliability and validity to assess the strength of each scale. Results indicated that the Perceived Control Scale was no longer a viable scale and conceptually, the skills of perceived control appear to be more associated with combative coping (Allender et al., 2016). As a result, this scale has been removed in the updated version of the PRI (Appendix A). Analysis also resulted in the selection of items to be included in the remaining four scales of the PRI: Maintaining Perspective (28 items), Scanning (21 items), Self-Acceptance (27 items), and Social Resourcefulness (22 items). After items were finalized,

several subscales were renamed to better capture the thematic commonalities among their respective items.

PRI Feedback Report. A feedback report was developed for the original version of the PRI and was subsequently used in classroom settings and with career counseling clients. In that report, results of the PRI were presented to respondents with a profile of norm-referenced scores for each scale of the PRI. For each scale of the PRI, a T-score was provided and presented on a scale which labels scores greater than 60 as Strengths and scores lower than 40 as Areas for Development. Feedback for each subscale of the PRI was presented with criterion-referenced Strengths and Areas for Development. For example, the scale of Social Resourcefulness is composed of four subscales: Asking for Help, Delegating, Getting Input, and Networking. Any subscale including an item that a respondent did not endorse as “Somewhat agree” or “Strongly agree” was considered an Area for Development. Based on the recent update to the PRI, revisions were made to the feedback report (Appendix B). The feedback report currently consists of five pages. The first page provides a description of the measure, the respondent’s T-scores for each scale, and an explanation of how to interpret T-scores. The subsequent four pages correspond to the four PRI scales; each page provides a description of the scale, a description of the subscales, and the respondent’s criterion-referenced subscale scores. Results of the most recent psychometric study led to changes in the combinations of items on each subscale; therefore, new titles and descriptions were drafted for several subscales. Titular and descriptive changes were made based on a review of relevant literature after examining the thematic grouping of items on each subscale. For example, Rasch analysis identified a group of items on the Self-Acceptance scale that appeared to reflect the coping resource of optimism. Following a

literature review that determined the existence of a theoretical link between coping, optimism, and self-acceptance, the subscale was titled “Optimism,” and a new description was drafted.

Assessment Feedback in Counseling Contexts

While providing assessment feedback to clients was once generally discouraged in the fields of counseling and psychology (Berg, 1985), the presentation of feedback is now considered an essential component of the assessment process (Finn & Tonsager, 1992). Feedback typically involves providing clients with a report of assessment results and includes a discussion of results and related interpretations that are relevant to the client’s unique circumstances (Fischer, 1979). Although many assessment procedures are designed to help clients improve their lives, the feedback process is particularly important because of the direct verbal and/or written communication with clients to encourage positive change. Literature on the use of measurement feedback in counseling is relatively scarce, and existing research primarily focuses on the role of feedback in a therapeutic assessment model and on how providing assessment feedback affects clinical outcomes (Finn & Tonsager, 1992; Newman & Greenway, 1997).

Therapeutic assessment models are considered collaborative approaches to the administration and provision of psychological test results (Finn, 2007). Two studies investigated the impact of a therapeutic assessment model when giving college students feedback on their results from the Minnesota Multiphasic Personality Inventory-2 (MMPI-2), a psychological test used to assess personality traits and psychopathology in adults (Butcher, Graham, Ben-Porath, Tellegan, & Dahlstrom, 2003). Results indicated that students who received feedback immediately experienced greater increases in self-esteem and greater decreases in psychological distress compared to students who received only examiner attention or received feedback at a later time (Finn & Tonsager, 1992; Newman & Greenway, 1997). Other research on therapeutic

assessment models has focused on providing feedback to children and families, with results suggesting the use of feedback contributes to greater reductions in symptomatology and greater satisfaction with the assessment process (Smith, Handler, & Nash, 2010; Tharinger, Finn, Wilkinson, & Schaber, 2007). While these studies suggest that providing feedback can support positive therapeutic outcomes, more research is needed on what is specifically helpful about the feedback process. There is little research identifying how clients make sense of information during assessment feedback, and what, if any, aspects of the feedback process enhance or inhibit understanding of their results.

Another area in which the assessment feedback process has been examined is in the context of career counseling. Career counseling routinely includes an assessment of an individual's abilities, interest, and personality (Brown & Lent, 2013). The counselor discusses the relationship among these factors to clients and this information subsequently informs the career planning process. Like psychological tests, many of the measures used in career counseling generate a report for the client and counselor to review, and these reports are typically a fundamental part of the feedback process (Brown & Lent, 2013). While career counseling tends to integrate measurement feedback more routinely than other types of counseling, very little research has examined how career counseling clients understand and process the feedback they receive. Kirscher, Hoffman, and Hill (1994) studied the process and outcome of a single career counseling case in which the client expressed desire to review her test report on her own in order to make better use of time in the counseling session. While limited to a single case, this observation suggests the potential utility of a user-friendly test report that is not overly-reliant on counselor interpretation. Ideally, the feedback process includes both counselor interpretation and a test report that is comprehensible enough for the client to be able to revisit and understand

outside of the counseling session (Hoffman, Spokane, & Magoon, 1981). Reducing the role of the counselor in the feedback process may not be appropriate for tests that are highly complex or intended to assist with diagnosis; however, improving the clarity of the written report could be a person-centered approach to help clients better understand themselves and how to achieve their goals.

Rationale for Current Study

The body of research on the use of assessment feedback in counseling contexts is relatively small; therefore, a need for research on the clinical utility of assessment procedures in counseling continues to exist. While other researchers have demonstrated that assessment can be used therapeutically to support positive change for clients (Poston & Hanson, 2010), there is little research evaluating the feedback process itself. Additionally, almost no research has been conducted on the role of the feedback report in the overall feedback process, although the report is an important tool and a tangible product that clients may hold onto after counseling ends.

The use of the PRI as a measure in applied contexts, like counseling, has not yet been examined. The feedback report is a primary element of the overall feedback process for the PRI; therefore, further refining of the report is important to improving the overall utility of the PRI in applied settings. The present study intends to examine how to further improve the feedback report for the PRI, how test-respondents understand the information presented on the feedback report, and how useful test-respondents find the report in helping to improve their preventive coping efforts.

Examining the impact of test report in isolation potentially conflicts with guidelines suggesting that test-respondents should be provided with both written and verbal assessment feedback. The evolution of the therapeutic assessment has been partly driven by the ethical

responsibility to explain and interpret ambiguous and potentially pathologizing raw test data. In the present study, participants will receive written feedback through the test report several weeks before receiving verbal feedback on their results from a counselor. The sequencing of feedback is intended to remove any impact of the counselor on participant understanding of their results, and to better identify areas of the feedback report where clarity can be improved. The PRI is a relatively transparent measure and is not intended to diagnose a mental health condition, meaning the risk for negative psychological outcomes related to the misinterpretation of feedback is relatively low.

Chapter Three: Methodology

Overview

The purpose of the current study is threefold; the first aim of the study is to evaluate and improve the PRI feedback report for use in counseling contexts; the second aim of the study is to identify elements of the feedback report that help or inhibit test-respondent's understanding of their results; and the third and final aim of the study is to describe how respondents understand and contextualize preventive coping constructs in relation to their own unique circumstances. These aims were explored using phenomenology, a qualitative approach to research investigating the core essence of human experience or phenomena as described by research participants (Smith, Flowers, & Larkin, 2009). This chapter will discuss the rationale for the chosen methodology, a description of the research setting and sample of participants, and an explanation of data collection and analysis methods. Measures that were taken to enhance the validity of the study will also be reviewed.

Methodological Rationale

Due to limited research on assessment feedback, a qualitative methodology was selected to promote a deeper understanding of the feedback process as viewed from the perspective of test-respondents. Qualitative research is useful for describing, explaining, and communicating the process or unfolding of a particular topic (Ritchie, Lewis, Nicholls, & Ormston, 2013). Quantitative research, in contrast, aims to describe current conditions, investigate relationships, and examine cause-effect phenomena. While quantitative inquiry seeks to establish consensus, qualitative inquiry is better suited to research questions seeking range and variation in findings. Given the lack of information on how individuals understand their results of self-report

measures, including the lack of quantitative measures to assess this process, a qualitative approach was considered to be the appropriate mode of inquiry for the present study.

I used phenomenology as a qualitative framework through which to answer my research questions for the study, which broadly ask how individuals experience and understand their efforts to cope with stress. Phenomenology attempts to distinguish between individuals' subjective experiences of the physical, unchanging, and concrete "noumena" of the world (Kant, 1999). Phenomenology rejects the traditional distinctions between body versus mind and object versus subject; instead, phenomenology posits that because the physical world is only conceivable through human consciousness, phenomena are what make up the reality of the world that people perceive. The interpretive and constructivist underpinnings of phenomenology appeared well-aligned with the cognitive appraisal models of stress and coping, which claim that the cognitive appraisal of stressors and coping resources matter more than the stressors or resources themselves.

Phenomenological research, in contrast to other forms of qualitative research, is used to investigate how people make meaning of a particular experience or phenomena (Ritchie et al., 2013). Phenomenology does not endeavor to develop a theory to explain a particular experience; rather, the goal is to facilitate deeper insight into an experience as it naturally occurs in the world. In this case, I sought to understand how people make meaning of their efforts to cope with stress by examining their experience of the PRI feedback report as well as by asking them about their understanding of preventive coping and their broader coping behaviors. Phenomenology is also used to identify commonalities in addition to the unique, variant parts of an individual's experience. While this investigation accounts for the range of participant responses to the PRI

feedback report, essential themes among participants were identified through the analysis process.

This study collected data from two different samples of students at separate time points, delineated below as phases one and two. The first sample was composed of graduate students taking a career counseling course in Summer 2017. The second sample was composed of undergraduate students taking a career planning course in Fall 2017. The philosophy behind including both samples was twofold. First, including the graduate student sample offered me an opportunity to pilot short-answer questions and gather some preliminary data about concepts and aspects of the PRI feedback report that were confusing for students; these preliminary data helped to focus and organize the scope of the second phase of data collection. Second, including both subsamples increased the overall diversity of the sample; the graduate students represented a slightly older demographic of mostly counseling students and the undergraduate students represented a more diverse group in age and area of study.

In both phases of data collection, student participants were asked to answer a series of short answer questions about their experiences taking the PRI and receiving feedback about their preventive coping skills. In the second phase, the primary investigator interviewed a subsample of participants to gather more detailed information on how individuals perceive and understand the information presented in the PRI feedback report.

Approval by Human Subjects Committee

This study was conducted in full compliance with the published guidelines established by the Institutional Review Board for the Protection of Human Subjects at The University of Texas at Austin. Additionally, this study complies with the Ethical Principles of the American Psychological Association. Confidentiality, anonymity, and informed consent standards comply

with the University of Texas Institutional Review Board. The participation of each student was voluntary and informed consent was obtained. Following completion of the study procedures, students were provided with contact information for the primary investigator and the UT Counseling and Mental Health Center.

Development of the Questionnaire and Interview Protocol

Development of the questionnaire and interview protocol was an iterative and collaborative process informed by the study's research questions and by existing literature on preventive coping. As an initial step, short-answer and interview questions were presented to a team of five researchers with varying levels of experience studying stress and coping. One of the researchers was university faculty member with extensive background in preventive coping and in the use of self-report measures in a career counseling context. Three other researchers were doctoral students with experience in stress and coping and the use of qualitative research methods. The last researcher was an undergraduate dental student who had spent a year volunteering in a research lab focused on stress and coping, and who is currently developing a qualitative research project examining stress and coping among dental students. Over the course of a 60-minute meeting, these researchers assisted me with developing, revising, and organizing both the short-answer questions used during both phases of the study as well as questions that would be used for participant interviews in phase two. The questionnaire and interview protocol were subsequently revised to ensure that questions were clear, direct, and devoid of jargon. Shortly thereafter, the short-answer questionnaire and interview protocol were presented to my dissertation committee, who provided feedback on the scope of the questions. After integrating the committee's recommendations, I met with a doctoral candidate who was familiar with the development of the PRI and its coping constructs and who also had a background in qualitative

study design. During this meeting, she provided guidance on the language of certain questions and the organization and sequencing of both the short-answer questionnaire and the interview protocol. Prior to the beginning of the study, the short-answer questionnaire was piloted in Qualtrics, an online survey platform, with an undergraduate student volunteer to assess for clarity of the questions and to ensure that the survey questions could be completed in 10-15 minutes. The interview protocol was piloted with a personal friend who was also an undergraduate student currently engaging in the career planning process. During this simulated interview, I took extensive notes about questions that were difficult for him to understand and respond to, questions that seemed unrelated to study objectives, and questions that interrupted the flow of conversation. I subsequently made minor revisions to the phrasing and sequencing of certain questions and removed one question. The finalized short answer questionnaires for both phases of the study as well as the interview protocol can be found in the Appendix.

Phase One

Participants and Recruitment. Participants in the first phase of data collection consisted of 25 graduate students taking a career counseling course in the College of Education in the Educational Psychology department at the University of Texas at Austin. The purpose of the course was to educate graduate-level counseling students on career counseling models and interventions to inform their work with clients. Due to the applied focus of this course, the sample was intended to comprise the perspective of a counselor-in-training who might administer the PRI to a future client. Gathering data on the PRI feedback report from the counselor perspective was important for two reasons. First, graduate counseling students are already tasked with thinking about how to effectively communicate information about clients' strengths and areas for growth (Corey, 2016); therefore, counselors-in-training have a greater

awareness of how to clearly communicate self-report results to clients and can provide useful feedback on the clarity of the PRI feedback report. Second, counselors who use the PRI will also be providing in-person feedback to supplement the feedback report; therefore, ensuring that the feedback report is clear and accessible to the counselor is important in supporting their capacity to help clients.

At the beginning of the career counseling course, students were asked to complete the PRI in Qualtrics in order to experience taking an assessment they would potentially give to clients. The course instructor explained that later in the semester, students would receive a feedback report of their results and, at that time, students would be asked to complete a short-answer questionnaire about their reactions to the feedback report. After students had taken the PRI but before they had received their results, I visited the class and invited students to participate in the research study. After describing the goals of the study, I explained that participation would involve students allowing their de-identified short-answer questionnaire responses to be viewed and analyzed. I also explained that students' participation in the study would be considered separate from any course requirements and that there would be no academic consequence for students who did not wish to participate.

The Office of Instructional Innovation facilitated the scoring of students' PRI results in Qualtrics. Results were entered into a Learning Tools Interoperability (LTI) tool that presented students' feedback reports to them in Canvas, a web-based instructional platform. Students were asked to view their feedback reports in Canvas and then complete a questionnaire in Qualtrics as part of a graded assignment. At the end of the assignment, students were given the option to opt into the study by allowing the primary investigator to view their responses. Participants who selected to "opt in" by entering their email address were subsequently sent a \$5 Amazon gift card

for their participation. Participation in the study was considered separate from any course requirements and students were informed that there would be no academic consequence if they did not wish to participate.

Graduate student participants ranged in age from 22 to 47 years old, with 80% of participants falling between 23 and 27 years of age. Twenty-three students (92%) of participants identified as female, with the rest identifying as male. Sixteen (64%) of participants in this sample identified as White or Caucasian, 3 students (12%) identified as Asian, 2 students (8%) identified as Hispanic or Latinx, and single students (4% each) identified as Asian Korean, African American, Bengali, Indian, Israeli and Moroccan, Lebanese American, and White/Hispanic. 17 students (68%) had never taken the PRI before.

Procedures. As part of a class assignment, students were asked to take the PRI using Qualtrics. Two weeks later, students received their feedback reports in Canvas and were instructed to complete the short-answer questionnaire course assignment (Appendix E). The questionnaire included demographic questions asking participants for their age, gender, and ethnicity. Descriptive statistics were later calculated for these variables to provide a richer description of the sample. The following questions were intended to gauge participants' understanding of preventive coping as well as their individual results. These questions included asking participants to define preventive coping, to describe their level of preventive coping resources according to their feedback report, and to indicate their understanding of preventive coping constructs and how to interpret their scores. and to assess their own preventive coping resources according to their results. Based on dissertation committee feedback, some of these questions were formatted into Likert rating scale items, asking participants to assess their level of understanding of various components of the PRI feedback (i.e., the description of T-scores and

how to interpret them). The rating scale ranged from 1 (this was not clear at all to me) to 4 (this was completely clear to me). Participants were also asked how the information from their feedback report related to their personal growth and development, how they planned to use this information to improve their coping in the future, and how they would explain the concept of preventive coping to a hypothetical career counseling client.

After completing the questionnaire, students were directed to a separate screen displaying the informed consent for the study (Appendix C) and were given the option to either close the assignment or indicate their consent by providing their email address. Student email addresses were kept separate from participant responses and were only used to award compensation to participants through email. After compensation was dispensed, student email addresses were removed from all research materials and were replaced with pseudonyms. Short answer questionnaire responses for each participant were exported from Qualtrics and uploaded into Dedoose, a web-based qualitative data management program. Due to Dedoose's additional capability to analyze descriptive statistics, Likert scale questions and demographic data were also entered into Dedoose for analysis.

Phase Two

Participants and Recruitment. Participants in Phase Two of data collection consisted of undergraduate students taking a career planning course in the College of Education. While the graduate-level course used in Phase One was intended to familiarize students with principles of career development interventions, the undergraduate course was intended to help students use career development principles to advance their career goals. Collecting data from this group was considered useful as undergraduates typically differ from graduate students in age and life experience and were considered to better represent the perspective of the intended population of

PRI-respondents. Gathering data from this sample was meant to identify issues with clarity and utility that would be especially relevant to career counseling clients. For example, it was expected that career counseling clients would be less familiar with the general presentation of assessment results, including specific components present in the PRI feedback report (i.e., T-scores).

The career planning course was comprised of approximately 38 students. In the second week of the course, students were asked to complete the PRI as part of range of assessments used to better understand themselves as they embark on the career planning process. The course instructor informed students that they would later receive their PRI feedback report and be asked to complete an assignment consisting of a short-answer questionnaire inquiring about their reactions to the feedback report. During the third week of the course, I visited the class and invited students to participate in the research study. I explained that students had the option to participate in two parts of the study. First, students were given the option to allow their short-answer questionnaire responses to be viewed and analyzed. Second, students who had opted in were also given the opportunity to participate in an interview with me to discuss their responses in greater detail. I also explained that students' participation in the study would be considered separate from any course requirements and that there would be no academic consequence for students who did not wish to participate in either part of the study.

Of the 38 students in the course, 26 undergraduates allowed their short-answer questionnaire responses to be included in the study. These participants were emailed a \$5 Amazon gift card after completing the questionnaire as compensation for their participation. Of those 26 participants, 20 students indicated that they would be interested in completing an interview with me. After an initial email and one follow-up email, a total of 11 students

scheduled and completed an interview with me. These students were sent an additional \$30 Amazon gift card following completion of the interview.

Participants in this phase of data collection ranged in age from 18 to 33, with 84.6% of participants falling between 18 and 22 years of age. 18 participants (69.2%) in this phase identified as female, with the rest identifying as male. 10 (38.5%) of participants in this sample identified as White or Caucasian, 6 students (23.1%) identified as Asian, 3 students (11.5%) identified as Indian, 2 students each (7.7% each) identified as African American, Hispanic or Latinx, and White/Hispanic, and 1 student identified as Bengali.

Procedures. For class, students were asked to take the PRI using Qualtrics. After they completed the PRI and received their feedback report, students were asked to complete the short-answer questionnaire (Appendix F). The questionnaire for Phase Two contained similar questions to the Phase One questionnaire; however, undergraduate students were not asked how they would use the PRI in their work with a potential career counseling client. After completing the questionnaire, students were directed to a separate screen displaying the informed consent for the study (Appendix D) and were given the option to either close the assignment or indicate their consent to participate in the study. Students were first asked if they agreed to have their short-answer responses included in study; if they consented, they were then asked if they would like to be contacted for an interview. Students indicated their consent by entering their email addresses for the purpose of awarding compensation for participation. Like Phase One, student email addresses were kept separate from participant responses and were only used to award compensation to participants through email and to contact individuals for interviews. After compensation was dispensed, student email addresses were removed and replaced with pseudonyms for participants who did not wish to participate in the interview portion of the study.

Short answer questionnaire responses, including Likert scale questions and demographic responses, were exported from Qualtrics and uploaded into Dedoose for each participant.

Students who consented to be contacted for an interview were emailed within 48 hours of completing the short-answer questionnaire. In the email, I provided information about what students could expect to discuss during the interview as well as the expected length of time for the interview. Students were offered a list of possible meeting times and informed that accommodations could be made if none of the listed times worked for their schedule. Students were asked to bring their feedback report to the interview. In an effort to ensure that the interview location was convenient for students, all interviews were completed in the George I. Sánchez Building on the University of Texas campus, the same building where the students' career counseling course took place.

As previously stated, 11 interviews were ultimately completed. All interviews were audio-recorded and were semi-structured, following a protocol of set questions while also allowing me to ask follow-up or clarification questions as needed (Appendix G). The interviews were partially structured to serve as an individualized feedback session for the participants, during which we reviewed their PRI feedback report together and processed their results. After asking participants about elements of the report or their feedback that were unclear, I provided explanations of the score calculations, scales, and subscales as needed. I asked participants to identify strengths and areas for growth from their feedback and inquired how these areas aligned with their preconceived self-concepts. I also inquired about participants' perceptions about the development of their coping resources, particularly those which participants identified as areas of strength. After interviews were completed and had been linked to the participant's questionnaire responses using their email address, email addresses were completely removed from the data set.

and replaced with pseudonyms. Interviews were transcribed on a rolling basis, and all potentially identifying information was replaced with brief descriptors (e.g. [Partner], [Professor], [Hometown]). Once transcriptions were complete, they were uploaded into Dedoose for analysis.

Interviewer and Analysis Team. The expectations and biases of the individuals conducting qualitative data analysis are important considerations when considering potential threats to the validity of qualitative data (Burke, 1997). In other words, researcher bias is an implicit part of the study; researchers bring their own personal experiences, values, and worldviews to the research process. The analysis was conducted primarily by this writer, a doctoral candidate with several years of experience researching preventive coping. Prior to this study, I also gained experience with qualitative research approaches through other investigations using Consensual Qualitative Research (CQR; Hill, Thompson, & Williams, 1997) and had been involved in research to improve the psychometric properties of the PRI through the integration of more recent research on stress and coping theory.

Because of the potential for research bias, two additional researchers served as auditors after the first two phases of analysis have been conducted. These researchers participated in the development of the short-answer questionnaire and interview protocol and were familiar with the goals of the study. One researcher was another doctoral candidate with several years of experience in preventive coping research and who had previously participated in three qualitative research projects. The other researcher was an undergraduate student who was a member of a stress and coping research lab and was developing her own qualitative research project on stress and coping among dental students. The roles of these two additional team members during data analysis will be discussed in further detail below, in the section titled “Data Analysis”.

In his review of qualitative approaches to validity, Burke (1997) suggests researchers use the concept of reflexivity, or critical self-reflection, to better understand their own potential biases and expectations about the target population or the research question. Consistent with suggestions from Hill, Thompson, and Williams (1997), the analysis team met prior to data analysis to discuss any biases or personal experiences that might impact their interpretation of the data. For example, the team discussed how their experiences taking various self-report measures would inform their ability to identify participants' perceptions of the "user-friendliness" of the PRI feedback report. In addition, team members with strong backgrounds in preventive coping research discussed how they may be more likely to seek and identify preventive coping constructs in the data. The undergraduate research team member discussed how her experiences may related to those of the undergraduate participants, specifically in terms of adjusting to the university setting and focusing on career development.

Data Analysis

Short-answer questionnaires and interview transcripts were analyzed using a multi-phase general inductive approach. Analyses were considered inductive because they were dictated by the data and not by previously-generated hypotheses or predictions. The specific philosophical orientation of data analysis was phenomenological. Following a phenomenological approach, analyses informed the research objective of exploring how people understand their efforts to cope with stress in the context of an educational setting. I incorporated several analytic procedures from grounded theory approaches, specifically, constant comparison and open and axial coding (Corbin & Strauss, 2008).

The first step of data analysis involved reviewing responses to Likert scale items on the short-answer questionnaires. While the primary methodology for this study was qualitative,

quantitative methods were used to examine Likert scale items. I calculated frequency distributions for each of the four response choices for the entire group of participants as well as for each phase of data collection. This initial step allowed me to begin to examine if there were any qualitative differences that could be observed between the two phases of data collection. This step, which I conducted before scheduling interviews during the second phase of data collection, also allowed me to identify some areas or topics on which were likely to express divergent opinions. For example, I determined that participants expressed more confusion and lack of understanding about the Maintaining Perspective and Scanning scales; as a result, I adjusted my interview protocol to include questions about how participants understood these constructs.

The second step of analysis included informally reviewing a total of eight short-answer questionnaire responses, four from each phase of data collection. Participant responses were individually selected to ensure that responses represented diversity in age, gender, race and ethnicity. Responses that included more well-developed content were also prioritized during this step, to ensure that the maximum number of ideas would be captured. Of the four short-answer questionnaire responses from the second phase of data collection, corresponding interview transcripts from these participants were also reviewed. During this step, I took marginal notes about participants' reactions to the preventive coping constructs presented in the feedback report and their interpretations of their own results. The purpose of this task was to become familiar with the scope and substance of the data and to generate themes that would provide an initial framework for the subsequent formal coding process. Saldaña (2015) defines a theme as “an extended phrase or sentence that identifies what a unit of data is about and/or what it means”. Themes were identified by examining repeated expressions and references to attitudes and

beliefs made by participants based on the premise that if a concept reoccurs throughout and across data, then that concept is likely a theme (Ryan & Bernard, 2003). For each theme that was identified during this part of the analysis, I developed descriptors that were informed by relevant literature. I also developed a list of tentative codes to better describe the variety of participant responses underlying each theme. Saldaña describes the goal of coding in qualitative research as “data retention”; in other words, the purpose of coding is to provide access to the variant, multidimensional facets of the participants’ experiences in order to better capture the patterns and explanations underlying the phenomenon that is being examined. In accordance with this goal, analysis at this stage followed an open coding process in which I did not attempt to condense, reduce, or otherwise limit the data in any way. Simply put, the goal of this stage was to allow the data to speak for themselves. By the end of this step, I had developed a tentative list of five themes and 46 contextual codes, with some codes corresponding to a theme. For example, one of the themes that emerged at this stage related to the improvement of personal coping efforts, which included references made by participants that expressed a desire or intention to improve their coping in some way. Tentative codes for this theme included “Desire to improve a specific coping resource,” “Desire to improve global coping resources,” “Desire to improve attitude towards stress,” and “Identification of specific behaviors to improve coping.”

The third step of analysis involved open coding of four additional questionnaires from both phases of data collection (totaling eight new questionnaires) and four new interview transcripts that corresponded to the questionnaires from the second phase of data collection, resulting in the addition of several new codes. Using this revised code list, I recoded all of the previously-coded questionnaires and transcripts from the previous two steps. Descriptors for themes and codes were further refined or removed while new descriptors were added. During

this stage of analysis, I concurrently began the process of axial coding by consolidating and reorganizing codes based on thematic similarity. Although open coding is often considered a precursor to axial coding, Corbin and Strauss (2008) describe the distinctions between these two types of coding as “‘artificial’” and “open coding and axial coding go hand in hand” (p. 198). Thus, as open coding continued, I began to identify and group related content into the broader, more encompassing themes. The code list at the end of this stage consisted of eight themes and 41 codes, with each code corresponding to a particular theme.

During the fourth stage of analysis, I coded three more interview transcripts and corresponding questionnaire responses from the second phase of data collection as well as three more questionnaire responses from the first phase. At this point, I had coded all of the interviews and their corresponding short answer questionnaires, as well as 11 of the 25 questionnaire responses from the first phase of data collection, and was approaching saturation, the point at which analysis of new data does not yield any new information on the topic (Glaser & Strauss, 2017). From then on, minimal open coding took place and the remaining short answer questionnaires were coded based almost entirely on the set of codes formed during the first three phases of analysis. I continued with axial coding, further consolidating and reorganizing codes as I analyzed remaining data. Similar to previous phases of analysis, I prioritized coding questionnaires responses from participants that were diverse in race, ethnicity, gender, and age, as well as questionnaires that included a greater amount of content (as determined by word count and a brief scan of responses) and were likely to yield a greater number of codes. I coded four additional questionnaires from each phase of data collection and I did not identify any new codes or themes to be added to the code list; therefore, I determined that saturation had been achieved.

At this point in my analysis, I had analyzed a total of 12 questionnaires from the first phase of data collection and 15 questionnaires and 11 interview transcripts from the second phase of data collection, which equated to data from 27 participants. Demographic information for these participants is summarized in Table 1.

Table 1. Demographic Information for Participants Included in Qualitative Analysis

Name	Student Status	Age	Gender	Race
Alison	Graduate	23	F	White (Non-Latinx)
Angelina	Graduate	22	F	Asian
Brenda	Graduate	23	F	White (Non-Latinx)
Chelsea	Graduate	24	F	White (Non-Latinx)
Colleen	Graduate	23	F	Multiracial
Gabby	Graduate	23	F	White (Non-Latinx)
James	Graduate	23	M	Black/African American
Kara	Graduate	22	F	White (Non-Latinx)
Kelley	Graduate	24	F	White (Non-Latinx)
Michaela	Graduate	25	F	Hispanic/Latinx
Sophie	Graduate	27	F	Asian
Tina	Graduate	28	F	White (Non-Latinx)
Aubry ¹	Undergrad	18	F	Multiracial
Cirie ¹	Undergrad	19	F	White (Non-Latinx)
Courtney ¹	Undergrad	19	F	White (Non-Latinx)
Danni ¹	Undergrad	20	F	Asian
Denise	Undergrad	33	F	White (Non-Latinx)
Eliza ¹	Undergrad	20	F	Asian
Ethan ¹	Undergrad	19	M	African American
Jenna	Undergrad	19	F	Asian
Joe ¹	Undergrad	19	M	White (Non-Latinx)
Kim	Undergrad	20	F	White (Non-Latinx)
Malcolm ¹	Undergrad	21	M	Asian
Natalie	Undergrad	19	F	Asian
Parvati ¹	Undergrad	22	F	Multiracial
Sandra ¹	Undergrad	19	F	Asian
Sierra ¹	Undergrad	20	F	Hispanic/Latinx

¹ Indicates that participant also took part in an interview for this study.

Once I had determined that saturation had been achieved, I returned to the research questions for the study to establish whether the themes and codes that I had identified aligned with the study's goals. I ultimately removed several codes due to their lack of relevance to the scope of the study; for example, a few participants commented on their suggested improvements for the PRI measure, not the feedback report, which fell outside the scope of the study's research questions. Spreadsheets for each code were downloaded from Dedoose. Each spreadsheet contained all of the excerpts that had been identified as representative of each code. I read through the excerpts on each spreadsheet in order to authenticate that the codes had been applied accurately and made changes when necessary. At the end of this phase, I finalized the list of six themes and 28 codes, or sub-categories. Five of the themes related to the phenomena of how participants understood coping in general, including their own coping efforts, and how they conceptualized the past and future development of their coping resources. The frequencies for the 23 codes that were sub-categorized under these five phenomena-related themes are summarized in Table 2. One theme and its codes were comprised of evaluative data capturing what participants viewed as helpful and unhelpful about the PRI feedback report and overall feedback process, including suggestions for improvement.

Table 2. Frequencies for Phenomena-Related Codes

Themes and Codes	Total^a
<i>Development of Coping Skills</i>	
Coping Shaped by Culture	7
Coping as Both Dispositional and Skill-Based	4
Coping as Dispositional	4
Coping as Situational or Skill-Based	13
<i>Understanding of Preventive Coping</i>	
Occurs Prior to Stress Appraisal	8
Proactive Process	5
Used to Mitigate or Prevent Stress	17
Described Combative Coping	4
<i>Understanding of Preventive Coping Resources</i>	
Understanding of Maintaining Perspective	6
Understanding of Scanning	3
Understanding of Self-Acceptance	6
Challenges with Accepting Limitations and Optimism	5
Identification of Interrelatedness of Coping Resources	5
<i>Understanding of Personal Coping Efforts</i>	
Feedback Consistent with Prior Self-Concept	24
Feedback Inconsistent with Prior Self-Concept	10
Identification of Personal Area for Growth	24
Identification of Personal Area of Strength	19
Use of Combative Coping	4
<i>Improvement of Personal Coping Efforts</i>	
Desire to Improve Attitude Towards Stress	3
Desire to Improve Global Coping Resources	4
Desire to Improve a Specific Coping Resource	18
Identification of Reasons to Improve Coping	5
Identification of Specific Behaviors to Improve Coping	6

^aFrequencies are based on the number of participants who endorsed each code, not the total number of endorsements of each code.

Validity Concerns

Several steps were taken to address validity concerns. First, I engaged in the process of “negative case analysis,” which involves examining and discussing discrepant data that does not fit with existing codes (Creswell, 2012). I employed this process alongside axial coding during the later phases of data analysis. By the time that data saturation had been achieved, the majority of codes that appeared thematically anomalous or were endorsed by only one participant had been already consolidated or otherwise excluded from the final list of codes. For example, the

code of “reframing growth area as adaptive” was eliminated and its only application had already been double-coded under “identification of personal area for growth.”

Second, I sent coded questionnaires and interview transcriptions to two researchers who agreed to serve as auditors for the study. The researchers, an undergraduate dental student and a Counseling Psychology doctoral candidate, were involved in the aforementioned development of the questionnaire and interview protocol. These individuals served as an additional validity check for how codes were applied to the data. Each auditor reviewed the data independently and subsequently provided their feedback to me over the phone. Per feedback from the auditor, several code applications were removed or replaced due to lack of coherence or insufficient evidence for a code application.

Third and finally, member checking (Maxwell, 2013) was used to strengthen the credibility of the interpretations made during analysis. Four participants from the first phase of data collection and eight participants from the second phase were sent coded excerpts of their short-answer questionnaire responses and, if applicable, transcriptions of their interviews. Participants were asked to review the excerpts and respond to two questions: (a) *Do you feel that you are represented accurately?*; and (b) *Is there anything that you would like to add, clarify, or change from these excerpts?* Three of the graduate student participants from the first phase of data collection responded that they were represented accurately and that they did not wish to make any additions or changes to the excerpts. The other graduate student found the excerpts to be accurate; however, he requested minor changes to the quotations (i.e., clarify the word “things” to indicate “stressors”). Of the undergraduate student participants from the second phase of data collection who were contacted, only four responded. All four participants stated that they were represented accurately and that they did not wish to make any additions or changes. The

other four participants did not respond to the initial member checking email or a follow-up email sent a week later.

Dependability and confirmability of the data were strengthened through peer review and auditing throughout the development and implementation of this study. As previously mentioned, members of my research team, as well as dissertation committee members, served as peer reviewers for the development of the data collection methods, recruitment of the study sample, and development and revision of the short-answer and interview questions. The contributions of these individuals served to strengthen the dependability of the study. In addition, the two researchers who served as auditors at the end of data analysis provided additional evidence for confirmability of the study's results.

Chapter Four: Findings

This study was guided by three research questions. In this chapter, I respond to the first research question by presenting elements of the feedback report and the overall feedback process that participants identified as helpful and unhelpful in understanding their results. I attend to the second research question by describing how participants understood preventive coping and specific preventive coping resources. I also discuss the concept-related criteria that were used to assess the degree to which participants understood the various preventive coping constructs mentioned in the PRI feedback report. I address the third research question by discussing how participants view their own personal coping efforts, including how they developed their coping skills and how they plan to improve their coping skills in the future. Before discussing the qualitative findings that related to each of these research questions, I provide a description of the quantitative data that were collected through the short-answer questionnaires assessing the degree to which participants understood certain aspects of the PRI feedback report. Participant responses to Likert-scale questions informed my response to the second research question, and, as previously mentioned, helped form additional questions that were asked during the interviews in the second phase of data collection.

Overview of Quantitative Results

A total of 51 participants (25 graduate students and 26 undergraduate students) responded to the short-answer questionnaire, which included the six Likert-scale items assessing how well they understood specific elements of or concepts described in the PRI feedback report. The percentages of participants who endorsed particular responses to these items are displayed in Figure 4.

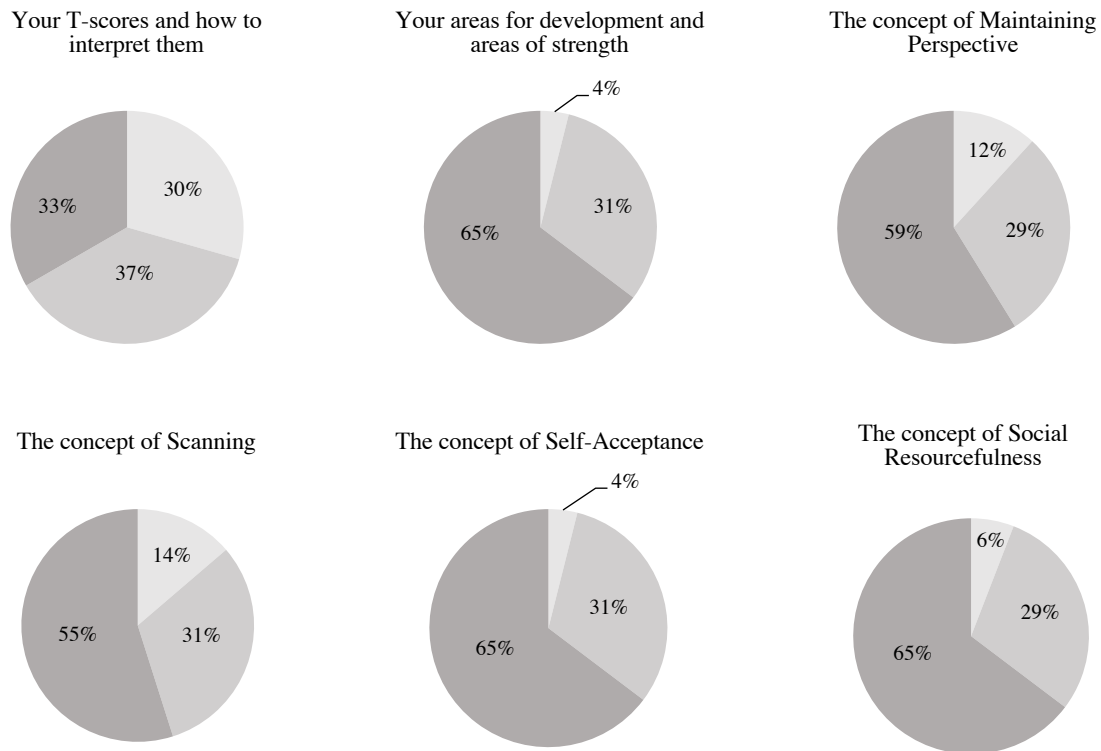


Figure 4. Responses to Likert-scale Questionnaire Items for All Participants.

Note. □ indicates ‘This was not clear at all to me’; ■ indicates ‘This was slightly unclear to me’; ■ indicates ‘This was mostly clear to me’; and ■ indicates ‘This was completely clear to me.’

No participants indicated that any of the report elements that they were asked about were “not clear at all.” T-scores and how to interpret them appeared to be more difficult to understand than other elements in the feedback report. Interestingly, the distribution in responses varied between graduate students and undergraduate students in response to this item. The most common response for the graduate student participants regarding their understanding of T-scores and how to interpret them was “This was mostly clear to me,” with 44% of graduate students selecting this option. In contrast, “This was completely clear to me,” was the most common response for undergraduate student participants, with 42.3% of undergraduate students selecting this option. Maintaining Perspective and Scanning scales appeared slightly less understandable to participants compared to other elements of the feedback report. Graduate students indicated more

often that “This was completely clear to me” (68.0% for Maintaining Perspective, 64.0% for Scanning) than undergraduate students (50.0% for Maintaining Perspective, 46.2% for Scanning) when asked about these two scales in particular. Based on these observations, I added questions about Maintaining Perspective and Scanning to the interview protocols for students who had selected any response other than “this was completely clear to me” when asked about these two scales in particular.

While quantitative data was examined for all 51 students who elected to participate in the study, the results discussed in the sections that follow encompass the perspectives of the 27 participants whose questionnaire and interview data achieved data saturation during analysis.

Reactions to the Feedback Report and Feedback Process

In both short-answer questionnaire and interview formats, participants were prompted to identify elements of the PRI feedback report that facilitated their understanding of results as well as elements that were confusing or otherwise unhelpful. Students who participated in the interview portion of the study also described helpful and unhelpful aspects of the feedback that they received in class or during the interview with me. I also elicited suggestions for improving the feedback report from interview participants; some of these students also offered suggestions for improving the overall feedback process for the PRI.

Report Elements that Influenced Understanding. Visual elements of the feedback report appeared to be a significant component in helping participants understand and contextualize their results. Six of the 10 students who identified a helpful element of the feedback report cited the graph as an essential component of the report, with two of those six adding that the box plot helped them see if they were within the average range for a particular scale. These students also described how they were less reliant on the T-scores and percentiles

when interpreting their scores due to the presence of the graph. For example, Parvati stated, “If I’m being honest, I didn’t really look at [the T-scores] much. I felt like I had a good enough sense from the graph. I’m in statistics right now so I kind of understanding [T-scores], but I didn’t really look at them.” Several students suggested that while the T-scores were not particularly helpful to them, they might be helpful to PRI respondents with greater statistical knowledge, or who are, as Courtney stated, “more mathematically oriented” than visually oriented. Other helpful elements that were noted by participants had to do with the clean layout of the feedback report, including the multiple tabs for the score summary and subscale scores, which Courtney noted, “keeps it from being too overwhelming.”

Not all students described the box plot as intuitive, particularly given that the scale for the graph was segmented by units of standard deviation. As Sierra reported, “I know a lot of people wanted to know what the box meant and what the graph was actually showing and that the tick marks represent one standard deviation.” Other students cited limited knowledge of statistics as an explanation for their confusion regarding the T-scores and percentiles. Although most students indicated that they read the explanation of how to interpret your T-scores on the score summary page of the report, two students noted that they had not seen this explanation because they did not scroll down the page far enough. Individuals who read the explanation of how to interpret their T-scores cited the information as marginally helpful; however, they reported that knowing how the T-scores were calculated would have been helpful. Relatedly, participants with limited statistical background did not initially understand that the T-scores, percentiles, and graphs used in the report were standardized and norm-referenced. Sandra described how she originally likened percentiles to percentages, stating, “I wasn’t sure if this was a percentage that had to do with the class or the whole public. After I read [the explanation of T-scores], I was

like, okay, it's taking everyone's score and then your score is based on that. But then after I saw the percentiles I got confused again."

Another element of the report about which participants expressed confusion were the areas for strength and areas for development that related to each subscale, with participants requesting an explanation for how these areas were determined. After I explained that the subscale scores were criterion-referenced, a couple of students appeared to subsequently perceive their marked "areas for development" as less useful. As Eliza stated, "I'm not sure how much I need to develop these areas now, if that makes sense. I wish these were put on a graph like the scale scores, so I could know what I need to work on most. I don't know what I should be taking from this." She further noted that having numerous "areas for development" without any knowledge of how they compared to one another made it difficult to prioritize how to improve her coping efforts. Other students expressed similar difficulties identifying "take-home" messages from their reports, especially if their results were consistently average. As Colleen expressed, "None of my T-scores fell below 40 or above 60. I would have liked to know what I can take from scores that aren't on either of the extreme ends."

Lastly, one participant described how receiving written feedback through the feedback report was simply a more difficult format for him to consume than verbal feedback. Malcolm, a Chinese student and non-native English speaker, described feeling overwhelmed by the amount of text in the feedback report, stating, "Even though I speak English and can read pretty well, it still brings some anxiety because it takes me longer to make sure I understand what something says." Malcolm explained that this experience was not necessarily unique to the PRI feedback report and that his uncertainty regarding how to interpret his results consequently amplified the value of verbal feedback in class or one-on-one.

Feedback Elements that Influenced Understanding. Students described how discussing their scores with someone else served to augment the results on their feedback report. First, participants mentioned how being prompted to reflect broadly on their stress and coping and to consider how their results fit with their lived experience facilitated deeper reflection of their preventive coping efforts. Second, some students mentioned that discussion offered greater opportunity to identify more personalized “take-home” messages about their results, such as how to work on improving their use of specific preventive coping resources. For example, during our interview, Parvati identified Preparation as an area for growth on her feedback report and subsequently recalled a recent example when she effectively used Preparation to create a study schedule two weeks before a major test. By exploring her experience more deeply, we were able to identify several positive emotions associated with this new approach to studying. She explained, “Talking through how I studied for this test and how it made me feel...it makes me realize I want to keep doing that. I don’t think I would have made that connection with just the report itself.” This sentiment was also reflected by Denise, who described how filling out the short-answer questionnaire after receiving her feedback report prompted deeper insight into the strengths and areas for growth that were most salient to her, noting, “these issues were only directly confronted when I was asked to answer questions about them.” Some students described how a one-on-one discussion, rather than an in-class or group discussion, seemed more conducive to gaining personal insight; as Joe stated, “this feels more legitimate than the group consensus we have to come to as a class on how we understand our results.” Conversely, Courtney cited the class discussion and interactions with other students as a valuable opportunity to share experiences and strategies for coping with stress.

Suggested Improvements to the Feedback Process. Of the 27 participants whose data were coded, 11 offered suggestions to improve the feedback report or overall feedback process for the PRI. These suggestions largely aligned with previously identified elements of the report or feedback process that participants cited as confusing or otherwise inhibiting their ability to absorb their results. For example, several suggestions related to clarifying how scores should be interpreted. One participant suggested using percentiles instead of T-scores, while another participant suggested including a percentile with the T-score so that people wouldn't have to refer to the chart at the bottom of the score summary page. A handful of participants suggested adding language to the "How to Interpret Your Scores" section explaining what the box plot represents and how T-scores are calculated, as well as clarifying that T-scores and percentiles are norm-referenced scores. Malcolm also recommended moving the explanation of how to interpret your scores to the top of the page or to its own separate tab so that the information would be more visible.

Several participants requested more information on how to improve their areas for development or their overall preventive coping. Courtney acknowledged that while providing individualized recommendations for improving preventive coping resources would be preferred, this would be difficult to achieve with a feedback report alone and would be more feasible in a one-on-one feedback session. She, along with several other participants, suggested adding generalized recommendations or examples of behaviors that exemplify each preventive coping resource to the feedback report text. Sandra described how, after receiving her feedback report, she attempted to research her areas for growth online and became quickly overwhelmed, noting, "if there was some description of what these resources look like when you are doing them well, that would have been more convenient." Finally, a handful of participants suggested changing

how subscale scores were presented, specifically requesting some way to gauge how much growth is needed in an area of development and how to prioritize multiple areas of development.

Understanding of Preventive Coping

On the short-answer questionnaires, participants were explicitly asked to define preventive coping in their own words. During analysis, I examined participants' responses in relation to key elements of preventive coping that have been described in the literature, including challenge orientation, coping to mitigate or prevent stress, coping that occurs prior to stress appraisal, and proactive coping behavior. When determining how to code responses, I used concept-related criteria from related literature relating to determine which, if any, aspects of preventive coping participants were describing. For example, when determining if a participant was describing how preventive coping occurs prior to stress appraisal, I checked whether participants referenced time (e.g. use of the words 'current' and 'future') or sequence (e.g. use of the words 'prior to' or 'before') in relation to coping with stress. Two other elements related to participants' understanding of preventive coping resources emerged organically during data collection and subsequent analysis: challenges related to accepting limitations and optimism and identification of relationships between coping resources. These phenomena are discussed in this section as well.

Identified Elements of Preventive Coping. When asked to define preventive coping in their own words, participant responses captured a variety of preventive coping features. Of the 27 students who were asked this question, 19 participants described preventive coping as being used to mitigate or prevent stress on their short-answer questionnaires. Malcolm also spontaneously referenced this feature of preventive coping during our interview, stating, "I see [preventive coping] as finding ways to handle stress now so that you can prevent issues with

stress having an impact on you in any future scenario.” Eight individuals identified that preventive coping often occurs prior to the stress appraisal process. For example, Joe described preventive coping as “preventing stressful situations before they arise, so that there is a much lower risk of getting overwhelmed.” Malcolm offered a nuanced perspective on his short-answer questionnaire, noting that preventive coping not only intervenes earlier in the stress process, it ultimately functions by “shaping one’s perception of stress.” Five individuals described preventive coping as a proactive process requiring intentional action and awareness. Participants who highlighted the proactive aspect of preventive coping frequently referenced Scanning concepts of recognition and preparation and discussed how preventing stress involves active and ongoing preemptive behaviors. Overall, 24 of the 27 students whose data were analyzed described at least one aspect of preventive coping across their short-answer questionnaires, with some participants’ responses alluding to more than one aspect.

Four participants described features of combative coping when asked to define preventive coping on their short-answer questionnaires. Specifically, these individuals did not appear to differentiate when preventive coping occurs during the stress appraisal process and referenced the use of preventive coping after a situation had already been appraised as a stressor. Three of these four individuals also participated in interviews with me, which allowed me to clarify and distinguish between the definitions of preventive coping and combative coping at that time.

Understanding of Preventive Coping Resources. Interviewing participants during the second phase of data collection provided me with an opportunity to learn more about how students conceptualized specific preventive coping resources represented by particular PRI scales. As previously mentioned, I inquired about participants’ interpretation of Maintaining Perspective and Scanning if they had indicated any confusion or lack of understanding about

those two scales in their questionnaire responses. I also asked interviewees about their interpretation of the Self-Acceptance scale, due to the importance of this scale as a proxy for the overall measure. I also hypothesized that due to the popularity of the term ‘self-acceptance’ in psychology and other social science literature (searching for EBSCOhost peer-reviewed journal mentions of “Self-Acceptance” and “self acceptance” yielded a total of 2,010 results compared to 7 results for “social resourcefulness”), students may already have a preconceived definition of this term prior to taking the PRI.

Understanding of Maintaining Perspective. Before clarifying or offering an alternative explanation for Maintaining Perspective, I asked participants who had previously indicated that they did not fully understand the construct to describe it in their own words. Without any further explanation from me, students were generally able to describe key features of Maintaining Perspective and its subscales. Participants associated the construct with “focusing on the bigger picture,” identifying clear goals and aspirations to focus on in demanding situations, and not becoming distracted with irrelevant, trivial details. Participants did not allude to the Finding Meaning or Flexibility subscales, which refer to viewing challenges as learning opportunities and maintaining a flexible attitude in demanding situations, respectively. Due to how Finding Meaning and Flexibility share some conceptual overlap with the Accepting Limitations and Optimism subscales on the Self-Acceptance scale, participants failing to mention these features of Maintaining Perspective appeared to help them differentiate between the subscales. While reviewing the definitions of the Maintaining Perspective subscales appeared to complicate participants’ ability to distinguish them from the Self-Acceptance subscales, returning to the definitions for the larger constructs of Maintaining Perspective and Self-Acceptance appeared helpful in defining what each scale was trying to assess. Some participants also generated factors

beyond what is included in the feedback report text to differentiate between the scales; for example, Parvati stated, “My way of making sense of the difference is that Maintaining Perspective refers to how I view situations and Self-Acceptance refers to how I view myself in those situations.”

Also, of note, Eliza, a student from China, expressed that she was especially confused by the construct of Maintaining Perspective, stating, “I wasn’t sure of the two words and I had to look at the description and the subscales to figure out what they meant.” Eliza’s approach to understanding the construct of Maintaining Perspective suggests that she attempted to make a literal interpretation of the words “maintaining perspective” before reading the description of the term and its subscales. It is possible that other students used this approach as well; in other words, students may have read the term and established a definition based on their preconceived understanding of what the words meant, rather than basing their understanding off of the definition provided in the feedback report text.

Understanding of Scanning. Asking students how they personally defined Scanning revealed that participants understood the construct quite well, besides reporting that they were slightly confused by the term when they first received their feedback reports. Participants attributed their confusion to hesitancy about their conceptualization of preventive coping overall, specifically, participants expressed uncertainty about how preventive coping relates to the larger stress and coping appraisal process. After illustrating the stress appraisal process to participants by drawing on a white board or a piece of paper, they were able to identify that “scanning” intervenes prior to situations being viewed as stressful. Gaining this understanding appeared to highlight the value of preventive coping to several participants. As Ethan stated, “It’s saying, okay, in the future, what could happen to make me stressed? If you know something is going to

happen in a few weeks or months, you have more options ready.” Eliza also reflected on the use of Scanning in relation to short- and long-term demands, noting that Scanning can be used to cope with “an exam in ten days” or “big things that will happen in your life, like finding a job or buying a house.”

Understanding of Self-Acceptance. When asked about their understanding of Self-Acceptance, participants primarily touched on aspects of Identity Comfort and Accepting Limitations. Several students described having a sense of self and experiencing comfortability with how they present in the world; for instance, Sandra described Self-Acceptance as “how comfortable you feel with who you are.” Danni noted that, to her, Self-Acceptance also represents the “absence of self-judgment or being overly self-critical.” Other participants described acknowledging and accepting their strengths and weaknesses and knowing “you can’t be 100% at everything,” as Parvati stated. Eliza spoke about how accepting her limitations may help reduce her distress in demanding situations, noting, “if you can accept that failure is when you don’t work hard enough or because you just aren’t clever enough, then you can’t get too upset.” Like Eliza, other participants also acknowledged that some limitations were outside of their control. Parvati used the example of intelligence when making this point, stating, “in another class I took we talked about whether you are born with it or whether it changes over time. I think to a certain extent you are born with it. Maybe you can increase it a little bit, but not much.” Conversely, while Ethan expressed his belief that “not beating yourself up because of a limitation” is important in maintaining Self-Acceptance, he noted that some limitations can be viewed as impermanent and opportunities to improve, stating, “just because this is the ceiling right now does not mean that this will be the ceiling forever.”

Challenges with Accepting Limitations and Optimism. While none of the participants explicitly referenced optimism when asked about their understanding of Self-Acceptance, several students described tension between the concepts of Accepting Limitations and Optimism when discussing their individual results for the Self-Acceptance scale. Four participants described these two concepts as incongruent, explaining how they had difficulty accepting their limitations due to trait-like optimism or viewing the act of accepting limitations as negative or pessimistic. Ethan explained how accepting limitations is “antithetical to myself” because “my whole outlook is about growth and pushing past my limits.” Sandra attributed difficulty accepting limitations to her upbringing and early life experiences, noting, “I’ve grown up to think that there aren’t limitations, that you can always cross a boundary to do more.” Danni spoke more directly about her difficulty accepting limitations due to valuing optimism. She initially described how she associated accepting limitations with accepting and anticipating negative outcomes, which she described as “disheartening”; however, she also expressed difficulty maintaining an optimistic attitude across situations, stating, “it’s life so I can’t be 100% positive all the time.”

Participants also noted how, when taken to the extreme, both concepts can contribute to increased stress. Being too accepting of limitations was associated with complacency and non-striving by some participants. Maintaining an optimistic attitude in all situations was considered unrealistic and insincere, with Parvati describing extreme optimism as “glossing over the problem or whatever you think is bad about a situation.”

Identification of Interrelatedness of Coping Resources. In both short-answer questionnaires and interviews, participants spontaneously identified relationships among various preventive coping resources. Students described how certain scales, like Maintaining Perspective and Self-Acceptance, were conceptually similar and hypothesized that improving their coping in

one resource area would likely improve their coping in similar resource areas. Other students discussed how they used multiple coping resources in tandem to approach a specific stressor, like Aubry, who talked about using her planner last year to forecast potentially stressful situations and identify and schedule time with people who could help her manage these demands. Lastly, some students described how the use of one preventive resource either reinforced the use of another. For example, Malcolm stated, “it’s very hard for me to keep perspective without a support system,” adding that by seeking out different opinions and worldviews in his relationships, he is better able to maintain a flexible attitude and not become too attached to a particular outcome. Cirie also discussed how having greater self-acceptance allows her to feel more comfortable seeking out social resources to prevent stress.

Understanding of Personal Coping Efforts

The remaining sections of this chapter illustrate how participants described their personal coping efforts. First, I discuss how participants depicted their current coping efforts and reactions to their PRI results. Next, I review how participants explained the development of coping resources that they identified as areas of strength. Finally, I attend to how participants described their desires and intentions to improve their coping efforts in response to their PRI feedback reports.

Feedback Consistent with Prior Self-Concept. When asked how well their PRI results aligned with their previous conceptualization of their coping resources, participants generally indicated that feedback was consistent with some aspect of their existing self-concept. Of the 27 students who were asked this question, 23 participants identified some aspect of their feedback as consistent, at least in part, with how they viewed themselves and their coping efforts. Most participants appeared to evaluate consistency by looking at their subscale-level areas for strength

and areas for development on the feedback report and determine whether these areas aligned with their preconceived impressions of their strength and growth areas. As James noted:

“My only two areas of development are balanced perspective and staying focused. I would agree with the results that the areas of improvement are true because when I want to dedicate my time to many things, everything becomes a priority...Additionally, a few of the categories of strength that stood out to me when reviewing are identity comfort, getting input and finding meaning. These are a part of the core of who I am.”

Some participants, like Eliza, examined how their scale scores compared to one another to evaluate whether results fit with how they viewed themselves. Eliza stated, “I am not super good at handling stress, but I always have someone to turn to when the situation feels like it could become too stressful. It makes sense that the Social Resourcefulness score is a bit higher than the others.” Some students described how even though they could not have predicted and were sometimes surprised by their results, they concluded that the results “made sense” after further consideration. As Angelina mentioned, “The Social Resourcefulness [scale] was most surprising to me as I didn’t think it was going to be as high as it was. But now that I think about it, I do talk to my sister and parents about future stressors all the time.” She further elaborated that distinguishing between using “social support” during stressful situations and using “social resourcefulness” before a situation takes place was helpful in defining her behavior and therefore determining whether she believed that the PRI results accurately reflected her experience.

Consistency with prior self-concept occasionally appeared to be a marker of how students viewed the validity of the test. As Eliza stated, “the scores mostly fit with my expectations, so it makes me think [the test] is right.” Joe described how viewing results that are inconsistent with how he views himself will prompt him to question whether the test is a valid measure: “Like if I

see that a test reflects what I had in my mind before, then I'm like, this is a good test...But when I see something that is not aligned with what I had in mind, I think that either the test is messed up or my thoughts are messed up."

Feedback Inconsistent with Prior Self-Concept. 10 out of 27 students identified some element of their feedback as incongruent with their existing understanding of their coping efforts, and not all students who perceived their results as surprising or inconsistent with their preconceived self-concept questioned the validity of the PRI. Some students were surprised about their subscale-level areas for development; however, this perplexion was generally alleviated by explaining how subscale scores were criterion-referenced and that areas for development could be designated even if participants only negatively endorsed one or two items on that subscale.

Conversely, several students were surprised that certain scores were elevated and considered areas of strength, expressing that they did not believe they were as adept at coping with stress as their results would indicate. Some of these students attached personal meaning to the names of certain subscales, leading them to believe that the subscales described a slightly different coping skill that they did not identify as a strength. This experience occurred several times with students who received feedback that Networking, a Social Resourcefulness subscale, was an area of strength. Networking as a preventive coping resource simply refers to the process of developing and maintaining mutually beneficial connections with others; however, some students, primarily undergraduate business majors, associated the word "networking" as pertaining to only certain types of relationships and social contexts. As Sierra describes, "I think about internships and jobs...getting to know people and making connections to get a job or benefit from that connection. I haven't done a lot of networking in that sense yet, so I was kind

of surprised that was an area of strength.” After discussing how Networking is defined more broadly on the PRI, students like Sierra were often able to identify ways in which they engage in Networking in “non-professional” contexts, like befriending people in class to form a study group or meeting someone who has experience or interest in an activity that one is interested in learning more about. Self-Acceptance was also cited by several students as a pre-identified perceived area for growth, and some students described how they were surprised that their scores were in the average or above average range on this scale. This appeared especially true for participants who expressed disappointment in themselves during the interview, like Eliza, who described how she had been struggling to pursue a degree in computer science and wondering if she had the skills that she considered necessary to be successful in this field.

Identification of Personal Area for Growth. 24 out of 27 participants identified at least one area for growth based on their PRI results. Participant areas for growth by PRI scale are discussed in further detail in Appendix H. In conjunction with students who viewed their feedback as generally consistent with their sense of self, many participants described being unsurprised by their areas for growth. For example, Chelsea agreed with her feedback report suggesting that Balanced Perspective was an area for growth for her: “The most prevalent mindset I experience under stress is falling into negative thinking and failing to focus on the positives in my life. I knew this was a major issue for me before I took the PRI, and the test results picked up on this as well.”

Participants varied in whether they viewed an entire scale or a particular subscale as an area for growth. Participants who initially identified a scale-level preventive coping resource that could be utilized more effectively and frequently ultimately examined the relevant subscales to reflect on how they could specifically improve their coping efforts. Many participants also

described reasons why they had historically not utilized a certain preventive coping resource. For example, Kara discussed avoiding getting input and asking for help because of her desire to feel competent and independent. Some participants identified difficulties with delegation because they do not trust others to do as good of a job.

As previously mentioned, Accepting Limitations was a frequently cited area for growth among participants. While some participants struggled with accepting limitations because of a desire to be “optimistic” and strengths-based, other people associated acceptance with having to give up something important and meaningful that was also a source of stress. For example, Eliza discussed how she needed to make a decision whether or not she was going to give up a major in a field that she was passionate about because the course work was so stressful. Other students described how cultural messages of “not doing enough” kept them from feeling comfortable with setting reasonable limits and expectations for themselves.

Preparation was another subscale that was frequently identified as areas for growth. Several students identified as adept in anticipating and recognizing potential stressors but reported that they struggled to prepare adequately for future stress. Knowing how to prepare seemed to be a barrier for some students, like Malcolm, who noted, “It can be hard for me to figure out how to actually implement preparation.” Joe described lack of motivation as a barrier to Preparation, stating, “probably because I’m just lazy...I want to delay it.” He identified this as an historically effective form of emotion-focused coping but recognized that “while it has gotten me this far, it is not the best way to get things done. Cramming, I’m sure, is one of the worst things for stress.”

Identification of Personal Area of Strength. Out of 27 participants, 19 students identified at least one area of strength based on feedback from their PRI results. Participant areas

of strength by PRI scale are discussed in further detail in Appendix H. Once again, many students were unsurprised by their individual areas of strength that were highlighted on the feedback report; however, some people described feeling surprised that certain behaviors and mindsets that they have routinely engaged in were considered resources or forms of preventive coping. For example, Aubry, whose feedback report reflected Maintaining Perspective and its subscales as areas of strength, described how she had not realized how her optimistic attitude, ability to view challenges as learning opportunities, and keeping her long-term goals in mind were actually ways of preventing and coping with stress. After describing the simultaneous pride and intimidation she experienced when she was accepted to a large university after growing up in a small home town, she stated, “I don’t think I realized how much this has helped me manage stress in college, but I remind myself every now and then that I deserve to be here...It can sound like a lot of pressure, but it’s more of this assurance that I will make it through.” Other students with strengths in Social Resourcefulness expressed that they hadn’t considered their use of social networking as a form of coping prior to receiving their PRI feedback report; however, they easily acknowledged that forming study groups, seeking mentorship, and fostering authentic and supportive relationships with others all served to mitigate their experience of stress.

Some students expressed feeling proud or validated that a behavior or skill that they had been actively working to cultivate appeared as a strength on their feedback report. For example, Tina noted, “Maintaining perspective is something that I have worked really hard to develop over the past few years...it allows me to keep in mind that every potential stressor has a purpose...and an end date.” Ethan also described feeling proud that his Maintaining Perspective score “is as strong as [he] hoped it would be,” explaining that he tries to “cultivate [maintaining perspective] as much as possible.”

Some participants questioned whether an area of strength that was identified on their feedback report was actually helpful to them in their efforts to cope with stress. As previously mentioned, Accepting Limitations was a subscale that some participants viewed as impeding their overall ability to maintain a challenge orientation and view potential stressors optimistically. In addition, consistent with previous research that an elevated Scanning scale (Lambert et al., 2006) may be associated with higher levels of anxiety and hypervigilance, some students noted that having significant “strength” in Scanning was, at times, somewhat detrimental to their overall psychological wellbeing. As Kelley noted, “I do wonder if that can be harmful sometimes. I often feel like I am always on alert, which is not great for my mental health or coping.”

Use of Combative Coping. Several students described the use of combative coping efforts as comprising a significant portion of their overall coping resources; however, most participants tended to view combative coping as generally unhelpful for managing stress. This observation appeared particularly salient for participants who cited the use of avoidance coping, a form of emotion-focused coping. Courtney noted, “One of the things I do is put things off and not think about it. I tend to do that and then I get sick towards the end of the semester, which is somehow related in my mind.” Parvati similarly stated, “The primary way I deal with stress is to not think about it. It’s not helpful.” Conversely, Joe described his use of combative coping as a primary, effective means of coping with stress, stating, “I use outlets that I enjoy, like playing chess, to just completely displace myself from the thing that is stressing me out. That really helps; the ability to remove myself from the experience.” Despite demonstrating some variance in viewing combative coping as helpful or unhelpful, participants who described using combative coping regularly tended to agree that they would prefer not to have to use it.

While the concept of preventive coping was admittedly new to most participants, students generally appeared to differentiate between combative coping and preventive coping efforts. For instance, when discussing whether or not she was effectively accepting limitations in her life, Courtney illustrated the difference between combative and preventive coping by describing a recent experience of having to drop a course due struggling to maintain a stressful schedule, stating, “I guess [dropping the course] was accepting my limitations, but I would define Accepting Limitations as not taking [the course] in the first place.”

Development of Personal Coping Efforts

Given ambiguity in the literature regarding whether coping is more dispositional or situational and skill-based, I paid attention and asked additional questions during interviews when participants alluded to factors that influenced the development of their coping resources; specifically, I was curious if participants would describe their coping resources as enduring and stable or as contextual and developed in response to certain situations. For coping resources that participants identified as areas of strength, I directly inquired about how participants believed they had acquired these specific coping resources. Participants described the development of their coping resources vis-à-vis cultural factors, dispositional and personality-related factors, and situational or skill-based components.

Coping Shaped by Culture. When discussing the development of their coping references, participants often alluded to cultural factors, including familial and societal influences, that shaped their coping processes. Participants referenced the influence of parental figures in the formation of their coping, both as models and reinforcers of certain coping behaviors and resources. Sierra described how her mother as “an insightful person” and a model of Balanced Perspective, elaborating, “she always reminds me ‘This is just how you’re feeling

right now, but look at the bigger picture.’ That’s kind of the way I was brought up to think about things. Other students described how their family’s treatment of them helped to foster certain elements of Self-Acceptance, like Optimism and Identity Comfort, that have subsequently served as coping resources for them later in life. As Aubry succinctly stated, “My parents always believed in me. I guess I believe in myself too.” Parvati described how her self-acceptance, specifically her identity comfort, was heavily shaped mother’s family culture, which was largely represented by White, liberal, nonreligious, third-generation Welsh Americans. She noted:

“My mom always told me that I was enough, I was good, I was perfect the way that I am. I remember when I was younger, my aunt on my dad’s side [of the family], which is Mexican and a totally different culture... my aunt wouldn’t let my cousin have a piece of candy because she didn’t want her to get fat. And my mom was like, she’s a kid, let her have a piece of candy. My mom just never made a big deal worrying what other people might think about me, and so I think that made me feel more comfortable with myself. I go to Mexico a lot, and the culture is really different. You dress up nice everywhere you go. What I’m wearing now, these are considered pajamas and you wouldn’t even leave your room looking like this. So, I think it’s my family and my mom, but also the larger culture of being an American and not caring as much about what other people think about what I do and the choices I make.”

Parvati also related the structure of her family to her optimistic perspective, describing how, after her parents divorced, she was impressed by her mother’s strength as a single parent and ability to effectively function in multiple roles with limited resources. Similarly, Danni described how the structure of her family, in which she is an only child, required her to develop the ability to reach out to other people for help. She also described how teachers served as important sources of

encouragement during her early life, which prompted her to feel more accepting of herself and her own limitations, noting, “if you have encouragement even when you don’t do well, it really reassures you that you are okay with not being perfect...for kids who don’t grow up with that encouragement, it takes more effort to cultivate that acceptance.”

Coping as Dispositional. A few participants described coping resources as dispositional by referencing stable personality-like characteristics that impact the coping process and coping responses that are relatively steady and consistent across situations. Eliza described feeling as though she had “inherited” certain coping resources, like the ability to anticipate and recognize future stressors, from her mother. Other participants discussed feeling like they had “always had” a certain coping resource or that they had historically used a certain coping resource across circumstances and time; for example, Joe stated, “I’ve always had this ability to keep perspective to some degree. I’m just level-headed. I’ve never been someone who gets too worked up and forgets the big picture.”

Coping as Situational or Skill-based. Compared to participants who referred to coping resources as dispositional, many more participants described their coping as situational and skill-based, referencing their coping resources as changeable, learned, and occasionally only applied during specific situations. Most students who referenced skill-based or situational coping discussed developing a particular coping resource in the context of a particular setting, with college being the most common setting in which students developed coping “skills.” Participants explained how increasing demands and role transitions that occurred for many participants beginning college necessitated the development of new approaches to stress management. Students with strengths in Scanning described starting to keep a detailed planner or calendar to aid in their ability to anticipate, recognize, and prepare for future stressors. Students who scored

highly on the Social Resourcefulness scale noted how making new friends in class served dual functions of expanding one's social network and identifying an obvious study partner for tests.

Several students alluded to viewing coping resources as situationally-bound; in other words, they described feeling more or less able to apply certain coping resources in certain situations. Sophie described coping effectively in educational and work-related settings, but stated, "I believe that I'm slightly less competent at coping with stressors in my personal life." James also explicitly stated, "I believe that my coping is very situational because there are times when coping is high and other times when it is low."

Coping as Both Dispositional and Skill-based. A subset of students described their overall coping efforts as containing elements of both dispositional and situational or skill-based coping. When describing how he developed a strength in Social Resourcefulness, Ethan stated, "I think our social tendencies are inherited, but using socialization strategically, as weird as that sounds, is something that I've learned over time. Not like to manipulate people, but how to get support from different relationships." Cirie also alluded to having a basis or foundation for coping that is inherent or dispositional that can be improved by acquiring and implementing new skills and strategies. Discussing her strength in Asking for Help, she noted, "Over time I've become more confident in myself and found it easier to reach out to others, but I do have an extroverted personality so I imagine it has been easier for me to do that than it would be for someone else." Students who described both dispositional and skill-based elements as important factors in developing robust coping resources generally described how a predisposition, like an extroverted personality or an optimistic attitude, could be further developed and refined by implementing the resource in new, complex situations.

Improvement of Personal Coping Efforts

Finally, participants were explicitly asked, in both short-answer questionnaire and interview format, how they planned to use their PRI feedback to improve their coping resources. Asking this question did not necessarily yield responses indicating a desire to improve coping; many students simply restated their identified areas for growth without suggesting a plan or intent to alter their coping. The responses of students who clearly indicated a desire or intention to improve their coping efforts in some way are represented in the sections below.

Desire to Improve Attitude Towards Stress. Several participants referenced a desire to improve their attitude towards stress. The Maintaining Perspective and Self-Acceptance subscales include overlapping attitudinal components, like challenge orientation and optimism, that serve as preventive coping resources, making it difficult to discern whether a participant was referencing improving a specific preventive coping resource. As such, participants who endorsed a desire or intent to adopt an attitudinal shift towards coping were separately classified.

The most commonly cited attitudinal changes that participants described related to challenge orientation and optimism. When Angelina talked about her reasons for wanting to find a therapist, she stated, “I think that would be super helpful to help me manage future stressors and the way I think about and through certain things that are going on in my life... thinking out loud, especially talking to someone about it really helps me channel positivity.” Other students reiterated wanting to have “a more positive attitude” and “view stressors as opportunities rather than inconveniences.”

Desire to Improve Global Coping Resources. Several students described a desire to improve their overall preventive coping resources without defining a target coping resource to focus on. Some students expressed that because their reports revealed areas for development

across scales, they would likely benefit from improvement across various preventive coping resources. Other participants discussed improving their global coping resources as a continuous process, even if their feedback report indicated several areas of strength. For example, James spoke about having only two areas for development on his feedback report, however, he noted, “even though that is the case, after examining each of the assessment scales, I want to further develop them all and strengthen the areas that are on the lower end of the spectrum.” Courtney echoed, “I want to grow and develop further in each area, as there are many times that I want to be able to prevent stress more effectively within my life.”

Desire to Improve a Specific Coping Resource. Most students – specifically, 18 out of 27 participants identified a desire or intention to further develop a specific coping resource. Some improvements related to a specific scale of the PRI; for example, Kelley expressed wanting to improve her ability to maintain perspective through “working to deescalate my worries and not catastrophize scary situations.” Some students more specifically identified an area for improvement by citing an intention to improve a particular subscale. While many students simply described a goal for improve a coping resource without a concrete plan for how to improve, a subset of students discussed how they planned to alter their current behavior in order to develop an area for growth.

Identification of Specific Behaviors to Improve Coping. Although the PRI feedback report does not include suggestions for how to improve specific preventive coping resources, some students spontaneously identified a behavioral change that they would like to incorporate in order to improve their coping. In the context of describing a desire to improve a specific coping resource, students several students elaborated on how they planned to improve resources by reducing, altering, or increasing a certain behavior. Jenna talked about improve her Social

Resourcefulness by “attending TA hours, consulting with friends for help with assignments that I know will be difficult, and delegating tasks on group projects instead of doing everything on my own.” Parvati discussed wanting to improve her Preparation, stating, “I think I’m going to try and start studying earlier in the future, even if it’s just little bits.” Chelsea discussed her intention to start “writing down or meditating on all of the positives of a situation” which would “force [her] to look at the entire situation with a ‘big picture view’ rather than only focusing on the negatives.”

Identification of Reasons to Improve Coping. Several participants spontaneously offered their personal reasons for wanting to improve their coping efforts. The primary reasons participants identified for improving their ability to cope with stress related to specific benefits for current self and specific benefits for future self. Regarding benefits for current self, some participants described how improvements in coping could relieve current ongoing stressors. For instance, Kara discussed wanting to improve Preparation and Asking for Help to improve her attitude towards work, which she cited as a significant current stressor.

Regarding how coping relates to the future self, participants noted that life was likely to only get more complex and stressful in the coming years. When reviewing her areas for development, Sandra stated, “Maybe I need to start thinking about this, because the future is getting bigger...like when I have a job or something.” Danni noted, “Preventive coping will help me be more prepared to take on more tasks as I get older and...not overwhelm myself.” Malcolm discussed the importance of consistently working to improve coping across the life span: “I would say that being able to have these resources is very important not just now, but throughout life...it is very important to be able to keep perspective of who you are and the types of goals you want to achieve. You don’t want stress to overtake you and take away from that.”

Chapter Five: Discussion

The current study was designed to explore students' understanding of the PRI feedback report, including their conceptualization of the preventive coping resources described in the report. Simultaneously, this study also sought to understand how students define their own personal coping efforts, including how their coping resources have been developed and can be improved upon in the future. In light of the phenomenological and exploratory aims of the study, I was interested in examining the perspectives of both graduate counseling students learning to administer measures like the PRI and undergraduate students representing a variety of majors and stages of career exploration. Collectively, these students represented a diverse range of coping styles and abilities, including backgrounds in education and psychology that impacted how they understood and interpreted their feedback.

Despite a large body of existing research on stress and coping, most research and intervention models are devoted largely to strategies for combating stressors that are already underway and neglect the importance of preventive strategies for reducing stress (Greenglass & Fiksenbaum, 2009). Due to the high physiological and psychological costs of chronic and recurring stress, helping individuals to mitigate and prevent stress, rather than withstand it, may serve to enhance health and well-being. This perspective also aligns with larger trends in health care oriented toward preventive medicine, which has been associated with lower costs and better health outcomes (Berwick, Nolan, & Whittington, 2008). Because preventive coping remains a relatively new concept in the stress and coping literature, the degree to which individuals are familiar with and understand preventive coping and its related constructs is unclear.

Overall, the PRI feedback report appeared to serve as a useful tool in helping students to understand preventive coping and to reflect on how to better implement preventive coping

resources in their lives. Students reported that they were better able to make use of the feedback report by engaging with their results more deeply through the short-answer questionnaire, in-class discussion, and the interview, though students' perceptions on how useful each of these processes were tended to vary. Participants in this study also provided useful insight and recommendations for how to improve elements of the feedback report as well as the overall feedback process for the PRI. Through this study, students received psychoeducation about what preventive coping is and were subsequently able to identify key aspects of preventive coping, including its orientation within the stress appraisal process, its role in mitigating and preventing stress, and that it represents a proactive perspective towards stress. While participants were also generally able to describe and reflect on specific preventive coping resources, like Social Resourcefulness, some also noted difficulty defining and differentiating between Maintaining Perspective and Self-Acceptance. Lastly, students who participated in this study offered their perspectives on the development of the coping resources, contributing to the relatively scant body of research on the role of culture in shaping coping behaviors as well as the discussion on whether preventive coping is more dispositional or situational and skill-based.

The remainder of this chapter will include my interpretations and conclusions for each of the research questions for this study, building upon the results described in the previous chapter and drawing upon relevant research literature. In my discussion of research question one, I will also review recommendations for potential improvements to the PRI feedback report and feedback process based on participants' responses. After discussing my interpretations of the data, I will describe limitations for this study as well as directions for future research.

Research Question One: Helpfulness of the PRI Feedback Report

The first research question for this study asked, “What elements of the PRI feedback report do PRI-respondents find helpful or unhelpful in facilitating their understanding of their results?” Generally, students found visual elements of the feedback report to be helpful, including the graphs and the clean layout. The graphs and box plots appeared to reduce many students’ reliance on the percentiles and T-scores in helping them to interpret their scores. Despite students generally citing the T-scores as at least “mostly” understandable or not using the T-scores at all to interpret their results, participants who did rely on the T-scores cited prior exposure to statistics as important.

The criterion-referenced subscale scores appeared challenging for many participants. I reviewed these and explained how subscale-level strengths and growth areas were determined for all but one student that I interviewed, suggesting that students were unclear or had not been exposed to this information when receiving their feedback reports initially. Students appeared to have difficulty with not knowing how to compare their subscale areas for growth, particularly when their feedback report indicated several, for the purpose of prioritizing coping resources upon which to improve. During interviews, I responded to this dilemma by comparing students’ scale scores to their associated subscale-level areas of strength and areas for growth. If a student had a high or average scale score with one subscale identified as an area for growth, I would ask them how effective they believed they were at using that particular coping resource and whether they could stand to improve it in any way. If students had multiple subscale areas for growth on a given scale, I would review each subscale with them, eliciting their perspective of how well they used or did not use each subscale-level resource. Then, I would ask them to determine which subscale-level resource they could improve the most, after which we would identify specific

steps to facilitate growth. This process allowed me to circumvent the participants' desires to compare or "rank" their subscale-level areas for growth while beginning to help participants set personalized goals to improve their coping.

Individualized recommendations or "take-home" messages were also frequently requested by participants. The PRI feedback report does not offer personalized recommendations based on a person's results, but students who engaged in some type of reflective process were able to formulate specific goals and take-away messages tailored to their experiences. I found that reflective process this was easily facilitated through the conversations that took place during the interviews; however, some students also appeared to engage in this process through the class discussion or by responding to the short-answer questionnaire.

Potential Improvements to the PRI Feedback Process. The results of this study suggest several potential improvements to the PRI feedback report that could meaningfully impact consumers' ability to understand and make meaning of their PRI results. Due to students' heavy reliance on the graphs and box plots, consumers may benefit from an explanation of the box plot being added to the "How to Interpret Your Scores" section on the first page of the feedback report. On a similar note, incorporating more concrete links between the graphs and statistical information might help to bridge the gap between these two methods of understanding for many consumers. For example, labelling the graph using the percentiles or T-scores may help consumers better understand what the graphs and box plots represent.

While many students requested recommendations for how to improve specific preventive coping resources, including this information in the PRI feedback report may be difficult considering that there is minimal research on what specific behaviors are associated with each coping resource. I discovered that students were largely able to generate their own

recommendations through one-on-one discussing in which I inquired about their areas for growth in greater detail. Incorporating some individual feedback on PRI results aimed towards identifying concrete goals to improve specific areas for growth may help to alleviate the absence of recommendations for improving preventive coping that exist in the current state of the research.

Research Question Two: Participants' Understanding of Preventive Coping

The second research question for this study asked, “How do PRI-respondents understand the preventive coping constructs described in the PRI feedback report?” As previously mentioned, due to participants expressing less clarity regarding the Maintaining Perspective and Scanning scales, I inquired specifically about how participants understood those scales during interviews. I also inquired about Self-Acceptance because I hypothesized that participants may already have attached a personalized meaning to the term.

Regarding Maintaining Perspective, I found that students associated the term mostly with having a ‘Balanced Perspective’ and ‘Staying Focused’ and that the ‘Finding Meaning’ and ‘Flexibility’ aspects of the scale were often neglected. Interestingly, I discovered that explaining the latter two subscales to participants ultimately created confusion in differentiating Maintaining Perspective from Self-Acceptance; students identified thematic similarities between the definitions for ‘Finding Meaning’ and ‘Optimism’ as well as between ‘Flexibility’ and ‘Accepting Limitations.’ Amending the definitions of ‘Finding Meaning’ and ‘Flexibility’ so that they do not reference optimism and accepting limitations, respectively, may help to reduce confusion for future PRI consumers. Conversely, given that participants in this study also identified intersecting and reinforcing relationships of various preventive coping resources, distinguishing between scales and subscales may be inconsequential or less important in helping

students understanding and more effectively mobilize their preventive coping resources. In addition, due to the emerging state of the research on preventive coping, the relationships between certain preventive coping constructs are poorly understood, making it difficult to truly differentiate between and explain PRI scales to consumers.

Multiple definitions associated with certain preventive coping constructs also appeared to impact participants understanding of what the constructs meant. For example, Eliza, a non-native English-speaker, noted difficulty initially understanding the concept of Maintaining Perspective due to viewing “perspective” as the appearance of an object with respect to its relative position, rather than the capacity to view things in terms of their relative importance. It is also possible that multiple definitions of the word “scanning” may have contributed to slightly greater confusion about what the Scanning scale is actually measuring.

Lastly, there emerged a tension between accepting limitations and staying optimistic, as many students viewed these two concepts as mutually exclusive. Some students believed that acknowledging their limitations reflected a pessimistic attitude. Interestingly, some of these same students described the difficulties of maintaining an optimistic attitude in all situations and a tendency to feel guilty for experiencing and being unable to redirect negative emotions. Positive expectations about the future are generally linked to well-being and may lead a person to cope more adaptively with stress (Scheier & Carver, 1992; Taylor & Brown, 1988); however, there are occasions in which adopting a global optimistic attitude may produce the opposite effect. Unrealistic optimism, a term popularized by Weinstein (1980) describing the process of expecting future outcomes that are better than is reasonably likely, may lead people to take unnecessary risks or fail to prepare for potential problems. Specifically, unrealistic absolute optimism, or the belief that a personal outcome will be more favorable than it should be, has

been associated with underestimating the time it will take to complete a given task, contributing to scenarios like inadequate preparation and missed deadlines (Newby-Clark et al., 2000). There may also be an emotional cost when outcomes fall short of expectations. Robins and Beer (2001) found that college students who displayed unrealistic absolute optimism regarding their performance in their classes reported lower self-esteem and well-being over time compared with college students who had more realistic expectations. Research suggests that the emotional consequences of unrealistic optimism can be mitigated by temporarily shedding an optimistic attitude and bracing for bad news (Carroll, Sweeny, & Cherry, 2007). Bracing oneself for a negative outcome in order to reduce emotional distress appears to function as emotion-focused coping, and proponents of preventive coping would argue that coping with a potential negative outcome should occur earlier in the stress appraisal process. While the PRI purports that optimism is one component of preventive coping, a positive yet realistic and flexible attitude about future events should be distinguished from unrealistic optimism. Accepting Limitations may be one way of allowing individuals to temporarily adopt a realistic perspective about what they can handle in the future so that they are not later faced with the consequences of unrealistic positive expectations.

Research Question Three: Participants' Understanding and Utilization of Results

The third research question asked, “How do PRI-respondents plan to use their results to better understand their ways of coping with stress and/or to improve their preventive coping efforts?” Results of the study identified ways in which students described and contextualized their personal coping efforts, including how their coping strengths originally developed. This study also explored how students planned to improve their coping efforts based on feedback from the PRI and why improving their coping efforts was important to them.

In this study, students were generally able to identify areas of strength and areas for growth based on their PRI feedback reports. While many students described their results as consistent with their prior self-concept, other students reported that they were surprised by some of their results. Several participants noted that the consistency between their results and their prior sense of self impacted their view of the measure's validity. For example, when discussing how his PRI results reaffirmed his prior self-concept, Joe noted, "When I see something that is not aligned with what I had in mind, I think that either the test is messed up or my thoughts are messed up." Another participant, Eliza, described herself as "not a very good copier" expressed her belief that the PRI drastically overestimated her coping resources across all of the scales; however, she also noted, "I don't have a very stable idea about myself." While there is limited research on how individuals make sense of their assessment results, Finn (2007), the creator of therapeutic assessment, asserts that feedback is most helpful when presented in accordance with the client's current self-schema. Specifically, he suggests a "Level 1, 2, 3" schema of providing feedback in which the information that is most congruent with a person's self-concept is presented first, following by information that is slightly discrepant and information that is more significantly discrepant. In partial support of Finn's schema, Schroeder et al. (1993) found that college students receiving feedback about their personality traits rated feedback as more positive and influential when presented this way, and these effects persisted on a two-week follow-up.

The ways in which students contextualized and made meaning of their results also appeared to depend on their current life circumstances and concerns. Career planning was a salient theme for undergraduate students in making sense of their own personal coping efforts. For example, students frequently discussed the importance of social resourcefulness in furthering their career goals, particularly through Networking. As noted by several participants, utilizing

social resources may serve to reduce stress associated with the career planning process, with the additional benefit establishing recognition in a specific professional community. Several students also noted that many preventive coping resources reflect qualities that employers are seeking out in potential job applicants. Participants acknowledged that knowing their areas of strength and how to frame them within a desired job setting is more personal than re-stating their resume during an interview.

The Role of Culture in Coping. While the scope of this study was not intended to determine whether preventive coping could be considered more dispositional and personality-driven than situational and skill-based, coping, particularly preventive coping, may very well contain both dispositional and skill-based elements; however, even students who referenced dispositional elements of coping did not always delineate whether “always having” a certain coping resource was mutually exclusive with it being personality-driven. For example, these participants may have been referencing a learned behavior that was developed very early in life due to context and culture.

Interestingly, the cultural context of learning to cope with stress emerged as a salient factor in how participants described the development of their coping efforts. The role of culture has been acknowledged but generally neglected in discussions of the stress and coping paradigm, even though the impact of the environment is an important factor in transactional models of stress and coping. In their review of literature on the cultural context for stress and coping, Chun, Moos, and Cronkite (2006) note that culture often sets the tone for the characteristics of the environmental system that partially determine the pressures and demands that individuals face, as well as the resources available to them. For example, they note that people in individualistic cultural groups face greater demands associated with becoming autonomous and independent .

These pressures may also be associated with fewer available social resources or a reluctance to utilize social resources in general. In contrast, persons in collectivist cultural groups may experience greater pressure to manage group-level demands, sometimes at the expense of their own personal well-being.

Culture may also impact an individual's social networks, family systems, and inherent belief structures related to self and others, all of which may vary widely depending on a person's various intersecting identities. Hobfoll (2001) purports that individuals who share biology and/or culture are more likely to develop a set of common appraisals about stress and are more likely to possess and share coping resources among each other. Common appraisals to stress may be both cultural and familial. Pang (1991) found that Asian American adolescents were more sensitive to pleasing their parents than Euro-American adolescents. In New Zealand, parental pressure both motivated and hurt adolescents of Chinese descent but did not have the same impact on adolescents of European descent (Chung, Walkey, & Bemak, 1997). In this study, family and school environments were frequently cited as influences on students' coping. Participants identified certain coping resources as "traits" that were "inherited," and they also described coping as a set of behaviors that were learned through modeling or lessons from family members and teachers.

Limitations and Delimitations

One limitation of this study pertains to the sample demographics. This study used convenience sampling from two courses in the College of Education and all participants had received some form of higher education. The two samples of participants differed in several ways. The graduate student participants tended to be older and consisted of students learning about the PRI in the context of learning how to provide career counseling; the undergraduate

students tended to be younger, represented a wider variety of disciplines and majors, and participated in the career planning course for a multitude of different reasons. I did not have the opportunity to interview the graduate students due to the shorter summer session and thus did not capture the same degree of detailed information that I did when meeting individually with the undergraduate participants. Consequently, the range of individuals with the opportunity to participate in the study was limited and was not demonstrative of the general population. I endeavored to address this by prioritizing the analysis of data from students that represented a range of ages, genders, and racial and ethnic backgrounds, and by recruiting from two separate groups of students. The latter point was ultimately a strength of the study; I was able to obtain valuable interview data from the undergraduate sample of students, who represented greater diversity in their educational background, and I gleaned a significant amount of data from the short-answer questionnaires of the graduate students, which were generally insightful and well-written. Given the design and sampling method of this study, a demographically representative sample was not feasible. Future research on this topic should continue to attempt to recruit a diverse range of participants and should consider ways to better capture the experiences of individuals with different educational backgrounds.

In addition to the challenges related to the demographic characteristics of the sample, participants in this study were all students in the taking a course from an instructor who is very familiar with the PRI and was able to provide psychoeducation about preventive coping as well as in-class feedback for students about their results. In addition, through conducting interviews with participants, I was able to provide additional psychoeducation about preventive coping and the PRI. Participants' exposure to multiple sources of information about preventive coping created some difficulty when assessing the role of the feedback report in helping students

understand and make use of their results. It is also possible that information from myself or the course instructor helped to clarify elements of the feedback report that were originally confusing for participants before they had the opportunity to voice their confusion in the short-answer questionnaire or during the interview. Furthermore, participants' status as students potentially primed them to think about how their coping related to their academic or professional demands rather than demands related to their personal lives. The types of areas for growth that were typically described by participants may have also been influenced by their student status; for example, the frequency of Accepting Limitations and Preparation as identified areas for growth may have been guided by developmental and situational factors. This ultimately did not appear to detract from the benefit that students reported deriving from the PRI feedback process, as many of them ultimately identified areas for growth, including specific behavior changes they wanted to make, related to their educational and occupational goals. While restricting the sample in this study to students in higher education may have impacted the scope of the data that were collected, college students are also more likely to represent future consumers of the PRI. Therefore, the results of this study could be perceived as valuable to researchers who are assessing the utility of the PRI in a student population or with counselors who are working with students or individuals in early stages of professional development.

Lastly, if this study were to be replicated (for example, with a non-college-student population), I would recommend that the researchers ensure that they can view the participants PRI feedback reports in order to assess whether or not students are accurately interpreting their scores. I did not include this in my original IRB proposal and therefore could not view students' PRI scores or feedback report unless they brought a copy to their interview with me. Even though I requested that students being interviewed bring a copy of their feedback to the meeting,

the rooms in which we met had poor internet connection and students would occasionally have difficulty accessing their feedback report online.

Implications and Directions for Future Research

A number of topics addressed in this study require further scholarly investigation. Most importantly, this study should be replicated with a more diverse, balanced sample, particularly with regard to racial and ethnic diversity and with a wider range of educational and professional backgrounds. Although this participants in this study were exclusively students in higher education, the results of could be used to create recommendations for further developing preventive coping behaviors in the context of college and early career. Many students in the study requested recommendations for improving their preventive coping resources and, interestingly, several participants were able to generate concrete and potentially generalizable recommendations themselves. Mobilizing social resources by engaging in study groups and attending TA hours, using an academic planner to anticipate and recognize upcoming tasks, and keeping one's larger professional goals in mind all emerged in this study as behaviors that participants intended to engage in to improve their coping. Creating helpful recommendations that could be used in non-academic or professional may necessitate additional research with non-college student populations.

This study also suggests the potential utility of creating an instructor or provider guide for giving PRI feedback in group and individual settings. This could also include instructions for the student regarding how to review their feedback report, such as ensuring that they understand the scale and subscale definitions prior to looking at their scores, as well as instructions for the provider on how to facilitate deeper insight from the student, how to structure feedback, and how to collaboratively identify personalized, specific goals for improving preventive coping

resources. As research on preventive coping continues to develop, more concrete strategies for improving various preventive coping skills may emerge; for now, identifying specific behaviors as targets for growth falls upon the respondent and the instructor or provider, underscoring the usefulness of guidelines for how facilitate insightful, goal-oriented discussion during the feedback process.

Lastly, I was surprised by the limited amount of research on how participants experience a self-report measure designed to facilitate insight and, potentially, behavior change. While the transparently-worded questions and non-clinical nature of the PRI lends itself to a collaborative and open discussion with respondents about their results, this study could still easily be replicated with other non-clinical self-report measures. Part of the goal of this study was to improve the utility of the PRI feedback report, and this could not have been accomplished without directly inquiring about PRI-respondents' experience with the feedback process. Future studies on self-report measures could also further examine the most effective means of providing feedback to respondents and how self-report consumers make meaning and use of their results.

Appendices

Appendix A: Preventive Resources Inventory

Using the scale below, please rate the extent to which you agree or disagree with the following statements.

- 1 = Strongly disagree
- 2 = Somewhat disagree
- 3 = Neither agree nor disagree
- 4 = Somewhat agree
- 5 = Strongly agree

1. I form mutually beneficial relationships with others.
2. I reach out to others to prevent stress.
3. I can recognize events or situations that may cause stress in my life.
4. I can accept the fact that things will not always turn out the way I want.
5. I like who I am in my personal life.
6. I do not get distracted from my daily goals.
7. I have mutually supportive relationships.
8. I am able to prevent stress by accepting responsibilities rather than avoiding them.
9. I know how to make others feel comfortable.
10. I actively seek feedback about how I handle work situations.
11. I accept the circumstances in my social life.
12. I reduce stress in my social life by focusing on my priorities.
13. When I recognize a negative situation, I look for ways to change it.
14. I see problems as opportunities to learn and grow.
15. I am able to divide up tasks with others in a way that benefits others.
16. I anticipate when situations in my personal life are going to cause me stress.
17. I ask for help.
18. I can find the bright side of most situations.
19. I know my own limits.
20. I have limitations.
21. I learn from mistakes in my personal life.
22. I do not want to trade my life for anyone else's life.
23. I am successful at taking on big projects one step at a time.
24. Having a clear direction for my life reduces my overall stress level.
25. I find meaning in difficult situations.
26. I keep things in perspective to prevent my personal life from getting stressful.
27. I know how to pick the right coping strategy for the right situation.
28. I have friends and relatives who can help me avoid trouble in my life.
29. I find others to help me when I need to.
30. I accept the circumstances in my personal life.
31. I am good at identifying things that will cause stress in the future.
32. I keep things in perspective to prevent social situations from getting stressful.
33. I have goals that keep me focused.
34. I am able to see difficult situations on the horizon.
35. I am able to reduce stress in my life by focusing on my priorities.

36. I know when I need to "go with the flow" to prevent a situation from becoming stressful.
37. I am able to delay gratification to get important things done.
38. I may not always get what I want.
39. I am grateful for who I am.
40. I am comfortable with the circumstances in my life.
41. I keep things in perspective to prevent work from getting stressful.
42. I lead a well-rounded life.
43. I accept the input of others.
44. Having clear priorities reduces the stress in my life.
45. I know which coping resources to use to prevent social problems from becoming stressful.
46. I feel comfortable reaching out to others for help in my personal life.
47. Other people consider me helpful.
48. I prevent stress by focusing on the positives in my work life.
49. I reduce stress in my personal life by focusing on my priorities.
50. My negative feelings about difficult situations will not last forever.
51. I keep failures and difficulties in perspective.
52. I prevent stress by focusing on the positives in my social life.
53. I actively seek feedback about how I handle social situations.
54. I know how to delegate tasks to others.
55. I like who I am at work.
56. I accept the circumstances in my work life.
57. I accept my imperfections.
58. I learn from mistakes in my work life.
59. I fine-tune my approach to dealing with problems so I don't waste effort.
60. I anticipate when social situations are going to cause me stress.
61. I am able to ask for emotional support.
62. I focus on my goals in life whenever I encounter a demanding situation.
63. When problems come up in one area they don't affect my overall happiness.
64. I reduce stress in my work life by focusing on my priorities.
65. I learn from mistakes in my social life.
66. I know how to think about situations in a positive way.
67. I can communicate my needs to others.
68. I pick the coping strategy that helps me prevent problems from becoming stressful.
69. I know which coping resources to use to prevent personal problems from becoming stressful.
70. I recognize situations that may add to the stress in my life.
71. I know when getting more information will help me avoid problems.
72. I am able to reduce stress in my life by focusing on my values.
73. I am able to avoid causing myself stress by keeping things in perspective.
74. I feel comfortable reaching out to others for help in social situations.
75. I know how to learn from my mistakes.
76. I anticipate when work situations are going to cause me stress.
77. I use the resources I have to prevent stress.
78. I prepare for stressful social situations before I have to encounter them.
79. I am able to prevent stress by having clear values in my life.

80. I know which coping resources to use to prevent work problems from becoming stressful.
81. I am able to use constructive criticism.
82. Before I make a decision, I get input from others.
83. I monitor my environment for potential sources of stress.
84. I take it in stride when I don't get what I want.
85. I reach out the right person to help me when I need to.
86. I have others to call upon when needed.
87. I prepare for stressful work situations before I have to encounter them.
88. I prevent stress by focusing on the positives in my personal life.
89. I have skills and abilities that can help me prevent stress.
90. I am able to recognize when I need to take action to avoid causing stress in my life.
91. I know who I am.
92. I am better than most people at anticipating situations that will cause stress.
93. When new information comes my way, I can recognize when it will be important to me.
94. I am a flexible person.
95. I do not dwell on negative situations.
96. I like who I am in social settings.
97. I expect that my efforts to prevent stress will be successful.
98. I help others just as much as they help me.

Appendix B: Feedback Report

(Page 1)

Coping resources refer to a wide variety of psychological, emotional, physical, and material assets that are useful in managing life challenges. The Preventive Resources Inventory (PRI) is a measure of an individual's preventive coping skills and resources. Preventive coping refers to efforts to manage potential future stressors, as opposed to dealing with stressors that are already underway. In other words, the PRI measures an individual's coping efforts to mitigate or prevent stress, rather than withstand it. As such, the focus of the PRI is on human growth and wellness, and the intent of the instrument is to identify ways in which individuals can better identify, understand, minimize, and avoid potentially harmful situations.

Scale	T-Score	Area for Development — Area of Strength
Maintaining Perspective <i>Having attitudes and beliefs that help prevent stress</i>	(Numeric value)	(Displayed as a bar)
Scanning <i>Anticipating, recognizing, and planning for future stressors</i>		
Self-Acceptance <i>Acknowledging and accepting one's limitations</i>		
Social Resourcefulness <i>Drawing upon social support to prevent stress</i>		
Total Preventive Resources		

T-score	Percentile
30	2%
35	7%
40	16%
45	31%
50	50%
55	69%
60	84%
65	93%
70	98%

How to Interpret Your Scores:

T-scores have a mean of 50 and a standard deviation of 10. T-scores from 40-60 are considered in the expected range. T-scores below 40 are considered areas for development. T-scores above 60 are considered strengths. The table below gives percentiles associated with specific T-scores.

Maintaining Perspective

The Maintaining Perspective scale assesses attitudes and beliefs that help prevent stress and keeping stress-produced emotions at manageable level.

Maintaining Perspective is comprised of the following subscales:

Balanced Perspective: the ability to identify both the positive and negative aspects in a demanding situation and to consider the whole picture.

Finding Meaning: having an optimistic attitude and viewing challenges as learning opportunities.

Flexibility: having a flexible attitude and being able to prevent stress by acknowledging one's limits and level of responsibility in a demanding situation.

Staying Focused: focusing on one's values and priorities in demanding situations in order to achieve goals.

Subscale	Area for Development — Area of Strength
Balanced Perspective	(Displayed as criterion-referenced marker for each subscale)
Finding Meaning	
Flexibility	
Staying Focused	

Scanning

The Scanning scale assesses the ability to anticipate, recognize, and plan for demands and potential stressors.

Scanning is comprised of the following subscales:

Anticipation: the ability to forecast potential stressors.

Recognition: the ability to recognize a potential stressor and to identify appropriate preliminary steps to manage the stressor

Preparation: the ability to mobilize available coping resources to prevent stress in challenging situations.

Subscale	Area for Development — Area of Strength
Anticipation	(Displayed as criterion-referenced marker for each subscale)
Recognition	
Preparation	

Self-Acceptance

The Self-Acceptance scale assesses the ability to accept and overcome shortcomings, imperfections, and limitations in dealing with demanding life situations.

Self-Acceptance is comprised of the following subscales:

Accepting Limitations: acknowledging one's own limitations and areas for growth, and accepting that some situations will have negative outcomes.

Optimism: focusing on positive life experiences to prevent stress and maintaining a positive outlook towards life goals and values.

Identity Comfort: acceptance of one's life circumstances and ability to maintain a positive self-concept.

Subscale	Area for Development — Area of Strength
Accepting Limitations	(Displayed as criterion-referenced marker for each subscale)
Optimism	
Identity Comfort	

Social Resourcefulness

The Social Resourcefulness scale assesses the ability to draw upon a social network of caring others who can provide feedback and support in challenging situations.

Social Resourcefulness is comprised of the following subscales:

Asking for Help: calling upon others for help when needed in order to prevent stress.

Delegating: assigning specific requests for support to appropriate person.

Getting Input: seeking feedback and information from others about challenging situations.

Networking: developing and maintaining mutually beneficial connections with others.

Subscale	Area for Development — Area of Strength
Asking for Help	(Displayed as criterion-referenced marker for each subscale)
Delegating	
Getting Input	
Networking	

Appendix C: Phase One Informed Consent

Identification of Investigator and Purpose of Study

You are invited to participate in a research study, entitled “Evaluation of the Feedback Report for the Preventive Resources Inventory.” The study is being conducted by Susan Murphy of The University of Texas at Austin, Department of Educational Psychology, College of Education, Austin, TX, 78712, 412-377-8371, susanlauramurphy@gmail.com.

The purpose of this study is to examine the clarity and usefulness of the feedback report for the Preventive Resources Inventory. This information will help researchers improve clarity and utility of the feedback profile for individuals taking the measure in the future. You are free to contact the investigator at the above address and phone number to discuss the study. You must be at least 18 years old to participate.

If you agree to participate:

- You will be asked to complete a questionnaire asking about your understanding and interpretation of the information presented in the feedback report.
- The questionnaire will take approximately 15 minutes of your time.
- You will receive a \$5 Amazon gift card as compensation for your participation in the study. Payments will occur within 48 hours of your completion of the questionnaire, and only if you choose to submit your email address for the gift card to be sent to you. You will be responsible for any taxes assessed on the compensation.

Risks/Benefits/Confidentiality of Data

There are no foreseeable risks to participating in this study. There will be no costs for participating, nor will you benefit from participating. Your email address will be kept during the data collection phase for tracking purposes only. A limited number of research team members will have access to the data during data collection. Identifying information will be stripped from the final dataset.

Participation or Withdrawal

Your participation in this study is voluntary. You may decline to answer any question and you have the right to withdraw from participation at any time. Withdrawal will not affect your relationship with The University of Texas in anyway. If you do not want to participate either simply stop participating or close the browser window.

If you do not want to receive any more reminders, you may email the primary investigator at susanlauramurphy@gmail.com.

Contacts

If you have any questions about the study or need to update your email address, please contact Susan Murphy at 412-377-8371 or send an email to susanlauramurphy@gmail.com. This study has been reviewed by The University of Texas at Austin Institutional Review Board and the study number is 2017-04-0048.

Questions about your rights as a research participant.

If you have questions about your rights or are dissatisfied at any time with any part of this study, you can contact, anonymously if you wish, the Institutional Review Board by phone at (512) 471-8871 or email at orsc@uts.cc.utexas.edu.

Thank you.

Please print a copy of this document for your records.

Appendix D: Phase Two Informed Consent Document

The purpose of this study is to examine the clarity and usefulness of the feedback report for the Preventive Resources Inventory. As a participant in this study, you will be asked to answer questions about your experience viewing your PRI feedback profile. This information will help researchers improve clarity and utility of the feedback profile for individuals taking the measure in the future. You may perceive that some of the questions are personal in nature; please note that our goal is simply to understand how you comprehend the information presented in your feedback profile. This questionnaire will take approximately 15 minutes to complete. You must be 18 years old to participate, and this must be the first time you have completed the PRI as part of a course assignment.

At the end of the study, you will have the opportunity to provide your email address to receive a \$15 Amazon gift card as compensation for your participation. You will also have the opportunity to provide your email address if you are interested in participating in a follow-up interview with the primary researcher. Participants who indicate interest in participating in the interview will be contacted over email by the primary researcher. If you complete the interview, you will be entered into a raffle for an additional \$75 Amazon gift card.

If you choose to complete the survey, your name will not be recorded. Your email address will only be kept if you choose to provide it to indicate your willingness to participate in a follow-up interview. If you choose to enter your email address, it will be deleted from the final data set. Your actual responses will only be available to the researchers, and they will be stored for three years. Any presentation or publication of this data will not contain any identifying information. If you are using a public computer to complete the survey, it is recommended that you clear the internet browser history and remove any individual internet cookies so that a different user will not access your responses. Your participation is strictly voluntary and you can withdraw from the study at any time without consequence.

This study has been reviewed and approved by The University of Texas at Austin Institutional Review Board. If you have questions about your rights as a study participant, or are dissatisfied at any time with any aspect of this study, you may contact - anonymously, if you wish - the Institutional Review Board by phone at (512) 471-8871 or email at orsc@uts.cc.utexas.edu.

Completion of the survey indicates you have read the information above, any questions that you asked have been answered to your satisfaction, and you are consenting to participation in the study. If you have remaining questions, please email the primary researcher at susanlauramurphy@gmail.com.

If you agree to participate, please press the arrow button at the bottom of the screen. If you choose not to participate, just exit the study. Your participation in this study is greatly appreciated. Thank you for your time!

For further information, please contact:

Susan Murphy, M.A., Ph.D. Candidate (susanlauramurphy@gmail.com)

The University of Texas at Austin
Department of Educational Psychology, College of Education
Austin, TX, 78712

Appendix E: Phase One Short Answer Questionnaire

1. What is your age?
2. What is your gender?
3. What is your race/ethnicity?

The next several questions relate to your feedback report for the Preventive Resources Inventory. We are interested in your response to the information you received about your preventive coping resources. We are also interested in your suggestions for improving the feedback report. As you respond to the questions below, you may find it helpful to have your feedback report printed out or open in a separate window.

1. How well do you understand the concept of preventive coping as presented on the feedback report? Please describe the concept of preventive coping in your own words.
2. How would you describe your level of preventive coping resources according to the feedback report you received?
3. How well does the information in your feedback report align with your previous perception of your coping resources?
4. Please indicate how well you understand the following components of your feedback report.

	This was not clear at all to me.	This was slightly unclear to me.	This was mostly clear to me.	This was completely clear to me.
Your T-scores and how to interpret them.	●	●	●	●
Your areas for development and areas of strength.	●	●	●	●
The concept of Maintaining Perspective.	●	●	●	●
The concept of Scanning.	●	●	●	●
The concept of Self- Acceptance.	●	●	●	●
The concept of Social Resourcefulness.	●	●	●	●

5. Please provide more information on any component of your feedback report that was unclear to you (optional).
6. How does the information you received on your feedback report relate to your own personal growth and development? To answer this question, you may consider your

scores on individual scales of the PRI or your overall scores on the measure.

7. Based on the information you received on your feedback report, what goals do you have for improving your ability to cope with stress in the future? What resources stand out to you as especially important in helping you manage potential stressors, and why?
8. Imagine you are preparing to go over the feedback report for the PRI with a career counseling client. Your client is unsure about how this information could be helpful to them, stating to you, “I’m just trying to find a job. Why do I need to know about coping resources?” How would you go about explaining this measure to your client?

Appendix F: Phase Two Short Answer Questionnaire

1. What is your age?
2. What is your gender?
3. What is your race/ethnicity?

The next several questions relate to your feedback report for the Preventive Resources Inventory. We are interested in your reaction to the information you received about your preventive coping resources. We are also interested in your suggestions for improving the feedback report. As you complete the questions below, you may find it helpful to have your feedback report open in a separate window or printed out.

1. How well do you understand the concept of preventive coping as presented on the feedback report? Please describe the concept of preventive coping in your own words.
2. On a scale of 1 to 5, please indicate your understanding of the following aspects of the feedback report (1 = This was not clear at all to me; 2 = This was slightly unclear to me; 3 = This was neither clear nor unclear to me; 4 = This was mostly clear to me; 5 = This was very clear to me).
 - a. Your T-scores and how to interpret them
 - b. Your areas for development and areas of strength on Page 1
 - c. Your areas for development and areas of strength on Pages 2-5
 - d. The concept of Maintaining Perspective
 - e. The concept of Scanning
 - f. The concept of Self-Acceptance
 - g. The concept of Social Resourcefulness
3. (Optional) Please feel free to expand on any of your responses to question 2.
4. Please describe any elements of the feedback report that are especially useful in helping you understand your scores.
5. Please describe any elements of the feedback report that are confusing to you.
6. Please share any suggestions you have for improving any aspect of the feedback report for the PRI.

Appendix G: Sample Interview Protocol

1. Please describe your general understanding of your scores on Page 1. Please describe elements that are easy to understand and/or elements that are unclear.
2. Please describe your general understanding of your Maintaining Perspective scores. Please describe any descriptions or elements that are unclear or difficult to understand.
3. Please describe your general understanding of your Scanning scores. Please describe any descriptions or elements that are unclear or difficult to understand.
4. Please describe your general understanding of your Self-Acceptance scores. Please describe any descriptions or elements that are unclear or difficult to understand.
5. Please describe your general understanding of your Social Resourcefulness scores. Please describe any descriptions or elements that are unclear or difficult to understand.
6. Reserve 2-3 questions for questionnaire follow-up.
7. Please share any suggestions you have for improving any aspect of the feedback report for the PRI.

Appendix H: Participant Areas for Growth and Areas of Strength

As previously stated, 24 out of the 27 participants whose data were analyzed described at least one area for growth that related to a PRI scale. These 24 participants identified a total of 54 areas for growth, which were distributed as follows:

Figure H1. Frequencies for Participant Areas for Growth by Scale.

Area for Growth	Number of Participants Endorsing	Percentage of Participants*	Percentage of Endorsements
Maintaining Perspective	14	51.8	25.9
Scanning	10	37.0	18.5
Self-Acceptance	15	55.6	27.8
Social Resourcefulness	15	55.6	27.8
Total	54	-	100.0

** Percentages were calculated based on the 27 participants whose data were analyzed, not only the ones who endorsed an area for growth.*

19 of the 27 participants included in the analysis identified at least one area of strength that corresponded with a PRI scale. Collectively, these 19 participants identified 35 unique areas of strength, which were distributed as follows:

Figure H2. Frequencies for Participant Areas of Strength by Scale.

Area of Strength	Number of Participants Endorsing	Percentage of Participants*	Percentage of Endorsements
Maintaining Perspective	7	25.9	20.0
Scanning	7	25.9	20.0
Self-Acceptance	6	22.2	17.1
Social Resourcefulness	15	55.5	42.9
Total	35	-	100.0

** Percentages were calculated based on the 27 participants whose data were analyzed, not only the ones who endorsed an area of strength.*

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