

**Self-Regulatory Responses to Positive Career Goal Discrepancies
in Young Adults**

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Published

2022-09-29

Thesis Type

Thesis (PhD Doctorate)

School

School of Applied Psychology

DOI

[10.25904/1912/4910](https://doi.org/10.25904/1912/4910)

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Self-Regulatory Responses to Positive Career Goal Discrepancies in Young Adults

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Submitted in fulfillment of the requirements of the degree of Doctor of Philosophy

April 2022

Abstract

This thesis focused on positive career goal discrepancies, informed by self-regulatory theories. A positive goal discrepancy is the individual's perception that current performance exceeds the set goal. Prior research has focused on understanding and finding solutions to negative career goal discrepancies (performance falls short of goals). However, understanding positive discrepancies is essential for improving young adults' career development, where maximising and developing individual potential is one of the main goals. Positive and negative goal discrepancies are not simply opposites as they trigger different changes in the self-regulatory process and have different underlying mechanisms and boundary conditions. This thesis expanded research in the career literature by addressing three objectives: (a) to develop and validate a new scale to measure positive career goal discrepancy, (b) to assess the antecedents and outcomes of positive career goal discrepancy and test whether it provided an explanatory mechanism through which antecedents were related to cognitive and affective outcomes, and (c) to understand how changes in positive career goal discrepancy were related to adjustments in career goals and behaviours. These objectives were addressed through three empirical studies, which have been published in, or is currently under review with peer-reviewed journal. Participants for all studies were first-year university students from a collectivist cultural context (i.e., Indonesia).

Study 1 developed and provided preliminary validation for the Positive Career Goal Discrepancy Scale using the classic test theory approach. In Stage 1, 48 items (in English) were generated following a literature review and focus group discussions ($N = 26$). In Stage 2, expert reviews by seven career and scale development experts provided initial evidence for construct validity. As a result, 32 items were retained, which were translated into Bahasa Indonesian using a translation-back-translation procedure and then piloted with five

participants. In Stage 3, the items were administered to 512 participants. Data from one half of the sample ($N = 244$, $M_{Age} 18.70$ years; $SD = 1.20$; 65% female) were used for exploratory factor analyses. This resulted in retention of 15 items that reflected three domains: (a) positive achievement/ability discrepancy (6-items; extent to which young adults perceived their achievements, skills, and abilities to be more than required to achieve career goals); (b) positive goal standard discrepancy (5-items; extent to which young people perceived their career goal standard to be surpassed/could be replaced by higher career goals); and (c) positive effort discrepancy (4-items; the extent to which effort expended to date was more than required to achieve set career goals). A confirmatory factor analysis using the hold-out sample ($N = 254$, $M_{Age} 18.70$ years; $SD = 0.80$; 68% female) supported this 3-factor structure that could be interpreted both at the total and subscale score level. Divergent and incremental validity were supported using correlational analyses.

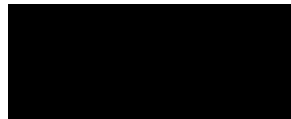
This scale was used in Study 2 to test the cross-sectional direct and indirect relationships between hypothesised antecedents (career calling and career congruence with parents) and outcomes (career satisfaction and optimism) of positive career goal discrepancy ($N = 295$, $M_{Age} = 18.58$ years; $SD = 0.70$; 75% female). Calling was related to all three positive discrepancy domains, whereas parent congruence was related to achievement/ability and effort discrepancy only. In turn, achievement/ability and effort discrepancy were related to satisfaction, while achievement/ability and goal standard discrepancy were related to optimism. Achievement/ability and effort discrepancy fully explained the paths from career calling and congruence with parents to career satisfaction. These findings indicated that personal and situational factors can trigger positive achievement/ability and effort discrepancies, which explain higher career satisfaction.

As cross-sectional designs cannot establish temporal order to relationships, Study 3 used a cross-lagged design (6-month interval) to test the relationships between positive career

goal discrepancy and behavioural and goal adjustment outcomes (career upward goal revision, exploration, and coasting), both directly and indirectly via career-related self-efficacy and outcome expectations ($N = 314$ at T1 and T2, $M_{Age} = 19.13$ years; $SD = 0.81$; 76% female; retention rate 46%). The model of best fit supported that higher positive career goal discrepancies related both directly and indirectly, via outcome expectations, to upward goal-revision, greater in-breadth and in-depth career exploration, and less coasting. The findings indicated that outcome expectations, but not self-efficacy, were important mechanism that explained how positive discrepancy was related to behavioural self-regulatory responses.

Statement of Originality

This work has not been submitted previously for a degree or diploma at any university. To the best of my knowledge and beliefs, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

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Sari Zakiah Akmal

April 2022

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Acknowledgements

First, I would like to thank my supervisor team, A/Prof. Michelle Hood, Prof. Peter Creed, and Dr. Amanda Duffy for their continuous assistance and support in all aspects of my PhD journey. I am very grateful for being supervised by an incredible team who has given me many opportunities to learn various academic and research skills (even outside the scope of this PhD project), encouraged me to publish research articles, and always believed in me. Now, I am more confident with my capabilities, which means a lot to me. Thank you for being patient when reading and providing feedback on my messy drafts. I know that it must have been time consuming, but you never complained about that. All of you have been so supportive and encouraging from the first day of my PhD journey to the finish. I have enjoyed doing my PhD, and I could not expect more from a supervisor team!

I am also very thankful to Griffith University for offering me a place in the PhD program and awarding me a three-year higher degree research scholarship (GUPRS and GUIPRS). I am also thankful to Griffith University for providing me with various workshops for upgrading my research-related skills and allocating me financial resources to conduct my research. I would also like to thank Universitas YARSI and Yayasan YARSI for their financial support for my family and I during the PhD. Thank you for your support, former and current Dean and academic staff of the Faculty of Psychology Universitas YARSI.

I am also grateful to Universitas YARSI, University of Indonesia, Syarif Hidayatullah State Islamic University, The Christian University of Indonesia (UKI) for their support of this PhD project by permitting me to collect data in their universities. My deepest thanks are to my research team in Indonesia, who helped me during the data collection process (my colleagues Dewi Kumalasari, M.Psi, and Faculty of Psychology Universitas YARSI alumni Alfina Rizkia, S.Psi, Hasnavia Asyifanti, S.Psi, Noor Azmi Luthfiyanni, S.Psi, Rahma

Ramadhanty, S.Psi, and Uswatunnisa Sholihatul, S.Psi). Thank you Dr. Octaviani I. Ranakusuma for supporting me by providing her online survey platform. I also thank the academic staff for their assistance in distributing questionnaires (both online and paper-based). I am grateful to all first-year undergraduate students who participated in this research.

I want to acknowledge Prof. Peter Creed, A/Prof. Michelle Hood, Dr. Amanda Duffy, A/Prof. Ian Glendon, Dr. Anna Praskova, Dr. Dian Ratna Sawitri, Dr. Peyman Abkhezr, Dr. Hu Shi, my colleagues Sujin Kim and Arini Widjowati for reviewing the Positive Career Goal Discrepancy Scale items. I want to acknowledge my colleagues Chandradewi Kusristanti M.Psi, Endang Fourianalistyawati M.Psi, Dr. Fitri Arlinkasari, Nuri Sadida M.Psi, Novika Grasiawaty M.Psi, and Rina Rahmatika M.Psi for helping me with the back-translation procedure and reviewing the Indonesian version of my scales. Also, thank you A/Prof. Nicola Burton for reviewing my proposal and my progress for this research project and providing constructive feedback. Thanks also to the anonymous journal reviewers for offering their feedback to improve the quality of the three manuscripts.

Finally, I would like to express my deepest thank you, to my family and friends, as my most significant source of support. My lovely husband Syofwan, and my dearest daughter Kinara, thank you for always being by my side, for giving me strength, for always believing in me, and for being a good friend to cheer me up during the bad and good times. This PhD is our family project, and we finally made it! I would also like to thank my parents, siblings, and big family, for giving me support from the other side of the world, which motivated me to keep going. I hope I have made you all proud! I am also fortunate to have good friends, Mba Endang, Mba Nuri, Dewi, and Vika, who heard and shared many random ideas during my PhD. Last, I would like to acknowledge my very supportive friend, Sujin, who has been a good friend since the first day we met on the Gold Coast. Thank you for always being there!

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List of Publications Arising from this Research Program

Journal Articles

1. Akmal, S. Z., Creed, P. A., Hood, M., & Duffy, A. (2021). The positive career goal discrepancy scale: Development and initial validation. *Journal of Career Assessment*, 29(2), 338–354. <https://doi.org/10.1177/1069072720976376>.
2. Akmal, S. Z., Hood, M., Duffy, A. & Creed, P. A. (2021). Antecedents and outcomes of positive career goal discrepancies in young adults. Under review.
3. Akmal, S. Z., Hood, M., Creed, P. A., & Duffy, A. (2022). Young adults' self-regulatory responses to positive career goal discrepancies: Testing cross-lagged relationships. *Journal of Career Assessment*. Online first.
<https://doi.org/10.1177%2F10690727211068106>

Conference Presentation

1. Akmal, S. Z., Creed, P. A., Hood, M., & Duffy, A. (2020, November 26). *The positive career goal discrepancy scale: Development and initial validation* [Online conference presentation]. School of Applied Psychology Research Conference 2020, Griffith University, Queensland, Australia.
2. Akmal, S. Z., Hood, M., Duffy, A. & Creed, P. A. (2021, October 19). *Antecedents and outcomes of positive career goal discrepancies in young adults* [Conference presentation]. School of Applied Psychology Research Conference 2021, Griffith University, Nathan Campus, Queensland, Australia.

Chapter 1: Introduction

Young adults (\approx 18 to 25 years old) are in a period of transition during which they determine their life paths and possibilities. They are “in-between” adolescence and full maturity and, consequently, experience insecurity and anxiety about their future (Arnett, 2000; Salmela-Aro et al., 2007). In this transitional period, it is crucial that they explore possibilities, define goals, and make decisions and commitments for adult life (Shulman & Nurmi, 2010). Goals are particularly important, more so than in earlier stages when planning and control are less independent (Shulman & Nurmi, 2010), as they influence progress and facilitate the transition from adolescence to adulthood (Nurmi et al., 2002). Goals inspire young people to devise plans, seek opportunities, and learn more about themselves and their surroundings (Shulman & Nurmi, 2010). In the career context, goals are essential for giving direction, stimulating plans, and driving actions for achieving desired occupational outcomes (Brown, 2002). Career goals also predict future choice, actions and persistence in higher education (Lent et al., 2003; 2010). Moreover, young adults who set higher career- and work-related goals tend to be more successful in finding work and achieve more in their work-life (Nurmi et al., 2002). Thus, as part of their goal setting, young adults must determine their future educational and occupational pathways (Arnett, 2000; Salmela-Aro et al., 2007).

Goals have a dynamic structure that is continuously being assessed, monitored, and recreated to suit contextual circumstances (Bandura, 2001; Carver & Scheier, 2000; Shulman & Nurmi, 2010). When a person's goals are evaluated, there is invariably a difference or a gap between the goal or standard they have set for themselves and their performance: these gaps are referred to as goal-performance discrepancies (Bandura, 2001; Carver & Scheier, 2000; Lord et al., 2010). Goals are constructed hierarchically with various levels of abstraction namely at the higher-order (long-term, abstract goals), intermediate and lower-

order (short-term, behavioural goals) levels (Creed et al., 2015; Latham et al., 2014; Vancouver, 2005). Different feedback loops were associated with those different goals, in which higher-level feedback loops control long-term goals while lower-level feedback loops regulate short-term goals (Latham et al., 2014). The existing goal discrepancy studies tend to focus on goal regulation of short-term tasks and often in the laboratory settings (e.g., arithmetic calculations, Donovan & Hafsteinsson, 2006; simulated sales calls, Donovan et al., 2018; verbal tasks, Tolli & Schmidt, 2008). In this context, goal discrepancy refers to the difference between the performance and the set task goals (Lord et al., 2010). However, not many studies have investigated the discrepancy in long-term goals, where goal discrepancy is identified within a performance episode (i.e., while striving to achieve a goal), as in career contexts.

Goal discrepancies are at the centre of goal setting and pursuit self-regulatory processes, generally (Carver & Scheier, 1998), and specifically in the career area (Creed et al., 2015). In the career context, Creed and Hood (2015; p. 309) defined career goal discrepancies as “the perceived gap between the individual’s set career goal (future self or situation) and their career goal progress (current self or situation)”. According to self-regulation theories, positive and negative goal discrepancies trigger different changes in affect, cognition, and behaviours (Lord et al., 2010), and different underlying mechanisms have been proposed for understanding these different responses (Ilies & Judge, 2005). It has also been argued that different theories provide better explanations for these different responses: control theory (Carver & Scheier, 1998) has been suggested as better for understanding the consequences of a negative discrepancy; whereas social cognitive (Bandura, 1991) and goal setting (Locke & Latham, 1990) theories are thought more relevant for understanding positive goal discrepancies. Further, different boundary conditions have

been proposed as affecting negative (e.g., self-efficacy) and positive (e.g., goal difficulty) discrepancy-outcomes relationships (Ilies & Judge, 2005).

In comparison to a positive goal discrepancy, a negative goal discrepancy has more unpleasant and noticeable consequences (Carver, 2003). As a result, most studies have focused on understanding and finding solutions to negative discrepancies (Carver, 2003). However, understanding positive discrepancies is also important, especially in situations where optimising and developing individual potential is of interest, such as in the career development context. In line with the positive psychology point of view, being grateful for positive experiences, setting valued goals, and developing optimism are important to enhance wellbeing, increase productivity, and allow an individual to flourish (Carr et al., 2021; Lomas et al., 2021).

As positive and negative goal discrepancies are not polar opposites (Ilies & Judge, 2005), using a negative goal discrepancy scale to assess positive career goal discrepancy is likely to lead to misinterpretations and an impaired understanding of the discrepancy construct. To the best of my knowledge, at the start of this PhD research, there was no scale designed to measure positive career goal discrepancy. The one existing career goal discrepancy scale (Creed & Hood, 2015) measured negative discrepancy only; therefore, a new scale was required. Consequently, the first aim of this research was to develop a valid and reliable positive career goal discrepancy scale.

The Positive Career Goal Discrepancy Scale (Study 1 Chapter 3) measures young adults' perceptions that current career progress exceeded that required to meet their career goals. It assesses three domains of positive career goal discrepancy: achievement/ability discrepancy, goal standard discrepancy, and effort discrepancy. It is expected that this scale will contribute to advancing the career goal discrepancy literature, which has previously

focused on negative discrepancies, by stimulating scholars, for example, to investigate how positive goal discrepancies are manifested and expressed in the career context.

While both experimental (Anderson & Mounts, 2012) and survey-based methods (Creed et al., 2015, 2017; Hu et al., 201a; Hu, Creed, et al., 2017a; Hu, Hood, et al., 2017; Sheppard et al., 2019) have been used to explore the antecedents and outcomes of negative career goal discrepancy, to the best of my knowledge, there had been no research examining this for positive career goal discrepancy, despite several calls to do so (Creed et al., 2015, 2017; Hu et al., 2018c; Hu, Creed, et al., 2017a). Therefore, the second objective of the PhD was to better understand the positive career goal discrepancy concept and test its relationships with other constructs applicable to optimising young people's career development. This aim, which was informed by self-regulation theories, both general (cf. social cognitive theory, Bandura, 1991; control theory, Carver & Scheier, 1990; goal setting theory, Locke & Latham, 1990) and career-specific (cf. social cognitive career theory, Lent et al., 1994), was addressed in Studies 2 and 3 (Chapters 4 and 5). Study 2 examined hypothesised antecedents and cognitive and affective outcomes of positive career goal discrepancy using a cross-sectional survey design. Study 3 investigated the underlying mechanisms of the associations between positive career goal discrepancy and behavioural career-related outcomes using a cross-lagged survey design.

Social cognitive (Bandura, 1991) and control theory (Carver & Scheier, 1990) both assert that individuals are likely to evaluate their goal progress by comparing their current state with internal and external comparators. These appraisals then trigger a range of affective, cognitive, and behavioural self-regulatory responses (Lord et al., 2010). In the existing literature on negative career goal discrepancy, Sawitri and Creed (2015) found that both person/internal (i.e., goal orientation) and situational/external factors (i.e., congruence with parents) affected how young people evaluated and set their goals, particularly following

the appraisal of a negative career goal discrepancy. Other studies found that negative career goal discrepancy was related to affective (higher career distress; Creed et al., 2015; Hu et al., 2018a; Sheppard et al., 2019) and cognitive (lower perceived employability; Creed et al., 2017) outcomes. In turn, higher career distress was linked to goal and behavioural adjustments (Anderson & Mounts, 2012; Hu, Creed, et al., 2017b; Hu, Hood, et al., 2017; Sheppard et al., 2019). However, little was known about antecedents and outcomes of positive career goal discrepancies.

Study 2 (Chapter 4) addressed this by investigating the person/internal (i.e., career calling) and situational/external (i.e., career congruence with parents) antecedents and the affective (i.e., career satisfaction) and cognitive (i.e., career optimism) outcomes of positive career goal discrepancies. This study also tested whether indirect paths via each of the three domains of positive career goal discrepancy explained the direct relationships between the antecedents and outcomes. This study advanced the literature on career discrepancy by extending it to positive discrepancies and demonstrating the importance of calling and congruence to positive evaluations regarding one's career progress. The study also demonstrated the importance of positive discrepancies in achievement/ability and effort to predicting career-related satisfaction. This research can inform career and university counsellors who are concerned with increasing young people's positive career experiences.

Goal discrepancies also trigger people to consider making adjustments to their goals and/or behaviours (Bandura, 1991; Carver & Scheier, 2000; Converse et al., 2010; Donovan & Williams, 2003; Donovan et al., 2018). Informed by general self-regulation theories and the SCCT model of performance (Lent et al., 1994; Lent & Brown, 2019), Study 3 (Chapter 5) assessed goal and behaviour adjustments (i.e., upward goal revision, career exploration, and coasting) as responses to positive career goal discrepancy across two time points. Most goal discrepancy research has used cross-sectional designs, whereas several scholars (e.g.,

Anderson & Mounts, 2012; Creed et al., 2015; Creed et al., 2017; Hu, Creed, et al., 2017; Hu et al., 2018b) have argued the importance of examining dynamic changes in career goal discrepancies and testing how these changes affect career outcomes over time. Study 3 also examined the direct and indirect relationships between positive discrepancy and goal/behavioural adjustments through career-related self-efficacy and outcome expectations. The findings can inform career counsellors and student advisers on how to support young adults to maintain effort and revise their goals even when they are doing better than needed.

Career goal studies have been conducted primarily in developed nations with strong individualistic cultures. However, scholars have found that individualistic and collectivist cultures have distinct career goal planning, decision-making, and self-regulation approaches (e.g., Lee & Semin, 2013). The limited research to date on career goal discrepancy in a collectivist society has focused on negative discrepancy (Hu et al., 2018a; Hu, Creed, et al., 2017a) or discrepancies between their own and their parents' expectations (Sawitri et al., 2012, 2014, 2015; Sawitri & Creed, 2015, 2021). It is important to understand also how young people regulate themselves when experiencing favourable career goal discrepancies in this cultural setting. The series of studies reported in this thesis address this as they were undertaken in Indonesia, where there is a strongly collectivist culture (Hofstede score = 14; Hofstede Insight, n.d).

Chapter 2 reviews the theoretical frameworks, previous measurement of goal discrepancy, correlates of interest, and research on career goal discrepancy in collectivist contexts. The three studies (Chapters 3 to 5) are then presented as three separate journal publications, which have been either published and under review. Study 1 (Chapter 3) was published in the *Journal of Career Assessment* in 2021 and presented at the *School of Applied Psychology Research Conference, Griffith University* on 26th November 2020. Study 2 (Chapter 4) was presented as an oral presentation at the *School of Applied Psychology*

Research Conference, Griffith University on 19th October 2021 and is currently under review at an international journal. Study 3 (Chapter 5) was published in the *Journal of Career Assessment* in 2022. Finally, an integrated discussion of the findings of the three studies, the limitations of this PhD research programme, recommendations for further research, and implications for practice are presented in Chapter 6. The numbering for tables and figures in the thesis has been altered from the published/submitted journal manuscripts to mirror the chapters in which they appear in this dissertation. All references, including those from the three studies, have been incorporated into one reference section at the end of the thesis.

Chapter 2: Review of the Literature

A goal is the target, objective, or desired outcome from an activity (Lee et al., 2015). Individuals frequently appraise their performance against that set goal as a comparison. Thus, the set goal provides the basis for positive or negative self-evaluations of performance (Lee et al., 2015). Goal-performance discrepancy refers to the gap between a self-appraised performance and that standard (Lord et al., 2010). The magnitude of the discrepancy indicates how far the performance is from the goal (Vohs et al., 2008), while the valence indicates whether one is exceeding or likely to exceed the goal (positive discrepancy) or unlikely to achieve it (negative discrepancy). Goal discrepancies motivate self-regulatory responses to regain equilibrium between the performance and the desired goal (Anderson & Mounts, 2012; Bandura, 1991; Bandura, 2012; Berzonsky, 1997; Lord et al., 2010; Vohs et al., 2008). This PhD research examined positive goal discrepancy in the career context from this perspective of self-regulatory theories.

Self-regulatory Theories

Self-regulation can be understood as the processes by which individuals try to control their situation, behaviour, and/or affect according to self-set or other-set standards, goals, ideals, or rules (Vohs et al., 2008). According to Bandura (1991), self-regulatory systems have three primary components: self-monitoring, judgement of one's behaviour regarding personal standards and external circumstances, and self-reaction. Self-monitoring plays an important role in successful self-regulatory processes, where people pay attention to their performance and evaluate their progress. Individuals evaluate their performance by comparing it to three sources of information: the achieved performance level, one's standards, and other people's performances. These performance judgements then trigger self-reactive functions, where anticipated satisfaction with desired accomplishments and dissatisfaction

with missed milestones drive actions that increase the likelihood of achieving performance goals. Self-regulation is needed when people deal with discrepancies between their current performance and their goal standard, either by modifying their standard or changing their goal pursuit effort/behaviours (Vohs et al., 2008).

Self-regulation includes cognitive, affective, and behavioural aspects, which are planned and adapted continuously to attain personal goals (Zimmerman, 2000). Moreover, self-regulation is considered a cyclical process in which prior performance is evaluated to inform adjustments during current actions (Bandura, 2001; Zimmerman, 2000). These adjustments are crucial because environmental and behavioural factors change during learning and performance (Zimmerman, 2000).

This research is informed by several general self-regulation theories; namely, control theory (Carver & Scheier, 1990), goal setting theory (Locke & Latham, 1990), social cognitive theory (Bandura, 1991), and social cognitive career theory (Lent et al., 1994), which extends social cognitive theory to the career context. These approaches have considerable overlap, with different theories placing more or less emphasis on different aspects of the same general regulatory processes (Locke & Latham, 2002).

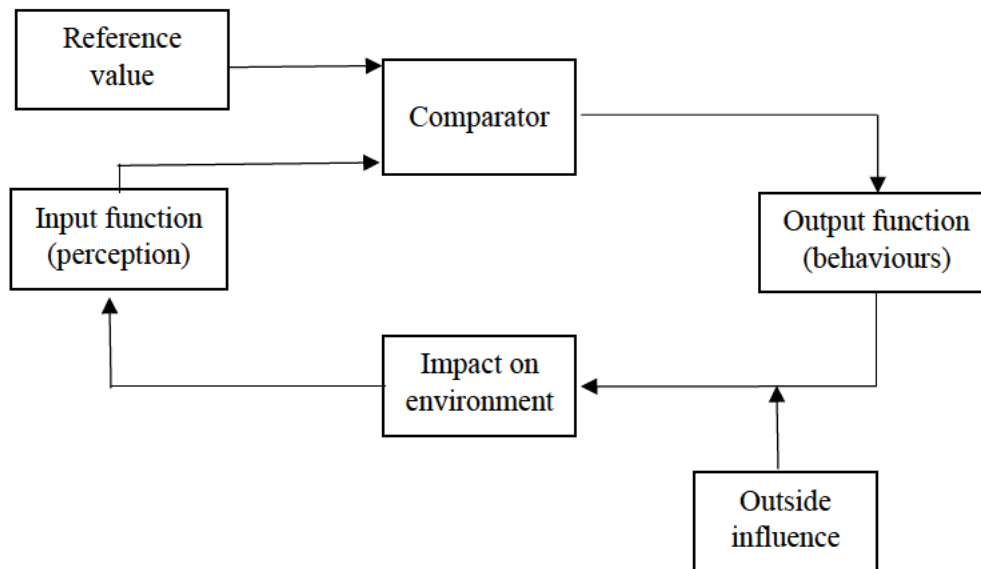
Control Theory

Control theory is part of the cybernetic-systems paradigm, which focused on understanding a plethora of human-related phenomenon, including motor control, the feedback concept, physiological and cognitive aspects of human motivation (Vancouver, 2005). The core concept is that of a (negative) discrepancy reduction loop, which has the function of stimulating behaviours aimed at reducing any discrepancy between the current state and the desired goal (Wang & Mukhopadhyay, 2012). Primary components of the control system are the identity standard, system input (interpersonal and environmental

feedback), system outputs (affect, cognitions, and behaviour), and a comparator mechanism (for appraising discrepancies; Carver & Scheier, 2000). See Figure 1.

Figure 1

Discrepancy Reduction Feedback Loop



Source: Carver and Scheier (1990)

According to this theory, self-regulation is a dynamic process, during which goals are continuously revised based on past performance and feedback (Carver & Scheier, 2000; Wang & Mukhopadhyay, 2012). In other words, self-regulation involves a continuous process of monitoring behaviour, comparing that to set goals, standards, and reference points, and making adjustments to minimise discrepancy (Carver & Scheier, 1990). A comparator compares these set goals, standards, and reference points against perceptions of, or feedback on, their performance. The reference value or standard might be imposed externally (e.g., expectations of parents or employers), self-imposed (personal goal or timetable), or developed as a result of social comparison (e.g., wanting to do better than peers; Carver & Scheier, 1990).

Individuals receive feedback primarily during social interactions, which are then interpreted and made meaningful via reflected appraisals (Kerpelman et al., 1997). Any

discrepancy between a standard and performance leads to cognitive and affective disturbances, and, following the disturbance, there will be two kinds of feedback loops: discrepancy-reducing and discrepancy-enlarging. In a negative or discrepancy-reducing loop, outputs function to diminish or eliminate the discrepancy; for example, by setting a lower goal. In a positive or discrepancy-enlarging loop, outputs function to enlarge the discrepancy; for example, by setting a more challenging goal (Carver & Scheier, 2000).

Individual reference values and goals shift over time as a result of experiences, and individuals must make adjustments repeatedly to maintain their “balance point” or equilibrium (Carver & Scheier, 2000). Adjustments to values/goals can be downward, which could happen if the individual fails to meet a standard or achieve a goal after expending effort to do so. Adjustments also can be upward, which could happen if the person is exceeding their standard (Carver & Scheier, 2000). In addition to goal adjustment, individuals also can adjust their behaviour in order to maintain the balance point (Carver, 2003; Carver & Scheier, 2000; Thürmer et al., 2020). For example, when individuals make rapid progress towards a goal, they might exert less effort or engage in less goal-directed behaviour subsequently (i.e., start to “coast”) as less is needed to maintain performance that meets that goal (Carver, 2003; Louro et al., 2007; Thürmer et al., 2020).

The application of control theory to positive goal discrepancies has been tested in experimental studies with specific task performances, such as arithmetic (Donovan & Hafsteinsson, 2006; Phillips et al., 1996), brainstorming (Ilies & Judge, 2005), managerial decision-making (Scherbaum & Vancouver, 2010), and language tasks (Thürmer et al., 2020). The results typically showed that following a positive goal discrepancy, participants adjusted their goal upward (Donovan & Hafsteinsson, 2006; Ilies & Judge, 2005; Scherbaum & Vancouver, 2010) or reduced effort towards the goal and shifted focus towards other goals (Phillips et al., 1996; Thürmer et al., 2020). Other research examining multiple-goal pursuit

with experimental design (Louro et al., 2007) and experience sampling methods (Fulford et al., 2010) also found that high progress toward the goals lead to a decrease in effort. From this review, control theory was considered relevant to examining the positive goal discrepancy phenomenon specific to the career context.

Goal Setting Theory

Goal setting theory also proposes discrepancy-reduction and discrepancy-production processes through which human activities are motivated by the setting of more appropriate and/or more specific goals (Locke, 1991; Locke & Latham, 2006). According to this theory, goals are the primary source of personal motivation and key elements in self-regulation. People willingly create gaps between their current performance and desired goals (Locke & Latham, 2012), with more difficult and specific goals leading to higher levels of effort and performance (Locke & Latham, 2002).

Goal setting theory proposes that people set goals, develop plans to achieve them, engage in goal-striving behaviours, evaluate their goal performance, and make adjustments depending on the progress being made (Locke & Latham, 2002). When appraising their performance/achievement against their goal, individuals can conclude that their performance meets, exceeds (positive appraisal), or fails to meet (negative appraisal) goal requirements (Locke, 1991; Locke & Latham, 2012). Feelings of success, satisfaction with performance, and positive outcomes occur when people appraise that they can overcome challenges and pursue and attain their goals (Locke & Latham, 2006).

Performance is influenced by the goal that a person is attempting to accomplish and how confident they are in their ability to achieve it (i.e., their self-efficacy; Locke & Latham, 2012). Self-efficacy, past performance, and social influences (e.g., others' expectations) affect the level of the goal that is set (Locke & Latham, 2006). People who believe that they can achieve the desired outcome (i.e., higher efficacy), have been more satisfied with their

past performances, and perceive higher expectations from others will be more willing to commit to new challenges and higher goals (Locke & Latham, 2002).

The application of goal setting theory has been validated in the negative career goal discrepancy research area. For example, Hu, Creed, et al. (2017a) conducted a cross-lagged study to investigate the reciprocal relationships between negative goal discrepancies and career-related outcomes of goal engagement and goal revision. The results showed that negative goal discrepancies led to later goal disengagement and lower goal commitment, and career-related distress mediated the relationship between negative career goal discrepancy and downward goal revision.

Social Cognitive Theory

Unlike goal-setting theory, which focuses on the core properties of an effective goal (Locke & Latham, 2002), social cognitive theory focuses on three key variables that regulate human behaviour: goal setting, self-efficacy, and outcome expectancies regarding performance (Bandura, 1991). Social cognitive theory posits that human motivation and self-regulation depend on both goal discrepancy production and reduction, requiring both proactive and reactive control (Bandura, 1991, 2012). According to Bandura (1991), people initially set performance standards that create a state of disequilibrium (discrepancy production) to motivate themselves to exert effort to reach that standard. Then, when they compare their performance to their personal standards or to others' performance, the self-reactive function (i.e., self-regulation) is activated. Thus, feedback control plays an important role in goal adjustment and expenditure of effort to achieve the desired result. Discrepancy production occurs when individuals proactively create their own disequilibrium (e.g., set higher standards or goals), which motivates them to achieve new higher or more challenging standards/goals. Discrepancy reduction occurs when the individual acts to minimise the gap between standards/goals and their performance. Both goal setting (Locke & Latham, 2002)

and social cognitive theories Bandura (1991) agree that dissatisfaction resulting from a negative goal discrepancy is an essential source of motivation to improve. In other words, self-dissatisfaction arising from falling short of their own standards motivates people to exert more effort in pursuing their goals. The discrepancy reduction might be accomplished, for instance, by either lowering their standard (e.g., downward goal adjustment) or boosting their performance (e.g., exerting more effort, developing new plans).

Bandura (1991) focused on self-efficacy as an important component of the self-regulatory system. Self-efficacy affects the perceived causes of success and failure, goal setting, and the evaluation of activities. Individuals with higher self-efficacy perceive failure as the result of insufficient effort, and are more likely to set a higher goal, increase their effort, and maintain their interest in achievable activities. Those with lower efficacy perceive failure as being due to a lack of competence and are more easily discouraged when they experience negative goal discrepancies.

Besides self-efficacy, outcome expectancy also being considered as a key concept on self-regulation. Outcome expectancy is defined as individual beliefs about the consequences of a particular action (e.g., what will happen after a given action) based on prior experiences (Bandura, 1997; Schunk & DiBenedetto, 2020). When people believe that their actions will lead to success, they can maintain their motivation and increase their effort to achieve their goals (Bandura, 1997; Schunk & DiBenedetto, 2020). Outcome expectation and self-efficacy are often connected. Individuals who think they have capabilities to success and believe they will ultimately achieve positive results; tend to show higher motivation and engage more in goal related behaviour than those who have doubts about their capabilities and future success (Bandura, 1997; Schunk & DiBenedetto, 2020).

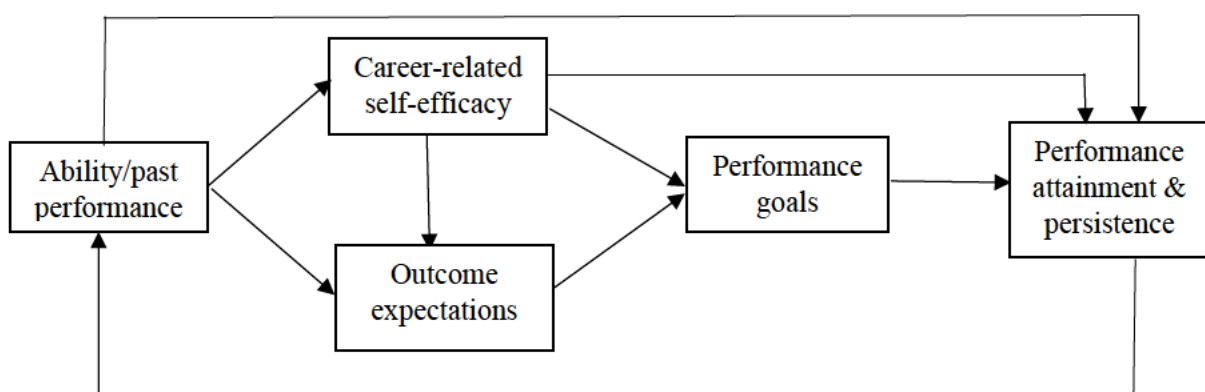
Social Cognitive Career Theory

Social cognitive career theory (SCCT) extends Bandura's (1991) social cognitive theory to understand educational and occupational behaviours (Lent et al., 1994). SCCT emphasises that decision making, goal setting, and self-regulation skills are meaningful to young people and their career development (Lent, 2013). In line with the basic social cognitive theory (Bandura, 1991), SCCT also acknowledges that self-efficacy beliefs and outcome expectations are important in setting career goals (Brown et al., 2011; Lent, 2013). Environmental factors (e.g., contextual background, gender, culture, and support) also play direct and indirect roles in developing vocational interests and making career goal choices.

Originally, SCCT sought to explain interest development, goal choices, and performance and persistence in educational and vocational domains. The latest expansion to the theory presents a model for career self-management and performance (Lent & Brown, 2019) that is more relevant to this PhD, as shown in Figure 2.

Figure 2

Social Cognitive Career Theory of Career Related Performance



Source: Lent and Brown (2019)

The SCCT model of performance (Brown et al., 2008; Lent & Brown, 2019) proposes that ability and past performance predict performance attainment and persistence, both directly and indirectly via self-efficacy, outcome expectancy, and goal performance.

Successful experience or perceived ability increase self-efficacy and positive outcome expectations (directly and through self-efficacy), which subsequently motivates and focuses individual effort on performance, persistence, and goal accomplishment. The PhD research focused on investigating positive career goal discrepancy, which reflects positive perceptions of ability and performance that exceed one's current performance goals.

This model has been validated in academic and work settings. In the academic context, Robbins et al. (2004) and Brown et al. (2008) conducted meta-analytic studies and concluded that past performance (e.g., high school accomplishment) was associated with college GPA, both directly and indirectly through self-efficacy. Past performance also had an indirect relationship with college persistence via self-efficacy and performance goals. Self-efficacy increased persistence both directly and indirectly via goal achievement. Additionally, a meta-analysis of the cross-lagged relationship between self-efficacy and academic performance confirmed the reciprocal association between the two variables, although the pathway from performance to self-efficacy was stronger than the reverse (Talsma et al., 2018). Consistent with results in academic settings, meta-analytic research in work settings also showed that past performance or cognitive ability predicted work performance, both directly and indirectly via self-efficacy (Brown et al., 2011). Fewer studies have examined the role of outcome expectations (Brown et al., 2008). Furthermore, there has been less consistent support for outcome expectations in the SCCT model of performance (Sheu & Bordon, 2017). Further research examining outcome expectancy in career and academic contexts is needed (Brown et al., 2008; Sheu & Bordon, 2017). Study 3 addressed this by including both self-efficacy and outcome expectations in a model of the self-regulatory responses to positive career goal discrepancy.

Summary

In summary, goal setting (Locke & Latham, 1990), control (Carver & Scheier, 1990), and social cognitive (Bandura, 1991) theories are core to defining positive career goal discrepancy. SCCT (Brown et al., 2008; Lent et al., 1994; Lent & Brown, 2019) represents a specific application in the career domain. Those theories of self-regulation try to explain the complexity of human behaviour. However, not all aspects of how individuals respond to a positive career goal discrepancy are thoroughly understood. In this instance, further empirical and theoretical research is needed because positive goal discrepancy has received so little attention compared to negative goal discrepancy. This thesis is a step towards understanding the self-regulatory responses of young people to the positive career goal discrepancy. All self-regulatory theories emphasise the importance of internal and external factors as a comparator against which individuals appraise their goal progress or performance and that the resultant discrepancies trigger affective, cognitive, and behavioural self-regulatory responses. All those theories also agree with the importance of person/internal and situational/external factors affecting goal performance. Study 2 examined the person and situational antecedents, and affective and cognitive outcomes from a general self-regulatory perspective. Study 3 tested the applicability of the SCCT in positive career goal discrepancy context by examined the role of self-efficacy and outcome expectations in the relationship between positive career goal discrepancy and behavioural self-regulatory responses, including changes in goal and effort.

A Review of the Goal Discrepancy Literature

Perceived goal-performance discrepancies are essential for human motivation as they trigger actions to reduce the appraised inconsistency between the goal standard and performance (Anderson & Mounts, 2012; Bandura, 1991; Bandura, 2012; Berzonsky, 1997; Lord et al., 2010; Vohs et al., 2008). Reactions to a discrepancy depend on how the

discrepancy is processed cognitively (Latham et al., 2014). Dissatisfaction results when there is a perceived unfavourable goal-performance discrepancy, which then might prompt behavioural adjustments and stimulate effort (Lee et al., 2015). Reactions include re-interpreting the discrepancy from a different point of view (e.g., rationalising or defending against it; Sheppard et al., 2019), implementing new behaviours to reduce the discrepancy, revising the goal, (Baumgartner & Pieters, 2008; Berzonsky, 1997), and postponing and/or abandoning it (Baumgartner & Pieters, 2008).

Most goal-performance discrepancy research has been based on social cognitive and control theory perspectives and occurred primarily in laboratory settings or by using quasi-experimental designs, which focused on short-term goals (e.g., Ilies & Judge, 2005; Scherbaum & Vancouver, 2010). Typically, the research procedures used in these studies consist of a series of activities in which goal performance standards are set, tasks are performed (e.g., arithmetic calculations, Donovan & Hafsteinsson, 2006; simulated sales calls, Donovan et al., 2018; verbal tasks, Tolli & Schmidt, 2008), goal-performance discrepancies are identified (e.g., by subtracting performance from set task goal; Lord et al., 2010), then, participants' response to the discrepancy are measured (e.g., goal or behavioural adjustments).

As an example, Tolli and Schmidt (2008) conducted an experimental study to investigate the role of goal discrepancy feedback, causal attribution, and self-efficacy on goal revision. Undergraduate students were instructed to identify as many solutions as possible for 20 anagram tasks (words formed from groups of scrambled letters). When participants submitted a solution, they were notified whether their response was correct or incorrect. To establish an initial goal level of performance (baseline), participants were advised that 50% correct was an acceptable level of performance. Beside the baseline target, participants were allowed to create their own personal target and to revise this goal upwards or downwards

following feedback on their performance. Feedback indicating whether their performance exceeded (positive discrepancy) or fell short (negative discrepancy) of this standard.

Feedback/discrepancy and attributions significantly predicted changes in goal revision, directly and indirectly via self-efficacy, across time. Positive feedback led to upward goal revision (goal of higher performance), whilst negative feedback resulted in downward goal revision.

In another example, Donovan et al. (2018) investigated the impact of goal discrepancy on self-regulation in a 10-day training program for salespeople. Participants performance on simulated “sales calls” was rated. Before training, participants indicated their performance goals, and had two opportunities during the training to alter that goal (on 4th and 8th day). Goal discrepancies were computed as the difference between their initial performance goal and their total performance score on Day 3 of training and between their Day 4 revised goal and their total score on Day 7. Negative goal discrepancy scores indicated that participants were performing below their set goal, whilst positive discrepancy scores indicated that they surpassed it. Individuals who achieved a negative discrepancy were likely to set fewer challenging goals and exert more effort, whereas those who had a positive discrepancy tended to set a more challenging goal.

In the career context, Anderson and Mounts (2012) used an experimental design to investigate the effect of negative career goal feedback on career goal identity. Participants first reported their occupational identity standard (career goal standard) and then completed a measure of their career aptitude. The authors manipulated the feedback to create a negative discrepancy between their occupational identity standard and career aptitude (i.e., that they were not suited to their chosen career). Participants then responded again to the same question about their occupational identity as at the pre-experimental point. Based on their response, they were classified as having a changed or unchanged standard. Individuals who

were less confident in their career identity were more likely to change their identity standard in response to this negative discrepancy.

Even though positive goal discrepancies have been evaluated in a few experimental investigations, none of the scales used to gauge this positive discrepancy is career focused. An early goal discrepancy measure focused on discrepancies to parental expectation. Wang and Heppner (2002) developed the 32-item Living up to Parental Expectations Inventory to assess the discrepancy between perceived self-performance and perceived parental expectations using Taiwanese young adults. Respondents indicated (a) perceived parental expectations (e.g., “How strongly do you currently perceive this expectation from your parents?”) and (b) self-perceived performance (e.g., “To what extent do you currently perform in this manner?”) on a scale from 1 (*not at all expected*) to 6 (*very strongly expected*). A self-parent discrepancy score was obtained by subtracting perceived parent expectations from perceived self-performance. Thus, parental expectation was the comparator. Negative discrepancy scores indicated that performance fell short of parental expectations. Wang and Heppner found that higher negative discrepancy led to more psychological distress.

Unsworth et al. (2016) devised a scale to measure discrepancies between first-year nursing students’ perceived current professional skill performance and that of others of varying levels of expertise. Performance levels for themselves, a peer, a third-year student, and a newly qualified nurse were rated on a visual analogue scale from 0 (*novice*) to 5 (*expert*). Positive and negative discrepancy scores could be calculated from this scale, although Unsworth et al. focused only on negative discrepancies (i.e., first-year nursing students perceiving their current performance was below peers, more advanced students, and professional nurses). The items were also specific to performance and knowledge gaps in nursing. Of the three comparators, they found that participants tended to use peers.

Career Goal Discrepancy

In the career field, research examining career goal discrepancy has been limited to negative career discrepancies and has been conducted using both survey (Creed et al., 2015; Creed & Hood, 2015; Patton & Creed, 2007; Sawitri et al., 2020) and experimental studies (Anderson & Mounts, 2012). Various comparators and means of measuring discrepancy have been used. Patton and Creed (2007) investigated discrepancies between adolescents' occupational goals or aspirations (i.e., the occupations they most sought) and their realistic occupational expectations (i.e., the jobs they expected to get) using Holland's (1997) RIASEC occupational coding scheme. Differences were categorised as aspiration/ expectation discrepant or non-discrepant if their aspirational and expected occupational codes were different or the same. This procedure employed the self or personal standard as a comparison. There was no discrepancy valence; rather the classification was categorical as discrepant or non-discrepant. The result showed that participants who were discrepant reported more career indecision, were less career mature, and had less career decision making self-efficacy.

Creed and Hood (2015) defined career goal discrepancy as the perceived deviation between an individual's current career goal development or situation and their predetermined career goal (future self or situational standard). They identified four essential career discrepancy domains: achievement, effort, standard, and ability. Achievement discrepancy is the appraisal that current achievement is inadequate to reach the future goal; effort discrepancy is the discrepancy between previous effort expended and effort required for the career goal; standard discrepancy is the perception that the career goal is set too high; and, last, ability discrepancy is the perception that the individual does not have the personal skills and/or abilities required to achieve the desired goal. While Creed and Hood acknowledged that career goal discrepancies can be either positive or negative, their 12-item Career Goal Discrepancy Scale focused only on negative career goal discrepancy with the self-standard as

the comparator (e.g., “My plans are not working out to get the career I really want”; achievement discrepancy). They reported that negative discrepancy was related to lower career goal commitment and higher career distress.

This scale has been used in various studies examining career goal discrepancies in young adults. Negative career goal discrepancy was shown to fully explain the association between negative career feedback and career distress (Creed et al., 2015; Sheppard et al., 2019) and between personal orientation and career-related wellbeing (Creed et al., 2017). Higher negative career goal discrepancy was associated with more career distress and, through that, more likely to downgrade/change the goal (accommodative) and less likely to reduce their effort and motivation toward their current goal (assimilative; Praskova & McPeake, 2021).

Sawitri et al. (2020) developed and validated the 15-item Individual-Parent Career Goal Discrepancies Scale, which measures the gap between individual-set and parent-set career goals; thus, it uses parental expectations as the comparator. There were three domains: ability, choice, and enthusiasm discrepancies. All items measured negative discrepancies (e.g., “I don’t think I can meet the requirements for the career my parents want for me”). They found that higher negative discrepancy was related to higher career distress and lower congruence between individual and parental career goals.

In summary, the existing measures of career goal-performance/ progress discrepancy have only focused on negative discrepancies. However, researchers have recommended an expansion to consider positive discrepancy in order to understand how to optimise young people’s career development (Anderson & Mounts, 2012; Creed et al., 2017; Hu et al., 2018a). Positive career goal discrepancy was the focus of this thesis. The first step was to construct a psychometrically sound instrument for assessing positive career goal discrepancy using a range of comparators.

Negative and positive goal discrepancies differ in theoretical explanations and boundary conditions (Ilies & Judge, 2005), indicating that they are not polar opposites. According to Ilies and Judge (2005), social cognitive and goal-setting theories, which emphasise the importance of discrepancy production in human motivation, are more relevant for understanding positive goal discrepancies; whereas, control theories, which focus on the significance of discrepancy reduction, are more appropriate in explaining negative discrepancies. In addition, the discrepancy- future goals relationships have different boundary conditions depending on the valence of the discrepancy. Goal difficulty moderates the positive discrepancy-future goals relationship while self-efficacy and causal attributions moderate the negative discrepancy-future goals relationship (Ilies & Judge, 2005; Williams et al., 2000). When a difficult or challenging goal is achieved or exceeded (there is a positive discrepancy), rather than further increasing that goal, individuals instead shift their attention and effort toward a different task goal (Ilies & Judge, 2005). When there is a negative discrepancy though (i.e., when they fail to achieve their goal), they may continue to pursue or increase that goal if they have high self-efficacy and if they attribute the goal discrepancy to controllable factors (Ilies & Judge, 2005; Williams et al., 2000). Therefore, positive and negative career goal discrepancies operate differently and, thus, using a negative goal discrepancy scale to assess positive career goal discrepancy is inappropriate. A new scale to measure positive career goal discrepancy was required.

Positive Career Goal Performance Discrepancy

Informed by definitions of goal discrepancy in the general and specific career literature, positive career goal discrepancy can be considered as the individual's appraisal that their current performance or progress exceeds that which is required to meet their career-related goals. While Creed and Hood (2015) and Anderson and Mounts (2012) used personal standards only as comparators for appraising career-related achievement or aptitude,

according to social cognitive and control theories (Bandura, 1991; Carver & Scheier, 1990), people also are likely to compare their goal progress with the performance of others. This was confirmed by Unsworth et al. (2016), who found that students compared their study performance with their peers and relevant professionals, and Wang and Heppner, (2002) and Sawitri et al. (2020), who found that young people compared their achievements and goals against their parents' expectations and aspirations. Therefore, the definition of positive career goal discrepancy used in this thesis includes both internal (past performance and personal goals) and external (expectations from peers and significant others) comparators. Using Creed and Hood's (2015) measure of negative career goal discrepancy as a starting point, discrepancy domains of achievement, effort, standard, and ability were considered important to include.

The development and preliminary validation of Positive Career Goal Discrepancy Scale, which was published in the *Journal of Career Assessment*, is reported as Study 1 of the thesis in Chapter 3. A psychometrically sound positive career goal discrepancy scale was critical to fulfilling the remaining aims of this PhD research, as this then allowed for a theory-based examination of the antecedents and outcomes of positive career goal discrepancies in Study 2 (Chapter 4) and behavioural self-regulatory responses to positive career goal discrepancies in Study 3 (Chapter 5).

Antecedents and Self-regulatory Responses to Positive Career Goal Discrepancy

When progress exceeds expectations, failure to self-regulate has undesirable consequences as it can hinder the development of individual capabilities, which might even stagnate. Effective self-regulation when a positive discrepancy is experienced can result in setting higher goals and managing efforts and energies to maximise potential.

Previous studies have suggested that research needs to examine both the antecedents and self-regulatory outcomes of positive career goal discrepancy (Anderson & Mounts, 2012; Creed et

al., 2017; Hu et al., 2018a), and further, to examine dynamic changes in career goal discrepancies and how these changes affect career outcomes over time (e.g., Anderson & Mounts, 2012; Creed et al., 2015; Creed et al., 2017; Hu, Creed, et al., 2017; Hu et al., 2018b).

Antecedents of Positive Career Goal Discrepancy

In their meta-analytic study, Wofford et al. (1992) identified two broad areas of goal-level determinants based on goal setting theories: personal or individual and situational or contextual factors. The personal factors included ability, self-efficacy, prior performance and success, causal attribution, mood, need for achievement, higher-order need strength, and involvement/commitment. The situational factors included task difficulty, feedback, rewards/incentive, role model/norms, social support, and encouragement. Both personal and situational factors play a significant role in affecting individual goal performance, both in terms of the quality or quantity of output and the discrepancy between an individual's set goals and performance goals (Wofford et al., 1992). Prior studies have examined some of these antecedents to negative career goal discrepancies: negative career feedback (Creed et al., 2015; Sheppard et al., 2019), personal orientation, and career goal importance (Creed et al., 2017). This PhD expanded research in this area by investigating both personal and situational antecedents of positive career goal discrepancy.

Career calling was examined as a personal antecedent and parental career congruence as a situational antecedent. Higher career calling reflects that an individual has an internal-drive to achieve a meaningful goal and is actively engaged in career-related activities, which reflects internal personal factors that affect goal performance; namely, the need for achievement, higher-order need strengths, and involvement in goal-related activities (Praskova & McPeake, 2021; Wofford et al., 1992). Parental career congruence was included as parents play a significant role in young adults' career development (Sawitri et al., 2014),

providing young adults with feedback, support, and encouragement, and acting as role models for goal performance (Rogers et al., 2018; Wofford et al., 1992). Thus, parental career goal congruence reflects social support, role modelling, and encouragement that affect goal performance.

Career Calling as Personal Antecedent to Positive Discrepancy. Career calling is defined as a self-set, prominent, higher order career goal that inspires a strong feeling of personal meaning in life, stimulates enjoyment and self-fulfilment, and promotes inner direction and action in pursuit of the calling (Dik & Duffy, 2009; Praskova et al., 2015a, 2015b). According to Praskova et al., (2015b), individual with higher career calling have future-oriented career goals that are personally meaningful, people-focused, and require active involvement in their career-related goal activities. In other words, a stronger calling is reflected in a clearer personal goal standard that is consistent with the goal setting theory's concept of goal difficulty or goal specificity (Locke & Latham, 1990). Therefore, a career calling also serves as a personal source of career goal discrepancy or a self-imposed standard against which individuals can measure their success. Praskova et al. (2014, 2015a) showed that people with a higher calling are more aware of whether their progress fails to meet or exceeds their potential, and, as a result, are more driven to devote energy to career-related strategies and activities to restore their internal balance through self-regulatory processes.

Little work to date has examined career calling as an antecedent to goal discrepancy. Creed et al. (2020) found that having a clear and stable picture of one's future career identity was related to less negative career goal discrepancy, both directly and indirectly via a willingness to compromise. These relationships were more robust in the stronger career calling group than in the weaker one. According to Creed et al., individuals with a stronger calling were more likely to avoid and disregard negative feedback that contradicted their overall career direction than were those with a weaker calling, preferring information that

confirmed their self-perception of succeeding in achieving their goal. Thus, it is likely that those with a stronger calling would perceive they were succeeding in their goal progress; that is, that they would be more likely to perceive that there was a positive discrepancy.

To the best of my knowledge, career calling has not been investigated in the context of perceived positive career goal discrepancy. Given the evidence from Creed et al. (2020) with negative career goal discrepancy and evidence that those with a strong career calling have a strong inner drive toward self-fulfilment, are more confident about their career, and are more driven to devote energy to career-related strategies (Duffy & Dik, 2013; Praskova et al., 2015a, 2015b), it was expected that stronger calling would be associated with perceptions of greater positive career goal discrepancy.

Career Congruence with Parent as Situational Antecedent of Positive Career Goal Discrepancy. In general, significant others, such as parents, are sources of positive feedback, support, and role modelling for young adults, which are situational antecedents of individual goal performance (Wofford et al., 1992). Sawitri et al. (2012) introduced the construct of parental career congruence, which they defined as the degree to which a young person's career aspirations, career actions, and other career-related wishes align with their parents. This includes the extent to which the needs of young adults are met with support from parents (need-supplies fit) and whether young people can meet their parents' expectations (demand-supplies fit; Sawitri et al., 2012).

Research investigating the role of parental career congruence in career development has been undertaken mainly in a collectivist cultural context. The primary source of personal agency for goal setting and self-regulation in this cultural context is a positive relationship with parents (Sawitri et al., 2020). Being consistent with parents on career matters is more impactful and is likely to be the primary factor in increasing young people's confidence in

establishing career goals, performing career tasks (Sawitri et al., 2014), engaging in career exploration (Sawitri et al., 2015) and job seeking behaviour (Sawitri & Creed, 2021).

Parental career congruence has been examined in relation to negative career goal discrepancy, where parental standards formed the comparator for determining young adults career success (Sawitri et al., 2020). Higher career congruence was related to perceiving less negative discrepancies between their ability, career choices, career enthusiasm, and career goals set by their parents (Sawitri et al., 2020). However, it remains unclear whether greater congruence is related to more positive career goal discrepancies. Young adults set their parent's expectations as their standard, and higher congruence with parent increases young people's confidence in pursuing their career goals (Sawitri et al., 2014) and perceiving more satisfaction (Sawitri, 2013) and higher career success (Sawitri et al., 2020). Therefore, higher career congruence with parents was expected to lead young people to have higher positive career goal discrepancy or perceiving that their career progress is better than expected.

Self-regulatory Responses to Positive Career Goal Discrepancy

Goal setting and control theories articulate the effects of goal discrepancies (either positive or negative) on the individual's affect, cognition, and goal-directed behaviour (Bandura, 1991; Carver & Scheier, 1998; Locke & Latham, 1990, 2012). According to control theory (Carver & Scheier, 1998; Ilies et al., 2007), positive discrepancy feedback (e.g., doing well) leads to positive emotional reactions, such as eagerness, elation, relief, and calmness, whereas negative discrepancy feedback (e.g., doing poorly) leads to negative emotional responses, such as sadness, depression, anxiety, and fear. Additionally, higher perceived personal accomplishment in achieving goals is associated with greater satisfaction (Locke & Latham, 2012). An affective disturbance is a signal to the self-regulatory system for the person to strive to reduce any negative discrepancy or manage positive discrepancies

(e.g., reduce set goal or explore higher goals; Plemmons & Weiss, 2013; Thürmer et al., 2020).

In the cognitive domain, positive and negative goal discrepancies, which can be generated either consciously or subconsciously, give rise to changes to career expectations response (Carver & Scheier, 1998). Positive goal discrepancy increases optimism, whereas negative goal discrepancy increases pessimism. In other words, individuals tend to be more optimistic about their future when they appraise that they are making good progress towards their goals (Carver & Scheier, 1998).

Goal discrepancies also trigger people to consider making adjustments to their goals and/or behaviours in order to regain equilibrium between progress and a set standard (Bandura, 1991; Carver & Scheier, 2000; Converse et al., 2010; Donovan et al., 2018; Donovan & Williams, 2003). Goal adjustment consists of two related but separate components: the ability to disengage from current objectives and the capacity to engage in new or different goals (Haase et al., 2021). Individuals experiencing positive goal discrepancies are likely to revise their goals upward by setting more challenging ones (i.e., discrepancy production), which, in turn, increases motivation (Bandura, 1991; Donovan & Williams, 2003; Phillips et al., 1996). Upward goal adjustment reflects a response to less challenging goals and higher aspirations (Wang & Mukhopadhyay, 2012). On the other hand, those experiencing negative goal discrepancies are likely to revise their goals downward in order to reduce that discrepancy and the associated negative affect (Converse et al., 2010; Donovan et al., 2018; Nicklin & Williams, 2011).

In the career area, most studies have focused on outcomes of negative goal discrepancies. Negative career goal discrepancies have been related to less perceived employability (a cognitive response; Creed et al., 2017), more career distress (an affective response; Creed & Hood, 2015; Sheppard et al., 2019), and more career goal disengagement

(Hu, Hood, et al., 2017), downward goal revision (Hu, Creed, et al., 2017a), career identity defence, and career exploration (behavioural responses; Anderson & Mounts, 2012; Sheppard et al., 2019). To the best of my knowledge, there has been no research examining the outcomes of positive career goal discrepancies. Across Studies 2 and 3, affective (career-related satisfaction), cognitive (career optimism), and behavioural (upward goal revision, career exploration, and sustained career effort) were examined as self-regulatory responses to positive career goal discrepancy.

Affective Responses. Research by Chang et al. (2010) provided preliminary evidence for the effect of positive discrepancies on affective response in the work setting. They investigated the relationship between perceived and desired velocity (i.e., the rate of change in perceived discrepancy over time) and job confidence and satisfaction in employees. When current velocity exceeded worker's standards, they experienced greater confidence and satisfaction. This is consistent with findings in the general context, which support that individuals who make better progress towards their goal are more likely to experience success and feelings of satisfaction (Bandura, 1991; Lee et al., 2015; Locke & Latham, 2006, 2012; Vohs et al., 2008).

Other evidence for affective responses to career goal discrepancy, come from studies of negative career goal discrepancy. Creed et al. (2015), for example, found that negative perceptions about the adequacy of career goal progress was related to higher career distress and lower wellbeing. Other research supports the relationship between negative career goal discrepancy and career distress, both cross-sectionally (Creed et al., 2017; Hu, Creed, et al., 2017a) and across time (Hu et al., 2018c). Informed by self-regulatory theories and the limited work on positive discrepancies in occupational settings, plus the findings on affective outcomes of negative career goal discrepancy, it was expected that positive career goal discrepancy would be associated with higher career satisfaction in young adults.

Cognitive Responses. The relationship between goal discrepancy and optimism has been demonstrated in a variety of human activities, including athletic/sport performance, social interaction, and academic areas. For example, DeCarlo et al. (2007) conducted a cross-sectional study that investigated the role of past performance and causal attributions on expectations of future goals in sales people. The results showed that past successful performance increased future goal optimism both in independent (USA) and interdependent (India) cultural contexts. Causal attributions are the underlying mechanism in those relationships, particularly in the independent culture: internal causal attribution fully explained the relationship between past performance and future optimism among the USA, but not the Indian participants.

Turning to the career field specifically, Rottinghaus et al. (2005) defined career optimism as an individual's tendency to anticipate the best potential outcomes or to emphasise the most favourable aspects of their future career development. Career optimism is a cognitive mindset that is associated with favourable results in general, with a particular emphasis on an individual's belief in the success and fulfilment of their careers (Eva et al., 2020). Optimism affects how a person regulates their behaviours when attempting to accomplish a goal, such as advancing in their career (Eva et al., 2020; Rottinghaus et al., 2005).

However, to date, there is a lack of research on perceptions that one is exceeding what is required to achieve one's career goal and career optimism. Indeed, in their systematic review of 31 empirical studies on the antecedents and outcomes of career optimism, Eva et al. (2020) noted that few studies addressed the association between career goals (i.e., career aspirations, goal drive persistence, and goal decidedness) and career optimism, and none had evaluated whether achieving career goals promoted career optimism. This PhD tested that relationship by examining whether perceptions that one was making better progress towards

one's career than expected (i.e., positive career goal discrepancy) was related to higher career optimism.

Behavioural Responses. Most research that has investigated the relationship between positive goal discrepancy and goal adjustment has occurred in laboratory settings (e.g., Donovan & Hafsteinsson, 2006; Ilies & Judge, 2005; Scherbaum & Vancouver, 2010; Tolli & Schmidt, 2008). For example, Tolli and Schmidt (2008) manipulated perceptions of goal progress by giving either positive or negative career feedback and investigated the changes in goal revision over time. Positive feedback led to upward goal revision through its effect on increasing self-efficacy. This effect was enhanced for participants with stronger internal attributions. Additionally, Donovan and Hafsteinsson (2006) showed that individuals experiencing a positive goal discrepancy when solving arithmetic problems were likely to shift their goal upward (i.e., tackle more problems). In the context of sport, upward goal revision is typically seen when goal discrepancies are positive (Donovan & Williams, 2003; Williams et al., 2000). For example, athletes were more likely to increase their goal difficulty when goal discrepancies were smaller and positive, especially when they perceived they had more control over attributed causes of their positive performance (Williams et al., 2000).

In the career context, existing research has focused more on goal adjustments to negative career goal discrepancies. Young people set lower career goals in response to negative career goal discrepancies; for example, downgrading to the pursuit of a nursing degree after doing poorly in medical training (Hu, Creed, et al., 2017a). Another response to negative career goal discrepancy is career goal change; that is, disengaging from the current career goal and engaging with a new, not necessarily lower, goal (Anderson & Mounts, 2012; Creed & Hood, 2014; Hu, Creed, et al., 2017a); for example, giving up the idea of working as a physical therapist and focusing on becoming an accountant (Anderson & Mounts, 2012).

There have been no studies about goal adjustments in response to positive career goal discrepancies. However, based on the existing experimental research into positive discrepancies in other areas, and the findings with negative discrepancies in the career context, it was expected that young people would be more likely to raise their career goal in response to a positive career goal discrepancy.

In addition to goal adjustments, social cognitive (Bandura, 1991) and control theories (Carver & Scheier, 1998) also posit that perceived goal-progress discrepancies are related to behavioural adjustments. Positive discrepancies promote a change in goal attention and effort (Carver, 2003), enhance cognitive flexibility and attention (Louro et al., 2007), and expose the person to alternative goals (cf. broaden and build theory of positive emotions; Fredrickson, 2001). This suggests that, in the career context, positive discrepancy should be associated with career exploration behaviours that enable one to expand one's perspective. Career exploration refers to the thoughts and behaviours that individuals engage in to increase their knowledge of the self and their external environment in order to advance career development (Blustein, 1992; Kleine et al., 2021). This entails gathering pertinent information about oneself (self-exploration) and the work environment (environmental exploration; Blustein, 1992; Creed et al., 2015; Kleine et al., 2021). Exploration is an important outcome of self-regulation in the career setting since it demonstrates adaptive career behaviours (Creed et al., 2015; Lent et al., 2017; Rogers & Creed, 2011).

Career exploration can be general and/or specific (Porfeli & Skorikov, 2010). General, or in-breadth, career exploration, is used to generate career alternatives, while specific, or in-depth, career exploration is used to reduce the set of alternative careers to a small number that is aligned more closely with the self (Porfeli et al., 2011; Porfeli & Skorikov, 2010). General exploration involves learning broadly about the self and world of work and, thus, is likely to result in a focus on new careers. Specific career exploration involves learning about the self

in the context of the world of work to decide on a realistic and satisfying career (Porfeli & Skorikov, 2010). During specific career exploration, people will consider a range of factors that influence career choice, such as personal characteristics and contextual supports and barriers (Porfeli & Skorikov, 2010). Both forms of exploratory behaviour promote career development and assist people in defining and focusing on their career goals (Porfeli & Skorikov, 2010).

To the best of my knowledge, no existing research has investigated career exploration as a response to positive goal discrepancy. However, existing research has shown that negative career goal discrepancy is associated with higher career and identity exploration (Anderson & Mounts, 2012; Creed et al., 2015, 2017; Sheppard et al., 2019). While either valence discrepancy might result in the same exploratory responses, it is likely the underlying motivations differ. When individuals perceive they are doing better than needed for their current goal standard, exploration is likely focused on higher or more desired goal possibilities. When individuals perceive that they are not going to achieve their current goal, exploration is more likely focused on finding a less challenging and more achievable career goal.

While exploration is a potential behavioural response to positive goal discrepancy, Carver and Scheier (1990; Carver, 2015) argued that self-corrective mechanisms come into play after a while and people will tend to “slow down” and “coast” in response to above-requirements performance. Carver (2003) argued that positive indicators that an incentive has been attained signals that effort can be curtailed or discontinued. Relief associated with these positive perceptions indicate that the goal no longer requires the same attention and can be given a lower priority. As a result, positive discrepancy can result in coasting, whereby there is a change in pace (e.g., reduction in performance) and concern (e.g., putting the goal aside, seeing it as solved or of less importance; Carver, 2003). At this point, individuals switch their

energies and effort to other important goals (Louro et al., 2007), and only maintain enough effort towards the goal that they are experiencing positive discrepancy for so as not to produce a negative discrepancy in the future (Carver, 2003; Gollwitzer & Rohloff, 1999).

Most research into coasting has been conducted in laboratory settings. It has shown that if there is a positive goal-progress discrepancy, positive affect arises, and effort towards the goal decreases (Fulford et al., 2010; Louro et al., 2007; Thürmer et al., 2020). For example, Thürmer et al. (2020) asked participants to complete tasks where the goals were speed (achieve a specific number of responses) and accuracy (achieve a set number of accurate responses). Feedback on their progress towards the two goals was manipulated after half of the trials, so that progress towards one goal was reported to be either above or below the target. Positive feedback that they had overshot their accuracy goal was followed by more mistakes than when feedback was negative (not meeting their accuracy goal), indicating less effort was expended following a positive discrepancy. Louro et al. (2007) also found that positive emotions about better-than-expected progress on one goal led to coasting for that goal and a switch of effort to another goal, particularly when the positive discrepancy goal was close to being achieved.

However, other lines of thought argue that when individuals perceive a negative discrepancy, they would be more likely to increase their effort and implement strategies to improve the chances of achieving their goals (Bandura & Cervone, 1983; Carver & Scheier, 1998). Prior research in various contexts supports this notion. For example, an experimental study in an organisational training program showed that, when individuals received feedback that they were performing below their goal, they were more likely to exert more effort (Donovan et al., 2018).

There has been no research investigating behavioural responses regarding effort or coasting as an outcome of positive career goal discrepancies to determine which of the

control theory (reduced effort, increased coasting) or social cognitive (increased effort, reduced coasting) explanations are supported. This was examined in Study 3

Summary of Antecedents and Self-regulatory Responses to Positive Career Goal

Discrepancy

In summary, research into either antecedents or outcomes of positive career goal discrepancy is limited. Most research has focused on negative career goal discrepancy or has examined positive career goal discrepancies in other contexts. Study 2 (Chapter 4) examined career calling and parental career congruence as potential antecedents and career satisfaction and optimism as consequences of positive career goal discrepancy in young people. Study 3 (Chapter 5) used a cross-lagged design to investigate the dynamic change of behavioural and goal adjustment self-regulatory responses to positive career goal discrepancy over time. The following sections reviews the existing empirical evidence to build a more detailed rationale for these two studies.

Antecedents and Outcomes of Positive Career Goal Discrepancy

Informed by self-regulatory theories, Study 2 investigated the antecedents and outcomes of positive career goal discrepancy. Based on the evidence reviewed above, one personal and one situational antecedent, career calling and parent career congruence, respectively, and one affective and one cognitive outcome, career satisfaction and optimism, respectively, were examined. As the existing research showed evidence of direct relationships between these antecedents and outcomes (Dobrow & Tosti-Kharas, 2012; Domene, 2012; Oishi & Sullivan, 2005; Praskova et al., 2014; Sawitri et al., 2012), indirect paths from the antecedents to the outcomes via positive career goal discrepancy were examined to determine whether positive discrepancy might provide the explanatory mechanism for those associations. In the negative career goal discrepancy literature, there is evidence that it explains the associations between an individual's career goal appraisal processes and an

affective outcome of career distress (Creed et al., 2015; Hu et al., 2018a; Sheppard et al., 2019).

Both career calling and parent career congruence are related to the two outcomes of interest in this PhD: satisfaction and optimism. Career calling is related to life, academic, and work satisfaction in young people (Dobrow & Tosti-Kharas, 2012; Domene, 2012; Praskova et al., 2014). Duffy and Dik (2013) concluded from a review of approximately 40 research papers that there was a moderate to strong association between career calling and satisfaction generally, as well as in the academic, parental, and employment domains. Individuals with higher career calling possess a stronger inner drive toward self-actualisation and sense of meaning in life, and hold higher personal goals and perceptions of their abilities and likelihood to succeed (Dobrow & Tosti-Kharas, 2012; Praskova et al., 2015a, 2015b; Riza & Heller, 2015). Praskova and colleagues (2015a, 2015b) considered these characteristics of calling as higher future-oriented behaviours. Consequently, individuals with higher career calling should be more focused on achieving goal progress that is above what is needed, perceived as positive career goal discrepancy, and, through that, greater satisfaction with their career choices and actions.

Stronger career calling is also associated with higher career optimism (Duffy & Dik, 2013; Eva et al., 2020). For example, Duffy and Raque-Bogdan (2010) showed that individuals with a stronger service (prosocial) career motivation were more optimistic when evaluating their careers. Additionally, individuals who saw their future careers as more important and purposeful had more optimistic expectations about their future careers than those who did not have this sense of calling (Domene, 2012). Several studies have found that more positive perceptions of competence explained the relationship between career calling and future optimism or perceptions of success (Dobrow & Tosti-Kharas, 2012; Domene, 2012; Riza & Heller, 2015). More positive perceptions of competence would be reflected in

individuals perceiving that they are progressing better than expected in achieving their career goals and, as such, positive discrepancy is also likely to explain the relationship between calling and higher future optimism. Understanding more about the mechanisms by which calling leads to satisfaction and optimism about one's future career would inform interventions designed to improve students' career outcomes. Thus, positive career goal discrepancies were examined as a potential explanatory mechanism of the antecedent-outcome relationships in Study 2.

There also is evidence for direct associations between parental career congruence with career satisfaction and optimism. Higher parent career congruence was associated with higher overall life satisfaction in young people in collectivist cultures (Oishi & Sullivan, 2005; Sawitri et al., 2012). In countries with a strong collectivist culture, individual satisfaction is dependent largely on the relationships they build and maintain with their parents and important others, although parental career congruence has been associated directly and indirectly with career satisfaction in more individualist cultures as well (Griffin & Hu, 2019; Katz et al., 2018). For example, Griffin and Hu (2019) found that medical students who perceived incongruence with their parents on career issues were less satisfied with their careers.

Young adults who reported higher career congruence with their parents perceived that they had greater support from their environment (e.g., parents, family; Sawitri et al., 2012), which increased engagement in career-related activities (Sawitri & Creed, 2021), resulting in increased persistence and effort and, thus, higher achievement (Sawitri et al., 2015). Therefore, it was expected that the resources and support that arise from career congruence with parents should enable young people to make more progress than required, and, thus, experience a positive discrepancy that is, in turn, related to higher satisfaction with their careers.

Parents have a significant impact on young adults' development of values, interests, and skills, as well as development of motivation and optimism for pursuing career goals (Sawitri et al., 2012). Young adults who perceived there was congruence with their parents were more intrinsically motivated to pursue careers, more optimistic about their future (Puklek Levpušček et al., 2018), and reported more favourable outcome expectations (Sawitri et al., 2014; Sawitri & Creed, 2021). Similarly, young adults who perceived higher parental support reported higher career optimism (Chatterjee et al., 2015; Garcia et al., 2015). However, little is known about the underlying mechanisms through which parental career congruence is related to career optimism (Puklek Levpušček et al., 2018). According to Garcia et al. (2015), one possible way in which parental support fosters career optimism is by enhancing people's confidence in their ability to effectively complete career planning and preparation activities. Parents can provide opportunities for active mastery, share career ideas and skills, and provide positive reinforcement, enabling young people to take career-related actions effectively and have positive expectations related to their future, all of which would lead to good progress and positive career goal discrepancies. In this way, positive career goal discrepancies might also explain the link between parental career congruence and career optimism. Therefore, this indirect relationship was tested in Study 2.

Dynamic Changes in Self-Regulatory Responses to Positive Career Goal Discrepancy

While Study 2 was designed to test core aspects of self-regulatory theories (e.g., Bandura, 1991; Carver & Scheier, 1990; Locke & Latham, 1990), these theories note that goal management is a dynamic cyclical process in which prior performance and feedback inform adjustments to current and future goals and actions, which, in turn, are monitored and revised based on experience and feedback from the environment (Lent, 2013). Adjustments are then made to balance discrepancies between progress and the set standard (Carver & Scheier, 1990). In the career context, the SCCT model of career related performance (Brown

et al., 2008; Lent & Brown, 2019) posits cyclical relationships between individual ability/past performance and performance attainment (see Figure 2). Successful experiences strengthen an individual's belief in their abilities (self-efficacy) and their expectations of future positive outcomes (outcome expectancies). Increased confidence in one's abilities then results in more favourable expectations, leading individuals, over time, to set higher goals and demonstrate more persistence towards those goals. People continue to evaluate goal progress to detect discrepancies, which affect efficacy and expectations, and, in turn, goal adjustment. Informed by the SCCT model of performance (Lent et al., 1994; Lent & Brown, 2019), Study 3 (Chapter 5) of this PhD examined the role of positive career goal discrepancy as the indicator of past performance quality in predicting future career goal adjustment, goal-directed behaviour, and persistence (i.e., upward goal revision, career exploration, and sustained effort), and also tested the potential underlying mechanisms of career self-efficacy and outcome expectations.

SCCT emphasises the importance of self-efficacy and outcome expectancies for self-regulation and goal setting. Self-efficacy beliefs around capabilities to organise and execute specific actions or tasks (Bandura, 1991), including career-related tasks (Lent et al., 1994), play an important role in determining how individuals will engage in goal and behaviour adjustments when experiencing positive or negative goal discrepancies. Outcome expectation beliefs reflect people's beliefs about personal value fulfilment that would arise from particular activities or occupations (Lent, 2013). In the career context, higher self-efficacy raises an individual's expectations for positive outcomes from their actions (Lent, 2013; Sheu et al., 2010). Thus, positive career goal discrepancy was expected to elevate self-efficacy. It was also expected to increase outcome expectancies both directly and indirectly through self-efficacy. Finally, through those mechanisms, positive career goal discrepancy affects career-related self-regulatory behaviours.

Most research on self-regulatory responses to career goal discrepancies has focused on negative discrepancies, with Study 2 used the cross-sectional design to extend that literature to positive career goal discrepancy (Anderson & Mounts, 2012; Creed et al., 2015, 2017; Hu, Hood, et al., 2017). Across-time studies contribute to a better understanding of direct and indirect relationships among variables (Taris & Kompier, 2006), and the calls to examine positive career goal discrepancies have noted the need to examine how dynamic changes in these affect outcomes over time (Anderson & Mounts, 2012; Creed et al., 2017; Hu, Hood, et al., 2017). Study 3 addressed this gap using a fully cross-lagged design with a 6-month time lag. Prior research has shown that a 6-month time lag is sufficient for career behaviour changes to occur and has been used in other cross-lagged studies in the career area (Hu, Creed, et al., 2017a; Praskova et al., 2014; Sawitri et al., 2015).

SCCT provides a more relevant theoretical framework for examining dynamic relationships with positive career goal discrepancy given the focus on discrepancy production (Ilies & Judge, 2005). Social cognitive, and goal setting, theories predict that more positive discrepancies result in higher motivation and more effort due to increased interest in the goal (Bandura, 1997; Holman et al., 2005; Locke & Latham, 1990). In contrast, Carver's (2003) control theory predicts that positive discrepancy would lead to reduced effort as individuals become satisfied with their achievement. According to control theory, self-efficacy is associated with resource allocation and performance: persons with a higher self-efficacy expend less effort as they have stronger beliefs in their capacities (Vancouver & Kendall, 2006). Thus, control theory would predict that higher career-related self-efficacy that results from positive career goal discrepancy would be associated with more career coasting (i.e., reduced effort), whereas, from a social cognitive perspective, Bandura and Cervone (1983) showed that those with higher self-efficacy intensified their efforts when they were unable to

attain their goals (i.e., where there was a negative discrepancy), whereas those with lower self-efficacy tended to be discouraged by failure.

In the career context, Hu et al. (2018b) showed that when young adults experienced a negative career discrepancy they decreased their willingness to engage in career exploration, and reduced self-efficacy explained this relationship. This supported social cognitive and goal setting predictions, which propose that young adults would likely experience lower self-confidence related to their career when perceiving that current career goal progress was not good enough, and this, in turn, would lead to reduced efforts, specifically reduced involvement in career exploration activities. However, the relationships between discrepancy, self-efficacy and goal-directed behaviour have not been tested to date with positive discrepancy. Study 3 will do this, which will enable the competing predictions from SCCT/goal setting theory versus control theory to be tested. Drawing on SCCT, we framed the expectation that positive career goal discrepancies would increase career-related self-efficacy, making young people more effortful and engaged in goal-directed behaviour.

Self-efficacy and outcome expectations have been shown to mediate the relationship between goal discrepancy and goal revision in various non-career contexts, such as education and sport (Donovan, 2009; Phillips et al., 1996; Tolli & Schmidt, 2008; Williams et al., 2000). Using verbal performance as the outcome, Tolli and Schmidt (2008) found that self-efficacy fully mediated the relationship between goal-performance discrepancy and goal revision. Higher self-efficacy predicted upward goal revision (setting a higher performance goal), whereas lower self-efficacy was related to downward goal revision (lower performance goal). In the career context, career-related self-efficacy explained the relationships between negative career feedback (reflecting a negative career goal discrepancy) and career exploration and downward goal revision (Hu et al., 2018b; 2019). More negative feedback was associated with lower self-efficacy and, in turn, reduced exploration and lower goals.

Research on self-efficacy is more extensive than that on outcomes expectations, largely because self-efficacy is seen as more influential in situations that need complex skills, including when managing career goals (Lent, 2013; Sheu et al., 2010). The little research that has examined the role of outcomes expectations has produced inconsistent findings (Lent et al., 2010, 2013; Rogers & Creed, 2011; Sheu et al., 2010). Longitudinal studies found that outcome expectations did not contribute uniquely to variance in career goals (Lent et al., 2010) or career exploration (Rogers & Creed, 2011). However, Sheu et al. (2010) concluded from their meta-analytic study that, overall, outcome expectations significantly predicted career goals, which is consistent with SCCT (Lent et al., 1994). Personal accomplishments or successful prior performance (i.e., positive discrepancy) leads to increased expectations of positive outcomes (Lent, 2013; Lent et al., 1994); thus, outcome expectations potentially explain the indirect relationships between positive career goal discrepancies and behavioural adjustment.

Unlike the predictions for self-efficacy, control theory is consistent with SCCT in proposing that favourable outcome expectations lead individuals to renew their goals and efforts, whereas if the expectations are unfavourable, individuals begin to disengage or put less effort towards their goal (Carver & Scheier, 1990). While control theory would predict that self-efficacy leads to more coasting (at least in the short term), it predicts that people with higher outcome expectations are more likely to upgrade their goals for the future (Carver & Scheier, 1998), exert more effort in goal striving (Lent et al., 1994; Phillips et al., 1996), such as career exploration (Rogers et al., 2008), and be less likely to withdraw effort and coast (Holman et al., 2005; Phillips et al., 1996).

SCCT argues that past performance and learning experiences influence outcome expectations not only directly but also indirectly through self-efficacy (Bandura, 1991; Brown et al., 2011; Sheu et al., 2010). When people feel competent, they usually expect to

achieve positive outcomes and avoid negative ones (i.e., high outcome expectations; Lent, 2013). Thus, positive career goal discrepancy was expected to result in upward goal revision and career exploration via self-efficacy and outcome expectations (both directly and indirectly via self-efficacy). However, theoretical contradictions and a lack of empirical evidence meant that no firm directional predictions could be made about the relationships from positive discrepancy via self-efficacy and outcome expectations to career coasting (reduced effort). Study 3 sought to collect empirical evidence to clarify this.

The Indonesian Context

This PhD research was conducted using Indonesia participants. Adolescents in Indonesia grow up in a society where people rely on one another and are interdependent (Hofstede et al., 2005) and where there is a robust power distance index (i.e., Hofstede power distance score = 78; Hofstede Insight, n.d.). As less powerful family and group members, children expect and accept the exercise of control by their parents and those with more authority (Sawitri & Creed, 2017). Indonesia is a nation known for its strong collectivist values (Hofstede individualism score = 14; Hofstede Insight, n.d.). Individualism-collectivism is a term that refers to "cultural syndromes" or clusters of beliefs, attitudes, self-definitions, norms, and values that are structured around a common theme in a community (Triandis, 2001). Individualism emphasises societal trends that value independence, autonomy, self-agency, and segregation. Collectivism, on the other hand, represents cultural patterns that promote interdependence, social integrity, adherence to in-group norms, and the precedence of in-group aims (e.g., family, communal, or national) above individual goals, needs, and aspirations (Hartung et al., 2010; Triandis, 2001).

The difference in belief patterns between individualism and collectivism potentially influences individual planning, decision-making, and self-regulatory processes differently (Lee & Semin, 2013). In individualistic cultural settings, young adults tend to set career

choices and goals that align with their personal interests and aspirations, making them more internally-driven (Akosah-Twumasi et al., 2018; Hartung et al., 2010; Mok et al., 2021; Sawitri et al., 2020). In collectivist cultures, career goals are mainly influenced by interpersonal factors (e.g., support from parents, family members, peers, and teachers) that align with parental expectations (Akosah-Twumasi et al., 2018; Mok et al., 2021; Sawitri et al., 2020).

According to Lee and Semin (2013), individualist and collectivist individuals have distinct self-regulatory orientations due to their underlying values of independence and interdependence, respectively. Individuals from a strongly independent culture perceive personal goals and accomplishments to be important. Therefore, in goal pursuit activities they focus on achieving their expectations and aspirations and are more eager to pursue their goals. In interdependent cultures, people tend to aim for harmony with others through the fulfilment of obligations and responsibilities. Their focus is on fulfilling their duties and other's expectations and these values act as self-guides, directing attention, attitude, and behaviour towards various group goals.

Most studies on career goals have been conducted with individualistic-oriented young adults (Hartung et al., 2010; Mok et al., 2021). Some research into career goals with participants from a collectivist cultural background has been conducted in individualistic countries; for example, with students from collectivist ethnic groups in USA (Hartung et al., 2010) and international students from collectivist countries in Germany (Mok et al., 2021). Those findings indicated that there was no significant difference in career planning and decision-making between collectivists and individualists, although the results highlighted the indirect role of family-oriented goals and expectations for collectivistic-oriented adults in learning situations (Mok et al., 2021). However, these studies did not assess participants' levels of acculturation. Participants might have been acculturated and adjusted to

predominantly individualistic cultural values (Hartung et al., 2010). There has been less research on career goals of collectivist individuals in their home country to minimise the confounds of cultural acculturation and adjustment.

Hu et al. (2018a) examined the role of career goal discrepancies in students in China, which is also a collectivist culture. Negative career-related feedback was correlated positively with career stress, both directly and indirectly, via career goal discrepancy. Other cross-lagged research in China found a reciprocal relationship between negative career goal discrepancy and career distress and that negative goal discrepancy led to more goal disengagement and downward goal revision, directly and indirectly via career distress (Hu, Creed et al., 2017a).

This research on career goal discrepancy in a collectivist culture has concentrated on negative discrepancies. While theoretical models of goal setting and self-regulation are considered universal (Lee & Semin, 2013; Van Fossen et al., 2021), it is important to conduct research in different cultural contexts, with research in collectivist countries being greatly underrepresented. Further research is required on how young people in collectivist cultural contexts regulate themselves when experiencing favourable career goal discrepancies. By undertaking this research with young people in Indonesia, I expanded research on career goal discrepancy in collectivist cultures.

Summary of Research Questions and Structure of PhD

The review of the extant literature indicated that self-regulatory responses to positive career goal discrepancy during young adulthood required further empirical examination. The absence of a scale to assess positive career goal discrepancy was identified as an important reason for the lack of research in this area. A case was made for positive discrepancy not being simply the opposite of negative discrepancy (for which a measure existed). Therefore, the aim of Study 1 (Chapter 3) was to develop and validate a positive career goal discrepancy

scale. Using this newly developed scale enabled a model of both personal and situational antecedents of, and cognitive and affective self-regulatory responses to, positive career goal discrepancies to be examined in Study 2 (Chapter 4), thereby addressing the many calls to broaden career goal discrepancy research to positive career goal discrepancy (Anderson & Mounts, 2012; Creed et al., 2015, 2017; Hu et al., 2018c; Hu, Creed, et al., 2017a). Study 3 (Chapter 5) tested goal and behavioural adjustments in response to positive career goal discrepancies over time, contributing to an understanding of the dynamic processes involved in self-regulation when progress to date is perceived as favourable. Study 3, informed by the SCCT model of career-related performance (Brown et al., 2008; Lent & Brown, 2019), also focused on examining the role of career self-efficacy and outcome expectations as potential underlying mechanisms. While this Study was framed by SCCT, there was scope to test competing predictions from control theory regarding relationships through self-efficacy to effort.

All three studies reported have been published or submitted for publication and are presented in their journal manuscript format except that the reference lists are integrated into a single reference list and the labelling of figures and tables is adjusted to suit the thesis numbering. Chapter 6 presents an overall discussion and conclusion of the findings from the PhD as a whole and provides suggestions for further research in this area.

Chapter 3: Positive Career Goal Discrepancy Scale: Development and Initial Validation

Study 1 is presented in the form of a manuscript that was published in the *Journal of Career Assessment* in 2021. This is an international, peer-reviewed journal that publishes articles that contribute to the career literature by the provision, validation, and application of new measurement tools. This study also was delivered as an oral (online) presentation at the *School of Applied Psychology Research Conference 2020, Griffith University, November 26, 2020*. Chapter 3 presents Study 1 in its final published version except for modified table and figure numbering to reflect the thesis format. References are integrated into the reference list.

The aim for Study 1 was to develop and validate a scale to measure positive career goal discrepancies in young adults. This study took a classic test theory scale development approach. This included focus group discussions and a literature review to generate an initial item pool, which was reviewed by experts to provide initial evidence of content (construct) validity. The initial items were written in English and were translated-back-translated into Bahasa Indonesian for use with the Indonesian young adult population that was the focus of the PhD. Item analysis, exploratory factor analytic approaches, and hierarchical multiple regression were used to evaluate items, reduce their number, and test for divergent and incremental validity using the initial sample. Confirmatory factor analyses were used on data from a second, hold-out sample to confirm the factor structure of the new scale and provide additional evidence of construct validity. Support for the internal consistency (Cronbach's alpha) of the scale also was provided.


**Statement from Authors Confirming Authorship Contribution
of PhD Candidate to Journal Article 1**

This chapter includes a co-authored paper. The bibliographic details of which are:
Akmal, S. Z., Creed, P. A., Hood, M., & Duffy, A. (2021). The Positive Career Goal
Discrepancy Scale: Development and initial validation. *Journal of Career Assessment*, 29(2),
338–354. <https://doi.org/10.1177/1069072720976376>.


As co-authors of this published paper, we confirmed that Sari Zakiah Akmal has made the
following contributions:

- a. Conducting the literature review with direction and feedback from co-authors.
- b. Designing the questionnaire items with direction and feedback from co-authors.
- c. Conducting focus group discussions, organising the expert review, managing the
translation-back-translation process, and undertaking the survey to collect the data.
- d. Analysing and interpreting the data under the direction of co-authors.
- e. Writing the paper and acting as the corresponding author with direction and feedback
from co-authors.

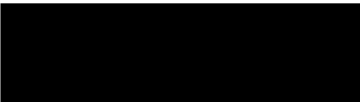
We agree to the inclusion of this paper in this PhD which is submitted for examination.


Sari Zakiah Akmal

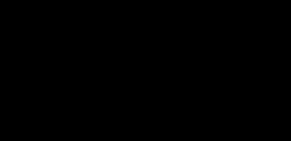
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The Positive Career Goal Discrepancy Scale: Development and Initial Validation

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Abstract

The 15-item Positive Career Goal Discrepancy Scale was developed to assess emerging adults' appraisals of the extent to which their current career progress exceeds their set career goals. We generated 32 items based on a literature review, focus groups, and expert reviews, used EFA ($N = 244$, $M_{\text{age}} 18.70$ years; 65% women) to reduce the number of items, and CFA ($N = 254$, $M_{\text{age}} 18.70$ years; 68% women) to confirm the factor structure and demonstrate superior reliability at the total score level (ω reliability = .91). Validity testing demonstrated that the scale was distinct from a measure of negative career goal discrepancy and related, as expected, to constructs in the nomological net: correlated positively with career satisfaction and optimism, and negatively with negative career goal discrepancy. The scale is a useful addition to the career literature and is likely to stimulate research into positive career goal progress in young people.

Keywords: positive career goal discrepancy, career goals, scale development, emerging adults, career development.

The Positive Career Goal Discrepancy Scale: Development and Initial Validation

Emerging adults (aged ≈ 18 –25 years) are in a transitional period, during which they explore their life directions and options. In this period, they often feel “in-between” adolescence and adulthood and, thus, experience insecurity and anxiety regarding their future (Arnett, 2000; Salmela-Aro et al., 2007). Exploring possibilities, setting and adjusting goals, and making decisions and commitments for adult life are important in this life stage (Shulman & Nurmi, 2010). Goals play an especially important role, as these direct young people’s development and transition from adolescence to adulthood in a period that can involve more planning, goal setting, and evaluation than previous periods (Nurmi et al., 2002). Goals motivate young people to develop strategies, identify opportunities, and explore their environment and themselves (Bandura, 1991; Lent, 2013). In the career context, goals stimulate plans and drive actions for achieving desired occupational outcomes, they influence choices and persistence in higher education (Lent et al., 2010), and contribute to young people finding satisfactory work and being more successful (Nurmi et al., 2002).

Emerging adults must choose their future education and occupation paths as part of their personal goal setting (Arnett, 2000; Salmela-Aro et al., 2007). However, goals have a dynamic structure that is continuously (consciously and unconsciously) being appraised, monitored, and reconstructed to meet contextual realities (Bandura, 2001; Carver & Scheier, 2000; Shulman & Nurmi, 2010). When goals are appraised, there will inevitably be a difference or a gap between the person’s set goal or standard and performance; these are labelled goal-performance discrepancies (Bandura, 2001; Carver & Scheier, 2000; Lord et al., 2010). In the career development context, Creed and Hood (2015; p.309) defined career goal discrepancies as “the perceived gap between the individual’s set career goal (future self or situation) and their career goal progress (current self or situation)”.

Goal discrepancies are positive if performance or progress exceeds goals or standards, and negative if performance or progress falls short of goals or standards (Carver & Scheier, 1998; Creed & Hood, 2015; Lord et al., 2010). According to Carver and Scheier's (1990; 1998) control theory, these different appraisals of performance/progress compared to the set goal/standard have different consequences for affect and the self-regulation process. However, control theory focuses more on negative feedback loops and negative goal discrepancy reduction, which has resulted in more research on self-regulatory responses to negative discrepancy. The consequences of negative discrepancy tend to be unpleasant and noticeable, so individuals are more eager to find solutions to these problems (Carver, 2003).

Ilies and Judge (2005) argued that while control theory provided an adequate mechanism for understanding the consequences of negative goal discrepancies, it is less useful in explaining the affective and self-regulatory consequences of positive goal discrepancies. These authors point to Bandura's (1997) social cognitive theory and Locke and Latham's (1990) goal setting theory as more relevant to understanding positive goal discrepancies. When faced with a positive goal discrepancy, rather than necessarily reducing effort or coasting as control theory predicts, social cognitive and goal setting theories predict that standards and goals are upwardly revised, "creating motivating discrepancies to be mastered" (Bandura, 1997, p. 131). Ilies and Judge noted that, in addition to different underlying theoretical mechanisms, there were different boundary conditions for the positive discrepancy-outcome relationship (e.g., goal difficulty) compared to the negative discrepancy-outcome relationship (e.g., self-efficacy). However, positive discrepancy has largely been overlooked, with most focus given to understanding negative discrepancies (Carver, 2003). Understanding positive discrepancies is important, especially in contexts such as career development, where optimising and developing individual potential is of interest.

Research to date on career goal discrepancy has focused on the role of negative discrepancies in the career development process, by experimental (Anderson & Mounts, 2012) and survey methods (Creed et al., 2015, 2017; Hu et al., 2018c; Hu, Creed, et al., 2017a). Greater negative career goal-progress discrepancy was related to lower perceived employability (cognitive response; Creed et al., 2017) and higher career-related distress (affective response; Creed et al., 2015; Hu et al., 2018a; Sheppard et al., 2019). Career distress, in turn, was correlated positively with career goal disengagement (Hu, Hood, et al., 2017) and revision (Hu, Creed, et al., 2017a), identity defence, and exploration (behavioural responses; Anderson & Mounts, 2012; Sheppard et al., 2019).

In general, positive goal discrepancy research is limited and mostly conducted in laboratory settings (e.g., Ilies & Judge, 2005; Scherbaum & Vancouver, 2010) or with specific task performance, such as arithmetic calculations (Donovan & Hafsteinsson, 2006) and verbal tasks (Tolli & Schmidt, 2008). Other research has occurred in sporting (e.g., Donovan & Williams, 2003; Williams et al., 2000) and classroom contexts (Donovan, 2009). No research has examined positive career goal discrepancies. The one existing career goal-progress discrepancy scale (Creed & Hood, 2015) measures negative discrepancies only. The important differences, both in the underlying mechanisms and boundary conditions, between negative and positive goal discrepancies (Ilies & Judge, 2005) indicate that positive and negative discrepancies are not polar opposites. Therefore, it is not adequate to simply use a negative goal discrepancy scale to measure positive career goal discrepancy; a new scale is needed. We addressed this gap by developing a valid and reliable positive career goal-progress discrepancy scale, which has the potential to stimulate research in this area.

Career Goal-Progress Discrepancies

In the career context, Creed and Hood (2015) identified four essential negative discrepancy domains: (a) achievement discrepancy, the appraisal that current achievement is

inadequate to achieve the future career goal; (b) ability discrepancy, the perception that personal skills and abilities are inadequate to achieve the desired goal; (c) effort discrepancy, the gap between previous effort and that required to achieve the career goal; and (d) standard discrepancy, which is the perception that the career goal is too high.

Creed and Hood (2015) used self-standards only as the comparator for appraisal of career goal performance or progress. According to social-cognitive and control theories (Bandura, 1991; Carver & Scheier, 1990), people also are likely to compare their goal progress with the performance and expectations of others. For example, students compare their study performance to that of their peers (Unsworth et al., 2016). Thus, the proposed positive discrepancy scale items referenced both internal (i.e., self) and external (social/other) comparators to better capture emerging adult's appraisals of positive discrepancies.

In summary, the limited research to date has focused exclusively on negative career goal-progress discrepancies. There is evidence of different affective and self-regulatory consequences, underlying mechanisms, and boundary conditions for positive goal discrepancies, suggesting these discrepancies are not polar opposites. Positive career goal-progress discrepancies result from appraisals that career-related progress exceeds that needed to meet the desired career goal, which is more aligned with motivational discrepancy production and mastery than with discrepancy reduction (see Ilies & Judge, 2005). Last, appraisals are made between current progress status and internal (e.g., past performance and personal goals) and external comparators (e.g., expectations of peers and significant others).

Previous Measures of Career Goal Discrepancies

Wang and Heppner (2002) developed the 32-item Living up to Parental Expectations Inventory, which measures discrepancies between perceived self-performance and perceived parental expectations in personal maturity, academic achievement (including career), and dating relationships. Significant others (i.e., parents) are used as the comparators to identify

discrepancies. Participants rate perceived parental expectations (e.g., "How strongly do you currently perceive this expectation from your parents?") and self-perceived performance (e.g., "To what extent do you currently perform in this manner?") items using a 6-point scale, where lower scores indicate lower expectations/performance. The total score is obtained by subtracting the perceived parental expectation score from the perceived self-performance score. This is expressed as an absolute difference (not as negative or positive scores), with higher absolute scores indicating higher levels of living up to parental expectations. Although no discrepancy direction is identified, Wang and Heppner found higher expectation scores than performance scores on all subscales, indicating negative rather than positive discrepancies were measured. They provided support for reliability and validity.

Patton and Creed (2007) examined occupational discrepancies by comparing adolescents' occupational aspirations (i.e., jobs most desired) with their realistic occupational expectations (i.e., jobs expected to get). Occupational aspirations and expectations were then classified according to Holland's (1997) RIASEC coding system and characterised as either discrepant, when aspiration and expectation codes differed, or non-discrepant, when participants reported the same aspiration and expected occupational code. Thus, this measure used self or personal standards as the comparator to identify discrepancies. No discrepancy direction was identified in this study as the codes were nominal only.

In their experimental study, Anderson and Mounts (2012) measured occupational identity discrepancy as incongruence between the identity ideal and identity self-perception. At the pre-experimental session, participants were asked to identify their occupational identity standard using the single item, "Please write the name of the occupation you are most interested in", and before the feedback session were required to respond to a career aptitude survey as the experiment cover story. Participants were then given self-discrepant feedback by being told that they were not well suited to their occupational choice based on their

responses to the aptitude survey. They then generated a post-manipulation identity standard using the same single item and participants were categorised as changed or not changed from pre-manipulation. Being nominal, this measure did not indicate the direction of discrepancy.

To address the lack of a psychometrically sound scale to measure career goal discrepancy, Creed and Hood (2015) devised a 12-item unidimensional scale that covered four domains (achievement, ability, effort, and standard discrepancy; 3 items each; 6-point response format: *strongly disagree* to *strongly agree*). All items are worded as negative discrepancies; for example, “My plans are not working out to get the career I really want” (achievement discrepancy). The scale has good reliability ($\alpha = .95$) and initial support for validity by finding an expected positive association with career distress and a negative association with career goal commitment. However, the scale only measures negative career goal discrepancies and only uses the self as the comparator.

Unsworth et al. (2016) devised a scale to measure perceived discrepancies between nursing students' current performance and that of peers, more advanced students, and qualified or professional nurses. The “discover discrepancy” tool provided scenarios and nine performance criteria as common elements of nursing performance. Students rated (5cm visual analogue scale, 0 = *novice* to 5 = *expert*) their current performance and that of their peers, a final-year student, and a newly qualified staff nurse on each criterion. The scale has the potential to identify both positive (performance better than comparators) and negative discrepancies (performance below comparators), although Unsworth et al. treated these as opposites on the same continuum and focused only on the negative discrepancies. The scale's use is limited also as it specifically focuses on performance and knowledge discrepancies in a single career, nursing, and has no published evidence of reliability and validity.

In conclusion, limitations of the different existing measures of career goal discrepancy include that they do not enable measurement of positive goal discrepancies as a distinct

construct to negative goal discrepancies, only assess the gap between self-set goals and current progress, are situation-specific, or lack psychometric evidence. Consequently, we aimed to develop a psychometrically sound measure of positive career goal discrepancies.

Current Study

The study consisted of three stages, in line with classic scale development approaches (DeVellis, 2012). In the first stage, we generated items to capture the positive career goal discrepancy construct based on a literature review, reference to earlier scales, and by conducting a series of focus groups with emerging adults. We assessed content validity by having experts rate the suitability of the items, instructions, and response options (Beaton et al., 2000; DeVellis, 2012). In the second stage, we conducted exploratory factor analyses (EFA) to reduce the number of items and assess the scale structure. Divergent and incremental validity checks were conducted to establish that the scale assessed a distinct construct, and explained additional variance in related career outcomes, to negative career goal discrepancy. Using a second sample, we then conducted confirmatory factor analyses (CFA) to test the identified factor structure. In the last stage, we assessed the construct validity by correlating scores on the scale with those of constructs from the nomological net.

The study was conducted in Indonesia with 1st-year students from multiple private and public universities. Much of the existing research in career goal discrepancy has been conducted in Western individualist cultures (e.g., Anderson & Mounts, 2012; Creed & Hood, 2015). Little is known about career goal discrepancies in non-Western societies, where there are different contextual factors, such as the strong influence of parents and significant others that operate in collectivist cultures (Fouad et al., 2008). In a more strongly collectivist culture such as Indonesia, parental career expectations and career congruence with parents need to be considered in the career decision-making process (Sawitri et al., 2012). Thus, in line with a

social cognitive approach, external comparators (e.g., parents and peers) become important factors in career goal-progress appraisals and discrepancies.

Method

Stage 1: Item Development

The aim here was to generate sufficient items to adequately capture the positive career goal discrepancy construct. We followed Vogt et al.'s (2004) steps in generating the items: review the relevant literature, refine definitions of the key construct/s, conduct focus groups with members of the target population, and use this information to develop a broad pool of items. Based on the literature review and examination of previous career goal discrepancy measures, we identified four potential domains of positive career goal discrepancies that aligned with those previously identified by Creed and Hood (2015) for negative career-progress discrepancy: achievement (current achievement is more than required to achieve the future career goals), ability (the individual has more personal skills and abilities than required to achieve the desired goals), effort (effort expended to date is more than required to achieve the career goals), and standard discrepancies (the current standard is likely to be surpassed and higher career goals potentially could be set).

Four focus groups were held with 1st-year students ($N = 26$; 50% women; aged 18-20 years) from private and state universities. Participants were asked to reflect upon and share their own career goals, how they evaluated their career progress, what they drew upon to identify when they were on track or ahead of meeting their goals (i.e., how they defined positive goal discrepancies), what aspects (i.e., domains) they considered when evaluating this progress, and with whom or what they compared their progress. The information from these groups provided corroboration for the definition and domains initially identified. In addition, participants indicated that they compared their career progress to past performance, future goals, parents' expectations, and peers when appraising career discrepancies.

We generated 48 initial items, approximately 12 for each domain (achievement, ability, standard, and effort) that represented a mix of comparators (past performance, future goals, parents' expectations, and peer comparison). Independent reviewers ($N = 7$) with expertise in scale development and/or career research evaluated each item's suitability (1 = *not at all suitable* to 6 = *very suitable*) and commented on item clarity and readability. Based on expert comments and ratings, we deleted 6 items with low ratings (< 5) and 10 that were considered less relevant, overlapping, or ambiguous, and revised 9 items to enhance readability. This left 32 items (mean expert ratings > 5). As we were aiming to devise a scale suitable for research purposes of from 12 to 16 items (i.e., 3-4 items per domain with a range of comparators represented) that would not place undue demand on respondents, 32 initial items (approximately twice the final desired number) were sufficient (Hinkin, 1998).

The 32 items were generated in English to suit a broader research use, but, as the study was conducted in Indonesia, we applied the translation-back-translation procedure (Beaton et al., 2000) to convert the items to Bahasa, the main Indonesian language. The first author, whose native language is Bahasa, but who also is fluent in English, translated the items into Bahasa. Five independent Indonesian psychology academics, who also were proficient in English, reviewed and commented on the translated version. Finally, the Bahasa version was translated back into English by another two independent bilingual colleagues, who had not viewed the original English version. The authors then compared the original and back-translation versions and adjusted where needed. As a final check, the Bahasa items were piloted with five Indonesian emerging adults to ensure that the instructions, items, and response format were easy to read and understand. No revisions were required at this stage.

Stage 2: Factor Analysis

Our aims in this stage were to reduce the number of items and assess the structure of the scale using EFA, check divergent and incremental validity compared to a measure of

negative career goal-progress discrepancy, confirm the factor structure by using CFA, and provide initial evidence of construct validity by testing expected associations with constructs drawn from the nomological net (career satisfaction and optimism).

Participants

We received responses from 512 1st-year students recruited from 7 public and 6 private universities in Java and Sumatra, Indonesia. We discarded 14 cases as they failed attention check items, used patterned responses (e.g., all 1s), or did not complete main parts of the questionnaire. This left 498 participants, who were randomly split into two subsamples (random split function in SPSS V26). Sample A ($N = 244$) was used for item reduction, EFA, and divergent and incremental validity checks with negative career goal discrepancy, and Sample B ($N = 254$) was retained as a hold-out for CFA and to assess construct validity (Byrne, 2010). Sample sizes were sufficient for factor analysis with at least moderate communalities and three items per factor (Fabrigar & Wegener, 2012).

Sample A comprised 65% women (5% did not report gender), whose mean age was 18.7 years ($SD = 1.2$; 5% missing), evenly split across private (52%) and public (48%) universities (5% missing). Participants were enrolled in a range of study programs, including psychology, social sciences, medicine, education, engineering, and computer science. Mean reported GPA was 3.2 ($SD = 0.5$, range 1-4, higher GPA = better achievement; 6% missing). For socio-economic situation, 2% reported it was *Much better than others*, 16% as *A little better*, 41% as *About the same*, 26% as *A little worse*, and 10% as *Much worse* (5% missing). Sample B comprised 68% women (6% missing), whose mean age was 18.7 years ($SD = 0.8$; 6% missing), with 48% and 47% attending public and private universities, respectively (6% missing). The range of study programs was similar to Sample A. Mean GPA was 3.3 ($SD = 0.4$; 11% missing). For socio-economic situation, the percentages were 1%, 16%, 52%, 21%, and 6%, respectively (6% missing).

We compared Samples A and B to test if there were between-group differences on gender, $\chi^2(1) = 0.71, p = .40$; age, $t(469) = 0.52, p = .60$; GPA, $t(438) = 1.52, p = .13$; university, $\chi^2(1) = 1.06, p = .30$; study major, $\chi^2(11) = 7.34, p = .77$; and social-economic situation, $\chi^2(4) = 9.25, p = .06$, and found none, suggesting no bias as a result of the split.

Materials

The 32 positive career goal discrepancy items developed in Stage 1 were included in a questionnaire with demographic questions and scales to assess negative career goal discrepancy (for divergent and incremental validity), career satisfaction, and career optimism (for construct validity), which were drawn from the nomological net of career goal-progress discrepancy. We expected positive career goal discrepancy to be related negatively to negative career goal discrepancy, and as previous studies found positive relationships between managing goal progress and satisfaction (Locke & Latham, 2006) and having a positive view of the future (Ilies & Judge, 2005), we expected positive career goal-progress discrepancy to be related positively to career satisfaction and optimism.

Negative career goal discrepancy. We used the 12-item Career Goal Discrepancy Scale (Creed & Hood, 2015), which assesses perceived shortfall between the individual's career progress and career goals. An example item is, "My plans are not working out to get the career I really want". The authors reported excellent internal reliability ($\alpha = .95$) and supported validity by finding a negative correlation with career goal commitment and a positive correlation with career distress. Cronbach's alpha with the current sample was .89.

Career satisfaction. We used the unidimensional, 5-item Career Satisfaction Scale (Greenhaus et al., 1990), which evaluates individuals' subjective career success for meeting career-related goals. An example item is, "I am satisfied with the progress I have made toward meeting my overall career goals". This scale generated high internal reliability across several samples (α range .88 to .92; Spurk et al., 2015), and validity has been supported by

showing scores are related positively to task and career performance (Zacher, 2015) and negatively to neuroticism (Boudreau et al., 2001). Alpha with the current sample was .91.

Career optimism. We used the 11-item Career Optimism Subscale of the Career Futures Inventory (Rottinghaus et al., 2005), which measures individuals' expectations of positive career outcomes. An example item is, "I get excited when I think about my career." The authors reported high internal reliability ($\alpha = .87$) and gave evidence for construct validity by finding positive correlations with general optimism, positive affect, and problem-solving ability, and negative correlations with negative affect. Alpha was .83.

Procedure

The study was approved by the authors' university ethics committee and the ethics committees of the participating universities in Indonesia. Students also gave their informed consent before completing the questionnaire. They were contacted via course convenors who provided a link to an online questionnaire or a paper-based questionnaire for those who preferred this. Participants could enter a prize draw to win one of 100 IDR50.000 (~AUS\$5) vouchers. The study was managed by the first author and a research team in Indonesia.

Results

Exploratory Factor Analysis (Sample A)

First, we assessed the 32 positive discrepancy items for skewness and kurtosis and examined the inter-item correlations (identifying those $r \leq .30$ and $r \geq .80$ for possible deletion) but did not delete any based on this. Next, we conducted a series of EFAs (principal axis factoring) to assess the underlying scale structure (Hinkin, 1998). As we expected all factors to be correlated, we selected an oblique rotation (direct oblimin; Fabrigar & Wegener, 2012). The Kaiser-Meyer-Olkin measure of sampling adequacy (.93) and Bartlett's Test of sphericity ($p < .001$) indicated that the 32 items were suitable for an EFA.

Table 1

Items and Factors Loadings for Positive Career Goal Discrepancy Scale (N = 244).

Items	F1	F2	F3
Ability and achievement discrepancy ($\alpha = .90$)			
1. What I have achieved to date in my career has exceeded my parent's expectations.	.84	.01	-.11
2. My parents are impressed by the high level of my career-related abilities.	.77	.02	-.04
3. My career-related skills and abilities have developed better than my parents expected.	.73	.00	.04
4. Compared to my peers, I have more of what it takes to reach the career I want.	.73	.09	.05
5. My achievements exceed those needed for my future career.	.72	.02	.14
6. I have more skills than needed to achieve my future career goals.	.67	.05	.06
Standard discrepancy ($\alpha = .83$)			
7. I have higher career goals for myself than my parents have for me.	.03	.80	-.17
8. I have set my sights on a career that goes beyond my parents' expectations.	.14	.68	-.08
9. I have set my career goals higher as I now think I can do better than I thought previously.	.05	.62	.13
10. I am confident that I can achieve a higher career goal than I thought possible before.	-.09	.60	.26
11. I am sure that I will surpass the goals I set for my chosen career.	.03	.58	.18
Effort discrepancy ($\alpha = .76$)			
12. I am putting in more effort than needed to achieve my future career goals.	.08	.08	.70
13. Because of my efforts toward my career, I am now making better progress than I did previously.	.08	-.01	.68
14. I am putting in more effort to achieve my career goals than I did in the past.	-.06	.10	.61
15. I am working harder at achieving my career than my friends.	.34	-.05	.46
Eigenvalues	6.33	1.72	1.43
% of Variance explained	42.2%	11.5%	9.5%

Note: Total variance explained = 63.2%. Full-scale $\alpha = .90$. Main loadings are highlighted

in bold. The Bahasa Indonesia version of the scale is available from the first author.

Various criteria were used to determine the number of factors, including eigenvalues >1 , scree plot, Velicer's minimum average partial (MAP) test and parallel analysis (O'Connor, 2000), a minimum of three items per factor (Costello & Osborne, 2005), item coefficients $> .40$, and factorial meaningfulness (Hinkin, 1998). In the first EFA, we removed items that were cross-loading ($> .40$) or did not load substantially on any factor ($< .40$; Hinkin, 1998). We then re-ran the EFA and conducted a parallel analysis and Velicer's MAP test. The EFA result showed three factors with eigenvalues >1 , and the parallel and MAP tests also identified three factors. Thus, we retained the 3-factor solution (see *Table 1*)

Factor 1, labelled Achievement and Ability Discrepancy contained six items that assessed appraised positive discrepancies between current abilities and achievements and what was required (e.g., "My achievements exceed those needed for my future career"). Factor 2, with five items, assessed positive discrepancies between set career goals and expectations (e.g., "I am confident that I can achieve a higher career goal than I thought possible before"), and was labelled Standard Discrepancy. Factor 3, with four items, assessed the positive discrepancy between effort expended to date and effort required to achieve the goal (e.g., "I am putting in more effort than needed to achieve my future career goals"); labelled Effort Discrepancy. Total variance explained by the 15 items was 63.2% (F1 = 42.2%, eigenvalue 6.33; F2 = 11.5%, 1.72; F3 = 9.5%, 1.43), factor loadings ranged from .46 to .84, and internal reliabilities (Cronbach's α s) were .90 (full scale), .90 (F1), .83 (F2), and .76 (F3). There were positive correlations between Factors 1 and 2 ($r = .52, p < .001$), Factors 1 and 3 ($r = .51, p < .001$), and Factors 2 and 3 ($r = .47, p < .001$).

Table 2

Summary Statistics: Sample A (N = 244)

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1. Positive career goal discrepancy (Total)	66.79	9.59								
2. Positive achievement/ability discrepancy	23.62	5.17	.87***							
3. Positive standard discrepancy	23.82	3.83	.81***	.51***						
4. Positive effort discrepancy	19.34	2.61	.72***	.50***	.49***					
5. Negative career goal discrepancy (Total)	40.64	10.11	-.21**	-.16**	-.17**	-.17**				
6. Negative achievement discrepancy	9.74	3.02	-.24***	-.21**	-.19**	-.17*	.83***			
7. Negative effort discrepancy	10.29	2.91	-.21**	-.17*	-.19**	-.16*	.90***	.67***		
8. Negative standard discrepancy	10.14	3.32	-.20**	-.17**	-.15*	-.16*	.91***	.62***	.77***	
9. Negative ability discrepancy	10.47	2.35	-.04	-.01	-.03	-.08	.84***	.58***	.69***	.73***

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Divergent and Incremental Validity Check

We examined the correlations between the positive and negative career goal discrepancy scales (see Table 2) to assess divergent validity. All correlations were weak and negative or not significant (total score $r = -.21, p < .01$; subscale r s range $-.01$ to $-.24$), supporting divergent validity. We then used multiple regression to test for incremental validity of the positive discrepancy scale over the negative discrepancy scale when predicting career satisfaction and optimism. At Step 1, age, gender, SES, and GPA were not associated with satisfaction or optimism. At Step 2, negative career goal discrepancy had no relationship with satisfaction, $\beta = .07, t(201) = 1.15, p = .25, F_{Change}(1, 201) = .26, p = .61$, but accounted for an additional 31% of variance in optimism, $\beta = -.49, t(201) = -8.83, p < .00, F_{Change}(1, 201) = 90.52, p < .001$. At Step 3, positive career goal discrepancy accounted for an additional 25% of the variance in satisfaction, $\beta = .51, t(200) = 8.18, p < .001, F_{Change}(1, 200) = 66.96, p < .001$ (25% total variance explained), and an additional 11% in optimism, $\beta = .34, t(200) = 6.19, p < .00, F_{Change}(1, 200) = 38.29, p < .001$ (42% total variance explained). These results indicate that the Positive Career Goal Discrepancy Scale measures a distinct construct to the negative discrepancy scale (Hunsley & Meyer, 2003).

Confirmatory Factor Analysis (Sample B)

We used CFA to confirm the factor structure of the 15-item Positive Career Goal Discrepancy Scale on Sample B. As the EFA output indicated positive correlations among the factors, we followed Canivez's (2016) recommendations and assessed four possible models (a multi-factor model, a 1-factor model, a 2nd-order model, and a bifactor model). For Model A, the 3-factor model identified in the EFA, each item was assigned to its respective latent variable and correlations among the latent variables were estimated. Model B, the 1-factor model, assessed if all items could be represented by a unidimensional scale (assigning all items to a single latent variable). Model C, the 2nd-order model, assessed if the three factors

could be represented by a single, higher-level factor (the three latent variables also assigned to a single latent variable). Last, Model D, the bifactor model, assessed the proportion of common variance explained by a general factor after controlling for the sub-factors (all items assigned to their respective latent variables as well as to a general factor).

We applied CFA (AMOS V26) to assess the four models. The fit statistics used were those recommended by Byrne (2010): χ^2 ($p < .05$ expected), χ^2/df ratio ($< 3:1$ desired), Comparative Fit Index (CFI; $> .90$), Tucker-Lewis Index (TLI; $> .90$), Root Means Square Error Approximation (RMSEA; $< .08$), and Standardized Root Mean Square Residual (SRMR; $< .80$). Akaike’s Information Criterion (AIC) was used to compare models given these models were not nested, with a lower AIC indicating a better fit. The fit statistics for the four models are reported in Table 3.

Table 3

Fit Statistics for CFA Models (N = 254).

Models	χ^2	df	χ^2/df	TLI	CFI	RMSEA	90% CI	SRMR	AIC
Model A: 3-factor	201.88	85	2.38	.91	.92	.07	[.06, .09]	.06	271.88
Model B: 1-factor	300.71	88	3.42	.83	.86	.10	[.09, .12]	.06	364.72
Model C: 2 nd -order	201.88	85	2.38	.91	.92	.07	[.06, .09]	.06	271.88
Model D: Bifactor	164.37	74	2.22	.92	.94	.07	[.06, .08]	.05	256.37

Note: AIC = Akaike Information Criterion; CFI = Comparative Fit Index; CI = Confidence Intervals; df = Degrees of Freedom; RMSEA = Root Mean Square Error of Approximation; SRMR = Standardized Root Mean Square Residual; TLI = Tucker-Lewis Index.

While the bifactor model had the lowest AIC, all three multi-factor models (i.e., 3-factor, 2nd-order, and bifactor) generated acceptable fit statistics. To help interpret the bifactor model and to compute model-based statistics, we followed recommendations by Rodriguez et al. (2016) and used the Bifactor Indices Calculator (Dueber, 2017) to calculate relevant

bifactor reliability and other coefficients (ω , ω_H , relative ω , Explained Common Variance [ECV], Percent of Uncontaminated Variance [PUC], and Individual Explained Common Variance [IECV]). See Table 4. Model-based statistics indicate whether positive career goal discrepancy is better considered as a general factor (i.e., better to use at the total scale score level) or is more reliably interpreted at the group factor level (i.e., at the subscale score level).

Table 4

Confirmatory Factor Analysis Standardised Factor Loading, IECV, ECV and Model-Based Reliability Estimates According to a Bifactor Model (N = 254).

Items	IECV	Standardised Factor Loading			
		General	Factor 1	Factor 2	Factor 3
Ability and achievement discrepancy					
Item 1	.91	.64	.20		
Item 2	.34	.51	.71		
Item 3	.74	.63	.38		
Item 4	.98	.71	.10		
Item 5	.98	.71	.11		
Item 6	.82	.64	.30		
Standard discrepancy					
Item 7	.50	.51		.51	
Item 8	.36	.50		.68	
Item 9	.77	.60		.33	
Item 10	.68	.35		.25	
Item 11	.83	.40		.18	
Effort discrepancy					
Item 12	.30	.48			.73
Item 13	.70	.51			.33
Item 14	.73	.56			.34
Item 15	.99	.66			.03
ECV		.66	.24	.44	.38
ω		.91	.87	.76	.78
ω_H		.81	.16	.31	.23
Relative ω		.89	.18	.40	.30

Note: Boldface = items with relatively higher IECV (i.e., > .80)

The Omega (ω) reliability coefficients were .91 (general factor), .87 (achievement and ability discrepancy), .76 (standard discrepancy), and .78 (effort discrepancy), indicating high reliability for the general factor and good reliability for the specific factors. Omega H (ω_H), or the proportion of variance attributed to a factor, was .81 for the general factor and .16, .31, and .23, respectively, for the specific factors. When ω_H is high ($> .80$), a multidimensional construct is better considered at the total score than subscale level (Rodriguez et al., 2016b). Relative ω (proportion of reliable variance due to a factor) was .89 (general factor) and .18, .40 and .30 (respective subscales). The higher Relative ω for the general factor indicates that interpretation of the scale is more reliable at the general factor level (i.e., total score level).

The ECV was .66 (general factor) and .24, .44, and .38 for the subscales, indicating that the general factor explained a greater proportion of common variance than the specific factors; also indicating that the total score would provide a more meaningful measure of positive discrepancy than the subscale scores. For IECV, the contribution of each item to the general factor, six items were relatively high (i.e., $> .80$; 4 achievement/ability, 1 standard discrepancy, and 1 effort discrepancy item), suggesting that achievement/ability items mainly explained the variance in positive career goal discrepancy (Stucky & Edelen, 2015).

The PUC also can indicate whether the general or specific factor level is the most relevant to use and report (Rodriguez et al., 2016a), although when PUC values are $< .80$, general ECV values should be considered, with $ECV > .60$ and $\omega_H > .70$ as benchmarks (Reise et al., 2013). PUC in our model was .71, ECV was .66, and ω_H was .81, supporting interpretation at the general factor level. Thus, based on the pattern of these model-based statistics, we concluded that the scale is best applied at the general or total score level.

Table 5

Summary Statistics: Sample B (N = 254)

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. Full scale: Positive career goal discrepancy	66.46	9.04						
2. Career satisfaction	21.36	4.54	.61***					
3. Career optimism	49.56	7.34	.50***	.32***				
4. Negative career goal discrepancy	39.91	9.33	-.27***	-.23**	-.48***			
5. Age	18.66	.77	.03	-.01	.02	-.14*		
6. Gender (0 = male, 1 = female)	-	-	-.03	-.12	-.09	-.15*	-.07	
7. SES (1 = <i>much worse</i> , 5 = <i>much better than others</i>)	3.15	.80	.15*	.05	.17**	-.03	-.11	-.02

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Stage 3: Construct Validity (Sample B)

Construct validity was assessed by testing the correlations between the Positive Career Goal Discrepancy Scale (full scale) and the validity scales (i.e., career satisfaction, optimism, and negative career goal discrepancy; see Table 5). There were strong positive correlations between total positive discrepancy and career satisfaction and optimism, and a weak negative association between the positive and negative career goal discrepancy scores. Further, correlations with age, gender, and SES were negligible (r range $-.03$ to $.15$); thus, no marked differences in the way different demographic groups might respond to the scale. In all, these results identified no bias in the scale and provided additional support for validity.

Discussion

We aimed to develop a psychometrically sound scale to measure positive career goal-progress discrepancies to address an identified gap. The resulting 15-item self-report scale assesses three domains of positive career goal-progress discrepancy: positive achievement and ability discrepancy, standard discrepancy, and effort discrepancy, with model testing indicating the most meaningful interpretation is achieved at the total score level. The study advances theoretical understanding of how positive goal discrepancy is manifested in the career context, especially in emerging adults. It also contributes to the existing career goal discrepancy literature, which has focused primarily on negative discrepancies, and will enable researchers to test hypotheses regarding positive discrepancies.

Based on the career goal discrepancy literature (e.g., Anderson & Mounts, 2012; Creed & Hood, 2015), we operationalised positive career goal discrepancies as appraisals that career-related progress exceeds that required to meet the individual's career goal/s. Positive discrepancy differs from negative discrepancy in the theoretical models that best explain the constructs, and there are differences in affective and self-regulatory outcomes and the boundary conditions for the two constructs. Social cognitive (Bandura, 1991) and goal-setting

theories (Locke & Latham, 2006) provide more adequate explanations of the motivational and mastery discrepancy production nature of positive goal discrepancies, while control theory (Carver & Scheier, 1990) is more relevant to understanding the discrepancy reduction nature of negative discrepancies (Ilies & Judge, 2005). When career goals have been exceeded, social cognitive theory predicts that individuals will experience positive affect and will engage in upward goal revision and increase their mastery efforts. On the other hand, according to control theory, unmet career goals will lead to negative affect and downward goal revision in order to decrease the discrepancy (Ilies & Judge, 2005).

We provide empirical evidence that positive and negative goal discrepancies are largely independent constructs and not simply poles on a single continuum. There was negligible shared variance between scores on the new positive career goal discrepancy scale and Creed and Hood's (2015) negative career goal discrepancy scale. Furthermore, the new positive career goal discrepancy scale provided additional predictive power in explaining variance in career optimism and satisfaction to that of negative career goal discrepancy.

We identified three underlying domains in positive career goal discrepancy, rather than the four previously identified for the negative discrepancy construct (Creed & Hood, 2015). We did not find evidence for separate achievement and ability discrepancy domains, but found these items loaded on a single underlying ability/achievement discrepancy domain. Potentially, when young adults appraise their progress, they make more global appraisals when making good progress and associated affect is positive but discriminate more among causal factors when all is not well. The explanation is that positive affect broadens attention by encouraging openness to possibilities other than the current goal, while negative affect narrows attention to focus more on specific threats or problems to be solved (Carver, 2003). Scholars need to continue researching and developing theory around the career goal discrepancy construct to ensure all underlying domains are identified.

The bifactor model test indicated the scale was best interpreted at the general factor or total score level. There was excellent internal reliability for this ($\omega = .91$), and initial construct validity was supported by finding expected positive correlations with career optimism and satisfaction, which were drawn from the nomological net of the positive goal discrepancy construct. Additionally, we found trivial associations between the total score and age, gender, and SES, suggesting little distortion when completed by these different groupings. As most of our sample reported SES as about average, we were unable to test measurement invariance across different SES groups. Future research should examine this.

The Positive Career Goal Discrepancy Scale can be used to examine the role of positive goal discrepancies when considering the career progress of emerging adults. Goal discrepancies trigger affective responses and self-regulatory processes aimed at adjusting career-related goals and/or behaviours (Bandura, 1991; Carver & Scheier, 2000). To date, the lack of a psychometrically sound measure of positive discrepancy restricted empirical research to theoretical predictions related to negative career goal discrepancies. This new measure will enable career researchers to test theoretical propositions regarding positive discrepancies. For example, do individuals who experience a positive career goal discrepancy experience positive affect, such as elation, and then upwardly revise their goals by setting more challenging ones (*vis-à-vis* discrepancy production; Bandura, 1991)? Do they withdraw effort (*vis-à-vis* coasting; Carver, 2003). What boundary conditions affect these responses?

This new scale also could be adapted for use in other research areas where positive goal-performance discrepancies are of interest, such as in academic achievement and sports performance. Goal-performance discrepancy research in these contexts has been restricted to experimental manipulation and measurement of discrepancies via differences in self- and other-set performance goals (e.g., ideal test scores or running times; Donovan & Hafsteinsson, 2006; Ilies & Judge, 2005; Scherbaum & Vancouver, 2010; Tolli & Schmidt,

2008). An adapted scale would enable researchers to investigate how individuals in these contexts respond and change their behaviour and/or goals in response to appraised positive discrepancies using non-experimental and, thus, potentially more realistic research methods.

This newly devised scale will also be useful for academic advisors and counsellors who assist emerging adults to maximise progress towards their career goals. Practitioners can help clients identify how well they are progressing as an incentive to re-evaluate their career goals and consider more challenging ones to help them maintain motivation and effort. Equally, it might be useful to show those who are feeling overwhelmed by the effort they are directing towards their goals that they are doing more than enough, and they can “coast”.

Limitations

This scale was developed and validated in a sample of university-based young adults from one country. Contextual factors might have affected the construct definition as well as the results. Parents were the comparators on the highest loading items on the achievement/ability and standard discrepancy factor. Parental expectations are important considerations in career development in collectivist cultures such as Indonesia (Sawitri, 2013; Sawitri et al., 2020). On the other hand, in individualist cultures there is more emphasis on personal accomplishment and self-fulfilment (Oyserman et al., 2002), so the self as comparator might be more relevant. Thus, the applicability of this scale needs to be tested in other populations, including those with different cultural backgrounds (e.g., individualist) and with different educational and SES levels (e.g., less well-educated emerging adults, lower SES groups).

Our sample comprised more young women than men, the majority were enrolled in social science courses, and were of higher socio-economic status than emerging adults in general. While we found no strong association between positive career goal discrepancy and these demographic characteristics, future studies with larger samples need to assess invariance across SES and other groupings. While we provided initial evidence of construct

validity via expected associations with other related constructs (i.e., career satisfaction and optimism) and of divergent and incremental validity compared to negative career goal discrepancy, future research needs to extend the evidence for validity; for example, by demonstrating that positive discrepancies do not simply reflect trait-based responses. Last, we were not able to assess predictive validity, which is important for all assessment tools, and future studies need to evaluate this. For example, positive career goal discrepancy should predict subsequent self-regulatory responses such as upward goal revision and/or coasting.

Conclusion

This study contributed by developing and validating the Positive Career Goal Discrepancy Scale, a measure to assess positive career goal discrepancies in emerging adults. This scale assesses discrepancies in achievement and ability, standards, and effort relative to both internal and external comparators. It shows promising psychometric properties and will be a useful addition to the career literature, potentially stimulating research into how young people who are progressing well with their career goals can maintain and increase their motivation and optimise their career development. It also will be useful to career practitioners when they come to assist young people with achieving their career promise.

Chapter 4: Antecedents and Outcomes of Positive Career Goal Discrepancies

With a valid and reliable measure of positive career goal discrepancy in young adults developed in Study 1, the objective of Study 2 was to use this to examine both antecedents (personal and situational) and self-regulatory outcomes (cognitive and affective) of positive career goal discrepancies, and to assess the indirect relationships between the antecedents and outcomes via positive career goal discrepancy, using a cross-sectional design. Informed by self-regulatory theories, the overall research question for Study 2 was whether personal and situational antecedents are associated with cognitive and affective outcomes via positive career goal discrepancies. Specifically, this study tested whether career calling and career congruence with parents are related to career optimism and carer satisfaction via each domain of positive career goal discrepancy (achievement/ability discrepancy, goal standard discrepancy and effort discrepancy). The Positive Career Goal Discrepancy Scale could be interpreted at the total or the subscale level; therefore, to gain a deeper understanding of the specific relationships, each domain of positive career goal discrepancy was included in this model. This study contributes to the career goal discrepancies literature, which had focused previously on negative goal discrepancies almost exclusively. It also builds evidence for the validity of the positive career goal discrepancy measure and evidence for the construct and its role in self-regulatory theory.

Study 2 is presented in the form of a manuscript that has been submitted to an international, peer-reviewed career journal. The study also was presented as an oral presentation at the *School of Applied Psychology Research Conference 2021, Griffith University, Nathan Campus*, October 19, 2021. The study is reported in its final submitted version with table and figure numbering modifications and references integrated into the reference list.

**Statement from Authors Confirming Authorship Contribution
of PhD Candidate to Journal Article 2**

This chapter includes a co-authored paper. The bibliographic details are:

Akmal, S. Z., Hood, M., Duffy, A. & Creed, P. A. (2021). Antecedents and outcomes of positive career goal discrepancies in young adults. Under review.

As co-authors of this submitted paper, we confirm that Sari Zakiah Akmal has made the following contributions:

- a. Conducting the literature review with direction and feedback from co-authors.
- b. Collecting and entering the data into the statistical software package.
- c. Analysing and interpreting the data under the direction of co-authors.
- d. Writing the paper and acting as the corresponding author with direction and feedback from co-authors.

We agree to the inclusion of the paper in this PhD thesis, which is submitted for examination.

[Redacted Signature]

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Antecedents and Outcomes of Positive Career Goal Discrepancies in Young Adults

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Abstract

Little is known about positive career goal discrepancies (i.e., goal progress is better than expected). We examined person (calling) and situational (parent congruence) antecedents and affective (satisfaction) and cognitive (optimism) outcomes of three positive career goal discrepancy domains; and the indirect relationships between the antecedents and outcomes via these discrepancies ($N = 295$; $M_{Age} = 18.58$, $SD = 0.70$). The result showed different patterns for the different subdomains of discrepancies. Further, achievement/ability and effort discrepancy subdomains fully explain the relationships of calling and parent congruence with satisfaction. These findings advance our understanding of positive goal discrepancies and inform interventions on optimising career goal progress.

Keywords: positive career goal discrepancy; career calling; parent-child career congruence; career optimism; career satisfaction.

Antecedents and Outcomes of Positive Career Goal Discrepancies in Young Adults

Self-regulatory theories (e.g., control, goal setting, and social cognitive) highlight the importance of goal discrepancies – the gap between individual performance and a set standard or goal, which becomes apparent via self-appraisal processes (Lord et al., 2010) – for understanding human motivation (Bandura, 2001; Phillips et al., 1996). Goal appraisals indicate that there is either a positive (progress exceeds goal requirements) or a negative discrepancy (progress falls short; Lord et al., 2010). The direction or valence of the discrepancy (i.e., positive or negative), goal velocity (i.e., how fast goal progress is being made), and goal distance (i.e., the strength of the discrepancy) trigger different affective, cognitive and behavioural self-regulatory outcomes (Lord et al., 2010).

Given the unpleasant and noticeable consequences of negative goal discrepancies (Carver, 2003), most research to date had focused on examining their antecedents and outcomes, both in general and in the specific career context. In the broader literature, Nicklin and Williams (2011) showed that more negative feedback created greater negative discrepancies that then stimulated goal revision and goal disengagement in university students. In the career context, Anderson and Mounts' (2012) experimental research showed that people who received negative feedback from experts experienced more anxiety (negative affect). Field research has shown that negative feedback from significant others was associated with greater negative discrepancies, which, in turn, triggered career distress (Creed et al., 2015; Hu et al., 2018a).

However, it is important also to understand how individuals regulate themselves when making better progress than required towards goals (Bandura, 1991). Limited research has investigated the antecedents and outcomes of positive goal discrepancies. When progress exceeds expectations, self-regulatory failure can hinder individual development, which might

then stagnate, whereas effective self-regulation can motivate the individual to set higher goals and more efficiently manage effort to maximise their potential (Bandura, 1991).

Positive and negative goal discrepancies are not merely opposites. Rather, Ilies and Judge (2005) and Williams et al. (2000) argued there are important theoretical distinctions between positive and negative goal discrepancies. Social cognitive and goal-setting theories, which emphasise the importance of discrepancy production in human motivation, are particularly relevant to understanding positive goal discrepancies (Ilies & Judge, 2005). According to social cognitive theory, individuals respond to positive discrepancies by setting their goals higher after accomplishing previous goals, thereby creating a gap between where they currently are and want to be motivates goal pursuit behaviour (Bandura & Locke, 2003; Ilies & Judge, 2005). In contrast, control theory focuses on discrepancy reduction to maintain equilibrium (Carver & Scheier, 1990), which Ilies and Judge (2005) argued is more appropriate to explaining negative discrepancies. According to control theory, when goals are surpassed, individuals would be more likely to decrease effort because they have overshoot what is required to achieve equilibrium between goals and performance (Bandura & Locke, 2003; Carver & Scheier, 1990; Ilies & Judge, 2005).

This is not the only way in which positive discrepancy differs from negative. There are also different boundary conditions for the positive versus negative discrepancy-outcomes relationships. Goal difficulty moderates the positive discrepancy-future goals relationship, whereas self-efficacy and causal attributions moderate the negative discrepancy-future goals relationship (Ilies & Judge, 2005; Williams et al., 2000). When individuals achieve a specific goal, they might not set a higher subsequent goal if they perceive that was a difficult goal but rather shift attention and effort toward a different task; whereas if the goal is perceived to be easy, they might increase their goal to a more challenging one and exert further effort (Ilies & Judge, 2005). When a negative discrepancy occurs (i.e., they fail to achieve their goal), self-

efficacy for achieving the goal and attributions about factors that contributed to the negative discrepancy moderate future self-regulatory responses (Ilies & Judge, 2005; Williams et al., 2000).

Akmal et al. (2021) found a negligible relationship between positive and negative career goal discrepancies, further adding to evidence that these are largely independent constructs. Positive career goal discrepancy also differs to other positive career development constructs, such as optimism or career aspirations. Positive career goal discrepancy reflects the result of an appraisal of where one's progress is currently compared to where it needs to be based on their goal standard (Akmal et al., 2021). In contrast, career optimism and aspirations focus on the endpoint or goal standard. Career optimism refers to positive expectations for career outcomes (Rottinghaus et al., 2005), while career aspirations refers to the ideal future goals (Hirschi, 2010).

Given this, various authors have recommended expanding career goal discrepancy research to consider positive discrepancy as that can inform how practitioners approach optimising young people's career development (Anderson & Mounts, 2012; Creed et al., 2017; Hu et al., 2018a). This study contributes to that. Informed by self-regulatory theories, we tested a model which examined personal (career calling) and situational (career congruence with parent) antecedents of, and important affective (career satisfaction) and cognitive (career optimism) responses to, positive career goal discrepancy. We also assessed the indirect paths between antecedents and outcomes via positive career goal discrepancy. See Figure 1. We used Akmal et al.'s (2021) positive career goal discrepancy scale, which was informed by social cognitive (Bandura, 1991) and control (Carver & Scheier, 1990) theories. It accounts for both internal (previous performance and personal goals) and external (expectations from peers and significant others) reference or comparator factors that are used to appraise career progress. The scale assesses positive discrepancy across three domains;

Career calling reflects a self-set, prominent, higher order career goal that provides meaning and purpose for the individual (Dik & Duffy, 2009; Praskova et al., 2015a). Career calling inspires a strong feeling of personal meaning in life, stimulates enjoyment and self-fulfilment, and promotes inner direction and action in pursuit of goals (Praskova et al., 2015b). Therefore, it serves as a self-imposed standard against which individuals can measure their success. Praskova et al. (2014, 2015b) showed that people with a higher calling are more aware of whether their progress meets or fails to meet their potential, and, as a result, are more engage on self-regulatory processes that ensure they are progressing toward their calling. Thus, stronger calling stimulates harder work to ensure achievement of the personal goals (Creed et al., 2020; Lord et al., 2010), reflected in greater engagement in career-related behaviours, more effort expenditure, and higher motivation (Domene, 2012; Duffy & Dik, 2013; Praskova et al., 2014). Consistent with this, stronger calling has been associated with higher performance in employees (Lobene & Meade, 2013), likely to result in a positive goal performance discrepancy. Others found that those with stronger calling were more likely to ignore or downplay negative feedback (Dobrow & Tosti-Kharas, 2012; Hallier & Summers, 2011) and that also means that stronger calling should be related to more positive perceptions of progress. Based on this, we expected that stronger career calling would predict higher positive achievement/ability, goal standard, and effort career goal discrepancies (*Hypotheses 1a, 1b, and 1c*).

We examined career congruence with parents as a situational antecedent to positive career goal discrepancy. Parent career congruence reflects the extent to which the young person's career aspirations and actions match (i.e., are congruent with) their parents' preferences and expectations (Sawitri et al., 2012). Young people are likely to use it as a comparator against which to appraise their career progress. Both cross-sectional and longitudinal studies have shown that parent career congruence motivates young people to

have higher career aspirations and engage more in career-related behaviours (e.g., career exploration; Sawitri et al., 2014, 2015). Sawitri et al. (2020) showed that higher congruence was associated with lower perceived negative career goal discrepancy, but no studies have examined positive career goal discrepancy to date. We expected that higher parent career congruence would be associated with perceptions of more positive achievement/ability, goal standard, and effort career goal discrepancies (*Hypotheses 2a, 2b, and 2c*).

Outcomes of Positive Career Goal Discrepancies

Career goal discrepancy research has focused primarily on negative affective responses, such as career distress and anxiety about the future, to negative career goal discrepancies (Creed et al., 2017; Creed & Hood, 2015; Hu et al., 2017; 2018a). While self-regulatory theories proposed that positive goal discrepancy would lead to positive affective and cognitive reactions (Bandura, 1991; Carver & Scheier, 1990; Ilies et al., 2010), there is little empirical evidence. We assessed career-related satisfaction and optimism as positive affective and cognitive outcomes, respectively, of positive career goal discrepancy.

A primary self-reactive function triggered by performance-goal appraisal is satisfaction or dissatisfaction, with successful progress triggering satisfaction (Bandura, 1991; Locke & Latham, 2006; Vohs et al., 2008). Career satisfaction refers to the evaluation that the individual is meeting their career-related goals and experiencing self-defined career success (Greenhaus et al., 1990). Whereas research has demonstrated affective responses to negative career goal discrepancy, both cross-sectionally and longitudinally (Creed et al., 2017; Creed & Hood, 2015; Hu et al., 2017; 2018b), evidence for affective responses to positive discrepancy is lacking. However, based on theory and results with negative discrepancy, we expected that higher achievement/ability, goal standard, and effort discrepancies would be related to higher career satisfaction (*Hypotheses 3a, 3b, and 3c*).

According to control theory, individuals also tend to be optimistic about their future when they perceive they are making good progress towards their goals (Carver & Scheier, 1998). Career optimism reflects a cognitive mindset in which the tendency is to anticipate favourable future career outcomes (Eva et al., 2020; Rottinghaus et al., 2005). In a systematic review of 31 empirical studies on career optimism, Eva et al. highlighted that few studies had addressed the association between career goals and career optimism, and none had evaluated whether achieving career goals promoted career optimism. Therefore, we addressed this. We expected that positive achievement/ability, goal standard, and effort discrepancies would be related to higher career optimism (*Hypotheses 4a, 4b, and 4c*).

Indirect Effects via Positive Career Goal Discrepancies

While we have argued that career calling and parent congruence should predict positive discrepancies, and that positive discrepancies should predict career satisfaction and optimism, there is evidence also that these antecedents are related directly to the outcomes. Therefore, we also examined the indirect paths to determine whether positive discrepancy provides a plausible explanatory mechanism for the paths from calling and congruence to satisfaction and optimism.

In a review of approximately 40 studies, Duffy and Dik (2013) found moderate to strong associations between career calling and both general and career-specific satisfaction and career optimism. However, there has been limited research into the underlying mechanism that might explain these associations, despite several calls to examine this (Dobrow & Tosti-Kharas, 2012; Domene, 2012; Riza & Heller, 2015). For example, Domene (2012) found that perceived confidence in one's abilities explained the calling-optimism relationship, but we are not aware of any research into the underlying role of goal progress discrepancy. We expected career calling to be related positively to career satisfaction (*Hypothesis 5*), and this direct association to be explained by the indirect relationships via

positive achievement/ability, goal standard, and effort discrepancies (*Hypotheses 6a, 6b, and 6c*). We also expected career calling to be related positively to career optimism (*Hypothesis 7*), and this to be explained by paths via positive achievement/ability, goal standard, and effort discrepancies (*Hypotheses 8a, 8b, and 8c*).

Research has also shown that parent career congruence is associated with satisfaction (Griffin & Hu, 2019; Oishi & Sullivan, 2005; Sawitri et al., 2012) and optimism (Puklek Levpušček et al., 2018). Young adults who perceive higher parent career congruence have greater environmental support to persist, expend effort, and achieve (Sawitri et al., 2012), show higher motivation (Puklek Levpušček et al., 2018), and have higher career-related ability beliefs (Chatterjee et al., 2015; Garcia et al., 2015), all of which are likely to manifest in positive discrepancy and subsequently greater optimism about their future. While there has been some work on indirect effects from parent career congruence to career satisfaction (e.g., via enhanced goal autonomy; Katz et al., 2018), indirect paths via positive goal discrepancy have not been examined. We expected that career congruence would be related positively to career satisfaction, both directly (*Hypothesis 9*) and indirectly via positive achievement/ability, goal standard, and effort discrepancies (*Hypotheses 10a, 10b, and 10c*). Similarly, we expected that congruence would be related positively to career optimism directly (*Hypothesis 11*) and indirectly via positive achievement/ability, goal standard, and effort discrepancies (*Hypotheses 12a, 12b, and 12c*).

Method

Participants

A sample of 343 first-year students was recruited from seven public universities in Java and Sumatra, Indonesia. Of these, 48 participants were excluded as they failed attention check questions, had not completed the full questionnaire, or had patterned responses (e.g., responding with all “1s”). This left 295 participants (75% female), whose age ranged between

17 and 22 years old ($M_{age} = 18.58$ years; $SD = 0.70$). Participants were enrolled in various study programs, including social science, engineering, psychology, and health sciences. Their average GPA was 3.40 ($SD = 0.28$, range 1 to 4; higher GPA = better achievement).

Participants rated their perceived economic status compared to their cohort (“*When you compare yourself to others at university, how would you describe your current financial position?*”), with 7.8% reporting they were *Much better than others*, 27.5% as *A little better*, 45.4% as *About the same*, 18.3% as *A little worse*, and 1.0% as *Much worse*.

Measures

We followed Beaton et al.'s (2000) translation-back-translation procedure to convert all items to Bahasa Indonesia, the primary language of participants. The first author, fluent in Bahasa and English, translated the items from English into Bahasa. An independent bilingual translator, who had not viewed the original English items, back translated them into English. Last, the back-translated and the original items were compared by all authors to check accuracy and cultural sensitivity, with items adjusted if necessary. All variables were measured with a 6-point Likert-type scale, where 1 = *strongly disagree* to 6 = *strongly agree*. This required the modification of the career satisfaction (Greenhaus et al., 1990) and career optimism (Rottinghaus et al., 2005) scales, which originally used a 5-point response format. Previous research has shown that Asian respondents prefer the middle point in Likert-style response formats so the use of an even number of response options minimises this central tendency bias (Lee et al., 2002).

Positive career goal discrepancy. The Positive Career Goal Discrepancy Scale (Akmal et al., 2021) assesses participants' positive evaluation of their current career progress as exceeding career goal requirements. It has three subscales of ability/achievement (e.g., “I have more skills than needed to achieve my future career goals”), goal standard (“I have higher career goals for myself than my parents have for me”), and effort discrepancy (“I am

working harder at achieving my career than my friends”). The scale showed good reliability (Cronbach's alphas of .90 for total score and .90, .83, and .76 for respective subscales) and evidence for construct validity via negligible correlation with negative career goal discrepancies and positive correlations with career optimism and satisfaction (Akmal et al., 2021). Alphas with the current sample were .85 for the total score and .83, .75, and .71 for the respective subscales.

Career calling. The 15-item Career Calling Scale (Praskova et al., 2015b) assesses personal meaning (e.g., “I feel a sense of satisfaction because I have chosen a career path that I see as personally meaningful”), other-oriented meaning (e.g., “It is my calling to benefit others in my future chosen career”), and active engagement (e.g., “All I want to do now is to pursue the career that is inspiring me”). There is good reliability ($\alpha = .88$), and construct validity was supported by being related positively with general well-being and negatively with career indecision (Praskova et al., 2015b). The current alpha was .86.

Parent career congruence. The 12-item Adolescent-Parent Career Congruence Scale (Sawitri et al., 2012) measures perceived career goal compatibility and similarity between adolescents and their parents. A sample item is “My parents and I have similar career interests”. Cronbach’s alpha was .87 and construct validity was supported by being associated positively with life satisfaction, living-up-to parental expectations, and parental support (Sawitri et al., 2012). Although this scale was initially developed for adolescents, it has been used previously with Indonesia undergraduate students, with evidence for its reliability ($\alpha = .86$, Sawitri & Creed, 2021; $\alpha = .87$, Sawitri & Dewi, 2015) and construct validity (positively related to proactivity, self-efficacy, outcome expectations, Sawitri & Creed, 2021; and academic fit and career exploration, Sawitri & Dewi, 2015). Our current alpha was .90.

Career satisfaction. The 5-item Career Satisfaction Scale (Greenhaus et al., 1990) indicates the extent to which individuals are satisfied with their career progress (e.g., “I am

satisfied with the success I have achieved in my career”). Alpha for this scale was .74, and construct validity demonstrated by positive correlation with task performance (Zacher, 2015). Current alpha was .91.

Career optimism. The 11-item Career Optimism Scale (Rottinghaus et al., 2005) assesses the individual’s optimistic beliefs about their career (e.g., “I am certain that I can make the right decision for my career”). Alpha was .87, and construct validity was supported by expected associations with life orientation, conscientiousness, openness to experience, and neuroticism (Rottinghaus et al., 2005). Our alpha was .78.

Procedure

Ethical approval was obtained from the authors’ and the participating universities. Students were contacted by course convenors and provided with either a paper-based questionnaire or link to an online questionnaire. Participants could enter a prize draw for one of 100 IDR 50.000 (~ AUS \$5) vouchers.

Data Analysis

Latent variable analysis (using AMOS v.27) was used to test the hypotheses. To meet the 1:10 observed variable to case ratio recommendations (Bentler & Chou, 1987), we parcelled all scale items by first subjecting each scale to an exploratory factor analysis and then allocating items to parcels (two or three parcels depending on scale length; Kline, 2015) using an item-to-construct balancing technique (Little et al., 2002). This ensures a mix of high and low loading items are allocated across parcels and yields more consistent parameter estimates and more balanced construct measures (Little et al., 2002).

We first verified that the resultant parcels represented the latent variable by testing a measurement model. Second, we assessed a direct effects model of the antecedents on the outcomes. Last, we evaluated both direct and indirect effects of antecedents on outcomes via positive career goal discrepancy. With a sample > 250 and between 12 and 30 observed

variables, a good model fit is indicated by χ^2 ($p < .001$), χ^2/df ratio (< 3.0), Comparative Fit Index (CFI; $> .92$), and Root Mean Square Error of Approximation (RMSEA; $< .07$; Hair et al., 2014). We followed Shrout and Bolger's (2002) recommended use of bootstrapping (5000 samples) to test the indirect effects models. Bootstrapping generates 95% confidence intervals (CIs), which are used to test the significance of the indirect relationships (an indirect effect is present when the CIs do not contain zero).

Results

Measurement Model

A measurement model was tested to verify that the latent variables could be represented by their parcels and were independent of one another. This model fitted well, $\chi^2(83) = 141.20$, $\chi^2/df = 1.70$, CFI = .98, RMSEA = .05. All standardised factor loadings were significant ($p < .001$) and correlations among the latent variables mirrored the bivariate correlations among the scale totals. See Table 1 for summary data and correlations. Academic achievement (GPA) and SES were related to parent career congruence (GPA $r_s = .15$, $p = .008$; SES $r_s = .15$, $p = .01$) and achievement/ability discrepancy (GPA; $r_s = .21$, $p < .001$; SES $r_s = .22$, $p < .001$) so were included as covariates in subsequent analyses.

Structural Model

Next, we tested the structural model reported in Figure 2; $\chi^2(118) = 299.50$, $\chi^2/df = 2.54$, CFI = .93, RMSEA = .07. There were significant paths from career calling to all positive career discrepancy domains (achievement/ability $\beta = .35$, $p < .001$; standard $\beta = .62$, $p < .001$, and effort $\beta = .42$, $p < .001$), supporting H1a, H1b and H1c, respectively. There were significant paths from career congruence to achievement/ability ($\beta = .41$, $p < .001$) and effort discrepancies ($\beta = .29$, $p < .001$), but not to standard discrepancy ($\beta = .06$, $p = .30$), supporting H2a and H2c, but not H2b. Achievement/ability ($\beta = .37$, $p < .001$) and effort ($\beta = .27$, $p = .02$), but not standard discrepancy ($\beta = .12$, $p = .052$), were significantly associated

Table 6

Summary Data and Correlations among Bivariate Correlations (below Diagonal) and Latent Variables (above Diagonal); N = 295.

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1. Career calling	69.32	6.12	-	.32***	.41***	.57***	.46***	.40***	.68***	-	-	-
2. Career congruence	52.03	10.19	.26***	-	.50***	.21**	.40***	.32***	.33***	-	-	-
3. Achievement/ability discrepancy	22.44	4.40	.30***	.45***	-	.46***	.71***	.61***	.38***	-	-	-
4. Standard discrepancy	24.21	3.30	.45***	.20***	.37***	-	.54***	.40***	.41***	-	-	-
5. Effort discrepancy	19.01	2.46	.34***	.32***	.47***	.40***	-	.60***	.31***	-	-	-
6. Career satisfaction	20.23	4.70	.39***	.34***	.49***	.35***	.43***	-	.22***	-	-	-
7. Career optimism	49.53	6.48	.32***	.33***	.33***	.36***	.25***	.20***	-	-	-	-
8. Gender (0 = male, 1 = female)	-	-	.14*	.08	.09	.09	.19**	.16**	.03	-	-	-
9. Age	18.58	0.70	-.03	-.10	.07	-.01	.07	-.01	.04	.04	-	-
10. GPA	3.40	0.28	.06	.15**	.21***	.04	.11	.05	.08	.10	-.03	-
11. SES	3.23	0.87	.02	.15**	.22***	.05	.05	.19**	.10	-.09	-.02	-.01

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

with career satisfaction, supporting H3a and H3c, but not H3b. Achievement/ability ($\beta = .25$, $p = .02$) and standard ($\beta = .37$, $p < .001$), but not effort discrepancy ($\beta = .02$, $p = .90$), had significant paths to career optimism; H4a and H4b, but not H4c, supported.

Direct and Indirect Effects Analysis

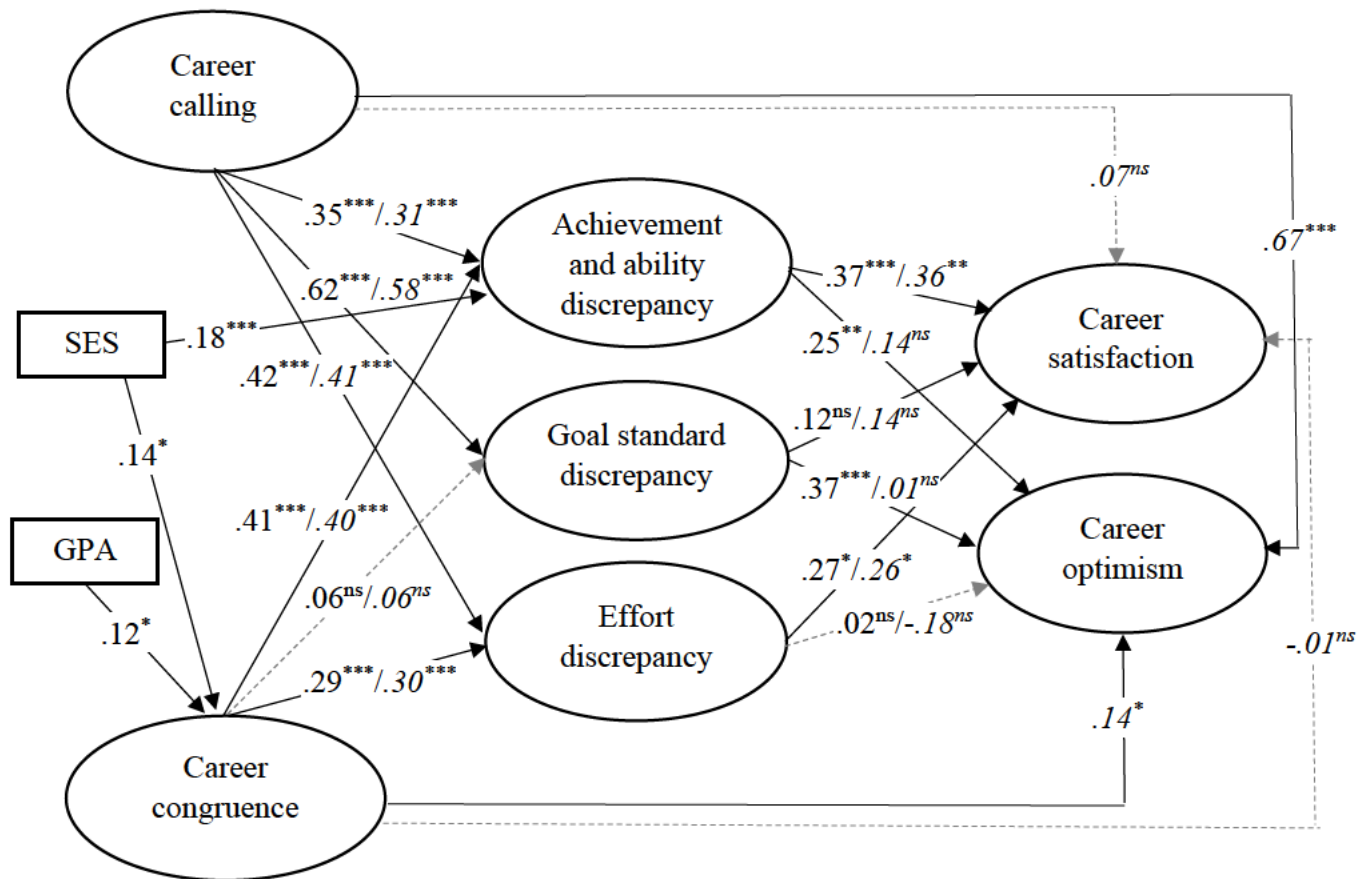
To test for indirect effects, we first tested a direct effects model of the relationships between the antecedents and outcomes, and then tested a direct and indirect effects model (the direct effects model with indirect paths included). Last, the CIs were examined to identify any significant indirect paths. In the direct effects model, $\chi^2(120) = 283.07$, $\chi^2/df = 2.36$, CFI = .94, RMSEA = .07, there were significant paths from career calling to all positive discrepancy domains (achievement/ability, $\beta = .33$, $p < .001$; standard, $\beta = .59$, $p < .001$; and effort, $\beta = .42$, $p < .001$). Career calling also was significantly associated with career satisfaction ($\beta = .36$, $p < .001$; H5) and career optimism ($\beta = .64$, $p < .001$; H7). Career congruence was significantly related to achievement/ability ($\beta = .41$, $p < .001$) and effort ($\beta = .30$, $p < .001$), but not standard discrepancy ($\beta = .06$, $p = .30$). Career congruence also was significantly related to career satisfaction ($\beta = .24$, $p < .001$; H9) and career optimism ($\beta = .15$, $p = .003$; H11).

There was good fit for the direct and indirect effects model; $\chi^2(114) = 223.42$, $\chi^2/df = 1.96$, CFI = .96, RMSEA = .06. The CIs for the indirect paths from both career calling (CI₉₅ = .14 to .44) and career congruence (CI₉₅ = .14 to .34) to career satisfaction were significant. However, the indirect paths from both career calling (CI₉₅ = -.15 to .08) and career congruence (CI₉₅ = -.08 to .09) to career optimism were not significant (H8 and H12 were not supported). With the indirect paths included, the direct paths to career satisfaction from career calling ($\beta = .07$, $p = .38$) and career congruence ($\beta = -.01$, $p = .93$) were not significant, indicating that these relationships were fully explained by positive career goal discrepancy. The standardised indirect effect on career satisfaction of career calling was 27% (total = .35,

direct = .07) and of career congruence was 23% (total = .22, direct = -.01). These direct and indirect effect paths were added to Figure 4.

Figure 4

Final Model of Antecedents and Consequences of Positive Career Goal Discrepancy



Note: Dashed pathways were not significant; standardised beta weights reported (italicised statistics are standardised beta weights when direct and indirect paths are included). The significant mediation pathways were (a) career calling and career congruence → achievement and ability discrepancy → career satisfaction, (b) career calling and career congruence → effort discrepancy → career satisfaction. * $p < .05$, ** $p < .01$, *** $p < .001$.

Career calling was significantly related to career satisfaction via indirect paths through positive achievement/ability ($CI_{95} = .02$ to $.24$; H6a) and effort discrepancies ($CI_{95} = .003$ to $.28$; H6c). Career congruence was also significantly related to career satisfaction via positive achievement/ability ($CI_{95} = .02$ to $.23$; H10a) and effort discrepancies ($CI_{95} = .01$ to

.18; H10c). There were no significant indirect paths via positive standard discrepancy (H6b and H10b not supported).

Discussion

This study extended the limited research on positive career goal discrepancy by examining personal and situational antecedents and affective and cognitive outcomes. We found that career calling, and parent career congruence significantly predicted positive career goal discrepancy, which, in turn, was related to career satisfaction and career optimism. Furthermore, positive career goal discrepancy fully explained the relationships of both antecedents to career satisfaction, but not to career optimism.

Antecedents of Positive Career Goal Discrepancies

Career calling was related, as expected, to all domains of positive career goal discrepancy. Thus, young people with a stronger calling tended to perceive their current achievement/abilities, goal standards, and efforts as exceeding their existing career goals, parents' expectations, and peers' achievements or progress. Individuals with stronger career calling have an inner drive toward self-fulfilment, purpose in life, and higher personal goals, which could be manifested in future-oriented actions (Praskova et al., 2014, 2015a). Therefore, they would be more likely to focus on goal striving behaviours, resulting in appraisals that their current goal progress is better than required or expected. We found that the strongest association was between career calling and the positive standard discrepancy. Higher calling is related to a strong personal goal and individuals' positive beliefs about their chances of success (Dobrow & Tosti-Kharas, 2012; Riza & Heller, 2015). Therefore, individuals with stronger calling are likely to believe their standard is manageable and achievable. Perceiving that they are exceeding their current standard should make them more confident to set a higher one.

Unlike calling, career congruence with parents only predicted the achievement/ability and effort discrepancy domains and was not related to the goal standard discrepancy. It was most strongly related to achievement/ability discrepancy. Young adults who report that their career goals are more congruent with their parents' expectations are likely to receive more support from their parents to fulfil those expectations (Sawitri et al., 2012) and to exhibit greater engagement in career-related activities (Sawitri et al., 2014, 2015). In this way, higher parental congruence and support are likely to motivate and enable young adults to better realise their potential and to exert more effort.

Contrary to our expectations, higher parent career congruence was not associated with positive goal standard discrepancies. Our participants were Indonesian young adults with a strong collectivist or inter-dependent cultural background. Akosah-Twumasi et al.'s (2018) systematic review of the role of culture in youth career choices concluded that, in collectivist cultures, young adults' career goal decisions are made jointly with their parents and the main objective is to optimise family benefits. Thus, Indonesian young adults who report being congruent with their parents are likely to share similar career aspirations and interest (Sawitri et al., 2012), and to have more agreement regarding career goals, values, and strategies (Sawitri & Creed, 2021). Therefore, they might be likely to feel they are right on track to meet their existing standards, rather than exceeding them.

Outcomes of Positive Career Goal Discrepancies

Positive career goal discrepancies were related, as expected, to higher career satisfaction and optimism. Perceiving that one is currently ahead in achievement/ability provides young people with positive evaluations of themselves and their progress, which has been related to greater satisfaction and success with career goal pursuit (Hirschi & Herrmann, 2012; Plemmons & Weiss, 2013). Positive self-evaluations are also related to increased confidence and more optimism for the future (Eva et al., 2020), which is consistent with our

results. Greater positive standard discrepancy was related only to higher career optimism, but not to career satisfaction. Appraising one's current career standards as less challenging and that further progress toward that goal will be easier would increase optimism for their future, without necessarily feeling more satisfied with their choice. A possible explanation may relate to the participants' characteristics: most participants were high-achieving students ($M_{GPA} = 3.40$, maximum score = 4.00). Therefore, the notion that the existing career goal standards are manageable, not related to their career satisfaction especially if positive standard discrepancy leads to goal revision to a more challenging goal. Over time, that might lead to greater satisfaction, and more research is required to clarify this point.

In contrast, perceiving that effort was greater than required was related to higher career satisfaction, but not optimism. This is consistent with previous research that putting in more effort than needed to achieve career goals increases satisfaction with current progress (Praskova et al., 2015a). However, realising that one is exerting more effort than expected might result in concerns, rather than optimism about the future, especially if they are unsure if the effort can be sustained.

Indirect Effects via Positive Career Goal Discrepancies

The indirect analysis showed that positive achievement/ability and effort discrepancies explained the relationship between both career calling and parent congruence and career satisfaction. This expanded previous research and responded to calls to examine potential variables that could explain those relationships (Duffy & Dik, 2013; Hirschi & Herrmann, 2012; Sawitri et al., 2012). Prior research showed that calling might shape, and even distort, individuals' perceptions of their ability (Dobrow & Tosti-Kharas, 2012; Riza & Heller, 2015) and drive more effort and dedication to reach desired goals (Praskova et al., 2015a). The current findings show that this manifests as greater positive discrepancies in

achievement/ability and effort, and it is through this that calling is related to greater satisfaction with their career goals and progress.

Furthermore, young adults who feel more congruent with their parents' career expectations perceive stronger support (Sawitri et al., 2012), which is also likely to enhance engagement in career-related activities (Sawitri & Creed, 2021) and lead to more persistence and effort, thus, better achievement (Sawitri et al., 2015). The results showed that through creating these positive achievement/ability and effort discrepancies, parent congruence is related to greater career satisfaction.

Although career calling and parent congruence had direct relationships with career optimism, the indirect paths via positive career goal discrepancies were not significant, contrary to our expectations. The findings regarding the direct paths are consistent with prior studies that stronger career calling (Riza & Heller, 2015) and perceived career congruence with parents boost young adults' positive perceptions of their future career (Chatterjee et al., 2015; Garcia et al., 2015; Puklek Levpušček et al., 2018; Sawitri et al., 2012). However, appraisals of their current career goal progress do not explain those direct relationships.

Limitations and Suggestions for Future Research

The study was conducted with Indonesian young adults, who were representative of a collectivist culture. Personal and environmental influences on career behaviour might vary across collectivist and individualist cultures. In individualist cultural contexts, satisfaction depends more on how well an individual attempts to assert positive internal attributes of themselves (Uchida & Oishi, 2016). However, in collectivist cultures, interpersonal connectedness or balancing between the self and others is more likely to determine satisfaction (Uchida & Oishi, 2016). Our study shows that, in the latter culture, both internal and interpersonal factors predicted positive career goal discrepancies, which predicted higher career satisfaction but not optimism. However, further research needs to confirm the

generalisability of our results in different cultural contexts. In addition, our participants were young adult high-achieving students so future research needs to explore these relationships in other populations that are more advanced in their career development, such as graduates and young working adults or young adults with various level of academic achievement.

Second, this study only tested one person and one situational antecedent and one affective and one cognitive outcome. Therefore, future research needs to test other antecedents and outcomes. In a meta-analytic study, Wofford et al. (1992) identified other personal (e.g., self-efficacy, causal attribution, mood) and situational (e.g., task difficulty, feedback, role model/norms, and encouragement) antecedents of goal performance. Several other antecedents (e.g., negative career feedback; Creed et al., 2015; Sheppard et al., 2019; personal orientations and career goal importance; Creed et al., 2017) and outcome (e.g., employability confidence; Creed et al., 2017) of negative career goal discrepancy could be tested in the positive discrepancies studies. Furthermore, behavioural adjustments are important outcomes (Bandura, 1991; Carver & Scheier, 1998; Locke & Latham, 1990). For example, career planning and exploration have been shown to be outcomes of negative career progress discrepancy (Creed et al., 2015) and could be examined in relation to positive career goal discrepancy. Last, while we tested a plausible antecedents and consequences of positive career goal discrepancy, informed by goal setting (Locke & Latham, 1990), social cognitive career (Lent et al., 1994), and control theories (Carver & Scheier, 1998), the cross-sectional design means that causal interpretations were not possible. Longitudinal designs with two or more data points are needed to test the temporal precedence and mediation effects suggested in this model (Taris & Kompier, 2006).

Practical Implications

Our findings have practical applications for career counsellors and advisors concerned with enhancing young people's positive career-related experiences. Career counselling

services need to be marketed to young people who feel that they are progressing well and not only to those who are struggling with their career progress. Counsellors should encourage young adults to clarify, understand, and find meaning in their career goals (i.e., to develop a sense of calling) as that could help them to feel that they were making better than expected progress and, through that, be more satisfied with their career goals and progress. Our results also suggest that it is important that counsellors explore the extent of congruence the young people feel they have with their parents around career expectations and aspirations as that was also important in understanding positive discrepancy and positive outcomes. Counsellors can assist students who indicate incongruence to better communicate about their career goals with their parents as a way to improve congruence. By working with young people who are progressing well, counsellors and advisors can assist them to sustain their positive progress and maximise their potential.

Conclusion

This study is the first to identify personal and situational antecedents and affective and cognitive outcomes of positive career goal discrepancies. It highlighted the importance of understanding subdomains of positive career goal discrepancy which different patterns of results for the different subtypes of discrepancies. A sense of calling was found to be important to positive perceptions in all three discrepancy domains, whereas parent congruence was important to achievement/ability and effort discrepancy, but not goal standard discrepancy. Positive achievement/ability discrepancy leads to higher satisfaction and future optimism. Further, positive effort discrepancy was important to satisfaction, whereas positive goal standard discrepancy was important in feeling optimistic about the future. Thus, this study expands the career development literature by contributing to a better understanding of factors that can maximise young adults' career goal progress.

Chapter 5: Self-Regulatory Responses to Positive Career Goal Discrepancies: Testing Cross-Lagged Relationships

After demonstrating the applicability of self-regulatory theories to understanding antecedents and outcomes of positive career goal discrepancy using a cross-sectional design in Study 2, Study 3 expanded on this by examining the dynamic changes across time in young people's self-regulation in response to a positive career goal discrepancy. While Study 2 examined affective and cognitive responses to positive career goal discrepancy, Study 3 looked more at behaviour responses and extended this research by testing the underlying self-efficacy and outcome expectancy mechanisms through which positive career goal discrepancy might result in behavioural adjustments. Drawing on social cognitive theory (Bandura, 1991; Lent, 2013) and using a cross-lagged design with a 6-month time lag, Study 3 investigated goal and behavioural adjustments to positive discrepancy, both directly and indirectly through self-efficacy and outcome expectations. The research questions addressed were "How is positive career goal discrepancy associated with self-regulatory responses of upward goal revision, career exploration, and career coasting over time" and "Do self-efficacy and outcome expectations explain those relationships?" It was expected that positive career goal discrepancy would lead to higher self-efficacy and outcome expectations; then, through that, trigger individuals to revise their goals upward and adjust their behaviour by engaging in more career exploration activities and redirecting efforts to achieve career goals. The social cognitive hypotheses for effort were tested against those derived from control theory that would predict reduced effort when discrepancy was positive and self-efficacy increased. Thus, Study 3 contributes to the existing knowledge about career goal discrepancies by examining dynamic changes in goal and behavioural adjustment, through efficacy and expectation changes, in response to positive career goal discrepancy and by

examining the construct of coasting as an outcome that has not been examined in this career context to date. Study 3 also provides further evidence of the application and validity for the new positive career goal discrepancy scale.

Study 3 is presented in the form of a manuscript that was accepted for publication in the *Journal of Career Assessment* in 2022. This is an international, peer-reviewed journal in the career area, especially interested in publishing articles that contribute to the career literature by the provision, validation, and application of new measures. Study 3 is reported in its final published version except table and figure numbering are modified to reflect the thesis chapter format and references are integrated into the reference list of the thesis.

**Statement from Authors Confirming Authorship Contribution
of PhD Candidate to Journal Article 3**


This chapter includes a co-authored paper. The bibliographic details of the co-authored paper, including all authors, are:

Akmal, S. Z., Hood, M., Creed, P. A., & Duffy, A. (2022). Young adults' self-regulatory responses to positive career goal discrepancies: Testing cross-lagged relationships. *Journal of Career Assessment*. Online First. <https://doi.org/10.1177%2F10690727211068106>.


As co-authors of this published paper, we confirmed that Sari Zakiah Akmal has made the following contributions:

- a. Conducting the literature review with direction and feedback from co-authors.
- b. Collecting and entering the data into the statistical software package.
- c. Analysing and interpreting the data under the direction of co-authors.
- d. Writing the paper and acting as the corresponding author with direction and feedback from co-authors.

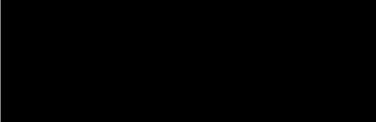
We agree to the inclusion of the paper in this PhD, which is submitted for examination.


Sari Zakiah Akmal


Date: 23/04/2022


A/Prof Michelle Hood

Date: 23/04/2022


Prof. Peter A. Creed

Date: 23/04/2022


Dr. Amanda Duffy

Date: 23/04/2022

**Young Adults' Self-Regulatory Responses to Positive Career Goal Discrepancies:
Testing Cross-Lagged Relationships**

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Abstract

Researchers have assessed young people's outcomes when they do not meet their career goals, but little is known about the consequences when they do better than expected (positive discrepancies). We (a) tested the cross-lagged relationships between positive career goal discrepancies and the career-related outcomes of upward goal revision, career exploration, and career coasting, and (b) assessed the indirect relationships between positive career goal discrepancy and outcomes through self-efficacy and outcome expectations. Using a sample of 314 young adults (76% female, M_{age} 19.13 years), we found that the standard causation model was the most parsimonious. Positive discrepancies predicted more upward goal revision and exploration and less coasting after a 6-month time lag, both directly and indirectly through outcome expectations. The findings highlight the importance of positive career goal appraisals in career goal setting, exploration, management, and clarify the roles of agency (self-efficacy and outcome expectations) as explanatory mechanisms in these relationships.

Keywords: career coasting; career exploration; career self-efficacy; outcome expectations; positive career goal discrepancies; upward goal revision.

Young Adults' Self-Regulatory Responses to Positive Career Goal Discrepancies: Testing Cross-Lagged Relationships

Setting career and life goals and making decisions for one's future are essential developmental tasks for young adults, who are in a transitional period before taking on adulthood's full responsibilities (Shulman & Nurmi, 2010). As part of goal management, individuals continuously appraise, monitor, and reconstruct their goals to meet personal and contextual realities (Bandura, 2001; Carver & Scheier, 2000). These processes are driven by the need to manage discrepancies between original set goals/standards and current appraised goal progress. These discrepancies might be either negative (performance falls short of goal) or positive (performance exceeds goal; Lord et al., 2010). Negative and positive goal discrepancies have different affective, cognitive, and behavioural consequences (Carver & Scheier, 1998).

In the career area, most studies of goal discrepancies have focused on negative goal discrepancies. Negative career goal discrepancies are related to less perceived employability (a cognitive response; Creed et al., 2017) and more career distress (an affective response; Creed & Hood, 2015; Sheppard et al., 2019), as well as more career goal disengagement (Hu, Hood, et al., 2017), downward goal revision (Hu, Creed, et al., 2017a), career identity defence, and career exploration (behavioural responses; Anderson & Mounts, 2012; Sheppard et al., 2019). To the best of our knowledge, there has been no research examining the outcomes of positive goal discrepancies in the career context, despite the many calls by scholars to do so (Anderson & Mounts, 2012; Creed et al., 2017; Hu et al., 2018b).

According to Ilies and Judge (2005), positive and negative goal discrepancies have distinct underlying mechanisms and boundary conditions, implying that they are not polar opposites (i.e., a positive discrepancy is not the reverse of a negative discrepancy). In line with that, past research has shown that positive and negative goal discrepancies are distinct

constructs (e.g., scores on positive and negative career goal discrepancy scales have trivial associations; Akmal et al., 2021). Therefore, studies examining positive career goal discrepancies are needed to advance the career goal literature.

Positive Career Goal Discrepancies

Positive career goal discrepancies result from appraisals that current progress exceeds what is required to meet the individual's career goals (Bandura, 1991; Carver & Scheier, 1990; Creed & Hood, 2015). Progress is appraised against internal (e.g., past performance and personal goals) and external comparators (e.g., peer and family expectations; Bandura, 1991; Carver & Scheier, 1990). Akmal et al., (2021) identified three positive career goal discrepancy domains: achievement/ability, standard, and effort discrepancy. Positive achievement/ability discrepancies result when individuals appraise their current achievements, skills, and abilities as more than needed to achieve the set career goal. Positive standard discrepancies occur when individuals perceive that the set goal/standard is likely to be exceeded. Last, positive effort discrepancies result when the current effort expended is appraised as more than required to achieve the career goal. Akmal et al., 2021 showed that these domains were correlated and that the total score yielded the most meaningful interpretation.

Self-Regulatory Outcomes of Positive Career Goal Discrepancies

A basic assumption of self-regulatory theories (e.g., Carver & Scheier's [1990] control theory; Bandura's [1991] social cognitive theory) is that people continuously set and pursue goals, then make adjustments when there are discrepancies as a result of goal appraisals. Goal discrepancy is crucial to self-regulatory and goal-setting processes in general (Lord et al., 2010) and to the more specific career area (Creed et al., 2015), as it triggers changes in all aspects of human motivation (Bandura, 1991; Carver & Scheier, 1990; Locke & Latham, 1990). The social cognitive theory emphasises that human motivation depends on goal

discrepancy regulation (Bandura, 1991). In response to a negative goal discrepancy, individuals engage in discrepancy reduction by downgrading their standard (Bandura, 1991). However, in response to a positive goal discrepancy, individuals tend to engage in discrepancy production in which they proactively create their own disequilibrium, such as by setting higher goals (Bandura, 1991). Positive discrepancies increase enthusiasm for a goal, which subsequently intensifies effort and motivation (Bandura, 1997; Holman et al., 2005).

Similar to social cognitive theories, control theory proposes two kinds of feedback loops as a response to goal discrepancy: discrepancy-reducing and discrepancy-enlarging (Carver & Scheier, 2000). In a negative or discrepancy-reducing loop, the output function operates to diminish or eliminate the discrepancy. In the positive or discrepancy-enlarging loop, the output function operates to enlarge the discrepancy; for example, by changing the goal and/or behaviour (Carver & Scheier, 2000). However, unlike social cognitive theory, control theory places more emphasis on repeated adjustments to maintain the “balance point” or equilibrium (Carver & Scheier, 2000). It is also possible that, in response to a positive discrepancy, individuals reduce their effort and concerns about achieving a specific goal as they perceive that current progress is beyond expectations – this is labelled as “coasting.” (Carver, 2003).

Informed by social cognitive and control theories, we examined both goal (i.e., upward goal revision) and behavioural adjustments (i.e., career exploration and effort reduction or coasting) as the outcomes of positive goal discrepancies in the career context. The following section will review the relevant variable of interests.

Upward Goal Revision. Upward goal adjustment reflects a response to goals that are not sufficiently challenging, and the individual is having or developing higher aspirations (Wang & Mukhopadhyay, 2012). Research in laboratory settings and the sporting context has shown that individuals with positive discrepancies are more likely to increase their goal

difficulty, especially when they have confidence in their abilities (Donovan & Hafsteinsson, 2006). Individuals who experienced positive discrepancies were likely to revise their goals by setting more challenging ones, which, in turn, increased motivation and effort (Donovan & Williams, 2003; Phillips et al., 1996). Existing career research in the career context has focused on negative rather than positive career goal discrepancies. Young people tend to set a lower career goal in response to a negative career goal discrepancy (Hu, Creed, et al., 2017). However, positive career goal discrepancies and goal revision have yet to be examined.

Career Exploration. Career exploration reflects adaptive career behaviour (Brown & Lent, 2017) and is a crucial outcome of self-regulation in the career context (Creed et al., 2015; Rogers & Creed, 2011). Career exploration involves gathering relevant information about the self and the world-of-work (Creed et al., 2015). According to Porfeli and Skorikov (2010), there are two forms of career exploration: in-breadth, which involves obtaining general information of the world-of-work and self, and in-depth, which helps individuals understand careers that are aligned with their characteristics, supports and constraints. Both facilitate career development and help individuals clarify and focus on their career goals (Porfeli & Skorikov, 2010).

Positive discrepancies are likely to induce positive feelings that facilitate a shift in goal attention and effort (Carver, 2003), increase cognitive flexibility and attention (Louro et al., 2007), and open the individual up to other goals (cf. broaden and build theory of positive emotions; Fredrickson, 2001). Thus, positive discrepancy should lead young people to engage in more diverse career exploration to identify alternative options (in-breadth exploration), as well as more focused exploration to gather specific information on a particular career goal (in-depth exploration).

Coasting. According to Carver (2003), coasting involves reducing effort and motivation, slowing performance outcomes, and reducing concerns about a specific goal

achievement in response to perceptions that goal progress exceeds that needed to achieve that goal. Consistent with that, strong progress towards a goal leads to a decrease in an effort directed towards that goal with effort being shifted to another goal that is not progressing as well (Louro et al., 2007). In the career context, coasting has been operationalised as reducing effort allocated to a current career goal for which progress exceeds requirements and diverting this effort to focus on other salient goals (Hood et al., 2021).

Ilies and Judge (2005) argued that the control theory approach is less useful for explaining self-regulatory consequences of positive discrepancies than are social cognitive and goal setting theories. In contrast to Carver's (2003) control theory, these other theories predict that higher positive discrepancies leads to stronger motivation and more effort as the enthusiasm for a goal increase (Bandura, 1997; Holman et al., 2005; Locke & Latham, 1990). It would mean that coasting should decrease when there are positive discrepancies. There are contradictory expectations from different theories, and there is no empirical evidence to clarify the valence of the relationship between positive career goal discrepancy and career-related coasting.

Indirect Relationships through Self-efficacy and Outcome Expectations

Lent et al.'s (1994) Social Cognitive Career Theory (SCCT) extends Bandura's (1991) social cognitive theory to the career context, emphasising the importance of contextual, person, and behavioural factors in shaping career and educational development across the lifespan. Using the SCCT performance model (Lent et al., 1994; Lent & Brown, 2019), we investigated the role of past performance quality (positive career goal discrepancy) in predicting future performance and persistence in the career development process (i.e., upward goal revision, career exploration, effort retention), and the underlying mechanisms of career self-efficacy and outcome expectations in explaining those relationships. SCCT (Lent et al., 1994) highlights the central role of self-efficacy and outcome expectations in self-regulation

and goal setting. A successful performance and experiences (i.e., positive goal discrepancy) will generate self-satisfaction and boost self-efficacy (Bandura, 1991) and outcome expectations (Lent, 2013). Additionally, increased self-efficacy will elevate the individual's expectations regarding their actions (Sheu et al., 2010) as people usually expect to achieve more positive outcomes when they feel more competent in performing a task (Lent, 2013). Therefore, positive career goal discrepancy influence self-efficacy, and these, both directly and indirectly via self-efficacy, influence outcome expectations (Lent et al., 2008; Sheu et al., 2010).

Self-efficacy also relates directly to self-regulatory outcomes. Higher self-efficacy is associated with increases in self-set goal difficulty (i.e., upward goal revision) and lower self-efficacy with decreases in self-set goals (Tolli & Schmidt, 2008). Tolli and Schmidt (2008) also found that self-efficacy fully mediated the effects of goal discrepancies on goal revision. In addition, higher self-efficacy is also associated with more career exploration (Hu et al., 2018b; Rogers & Creed, 2011). Hu et al. (2018) suggesting that when faced with a negative discrepancy, individuals experience less confidence in their career ability, which, in turn, reduces their motivation to engage in career exploration. Furthermore, self-efficacy is related to resource allocation and performance; individuals with higher self-efficacy allocate less effort as they have stronger beliefs in their capabilities (Vancouver & Kendall, 2006). Given that research is limited to the positive career goal discrepancy, we aim to expand the research in this context by investigating the indirect relationships between positive career goal discrepancies and career-related outcomes through self-efficacy.

Outcome expectations also are posited to be associated with behavioural outcomes (Lent et al., 1994). For example, expectations are related positively with goal optimism, making individuals with more favourable outcome expectations more likely to upgrade goals in the future (Carver & Scheier, 1998), choose activities that are more closely related to

career choice (Lent et al., 1994; Phillips et al., 1996), and engage in career exploration activities (Rogers et al., 2008). Social cognitive and goal-setting theories also predict that individuals with higher outcome expectations will exert more effort towards their goals and, thus, be less likely to coast (Lent et al., 1994; Phillips et al., 1996). However, little is known about the indirect associations between positive goal discrepancy and these career outcomes through outcome expectations. Based on SCCT, positive discrepancies are related to higher outcome expectations (Lent, 2013) and both positive discrepancy and outcome expectations are related to more goal revision (Carver & Scheier, 1998), more career exploration (Rogers et al., 2008) and less coasting (Holman et al., 2005).

Finally, drawing on social cognitive theory (Bandura, 1991), previous research showed that self-efficacy predicts self-regulatory outcomes directly and indirectly via outcome expectations (Sheu et al., 2010). People with stronger self-efficacy beliefs were more likely to have favourable outcome expectations, leading them to set more challenging goals (Brown et al., 2011) and engage in more career exploration activities (Brown & Lent, 2017; Rogers et al., 2008). However, indirect the relationship from self-efficacy to outcome expectancy to coasting has not been examined previously, so the current study will provide initial evidence.

Current Study

Self-regulation is a cyclical process in which prior performance and feedback inform adjustments to current and future actions (Bandura, 2001). Once individuals determine their career goals, they monitor and revise them based on experience and feedback from the environment (Lent, 2013; Locke & Latham, 1990; Wang & Mukhopadhyay, 2012) and make adjustments to balance discrepancies between progress and the set standard (Carver & Scheier, 2000). There have been several calls to examine the dynamic changes in career goal discrepancies and test how these changes affect outcomes over time (Anderson & Mounts,

2012; Creed et al., 2017), which the current study addresses. Across-time studies contribute to a better understanding of direct and indirect relationships among variables (Taris & Kompier, 2006). We examined a dynamic self-regulatory model of positive career goal discrepancy in young adults using a 6-month time lag, which was considered sufficient for changes to occur and has been used in other similar cross-lagged studies in the career area (Hu, Creed, et al., 2017a; Praskova et al., 2014).

We focused on young adult first-year university students. The transition from high school to university and the process of choosing majors/discipline of study are important stages in career development. Positive perceptions (i.e., positive career goal discrepancy) at this stage should predict future academic and occupational performance (Lent & Brown, 2019). This research will contribute to a better understanding of how positive career goal discrepancies relate to career outcomes and how the theorised underlying mechanisms of self-efficacy and outcome expectations account for these relationships. This information will inform interventions designed to optimise young people's career development.

We examined several outcomes of positive career goal discrepancies based on self-regulatory theories, that is, goal adjustment (upward goal revision) and behavioural adjustment (career exploration and coasting), directly and indirectly via career-related self-efficacy and outcome expectations over time. Our hypotheses were (see *Figure 5*):

H1: *Positive career goal discrepancy is related positively to later upward career goal revision (H1a) and career exploration (H1b) and related to later career coasting (H1c).*

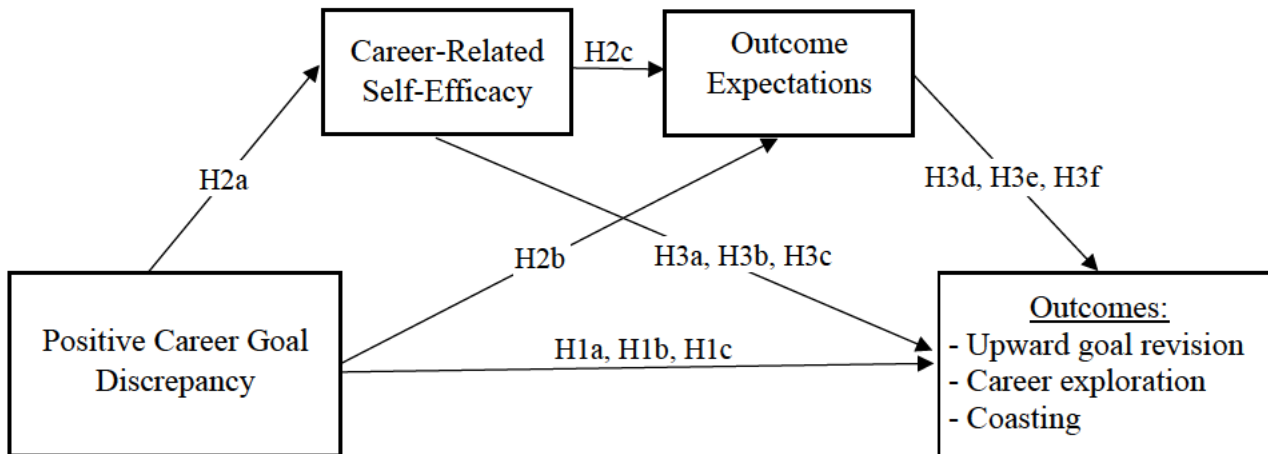
H2: *Positive career goal discrepancy is related directly to later career self-efficacy (H2a) and directly (H2b) and indirectly, through self-efficacy, to later outcome expectations (H2c).*

H3: *Positive career goal discrepancy is related indirectly to later upward career goal revision, exploration, and coasting through self-efficacy (H3a-H3c, respectively) and outcome expectations (H3d-H3f, respectively).*

H4: Career self-efficacy is related indirectly to later upward career goal revision (H4a), exploration (H4b), and coasting (H4c) through outcome expectations.

Figure 5

Proposed Model of Self-Regulatory Responses to Positive Career Goal Discrepancy



Method

Participants

Participants at T1 were 801 first-year undergraduate students ($M_{age} = 18.69$, $SD = 0.95$; 71.9% female), enrolled in various disciplines, such as medicine, dentistry, engineering, education, and social sciences at both public (42.2%) and private (53.3%) Indonesian universities. At T2, six months later, 338 completed a second survey (737 gave consent to be contacted; response rate = 45.9%), with 314 cases retained ($M_{age} = 19.13$, $SD = 0.81$; 76.2% female), as 24 either failed attention check questions or had extensive missing data. This group's mean Grade Point Average (GPA) was 3.41 ($SD = 0.38$, range 1 to 4; 2.2% did not report GPA). Participants were asked to rate their perceived socio-economic status compared to their cohort, and the reported mean was 2.96 ($SD = 0.93$; 1 = *Much worse than others* to 5 = *Much better than others*).

Measures

As participants' primary language was Bahasa Indonesia, we used the translation-back-translation procedure (Beaton et al., 2000) to convert all items to Bahasa. Items were

translated from English into Bahasa by the first author, who is fluent in Bahasa and English. Next, the Bahasa version was back translated into English by an independent bilingual translator who had not viewed the original English items. Last, all authors compared the original and back-translated items for accuracy and cultural relevance and adjusted them where necessary. For example, “My parents stand by me when I make important academic and career decisions” was adjusted to “My parents support me when I make important academic and career decisions”. The phrase “stand by me” has a slightly different meaning if translated literally into Bahasa. Then, the items were piloted with a small group of the target population, who read them to ensure they could be understood and were meaningful. No adjustments were required at this stage. The significant bivariate correlation between variables provides evidence that the translation process yielded valid measures (see Table 1). All scales used a 6-point Likert format: 1 = *strongly disagree* to 6 = *strongly agree*; higher scores reflecting a higher level of a particular construct.

Positive career goal discrepancies. The 15-item Positive Career Goal Discrepancy Scale (Akmal et al., 2021) assesses the extent to which participants appraise their current career progress as exceeding their anticipated progress. The scale taps three broad areas of ability/achievement (e.g., “What I have achieved to date in my career has exceeded my parent’s expectations”), standard (“I have higher career goals for myself than my parents have for me”), and effort discrepancy (“I am putting more effort into achieving my career goals than I did in the past”). This scale was developed and validated using first-year undergraduate student samples and demonstrated excellent reliability (Cronbach's $\alpha = .90$) and evidence of validity by positive associations with career satisfaction and optimism (Akmal et al., 2021). Alphas in the current study were .90 (T1) and .92 (T2).

Upward goal revision. As there was no existing scale to assess upward goal revision, we modified the 6-item Downward Goal Revision Scale (Hu, Creed, et al., 2017a).

Statements revised to assess upward revision (e.g., “I plan to lower my career goal as I am aiming too high” was modified to “I plan to raise my career goal, as I am not aiming high enough”). The original scale was tested with undergraduate student samples and showed excellent reliability (α range .88 to .91) and construct validity, being positively related to negative feedback, stress, and career disengagement (Hu, Creed, et al., 2017a). Alphas for the modified scale were .88 (T1) and .91 (T2).

Career exploration. The 10-item Career Exploration Subscale from the Vocational Identity Status Assessment (Porfeli et al., 2011) assesses in-breadth (e.g., “Casually learning about careers that are unfamiliar to me in order to find a few to explore further”) and in-depth exploration (e.g., “Identifying my strongest talents as I think about careers”). With university students, the subscales showed good reliability (in-breadth $\alpha = .82$, in-depth $\alpha = .79$) and construct validity was supported by finding in-breadth exploration to be correlated positively, and in-depth exploration to be correlated negatively, with self-doubt and commitment flexibility (Porfeli et al., 2011). Alphas with the current sample were .78 (T1) and .83 (T2) for in-breadth and .74 (T1) and .76 (T2) for in-depth.

Coasting. The 12-item Coasting Scale (Hood et al., 2021) measures regulatory responses to perceptions that one is ahead with one’s career progress (i.e., when they identify positive discrepancies). It assesses two domains of effort reduction (e.g., “When I feel I am ahead in my career progress, I allocate less energy to things related to my career”) and effort redirection (“When I feel I am ahead in my career progress, I focus my thoughts on other life goals instead of my career”). The developers reported an alpha of .93 and supported validity by finding positive associations with goal disengagement and negative associations with effort among undergraduate participants. Alpha was .91 for both T1 and T2.

Career-related self-efficacy. The 8-item Occupational Self-efficacy Scale – Short Form (Schyns & von Collani, 2002), was modified to measure students’ career-related self-

efficacy (e.g., “I meet the goals that I set for myself in my job” was modified to “I will be able to meet the goals that I set for myself in my future career.”). The original scale has good internal reliability ($\alpha = .88$) and support for validity with positive correlations with general and work-related self-efficacy (Schyns & von Collani, 2002). Domene (2012) similarly modified this scale to measure career-related self-efficacy in Canadian undergraduate students, reporting good internal consistency ($\alpha = .86$) and construct validity (positively related to career outcome expectations and career calling). Alphas with current participants were .85 for both T1 and T2.

Outcome expectations. The Bahasa translation (Sawitri et al., 2014) of the 6-item Vocational Outcome Expectations Scale (McWhirter et al., 2000) assesses general and career outcome expectations (e.g., “The future looks bright for me”; “My career planning will lead to a satisfying career for me”). Sawitri et al. (2014) reported acceptable internal reliability in student samples ($\alpha = .79$; cf. $\alpha = .83$ in the English version, McWhirter et al., 2000). Validity is supported via positive associations with career aspirations, planning (Sawitri et al., 2014), and other expectation measures (McWhirter et al., 2000). Alphas were .85 (T1) and .84 (T2).

Procedure

Ethical approval was granted by the authors' universities and the data collection process was approved by the participating universities. The study has two waves with the same data collected each time. The T1 survey was distributed by course convenors (paper-and-pencil and online); then, after six months, we contacted those participants who had agreed to participate at T2 by sending them an online survey link. Those who completed the T1 survey could enter a prize draw to win one of 100 vouchers (IDR50,000 = ~AUS\$5), and all those who completed the T2 survey received an electronic voucher (IDR25,000 = ~AUS\$2.50).

Data Analysis

Latent variable analysis (AMOS 27-maximum likelihood) was used to test the hypotheses. To meet the 1:10 observed variable to case ratio recommendations (Bentler & Chou, 1987), we parcelled all scale items by first subjecting each scale to an exploratory factor analysis and then allocating items to parcels using an item-to-construct balanced approach, where items with higher factor loading are paired with items with lower loadings (Little et al., 2013; Matsunaga, 2008). We created three parcels each for the longer scales (positive career goal discrepancy and coasting) and two parcels each for the shorter scales (upward goal revision, career exploration, career self-efficacy, and outcome expectations) for both T1 and T2 (Kline, 2015). We commenced by evaluating a measurement model to determine if all latent variables for both T1 and T2 were independent and if their parcels could represent their respective latent variable. We then followed recommendations by Cole and Maxwell (2003) and De Lange et al. (2004) to examine the relationships between positive discrepancies and the outcomes. With a sample > 250 and observed variables < 30 , a good model fit is indicated by χ^2 ($p < .001$), χ^2/df ratio (< 3.0), Comparative Fit Index (CFI; $> .90$), and Root Means Square Error of Approximation (RMSEA; $< .07$; Hair et al., 2014).

Results

Attrition Analysis

We compared participants who completed both T1 and T2 with those who completed T1 only and found no differences in age ($p = .44$), university attended ($p = .26$), GPA ($p = .73$), or SES ($p = .28$). However, more male than female students dropped out of the study (63.6% vs 55.5%; $p = .04$). The two groups did not differ at T1 on career self-efficacy ($p = .68$), outcome expectations ($p = .98$), career exploration ($p = .12$), or coasting ($p = .13$). There was a non-significant trend at T1 for the drop-out group to have higher positive career goal discrepancy (drop-out $M = 67.51$; retained $M = 66.21$, $p = .054$); and a small, but significant,

difference in upward goal revision (drop-out $M = 25.75$; retained $M = 24.91$, $p = .04$). Thus, some caution is needed when interpreting those results.

Measurement Model

The measurement model consisted of seven latent variables at each time point, representing one predictor (positive discrepancy), two mediators (career self-efficacy and outcome expectations), and four outcome variables (upward goal revision, in-breadth and in-depth career exploration, and coasting). As the relationship between demographic and the outcome variables were negligible, none was statistically controlled in the analyses. The measurement model fit statistics were good $\chi^2(373) = 515.95$, $p < .001$, $\chi^2/df = 1.38$, CFI = .98, RMSEA = .04. All standardised regression weights were significant (range .76 - .97), and the latent variable correlations paralleled those among the bivariate variables (see Table 7).

Cross-lagged Structural Models

To assess the cross-lagged relationships, we tested: (a) a baseline, reference model with no cross-lagged associations; (b) a standard causality model with cross-lagged paths from the T1 predictor (positive discrepancy) to T2 outcomes (upward goal revision, in-breadth and in-depth exploration, and coasting); (c) a reverse causality model with cross-lagged paths from T1 outcomes to T2 predictor; and (d) a reciprocal-causality model with cross-lagged paths from both T1 predictor to T2 outcomes and from T1 outcomes to T2 predictor. All autoregressive paths were included in all models. We used the chi-square difference test ($\Delta\chi^2$) and the Akaike Information Criterion (AIC) to assess differences among the competing models; a lower AIC value indicates a better fit and fewer free parameters (Kline, 2015). See Table 8 for fit statistics.

Table 7

Summary Data and Bivariate (below Diagonal) and Latent Variables Correlations (above Diagonal); N = 314.

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. PCGD T1	66.08	9.76	-	.68***	.74***	.46***	.70***	.48***	.48***	.37***	.46***	.30***	.58***	.43***	-.10	-.22***	-	-
2. PCGD T2	67.75	10.03	.63***	-	.50***	.71***	.45***	.72***	.37***	.45***	.26***	.45***	.43***	.56***	-.08	-.22***	-	-
3. CSE T1	38.05	4.80	.66***	.46***	-	.57***	.82***	.50***	.40***	.31***	.48***	.35***	.57***	.37***	-.15*	-.30***	-	-
4. CSE T2	38.50	4.37	.42***	.65***	.50***	-	.46***	.76***	.28***	.35***	.29***	.53***	.39***	.59***	-.06	-.27***	-	-
5. VOE T1	29.82	3.65	.62***	.42***	.70***	.40***	-	.57***	.34***	.24***	.39***	.24***	.56***	.32***	-.13*	-.24***	-	-
6. VOE T2	30.03	3.45	.44***	.66***	.44***	.66***	.50***	-	.26***	.36***	.26***	.56***	.40***	.59***	-.11	-.30***	-	-
7. UGR T1	24.69	5.87	.42***	.34***	.34**	.25***	.28***	.23***	-	.45***	.48***	.30***	.43***	.27***	.05	-.21**	-	-
8. UGR T2	24.96	6.40	.33***	.39***	.28***	.30***	.21***	.30***	.43***	-	.13	.40***	.27***	.32***	.04	-.18**	-	-
9. BCE T1	24.13	2.93	.38***	.21***	.39***	.23***	.30***	.19***	.38***	.10	-	.50***	.74***	.41***	-.17	-.29***	-	-
10. BCE T2	25.05	3.21	.26***	.40***	.30***	.45***	.20***	.47***	.25***	.35***	.40***	-	.45***	.85***	-.09	-.22***	-	-
11. DCE T1	24.85	2.88	.48***	.36***	.45***	.32***	.45***	.33***	.34***	.20***	.58***	.36***	-	.53***	-.21**	-.36***	-	-
12. DCE T2	25.67	2.67	.35***	.48***	.30***	.47***	.25***	.47***	.22***	.25***	.30***	.66***	.39***	-	-.15*	-.19**	-	-
13. Coast T1	34.30	9.82	-.08	-.07	-.13*	-.06	-.11*	-.10	.05	.04	-.07	-.08	-.18***	-.13*	-	.45***	-	-
14. Coast T2	31.94	9.74	-.19***	-.21***	-.26***	-.25***	-.21***	-.28***	-.18***	-.16***	-.23***	-.18***	-.29***	-.15**	.43***	-	-	-
15. Age	19.13	.81	.08	.12*	.09	.10	.03	.08	.00	.08	.04	.02	-.01	.02	.09	.06	-	-
16. Gender	.76	.43	.03	.01	-.02	.04	.06	.11	.03	.02	.05	.05	.05	.01	-.16**	-.08	-.17*	-
17. SES	2.96	.93	.00	.06	.01	.08	.09	.12*	-.05	.00	-.07	.02	.01	.08	.12*	.10	.01	-.01

Note. * $p < .05$, ** $p < .01$, *** $p < .001$; PCGD = Positive career goal discrepancy; CSE = Career-related self-efficacy; VOE = Outcome expectations; UGR = Upward goal revision; BCE = In-breadth career exploration; DCE = In-depth career exploration Coast = Coasting; SES = socioeconomic situation; Gender (0 = male, 1 = female).

Table 8

Model Fit Statistics for Baseline and Standard, Reverse, and Reciprocal Causality Models and Indirect Models (N = 314).

Model	χ^2	df	χ^2/df	CFI	RMSEA	$\Delta\chi^2$	Δdf	AIC
Baseline	934.35***	445	2.10	.94	.06	-	-	1164.35
Standard causality	897.11***	441	2.03	.94	.06	37.24***	4	1135.11
Reverse causality	931.98***	441	2.11	.94	.06	2.37 ^{ns}	3	1169.98
Reciprocal causality	895.00***	437	2.05	.94	.06	39.35***	8	1141.00
Indirect pathway through career-related self-efficacy and outcome expectations								
Step 1	897.11***	441	2.03	.94	.06			
Step 2	929.37***	443	2.10	.94	.06			
Step 3	904.63***	441	2.05	.94	.06			
Indirect paths from career-related self-efficacy and outcomes via outcome expectations								
Step 1	895.69***	441	2.03	.94	.06			
Step 2	933.97***	444	2.10	.94	.06			
Step 3	904.63***	441	2.05	.94	.06			

*** $p < .001$.

The baseline model produced a good fit, $\chi^2(445) = 934.35$, $p < .001$, $\chi^2/df = 2.10$, CFI = .94, RMSEA = .06. When compared to this model, the standard causality ($\Delta\chi^2 = 37.24$, $\Delta df = 4$, $p < .001$) and reciprocal causality ($\Delta\chi^2 = 39.35$, $\Delta df = 8$, $p < .001$), but not the reverse causality model ($\Delta\chi^2 = 2.37$, $\Delta df = 3$, $p = .50$), showed significant improvements. As the standard causality model showed the smallest AIC, we accepted it as the most parsimonious (see Figure 6). In this model, T1 discrepancy was related positively to upward

goal revision ($\beta = .21, p < .001$) and exploration (in-breadth $\beta = .14, p = .02$; in-depth $\beta = .25, p < .001$), and negatively to coasting ($\beta = -.19, p < .001$), at T2, supporting H1a, H1b, and H1c. All autoregressive paths were significant ($p < .001$) with standardised regression weights suggesting moderate stability of variables over six months (see Figure 6).

Indirect Models

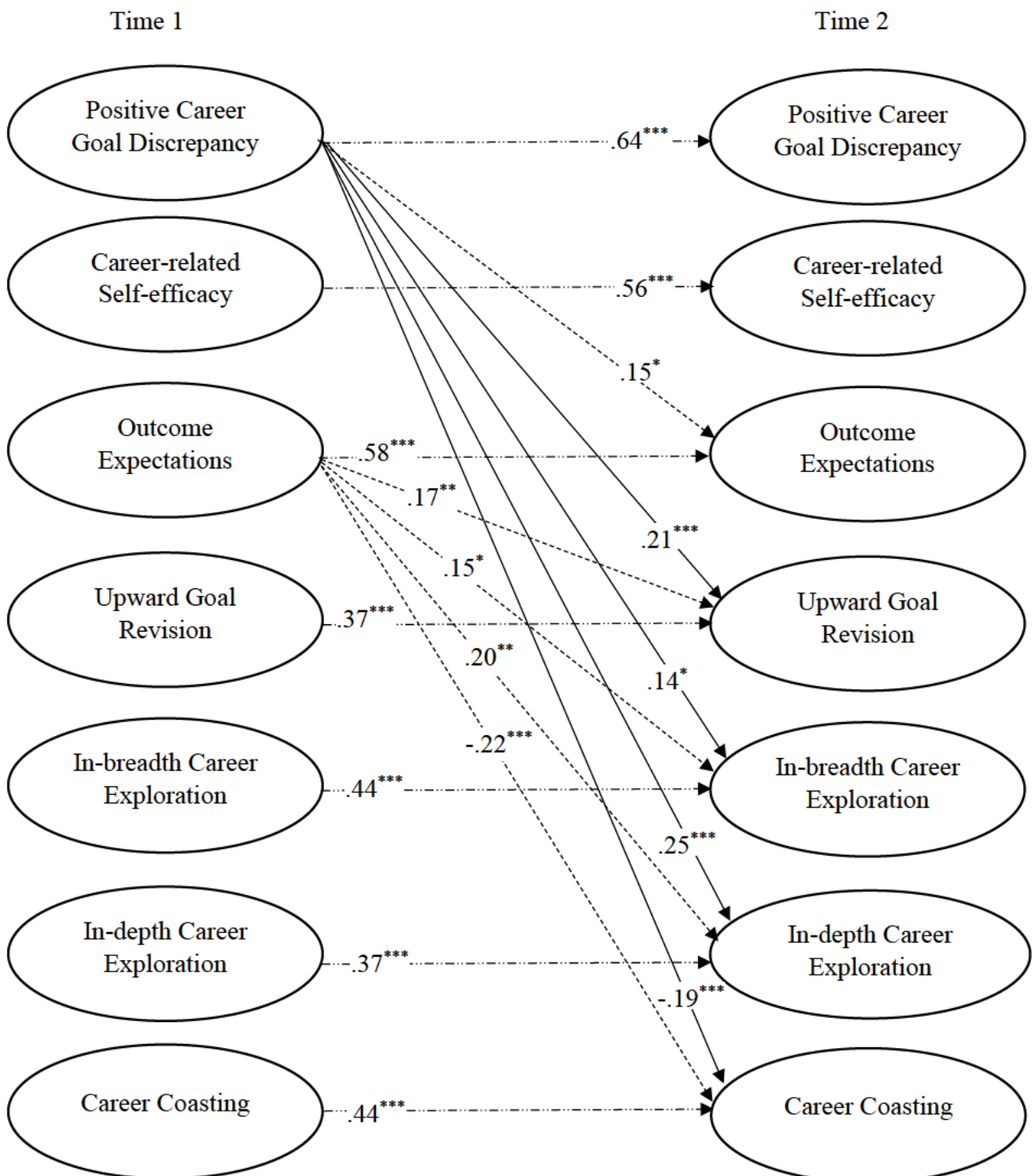
To test indirect associations over time, we followed a 3-step process of testing the cross-lagged relations between (a) the T1 predictor and T2 outcomes; (b) the T1 predictor and T2 mediators; and (c) T1 mediators and the T2 outcomes (Cole & Maxwell, 2003; Taris & Kompier, 2006). For 2-wave studies, indirect effects are confirmed when all links are significant, with the strength of the indirect effects being determined by calculating the product of the relevant standardised regression coefficients.

Firstly, we tested if positive career goal discrepancy related indirectly to later outcome expectations via career self-efficacy. For the direct relationship, T1 positive discrepancy was associated positively with T2 outcome expectations ($\beta = .15, p = .03$), supporting H2b. However, in the second step, T1 discrepancy was not related to T2 career self-efficacy ($\beta = .10, p = .16$; H2a not supported). In the last step, T1 career self-efficacy also was not associated with T2 outcome expectations ($\beta = .06, p = .53$). Informed by these steps, we concluded that higher positive discrepancy did not lead to higher career self-efficacy and outcome expectations over time; thus, H2c was not supported.

Secondly, we assessed if positive career goal discrepancy related indirectly to the later career outcomes through career self-efficacy and outcome expectations. For the direct effects, T1 discrepancy was associated with all T2 outcomes (upward goal revision $\beta = .21, p < .001$; in-breadth exploration $\beta = .14, p = .02$; in-depth exploration $\beta = .25, p < .001$; and coasting $\beta = -.19, p < .001$). In the second step, T1 discrepancy was related positively to T2 outcome expectations ($\beta = .15, p = .03$), but not to T2 self-efficacy ($\beta = .10, p = .16$). In the last step,

Figure 6

Best Fitting Model with Standardised Regression Weights



Note: Dot-and-dash lines are autoregressive pathways; solid lines are standard causation pathways, and dashed lines are indirect pathways. Non-significant pathways have been omitted for clarity. * $p < .05$, ** $p < .01$, *** $p < .001$.

T1 outcome expectations were related to all T2 outcomes, but not to career self-efficacy. This indicated that positive career goal discrepancy was associated indirectly with later upward career goal revision, exploration, and coasting via outcome expectations, but not via career self-efficacy (supporting H3d, H3e, and H3f, but not H3a, H3b, and H3c). The significant Step 3 pathways were added to Figure 6.

Based on these analyses, changes in positive discrepancy from T1 to T2 were related to changes in outcome expectations from T1 to T2, which, in turn, were related to changes in all outcomes from T1 to T2. To determine the effects of these indirect relationships via outcome expectations, we calculated the products of the regression coefficients of Step 2 and Step 3 (Taris & Kompier, 2006). The standardised indirect effect from positive career goal discrepancy on upward goal revision was 2.6%, on in-breadth exploration was 2.3%, on in-depth exploration was 3.0%, and on coasting was 3.3%.

Last, we examined whether outcome expectations mediated the relationship between career self-efficacy and T2 outcomes. There were significant direct paths from T1 career self-efficacy to all T2 outcomes (upward goal revision $\beta = .20$, $p < .001$; in-breadth exploration $\beta = .19$, $p = .002$; in-depth exploration $\beta = .22$, $p < .001$; and coasting $\beta = -.25$, $p < .001$). In the second step, we found that T1 career self-efficacy was not associated with T2 outcome expectations ($\beta = .06$, $p = .53$). This indicated that the indirect pathways between career self-efficacy and the career-related outcomes, via outcome expectations, was not significant, so H4a, H4b and H4c were not supported.

Discussion

This study tested the relationships between positive career goal discrepancy and a range of important career-related outcomes (i.e., upward goal revision, career exploration, and coasting) over time. Additionally, we tested the indirect pathways through career-related self-efficacy and outcome expectations as explanatory mechanisms.

Self-Regulatory Outcomes of Positive Career Goal Discrepancies

The standard causation model, in which positive discrepancy predicted the outcomes after a six-month time lag, was the best fitting model. This result was consistent with self-regulatory theories, which posit that goal discrepancies trigger changes in both goals and behaviour (Bandura, 2001; Carver & Scheier, 2000).

Turning first to changes in goals, students with higher positive career goal discrepancy at T1 reported a greater intention to upwardly revise their goals six months later. This result is consistent with previous research that found individuals who experienced positive discrepancies were more likely to set more challenging goals (Donovan & Williams, 2003; Phillips et al., 1996). As young adults perceive greater positive discrepancies, they come to realise that they have set too low a standard and they can achieve higher goals; subsequently, they tend to raise their goals and aspirations (Wang & Mukhopadhyay, 2012).

We also found that positive discrepancy was related to increased career-related behaviours, in the form of broad and specific career exploration, after a six-month time lag. This suggests that when individuals exceed their career goals, they gather broad information about themselves and their potential work environments (Creed et al., 2015). Moreover, exceeding career goals also means that they are likely to engage in in-depth career exploration activities, which facilitates greater specificity in their career goal that will inform their future behaviours (Porfeli & Skorikov, 2010). A possible explanation might be positive discrepancies are related to positive feelings that increase cognitive flexibility (Louro et al., 2007) and facilitate exploration of other goals (Fredrickson, 2001).

In addition, this study provides empirical evidence that positive discrepancy is related to less coasting. Young adults who perceived that progress towards their desired career was better than expected were more likely to exert continued effort to maintain their positive discrepancy, rather than reducing effort and turning their attention to other career goals (i.e.,

coasting). This finding supports social cognitive and goal-setting theory propositions regarding positive discrepancy and its effects on motivation and effort (Ilies & Judge, 2005). These theories argue that if a person approaches their goal faster than expected, enthusiasm rises, and their motivation (e.g., effort and focus) intensifies (Bandura, 1997; Holman et al., 2005; Locke & Latham, 1990). Conversely, this result is inconsistent with control theory (Carver & Scheier, 2000), which proposes that positive progress towards a goal leads to more coasting. According to control theory, individuals have limited energy and repeatedly make adjustments to maintain goal pursuit equilibrium. Thus, if the person perceives they are exceeding what is needed to achieve a goal, they will save energy by reducing their effort towards that goal and reallocate their resources to another goal, or find more important, interesting, or involving goals upon which to focus (Donovan, 2009).

Indirect Relationships through Self-efficacy and Outcome Expectations

Unexpectedly, we failed to find support for any of the over-time hypotheses related to career self-efficacy as an explanatory mechanism via which discrepancy affected the career outcomes. Positive career goal discrepancy at T1 did not lead to increased career self-efficacy at T2, and the indirect pathways between positive discrepancy and career-related outcomes through self-efficacy also were not significant. In addition, there were no indirect effects from self-efficacy to the three-outcome variable via outcome expectations. However, we did confirm that positive goal discrepancy was associated significantly with career self-efficacy, and that self-efficacy was associated significantly with all outcomes within each wave (i.e., T1 and T2). Control theory suggests that the effect of self-efficacy on individual performance can be varied (positive, negative, or null), and higher self-efficacy might not be predictive of performance under all circumstances (Vancouver et al., 2001). There might be a null effect of self-efficacy on performance, for example, if individuals perceive that their current position is close to achieving their goal (Sitzmann & Yeo, 2013). In line with this prior research, the

current results suggests that when career goal progress at T1 is perceived to be more than expected or required, or close to achieving the career goal, there might be a reduced role for self-efficacy; thus, no significant relationship with T2 career-related self-efficacy.

Further, the current study showed that the direct effects of self-efficacy at T1 on outcome expectations and career-related outcomes at T2 were not significant when the autoregressive paths were included. Consistent with this, a meta-analysis by Sitzmann and Yeo (2013) concluded that the self-efficacy-performance relationship would be reduced when controlling for the stability effects of past self-efficacy. Previous research has shown that the association between self-efficacy and performance fluctuates over time (Vancouver et al., 2001). Even when past performance predicts self-efficacy, self-efficacy can have a weak or null effect on future performance (Sitzmann & Yeo, 2013). The current study found strong stability effects between T1 and T2 for self-efficacy. Thus, in the context of the fully cross-lagged model that was tested, the limited change in self-efficacy over time might explain why it was not a significant direct predictor or a mediator of career-related outcomes at T2. However, two-wave designs might not be sufficient to capture the dynamic relationships between self-efficacy and performance (Sitzmann & Yeo, 2013; Vancouver et al., 2001).

It is possible that the lack of relationship between self-efficacy and outcome expectancies at T1 and T2 also reflects a domain mismatch. Since self-efficacy and outcome expectations are highly context-specific (Bandura, 1997), measurement tools should reflect individuals' beliefs and expectations relevant to a specific area (e.g., career-related). In the current research, self-efficacy was specifically career focused. However, the outcome expectancies measure included a mix of generic and career-specific items. Future research using more specific outcome expectancy items might yield a different result.

While the paths via self-efficacy were not significant, positive discrepancy led to higher outcome expectations after six months, which is consistent with the social-cognitive

perspective (Bandura, 1991), SCCT (Lent, 2013), and control theory (Carver & Scheier, 1998), all of which argue that an individual's successful experience results in more optimism about themselves and their future, and, thus, more positive outcome expectations (Lent et al., 2008; Sheu et al., 2010). Further, positive career goal discrepancy related indirectly to career-related outcomes over time via outcome expectations. We demonstrated that exceeding career goals led young adults to expect more positive future career outcomes, and this, in turn, led them to revise their career goals upward. Young adults with higher outcome expectations tend to choose activities that correspond to their career choice (Lent et al., 1994; Phillips et al., 1996). In line with this, we found that young adults who had higher career outcome expectations were more likely to engage subsequently in more general (in-breadth) and specific (in-depth) career exploration activities (see also Rogers et al., 2008). These results extend prior findings related to goal discrepancy in the career context.

Additionally, we contributed to the career literature by demonstrating indirect pathways between positive goal discrepancy and less career coasting through higher outcome expectations. Outcome expectations have a significant impact on motivation, with favourable outcome expectations leading to more effort and focus on activities to achieve the desired goal (Holman et al., 2005), including more energy being expended on career-related activities (Lent et al., 1994; Phillips et al., 1996). Our results confirmed this mechanism of increasing outcome expectations through which positive goal discrepancy led to reduced coasting.

Limitation and Future Directions

This study's strength is that it was conducted with Indonesian participants who have a strong collectivist cultural background. Thus, it adds valuable diversity to this field, as most research on career goals has been conducted in Western countries, where there is a stronger individualist culture. Previous research has shown that external and internal factors drive different career-goal striving behaviours depending on the cultural background (Sawitri &

Creed, 2015). For example in a collectivist culture, external variables (e.g., parents, peers) have a stronger influence on career goal striving behaviour (Sawitri & Creed, 2015); whereas, internal variables (e.g., self-efficacy, interest) play a more significant role in individualist cultures. However, as this is the first study to examine the outcomes and underlying mechanisms of positive career goal discrepancies, the applicability of these results needs to be assessed in other samples, including those with stronger independent cultures.

Another strength of this study was that it examined dynamic changes in self-regulatory responses to positive career discrepancies using a 2-wave cross-lagged analyses. While this methodology is a valuable tool for examining aspects of causality (e.g., temporal precedence) in a non-experimental context, three or more waves is needed to provide a stronger test of mediation effects (Taris & Kompier, 2006). Three or more waves also might further clarify the dynamic nature of the performance-self-efficacy relationships, given the potentially fluctuating effect of self-efficacy over time (Sitzmann & Yeo, 2013; Vancouver et al., 2001). We examined three cross-lagged models: standard causality model, reverse causality model and reciprocal causality model, finding support for the standard and the reciprocal, but not reverse, causality models. The standard causality model was the most parsimonious. According to self-regulatory perspectives (Bandura, 1991; Carver & Scheier, 1998; Locke & Latham, 1990), the reciprocal causality model also is plausible. Goal discrepancies lead to goal and behavioural adjustments, which are then appraised, and the discrepancy adjusted. Therefore, future research, using more waves of data collection, is needed to examine the direct and indirect pathways in the reciprocal causality model.

Additionally, just over half of the T1 participants did not complete the T2 survey. It is common in longitudinal studies to report attrition rates ranging from 30% to 70% (Gustavson et al., 2012). However, higher attrition affects mean estimate bias due to selective participation, even though the samples mean differences might be minimal (Gustavson et al.,

2012). In our study, there was a gender effect in attrition, with more female participants retained than male participants. Only T2 coasting was related to gender, with lower coasting by females. Given the higher proportion of female participants, exacerbated by the greater attrition of male participants, it is possible that coasting might be higher in a more gender-balanced sample, and that this might affect the relationships observed between positive career goal discrepancy and coasting. Consequently, our results should be interpreted with some caution. Maximising retention is an important aim for future studies, especially if more than two waves of data collection are conducted.

Furthermore, future studies need to confirm these results on different samples, as contextual factors are considered important in both control theory (Carver & Scheier, 1998) and SCCT (Lent, 2013). We only sampled first-year university students, which limits generalisability. Whilst our focus on first-year students was important to understand these relationships in the school-university transition, it will be useful for future research to investigate these relationships using participants in the later stages of tertiary education and in the education-work transition. Future research would also benefit from examining the model in the young adult worker population.

In addition, participants reported higher overall academic achievement, so the results might not be representative of those from low achieving students. This might have affected results as higher academic achievers might have higher overall career self-efficacy and already be motivated to achieve higher goals (Lent & Brown, 2019). As a result, they may be more involved in career exploration and were less likely to coast than lower achieving students. Future studies thus need to clarify the generalisability of these results to students with more diverse academic achievements.

The findings support the propositions of SCCT's performance model, but not control theory, because more positive discrepancy was related to less coasting, not more as Carver

(2003) suggested. It is possible that there are moderating variables that were not included in the current study that might alter the discrepancy-coasting relationship. For example, task interest and learning goal orientation have been shown to increase individual goal-achievement effort (Donovan, 2009), whereas career goal importance and optimism play important roles in moderating career management strategies (Haratsis et al., 2015). Future research is needed to clarify whether factors such as these alter the likelihood of individuals maintaining their career effort even when their progress is better than expected.

Practical Implications

These findings have practical implications for career counsellors who work with young people who are still working toward their career goals. It is common for career counsellors to work with young adults who do not have clear career goals or are not making the required progress or aiming for goals that are not feasible. However, our results show that young adults also experience positive career goal discrepancies. This led them to set higher career goals, put more effort into achieving their goals, and engage in more career exploration activities to broaden or solidify their goals. In that process, counsellors have a significant role to play in supporting these young people to manage themselves to regulate the positive career goal discrepancy successfully. Rather than resting or coasting for a while, young adults with positive career goal discrepancies remain motivated and invest effort in their career goal pursuit and that needs to be facilitated.

Outcome expectations were shown to be a significant underlying mechanism in career goal self-regulation when current progress was better than expected. Therefore, understanding the expectations that these young adults have for their career outcomes is important. Career counsellors are encouraged to assist young adult clients build on their perceptions of positive progress by redefining and strengthening their future outcome expectations and how to actualise them. Our results indicated that when young adults

perceived higher positive discrepancies, the enhanced outcome expectations led to more engagement in both in-depth and in-breadth career exploration. This suggests that, rather than assuming that young people who are making better than expected career progress don't need to do any more exploration, career counsellors should assist these young people to continue exploring their abilities and various possibilities related to their career interest, which, in turn, would help them set higher goals. This will also help them to manage their effort and focus to maximise their career potential.

Conclusion

This study represents the first empirical examination of goal and behaviour adjustment outcomes of positive career-related discrepancies over time and the underlying mechanisms of self-efficacy and outcome expectations. We demonstrated that young adults who perceived they were on track to exceed their current career goals were more likely to revise their goals upwards and engage in more in-breadth and in-depth career exploration but were less likely to reduce or divert effort and coast toward achieving that goal. In line with self-regulation theories, we also demonstrated the indirect effect of outcome expectations in explaining the relationships between positive discrepancy and outcomes.

Chapter 6: General Discussion

The research completed in this thesis focused on understanding positive career goal discrepancies and associated self-regulatory responses. Goal discrepancies are at the centre of goal setting and self-regulatory processes and can be either negative (e.g., performance falls short of goal) or positive (e.g., performance exceeds goal; Carver & Scheier, 1998; Lord et al., 2010). Self-regulatory theories (e.g., goal setting, Locke & Latham, 1990; control, Carver & Scheier, 1990; social cognitive, Bandura, 1991) agree that positive and negative goal discrepancies trigger different responses in affective, cognitive, and behavioural aspect of human motivations. Further, they are influenced by distinct underlying processes and boundary conditions (Bandura & Locke, 2003; Ilies & Judge, 2005; Williams et al., 2000). Most existing studies have focused on investigating and understanding the antecedents, consequences, and self-regulatory responses of negative goal discrepancies, both in general (e.g., Nicklin & Williams, 2011; Vancouver et al., 2010; Williams et al., 2000) and in the specific career context (e.g., Creed et al., 2017; Creed & Hood, 2015; Hu et al., 2018b). Consequently, we have quite detailed understanding of negative goal discrepancy in the career context, while the positive goal discrepancy concept is underexplored. This is a major oversight in the literature, as understanding positive discrepancies is important for improving young adults' career development, where optimising individual potential is one of the main goals.

When this PhD commenced, no research had clearly defined and conceptualised positive career goal discrepancy, and no scale to measure this construct existed. As a result, little was known about the antecedents of positive career goal discrepancy and how it influences young adults' cognitive, affective, and behavioural regulation. Therefore, this thesis had three objectives that would fill the gap in the extant literature: (a) to develop and

validate a scale to measure positive career goal discrepancy; (b) to examine cross-sectional relationships between antecedents and outcomes of positive career goal discrepancy, and test indirect effects of antecedents on outcomes via positive career goal discrepancy; and (c) to examine the cross-lagged relationships between positive career goal discrepancy and later behavioural adjustments. All studies involved data from first-year Indonesian university students; thus, the research tested these relationships in young people with a collectivist cultural background. For a pictorial representation of the variables tested and accumulated results of the three studies, see Figure 7.

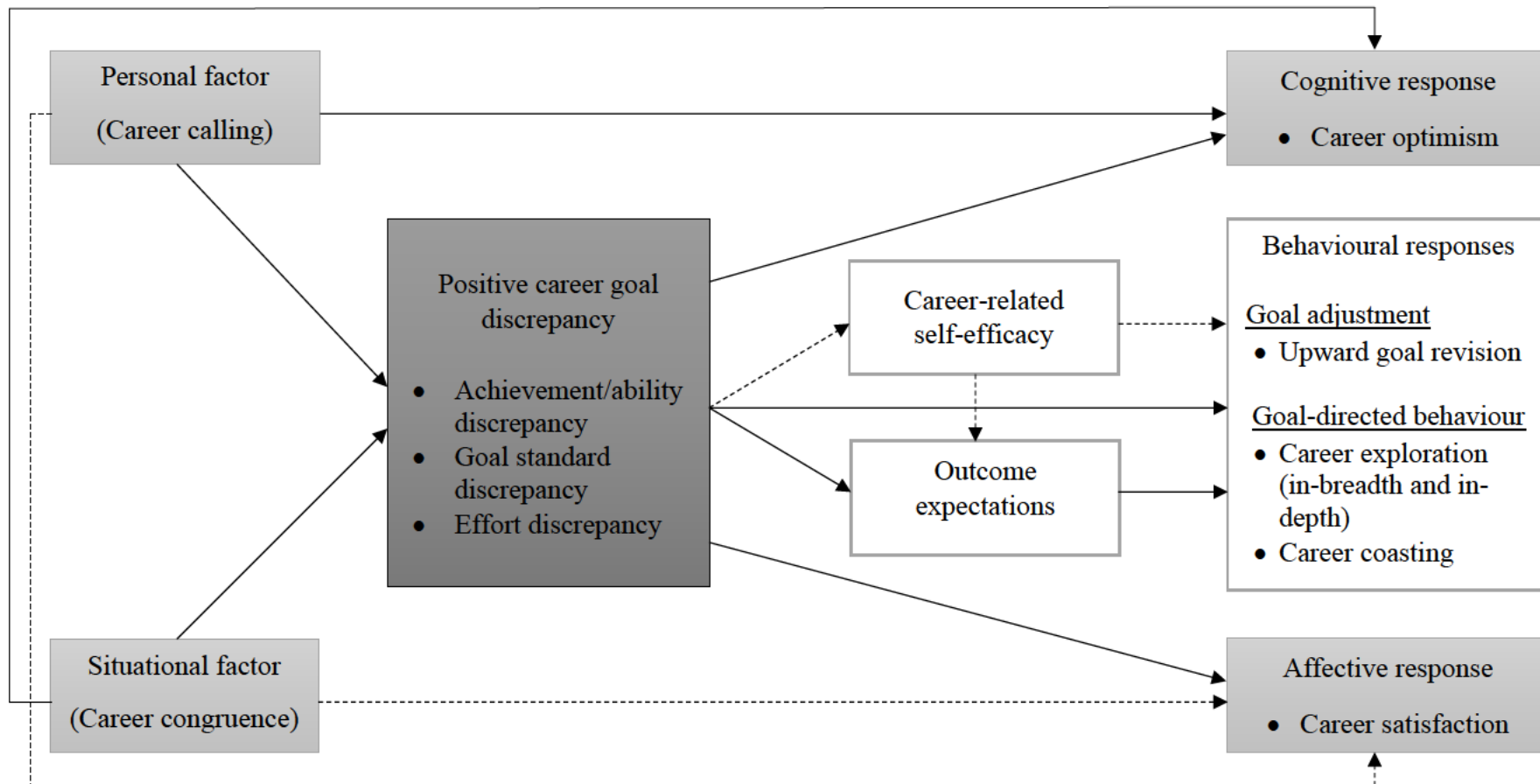
Research Summary

In Study 1, the Positive Career Goal Discrepancy Scale was developed according to the conventional procedure for developing a psychometrically sound instrument. A review of the available empirical literature, relevant self-regulatory theories (e.g., goal setting, Locke & Latham, 1990; control, Carver & Scheier, 1990; social cognitive, Bandura, 1991; social cognitive career, Lent et al., 1994), and relevant existing scales of goal discrepancy in the career (Anderson & Mounts, 2012; Creed & Hood, 2015; Patton & Creed, 2007) and other domains (Unsworth et al., 2016; Wang & Heppner, 2002) informed the initial development of items. Positive career goal discrepancy was operationalised as individual appraisals that their career-related progress exceeded that required to meet their career goals. Young people examine a variety of elements when assessing their current career progress, including how skilled or effective they are, how much effort they put in, and if the set goals might still be met or surpassed.

The initial items for the Positive Career Goal Discrepancy Scale represented a combination of internal (e.g., previous performance and future goal) and external (e.g., parental expectations and peer performance) comparators, given the relevance of both individual and situational factors in appraising career goal progress. EFA and CFA

Figure 7

Research Summary of Self-regulatory Responses to the Positive Career Goal Discrepancy in Young Adults



Note: Dark grey = Study 1; light grey = Study 2 (cross-sectional); white = Study 3 (cross-lagged). Solid lines are significant pathways, and dashed lines are non-significant pathways

indicated a 3-factor solution for the items (i.e., positive achievement/ability, goal standard, and effort discrepancies), with evidence that the scale could be interpreted at the total and/or subscale level. Initial evidence was provided to support the divergent, incremental, and construct validity of the scale. Thus, the results of Study 1 met the first aim of the PhD, which was to advance a theoretical understanding of how positive goal discrepancy was manifested in the career context and develop a psychometrically sound scale to enable goal-performance discrepancy research to be extended. This was important as previous career-related research in this area had been limited to experimental manipulations (Anderson & Mounts, 2012) and assessment of negative discrepancies based on internal comparators only (Creed & Hood, 2015; Patton & Creed, 2007) or variations in self-set versus other-set performance goals (Sawitri et al., 2012, 2020).

Using the newly constructed Positive Career Goal Discrepancy Scale, a cross-sectional direct and indirect effects model of the antecedents and outcomes of positive career goal discrepancy was examined in Study 2. Both personal (career calling) and situational factors (career congruence with parents) predicted positive career goal discrepancy, with some differences depending on the specific discrepancy. Stronger career calling was related to greater positive discrepancy in all three domains of achievement/ability, goal standard, and effort, while higher congruence with parents on career issues was related to positive achievement/ability and effort discrepancies, but not goal standard discrepancy. In turn, positive achievement/ability discrepancy was related to higher satisfaction with career progress and more optimism about the future. Greater positive goal standard discrepancy was associated with more optimism but was not satisfaction with career progress, while greater positive effort discrepancy was associated with more satisfaction but was unrelated to optimism. In summary, young people's satisfaction with their career progress was more related to their appraisals of their achievement, abilities, and effort; whereas their future

career optimism was more related to their appraisals of their achievement, abilities, and whether their set goals could still be surpassed.

Positive achievement/ability and effort discrepancies (but not goal standard discrepancy) fully explained the paths from career calling and parent congruence to career satisfaction. While career calling and parent congruence were related directly to career optimism, this was not explained by indirect paths via any aspect of positive discrepancy. It was concluded that young people who had a stronger career calling and experience greater congruence with their parents were likely to have more internal and external support that enables them to exert more effort, achieve more, and exceed their career goals to a greater extent. As a result, their progress exceeded that expected or required for their career goal, leading to higher satisfaction with their progress. Career optimism was driven more by the belief that established career goals aligned better with career calling and parents' expectations, and not with perceptions of positive goal progress. Study 2 met the second aim of the PhD and contributed to a better understanding of the nomological net of positive career goal discrepancy.

Study 3 built on Study 2 by testing the dynamic relationships over a 6-month time lag between positive career goal discrepancies and behavioural, self-regulatory, career-related outcomes. Drawing on social cognitive theory (Bandura, 1991) and social cognitive career theory model of goal performance (Brown et al., 2008; Lent & Brown, 2019), direct and indirect effects from discrepancies to outcomes through self-efficacy and outcome expectations were examined. Cross-lagged analysis is a powerful method for identifying the unique influence of predictors on outcomes while adjusting for autoregressive effects, thereby, providing evidence of possible causality in dynamic relationships (Kline, 2015; Talsma et al., 2018). Consistent with expectations, the standard causation model (discrepancy to outcomes via efficacy and outcome expectations) produced a better fit than reverse or

reciprocal causation models. This supported that positive career goal discrepancy triggered changes in both goals and behaviour, not vice versa or reciprocally, consistent with self-regulatory theories (cf. Bandura, 2001; Carver & Scheier, 2000).

Positive career goal discrepancy predicted subsequent upward goal revision, more involvement in career exploration activities, and less coasting. Young people who perceived a positive career goal discrepancy were more likely to go on to establish more challenging goals, possibly because they realised they had had set too low a benchmark for themselves (Donovan & Williams, 2003; Phillips et al., 1996; Wang & Mukhopadhyay, 2012). Further, they were more likely to participate in career exploration activities, which potentially facilitated a better self-understanding and awareness of future work environments and career options. They were also less likely to coast; that is, less likely to rest in their goal pursuit following positive discrepancies. This suggested that young adults who were progressing towards their goal faster than anticipated were more likely to remain passionate and willing to expend ongoing effort to achieve their set, or even higher, goals (cf. Bandura, 1997; Holman et al., 2005; Locke & Latham, 1990).

Importantly, outcome expectancies, but not self-efficacy, explained the indirect paths from positive career goal discrepancy to these behavioural responses, which was not consistent with the social cognitive theories that emphasise the role of self-efficacy. However, goal setting, social cognitive and control theories agree that favourable outcome expectations lead individuals to update their goals, re-allocate their effort to the new goals, increase the likelihood of choosing activities that correspond to their career choice, and set higher career goals (Carver & Scheier, 1990a; Lent et al., 1994; Phillips et al., 1996; Rogers et al., 2008). Thus, an underlying mechanism through outcome expectancies explains Study 3 findings that, following perceptions of positive discrepancies, young people were likely to raise their goal standards, engage in more career-relevant exploration, and re-allocate their

effort to those endeavours. In summary, these findings support arguments from both social cognitive (Bandura, 1991; Lent et al., 1994) and control theories (Carver & Scheier, 1990, 1998; Holman et al., 2005) and strengthen the evidence for the importance of outcome expectations in the self-regulatory process (Sheu et al., 2010).

Unexpectedly, self-efficacy did not explain the indirect paths from positive career goal discrepancy to behavioural responses. One potential explanation is that there might be no effect of self-efficacy on goal behaviour when individuals perceive that their current position is close to achieving their goal as would be the case with positive discrepancy (Sitzmann & Yeo, 2013). The null effect of self-efficacy in Study 3 model may also related to the “ceiling effects” in psychological research. The ceiling effect occurs when the scale is relatively easy or most participant tend to response to “agree” or “strongly agree” so that most of participants obtain scores close to maximum (Wang et al., 2009). In this research, it was found that this sample had very high career self-efficacy at Time 1 (mean 38 out of possible score of 40) and had a stable self-efficacy level between T1 and T2. In longitudinal data, it lead to biased parameter estimate and prevented the identification of the intraindividual change pattern (Wang et al., 2009). Therefore, Study 3 failed to support the mediating role of self-efficacy in response to the positive career goal discrepancy in young adults.

In summary, Study 3, contributed to a better understanding of the causal relationships between positive career goal discrepancy and important career outcomes but some questions remain about whether self-efficacy plays a role in this.

Conceptual and Theoretical Contributions

The three studies in this PhD program provide conceptual and theoretical contributions to the existing career goal discrepancy and self-regulatory literature; in particular, this PhD research has advanced understanding of the construct of positive career goal discrepancies. Prior to this research program, there was no existing scale to measure

positive career goal discrepancy and so research was dominated by negative career goal discrepancy or limited to experimental or field studies. The provision of a valid and reliable Positive Career Goal Discrepancy Scale contributes to advancing career goal discrepancy literature. In line with general self-regulation theories and SCCT (Bandura, 1991; Carver & Scheier, 1990; Lent et al., 1994; Locke, 1991), the scale emphasises the relevance of both internal (e.g., previous performance and future goal) and external (e.g., parental expectations and peer performance) comparators in appraising career goal progress. This scale should stimulate further research into positive goal discrepancy in both the career, and potentially, with adaptation, in other contexts, such as academic settings.

Study 1 demonstrated that the positive career goal discrepancy construct could be interpreted at the single general construct level (total score) or at the subfactor level (subdomains), although interpretation of the Positive Career Goal Discrepancy Scale is more reliable at the general factor level. Study 2 examined the antecedents and outcomes at the subdomain level and found some similar but different patterns of results across the subdomains of positive career goal discrepancies. Achievement/ability discrepancy showed a consistent pattern, but effort and goal standard discrepancies had different antecedents and outcomes. Achievement/ability was positively related to both personal and situational antecedents and cognitive and affective outcomes. However, effort discrepancy was related to both antecedents but only to affective outcome, whereas goal-standard discrepancy was related to only personal antecedent and cognitive outcome. Study 3 examined the dynamic changes in discrepancy and behavioural adjustments over time, but only using the total score of positive career goal discrepancy. Future research needs to investigate whether the subdomains show consistent or different changes over time under the same circumstances and demonstrate the same or different patterns of relationships with those outcomes.

Study 1 also provided clear evidence that positive goal discrepancy is not the opposite of negative goal discrepancy. First, the factor structure differed between the Positive Career Goal Discrepancy and Creed and Hood's (2015) measure of negative career goal discrepancy. Achievement and ability formed a single positive factor, but separate negative discrepancy factors. Second, there were negligible associations between positive and negative career goal discrepancies at both the total and subdomain levels, with at most around 7% shared variance. Third, the Positive Career Goal Discrepancy Scale accounted for a significant additional unique variance in optimism and satisfaction explained by negative career goal discrepancy. Those results suggest that positive and negative goal discrepancies were largely independent constructs and not simply opposite poles on a single continuum. Further, according to Carver (2003), people are more likely to exert more effort in response to negative goal discrepancy to reduce the discrepancy between their performance and set goals. If the positive discrepancy is the opposite, people would be expected to reduce their effort in responding to it. However, this research found that young adults had increased effort when the discrepancy was positive, which potentially reflected renewed engagement and motivation to achieve their career goals. Further work that includes negative career goal discrepancy in model testing and compares the antecedents and outcomes, as well as boundary conditions of negative and positive career goal discrepancy is now needed to clarify the ways in which these two constructs differ.

The results of this PhD also extend self-regulation theories by providing evidence for the antecedents to and self-regulatory outcomes of positive career goal discrepancies. Consistent with self-regulatory theories (Bandura, 1991; Carver & Scheier, 1990; Lent et al., 1994; Locke, 1991), both personal and situational antecedent were shown to be important, although Study 2 demonstrated that it is important to consider the subdomain of positive career goal discrepancy as there were different relationships for different domains.

Discrepancies in achievement/ability and effort were more important than discrepancies with one's previous goal standard in explaining how personal and situational factors were related to cognitive and affective responses. This also extended the existing body of research into mechanisms that underlie the effects of calling and congruence on career development (cf., Duffy & Dik, 2013; Hirschi & Herrmann, 2012; Sawitri et al., 2012).

In general, this research provided evidence that social cognitive theories (Bandura, 1991) was most relevant when examining the relationships with positive goal discrepancy. Although goal setting theory (Locke & Latham, 1990) also agrees with the dynamic self-regulatory response of goal discrepancy, it appears to be less relevant in explaining career goals that tend to be long-term and less specific. Successful goal progress was related to positive cognitive and affective responses as well as upward goal adjustments and increased engagement and effort. Young people increased the difficulty of their career goals in response to positive career goal discrepancy, potentially aiming to produce discrepancies in response to realising their current goals were achievable (cf. ; Locke, 1991). These goal and behavioural adjustments were not fully consistent with Carver and Scheier's (1990) control theory, which states that self-regulation systems aim to reduce discrepancies and that, in response to positive goal discrepancies, people would be less likely to revise their goals and more likely to divert effort away from them and coast (Carver, 2003; Thürmer et al., 2020; Wang & Mukhopadhyay, 2012).

In addition, the PhD also contributed to understanding the underlying mechanism in the relationships between positive career goal discrepancy and self-regulatory responses. The self-regulation theories (Bandura, 1991; Carver & Scheier, 1990; Lent et al., 1994; Locke, 1991) agree on the important explanatory role of self-efficacy. Existing career research also concluded that self-efficacy was important in career goal management (Lent, 2013; Sheu et al., 2010). However, control theory (Carver & Scheier, 1990, 1998; Holman et al., 2005)

differs to the other self-regulatory theories because it proposes distinct effects of self-efficacy and expectancies on goal-directed behaviour. Goal setting and social cognitive theories predict that positive discrepancy should motivate goal pursuit and, therefore, increase effort due to improved efficacy. In contrast, control theory argues that increased self-efficacy would be related to effort reduction as it is diverted to other goals for which there is less positive progress. Contrary to expectations, the current research findings indicated that, in response to positive career goal discrepancy, self-efficacy was not uniquely related to goal adjustment or effort deployment. Rather, outcome expectations provided the important underlying explanation for the relationships between positive career goal discrepancy and goal and behavioural adjustments. Individuals who perceived successful career progress had higher expectations for their future, motivating them to exert more effort and focus on activities that lead to achieving their desired career goals (Holman et al., 2005).

Importantly, this research contributed evidence for the applicability of these self-regulatory theories to the career context in a collectivist culture. In general, the findings in Studies 2 and 3 indicated that the predictions derived from the theories that have been largely developed and tested on samples drawn from individualistic cultures hold for collectivist cultures. However, it remains possible that the unexpected lack of significant findings regarding self-efficacy could be due to cultural differences. Self-efficacy might be more relevant to explaining self-regulatory responses to perceptions of better than expected goal progress in participants from individualist culture, which emphasise “I” as the agency of human behaviour (Bandura, 2001; Klassen, 2004; Triandis, 2001). Collectivist culture tends to emphasise “We”, in which other people, not only the self, are considered in personal behaviour (Bandura, 2001; Klassen, 2004; Triandis, 2001). Self-efficacy is focused on the internal competence of the individual, whereas outcome expectancy is more externally focused and the current findings that self-efficacy was not an important underlying

mechanism, but outcome expectancies was, might be relevant only in young adults from collectivist or interdependent cultures. In these cultures, career goals and regulatory processes are mainly influenced by social integrity and the primacy of family/parental goals above individual goals (Akosah-Twumasi et al., 2018; Lee & Semin, 2013; Mok et al., 2021; Sawitri et al., 2020). Expectations from significant individuals, such as parents, seem to be thoroughly internalised and incorporated into the self of collectivists, which in turn serve as criteria for determining their own goals (Oishi & Diener, 2022). Therefore, making positive progress towards career goals might not increase these young people's beliefs about their capabilities but instead, increases their future expectations. Expectations that they will be able to fulfill obligations and responsibilities to their parents or family, which have been internalised as career goals (Akosah-Twumasi et al., 2018; Lee & Semin, 2013; Mok et al., 2021; Sawitri et al., 2020), rather than perceptions about their individual capability, appears to be the important driver to set higher career goals and put more effort into pursuing them. However, this needs to be tested against results from a sample of young people drawn from an individualist population.

Limitations and Recommendations for Future Research

While this PhD has made important contributions to the field – developing a new scale to measure positive career goal discrepancy and using it to provide evidence of young people's self-regulatory responses when career goals are progressing better than expected – there were some limitations that future research is recommended to address. First, future research should examine positive career goal discrepancy using diverse samples to determine the generalisability and representativeness of the current findings beyond young adults from a strong collectivist culture. It is possible that the incorporation of internal and external comparators, emphasising the relevance of person and situational factors in appraising career goal progress, are consistent across cultures. However, cultural backgrounds affect

individuals' goal setting, planning, decision-making, and self-regulatory processes differently (Lee & Semin, 2013; Oishi & Diener, 2022), which might affect some results of this study. Thus, further work is needed to test the scale invariance and the generalisability of the current results in young adults with different cultural backgrounds and different demographics variables. Future research could modify a shortened version of the Positive Career Goal Discrepancy Scale for practical use by selecting items with a higher factor loading from each domain. A shortened version would be expected to capture the positive career goal discrepancy construct and be less onerous for participants.

For example, future work needs to establish scale invariance and self-regulatory correlates across genders, SES, and achievement levels. The samples used in this thesis included disproportionately more female than male participants, and more participants with higher socioeconomic status and higher levels of achievement than the general young adult population. While there were minimal relationships with gender and SES, which were controlled as needed in Studies 2, it was not possible to test scale invariance fully for these demographic groups due to this disproportion. The current sample also showed higher average levels of academic achievement. As noted earlier, this might have contributed to the non-significant change over time in self-efficacy, and, therefore, self-efficacy was not significant in explaining the dynamic relationship between positive career goal discrepancy and goal and behavioural adjustments. Future research needs to assess these relationships on young people from different cultural, gender, SES, and academic achievement backgrounds to confirm the generalisability of these results.

The PhD studies also only sampled first-year university students, who are in the early stages of their career process. For students in their first year of university, accomplishing their primary current goal of obtaining a position at university might have dominated their perceptions of positive career goal progress in general, and past achievement/abilities and

parents' expectations might operate as the most salient comparators. Factors that drive perceptions of positive goal progress and the important comparators might be different, for example, for working young adults (who were not studying), where status and income might be most important when evaluating successful progress (Hennequin, 2007). Further, their self-performance relative to job expectations (e.g., perform the tasks outlined in the job description) might be the most important comparator (Hennequin, 2007). Thus, it will be useful for future research to investigate the generalisability of this scale and these results to those young adults who are working rather than studying.

In addition to needing to broaden the diversity of the samples examined, future research needs to expand the knowledge of important antecedents by investigating other potential factors that predict individual goal progress, drawing from goal setting (Locke & Latham, 1990) and social cognitive theories (Bandura, 1991; Lent et al., 1994), and prior research. The one personal (career calling) and one situational (career congruence with parents) predictor only accounted for around one third at best of the variance in positive career goal discrepancy. Existing research, albeit on negative career goal discrepancies, suggests other potentially important antecedents, such as feedback from others (Creed et al., 2015; Sheppard et al., 2019), personal orientation, and career goal importance (Creed et al., 2017).

Similarly, this PhD research examined only select responses to positive career goal discrepancies. Future research should expand the current work by investigating other career-relevant outcomes representing the cognitive response (e.g., employability confidence, Creed et al., 2017), affective response (e.g., general wellbeing, Creed et al., 2015), and goal adjustments (e.g., goal engagement, Hu, Hood, et al., 2017; career goal assimilation and accommodation, Praskova & McPeake, 2021). Future research needs to examine evidence from control theory, that positive goal progress in a specific task leads individuals to shift

focus toward other important goals on which they are not progressing as well (Carver, 2015; Fulford et al., 2010; Louro et al., 2007; Thürmer et al., 2020). Existing studies have been conducted in an experimental setting, in which short-term goals were set by the experimenter. There has been a call to test the replicability in relation to other types of goals, including facilitating and competing goals (Louro et al., 2007) and self-set important goals (Thürmer et al., 2020). Examining this in the career context is ideal as people are most likely to choose a career goal that is meaningful to them.

This PhD also investigated the affective, cognitive, and behavioural responses to positive career goal discrepancy in two separate studies. The potential sequential nature of those self-regulatory responses has not been explored. Future work can investigate whether the cognitive and affective responses precede the behavioural adjustments. Although this PhD research was the first to investigate career coasting as a goal-directed behaviour, the measure used for coasting was newly developed. Therefore, further work is needed to validate this measure and to clarify coasting's associations with other variables, including whether cognitive and affective responses precede it. In addition, given the hierarchical structure of a goal and that different feedback loops are related to the regulation of short-term and long-term goals (Latham et al., 2014), coasting might not be an appropriate response to the positive goal discrepancy for a long-term plan. Coasting might be more likely a response to positive goal discrepancies in short-term goals when alternative goals need attention over the short-term (Vancouver et al., 2010). Thus, future research could investigate the dynamic of multiple goal pursuits (Louro et al., 2007; Neal et al., 2017; Vancouver et al., 2010) for young adults who experience positive discrepancies in long-term career goal progress.

This PhD did not examine important questions regarding what boundary conditions that explain the relationships between positive career goal discrepancies and responses. Understanding the important moderating variables might help clarify the conditions under

which positive career goal discrepancy leads to more or less coasting and self-efficacy does or does not play a role as a mediator. For example, prior research in other contexts has shown some personal factors, such as causal attributions (Donovan & Williams, 2003) and learning goal orientation (Donovan & Hafsteinsson, 2006), can operate as moderators in the relationship between goal discrepancy and goal revision, and that these relationships were stronger among participants who attributed their successful performance to stable causes and who held a stronger learning goal orientation. Future work should include potential moderating variables that might alter the strength and/or directions of relationships between positive career goal discrepancy, underlying mechanisms, and self-regulatory outcomes.

Only Study 3 examined the proposed relationships over time, demonstrating that the standard causation model showed the best fit, although the reciprocal model also fitted. The reciprocal causation model is more consistent with self-regulatory theories which propose that goal discrepancies lead to affective and cognitive responses, and goal and behavioural modifications, which are subsequently assessed, and the perceived discrepancy adjusted in a cyclical fashion (Bandura, 1991; Carver & Scheier, 1998; Locke & Latham, 1990). Further testing of reciprocal causation of more comprehensive models using more waves of data might clarify the temporal sequence of responses to positive discrepancy and provide a better test of mediating relationships. Collecting data over three or more waves would provide a more robust test of these indirect effects (Taris & Kompier, 2006).

Practical Implications

Career counsellors no longer focus only on helping young people who do not have clear career goals, are not making sufficient progress, or are pursuing unrealistic goals. Career counselling in the 21st century also adopts a positive psychological perspective, which emphasises the importance of prevention and promotion of individuals' positive development in their career (Di Fabio, 2014). Such an approach aims to promote individual protective

factors that improve the likelihood of positive outcomes and reduce risk factors (Di Fabio, 2014). This PhD contributes to understanding how young people who perceive they are progressing positively in their pursuit of career goals also report more favourable career-related outcomes, and this can inform career practitioners about how to support positive career development.

Applying a combination of quantitative and qualitative approaches in career counselling is useful to identify problems (Di Fabio, 2014). Therefore, career counsellors might help clients to quantify how well they are progressing in achieving their career goals by using the new Positive Career Goal Discrepancy Scale and use the results to engage in a discussion about whether university students should think about taking a higher-level degree that would enable a more challenging career goal. This might be particularly relevant if they identify a positive achievement/ability or standard discrepancy. However, if students identify that their effort is exceeding what is needed, the discussion might be about engaging in more exploration and engagement in career-related activities (e.g., gaining some practical experience in the field). Counsellor also might use the scale both pre and post career interventions to evaluate the effectiveness (Di Fabio, 2014).

The research reported in this thesis demonstrates that young people who have clear and personally meaningful goals (i.e., a calling) and share their career goals with significant others (i.e., congruent with their parents' goals) would be more likely to perceive progress in achieving their career goals. This can inform career counsellors and advisors about how to promote positive discrepancies in young people. Counsellors could help young individuals to find personal meaning and significance in their career aspirations and to develop skills in gaining parental agreement with those career goals or to develop strategies for reconciling incongruence with parents where differences cannot be resolved. Skill in gaining parental congruence, or managing incongruence are likely more important in a collectivist culture

where parents hold considerable influence (Sawitri et al., 2014). These practices could include teaching strategies for communicating beliefs and aspirations to parents and assisting young people in reflecting on what they want to achieve and what their parents' expectations are (Di Fabio, 2014).

When young people perceived that they are ahead of where they expected to be in their career goal progress, they were satisfied with their career, more optimistic about their future, set higher goals, put more effort in to reach their goals, and participated more in career exploration to widen or strengthen their aspirations. Such outcomes are critical for maximising young people's potential. Rather than assuming these young people do not need assistance because everything is positive, career counsellors should facilitate their continued exploration and advise on various more challenging, and appropriate career options. This will help them to set appropriate higher goals and assist them to prioritise their efforts and maximise their career potential. Counsellors can play an essential role by assisting these young people to effectively manage their career goal expectations so that they remain engaged, rather than losing motivation or redirecting effort elsewhere. Exploring career directions, expressing confidence in the young people's ability, and helping them to progress their goals are effective strategies to foster positive outcome expectations (Swift & Derthick, 2013).

Conclusion

Previous research in the career context has focused largely on individuals who were not progressing well in their career development. In comparison, focusing on those whose progress is better than expected has been overlooked. This PhD research has made several important contributions to the theoretical and empirical literature and should prompt future research in this area of positive discrepancy as well as facilitating ideas for career practitioners working with these young adults. First, a valid and reliable scale to measure

positive career goal discrepancy in young adults will facilitate future research in the career context and could be adapted for other areas where understanding positive goal progress is important (e.g., educational context). Second, this PhD research provided empirical evidence for important antecedents and self-regulatory responses to positive career goal discrepancy which demonstrated that social cognitive theory, rather than control theory, was more suitable to explain the positive goal discrepancy concept. However, it cast doubt on some aspects from social cognitive theory; namely it supported an important role for outcome expectations and not self-efficacy when individuals are progressing better than expected. Last, this PhD research broadened the career goal development research beyond the typical focus on Western populations by being conducted in a non-Western collectivist culture. Developing a better understanding of how young people regulate their cognitions, affect, and behaviours when experiencing positive career goal discrepancies can inform practical interventions regarding strategies to optimise young adults' potential.

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Appendices

Appendix A: Letter of Approval from Griffith University Human Research Ethics

Full Research Ethics Clearance 2019/934

rims@griffith.edu.au <rims@griffith.edu.au>

Thu 11/21/2019 2:50 PM

To: Sari Akmal <sari.akmal@griffithuni.edu.au>; p.creed@griffith.edu.au <p.creed@griffith.edu.au>; A.Duffy@griffith.edu.au <A.Duffy@griffith.edu.au>; michelle.hood@griffith.edu.au <michelle.hood@griffith.edu.au>

Cc: annmaree.jackson@griffith.edu.au <annmaree.jackson@griffith.edu.au>

GRIFFITH UNIVERSITY HUMAN RESEARCH ETHICS REVIEW

Dear AProf Michelle Hood

I write further to the additional information provided in relation to the provisional approval granted to your application for ethical clearance for your project "Self-regulatory responses to career goal discrepancies in young adults" (GU Ref No: 2019/934).

This is to confirm that this response has addressed the comments and concerns of the HREC.

The ethics reviewers resolved to grant your application a clearance status of "Fully Approved".

Consequently, you are authorised to immediately commence this research on this basis.

Regards

Annmaree Jackson

Policy Officer | Office for Research

Level 0, N54 Brae Centre | Griffith University - Nathan Campus

Phone: (07) 373 58043 | Email: Annmaree.Jackson@griffith.edu.au

Appendix B: Letter of Approval from YARSI Research Ethic Committee

**RESEARCH ETHICS COMMITTEE
RESEARCH INSTITUTE YARSI UNIVERSITY**

ETHICAL CLEARANCE

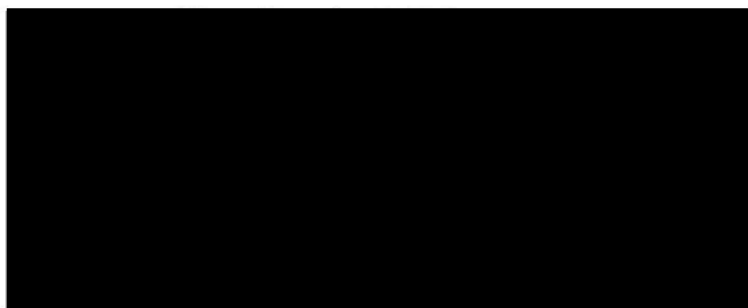
No: 253/KEP-UY/BIA/X/2019

The Research Ethics Committee, YARSI University has learned and decided that the research proposal entitled:

Self-Regulatory Responses to Positive Career Goal Discrepancies in Young Adults.

Lead Researcher : *Sari Zakiah Akmal*
Affiliation : *Faculty of Psychology, University of YARSI, Jakarta*

using human specimen is approved as long as the research is conducted properly on the basis of respect for human dignity and human rights and refers to scientific and moral ethics.



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www.yarsi.ac.id

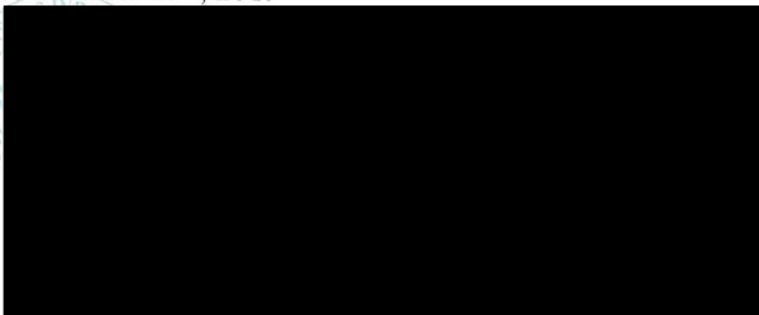
Appendix C: Consent to Conduct Research at University of Indonesia

UNIVERSITAS INDONESIA
FAKULTAS PSIKOLOGI

Gedung A Fakultas Psikologi
Kampus UI Depok 16424
T. 62.21.727 0004, 727 0005, 786 3520, 786 3523, 786 8280
F. 62.21.786 3526 E. ipsiui@ui.ac.id
www.psikologi.ui.ac.id

Assoc. Prof. Michelle Hood, PhD, Prof. Peter Creed, PhD, Dr. Amanda Duffy, PhD and Sari Zakiah Akmal, from Griffith University, are permitted to recruit voluntary students in Faculty of Psychology Universitas Indonesia for the study of "Self-regulatory Responses to Career Goal Discrepancies in Young Adults".

October 23rd, 2019



Appendix D: Consent to Conduct Research at YARSI University

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Jakarta, October 25th 2019

No. : 526/DEP/BIA/X/2019

To:

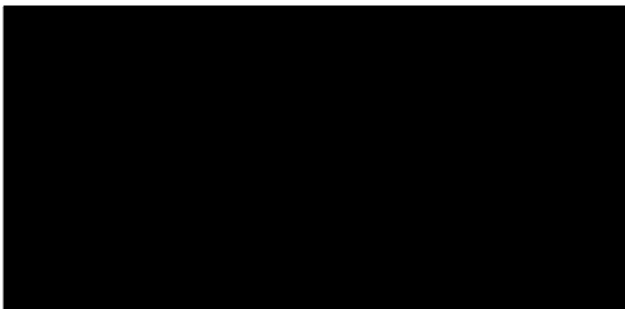
Ms. Sari Zakiah Akmal
PhD Candidate
School of Applied Psychology
Gold Coast Campus
QLD Australia

Re: Universitas YARSI participation in research Project

Dear Ms. Akmal and supervisors team,

Thank you for your interest in involving our students in your research project. We would be glad to give your research team Assoc Prof. Michelle Hood, PhD, Prof. Peter Creed, PhD, Dr. Amanda Duffy, PhD and Sari Zakiah Akmal a permission to conduct Study 1 (Focus Group Discussion/ FGD) at our department. Meanwhile, I am also forwarding your letter to our vice chancellor to have his permission for you to conduct Study 2 and Study 3 at other Departments once ethics approval from Griffith University Human ethics committee obtained.

Attached is a letter of approval to do data collection in our department.



Appendix E: Focus Group Information for Participants - English Version

Self-regulatory responses to career goal discrepancies in young adults Focus Group Discussion – Information Sheet

Who is conducting the research?

A/Prof. Michelle Hood Primary supervisor michelle.hood@griffith.edu.au	Prof Peter Creed Supervisor team p.creed@griffith.edu.au	Dr. Amanda Duffy Supervisor team A.Duffy@griffith.edu.au	Sari Zakiah Akmal Phd Candidate sari.akmal@griffithuni.edu.au
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School of Applied Psychology, Griffith University, Gold Coast

Why is the research being conducted?

The research is a PhD study undertaken by Sari Zakiah Akmal. We are interested in how young adults progress their career goals, especially when they are progressing better than expected.

What you are being asked to do

Participate in a focus group discussion with 5-6 others (for approx. 60 mins) to consider how young adults strive for, and achieve, their career goals.

Who can participate?

Any undergraduate university student aged 18 to 25 years.

The expected benefits

In return for participating, you will be offered a \$15 gift voucher for your time. Your participation will contribute to a better understanding of the career development processes of young adults and how they self-regulate their progress towards achieving their career goals. This information is likely to assist universities, career counsellors, and families of young people to support them to achieve their career goals.

Risks to you

There is minimal risk. However, sometimes young people can feel uncomfortable discussing their career goals or how they think they are going in achieving these. If you become uncomfortable, you can leave the focus group discussion immediately with no explanation. The following service is also available to you if you need to discuss your feelings with someone: Klinik Fakultas Psikologi Universitas YARSI +62 21 422 3138.

Your confidentiality

Your responses will be treated confidentially. The discussion will be audio-recorded for later transcription, but each participant will be identified only by an anonymous code. After the recordings are transcribed, **the audio recording will be destroyed**. Transcripts and your demographic information will be securely stored in a de-identified form and your identity will not appear in any publication. Feedback and publications will deal with de-identified and/or group level information. Your contact details will be stored separately and only used to contact you to verify your attendance at the focus group discussion. They are then destroyed.

Privacy statement

The information collected is confidential. It will not be disclosed to third parties without your consent, except to meet government, legal, or other regulatory authority requirements. De-identified data may be used for research purposes: for the PhD thesis of Ms Akmal, for journal articles, and/or conference presentations. However, your anonymity will always be safeguarded.

All data (transcripts and analyses) will be retained in a locked cabinet and/or password protected electronic file at Griffith University, Australia or stored on the Griffith University Research Storage platform for five years before being destroyed. For more information, telephone +61 7 3735 4375, or consult the Griffith University Privacy Plan at <http://www.griffith.edu.au/about-griffith/plans-publications/griffith-university-privacy-plan>.

Your participation is voluntary

You can withdraw from the focus group at any time without explanation or penalty.

Questions / further information

Please contact Sari Zakiah Akmal for additional information (see above for contact details).

Feedback to you

If you are interested in receiving a summary of project results, please advise the researcher (Sari Zakiah Akmal).

The ethical conduct of this research

This project will follow the National Statement on Ethical Conduct in Human Research. If you have any concerns or complaints about the conduct of the project, you can contact the Chief Investigator (Assoc Prof Hood on the details above) or the Manager, Griffith University Research Ethics on +61 3735 4375 or research-ethics@griffith.edu.au.

Self-regulatory responses to career goal discrepancies in young adults Focus Group – Consent Form

Research Team

A/Prof. Michelle Hood Primary supervisor michelle.hood@griffith.edu.au	Prof Peter Creed Supervisor team p.creed@griffith.edu.au	Dr. Amanda Duffy Supervisor team A.Duffy@griffith.edu.au	Sari Zakiah Akmal Phd Student sari.akmal@griffithuni.edu.au
School of Applied Psychology, Griffith University, Gold Coast			

By signing below, I confirm that I have read and understood the information provided and in particular note that:

- I understand that my involvement in this research will include provision of my opinions regarding career development in discussion with other students of a similar age.
- I agree to keep other participants' information confidential
- I agree to respect the privacy of other participants within the group.**
- I have had any questions answered to my satisfaction.
- I understand the risks involved, which are minimal.
- I understand that my participation in this research is voluntary.
- I understand that if I have any additional questions, I can contact the research team.
- I understand that I am free to withdraw at any time, without explanation or penalty.
- I understand that I can contact the Manager, Research Ethics, at Griffith University Human Research Ethics Committee on +61 3735 4375 (or research-ethics@griffith.edu.au) if I have any concerns about the ethical conduct of the project

I agree to participate in the project

Yes No

I want to receive a summary of the research results when available Yes No

Email: _____

(Please provide your email address only if you want a summary of the results)

**Self-regulatory responses to career goal discrepancies in young adults
Focus Group – In Class Invitation**

Dear student,

You are invited to participate in a research study that aims to develop an understanding of how young adults strive for, and achieve, their career goals.

You are invited to participate in a focus group discussion with 6-7 other young people (for approx. 60 mins) to provide your opinions and experiences on how young adults strive for, and achieve, their career goals.

As a thank you for your participation, you will be offered a \$15 shopping voucher at the end of the group.

If you would like to take part in this study, please provide your contact details and your availability by filling in this form. Sari Zakiah Akmal will contact you to verify the time and arrangements.

To submit your details, click on this URL:

<http://bit.ly/31HRMAE>

PhD candidate, Sari Zakiah Akmal
School of Applied Psychology
Griffith University, Gold Coast Campus
sari.akmal@griffithuni.edu.au

Self-regulatory responses to career goal discrepancies in young adults**Focus Group – Registration Form**

Event Timing: xx December 2019

Event Address: Meeting Room Faculty of Psychology Universitas YARSI, Menara YARSI 6th Floor Contact us at +62 852 80233727 (Whatsapp only)

* Required

Focus Group Discussion Registration Form

Name *

Gender *

Mark only one oval.

Female

Male

Prefer not to say

Age *

Email *

Phone number *

This will be used only for making appointment for the focus group discussion

Current major/ Faculty *

What focus group discussion can you attend?

Check all that apply.

SPECIFIC FOCUS GROUP DETAILS FOR THE UNIVERSITY WILL BE ADDED HERE

Thank you for your responses.

Sari Zakiah Akmal will contact you to verify the time and arrangements.

Self-regulatory responses to career goal discrepancies in young adults

Focus Group - Guide

Goals

- (a) To develop an understanding of how young adults strive for, and achieve, their career goals.
- (b) Specifically, to discuss “career goal discrepancies” (i.e., what are they, how do they develop, what do you think/do when you experience one?).
- (c) Identify who or what you use as comparison against which to judge your career progress? (e.g., your parents’ ambitions for you, your friends); and
- (d) To generate questions that might be used to measure career goal discrepancy.

1. Researcher will introduce herself by giving relevant information such as: name, educational background and research interest.
2. All participants will introduce themselves (Before we begin, could each of you introduce yourself by giving information like what course you are currently doing and what is your career goal).
3. How do young people define success in their career?
 - a. How about university students, how do they define success as the progress to achieve their career?
 - b. What aspects that most important to young people to define success in career?
4. How do young people judge their progress toward their career goal?
 - a. What sort of feedback mostly young people receive?
 - b. What kind of information or feedback would let you know that your career performance is exceeding your career goals?
 - c. What do young adults compare their performance to when judging their career goal progress?

Prompt: (This probing will only be asked if the participant has not or has not yet discussed this point)

 - How about achievement discrepancies? (*The appraisal that current achievement is more than adequate/inadequate to achieve the future career goal*).
 - How about effort discrepancies? (*Compare previous effort expended and the effort required to achieve the career goal*).
 - How about standard discrepancies? (*The perception that the career goal is set too high/low*).
 - How about ability discrepancies? (*The perception that the individual does not/has more than enough of the personal skills and abilities required to achieve the desired goal*).
 - d. With whose standards do they compare their performance?

Prompt: (This probing will only be asked if the participant has not or has not yet discussed this point)

 - a. What do you think about young adults comparing their performance relative to individual set goals/standard?
 - b. What do you think about young adults comparing their performance relative to past performance?

- c. What do you think about young adults comparing their performance relative to their parents' expectations?
- d. What do you think about young adults comparing their performance relative to their peer?
- e. What do you think else?
- f. What feedback affects young people the most?
- g. What do young people do when this happens?

It will then be explained that we want to develop a scale to measure the situation when young people are appraising, they are doing better than expected. Some sample or stimulus items will be presented to motivate participants to generate some additional items.

See the focus group discussion worksheet.

Thank participants

Prompt when discussion is flagging

1. Can you tell us about your experience with that?
2. What do think about that?
3. That is interesting, I would like to hear more about that.
4. Tell me more about your experience!

Self-regulatory responses to career goal discrepancies in young adults

Focus Group Discussion - Worksheet

Sample Questions

Here are some questions that we think could be used to measure positive career goal discrepancies, which is when people appraised that their career performance is progressing better than expected or better than their career goal.

If we were to use a 6-point rating scale (1 = strongly disagree to 6 = strongly agree), a higher score on any item would reflect a perception of greater progress or performance toward one’s career goals than expected or needed, i.e., a positive discrepancy.

To what extent do you agree with these statements?

Questions	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
My plans are working out better than I expected to get the career I really want.						
The effort I have put into pursuing my career goals is more than I needed.						
My abilities to achieve my career goal are better than those of my friends						
My accomplishment in working toward my chosen career area now goes beyond my parents’ standards for me.						

Prompts:

- a. Do you think each of these items measure a positive career goal discrepancy?
- b. Is the wording of the items clear?

Your Questions

Please have a go at writing some questions that you think assess positive career goal discrepancies.

Share your questions with the person next to you.

(You can make a note if needed)

Share 1-2 with the group to generate further discussion.

After this discussion, are there any further items that you can think of or comments that you have? If yes, please note these below.

Appendix F: Focus Group Information for Participants - Indonesian Version

Self-regulatory responses to career goal discrepancies in young adults Focus Group Discussion – Information Sheet

Siapa yang melakukan penelitian ini?

A/Prof. Michelle Hood	Prof Peter Creed	Dr. Amanda Duffy	Sari Zakiah Akmal
Ketua supervisor	Anggota tim supervisor	Anggota tim supervisor	Phd Candidate
michelle.hood@griffith.edu.au	p.creed@griffith.edu.au	A.Duffy@griffith.edu.au	sari.akmal@griffithuni.edu.au
School of Applied Psychology, Griffith University, Gold Coast			

Mengapa penelitian ini dilakukan?

Penelitian ini adalah studi PhD yang dilakukan oleh Sari Zakiah Akmal. Kami tertarik untuk melakukan penelitian mengenai bagaimana dewasa muda menilai perkembangan kariernya, terutama ketika mereka menunjukkan perkembangan karier yang lebih baik dari yang diharapkan.

Apa yang perlu Anda lakukan?

Berpartisipasilah dalam diskusi kelompok fokus dengan 5-6 orang lain (sekitar 60 menit) untuk mendiskusikan mengenai bagaimana orang dewasa muda berjuang untuk, dan mencapai, tujuan karir mereka.

Siapa yang bisa berpartisipasi?

Setiap mahasiswa sarjana berusia 18 hingga 25 tahun.

Manfaat yang diharapkan

Sebagai imbalan untuk berpartisipasi, (a) Anda akan ditawarkan voucher hadiah Rp. 150.000, - untuk waktu Anda, dan (b) partisipasi Anda akan berkontribusi pada pemahaman yang lebih baik tentang pengembangan karir orang dewasa muda, yang akan disediakan untuk menginformasikan universitas, orang tua, dan konselor karier.

Risiko bagi Anda

Penelitian ini minim risiko, tetapi jika Anda merasa tidak nyaman atau tertekan ketika mendiskusikan ide Anda, Anda dapat segera meninggalkan diskusi kelompok terarah. Layanan berikut ini juga tersedia untuk Anda: Klinik Fakultas Psikologi Universitas YARSI +62 21 422 3138.

Kerahasiaan Anda

Data akan diperlakukan secara rahasia dan disimpan secara anonim. Data pribadi Anda akan disimpan secara terpisah dan hanya digunakan untuk menghubungi Anda untuk mengatur diskusi kelompok dan kemudian dimusnahkan. Diskusi ini akan direkam, tetapi Anda hanya akan diidentifikasi oleh kode anonim. Rekaman akan diketik secara verbatim dan kemudian dihancurkan. Transkrip dan data demografis akan disimpan dengan aman dalam bentuk yang tidak diidentifikasi dan identitas Anda tidak akan muncul dalam publikasi apa pun.

Pernyataan privasi

Informasi yang dikumpulkan bersifat rahasia. Data tersebut tidak akan diungkapkan kepada pihak ketiga tanpa persetujuan Anda, kecuali untuk memenuhi persyaratan pemerintah, hukum atau otoritas lainnya. Data yang tidak diidentifikasi dapat digunakan untuk tujuan penelitian lain: untuk tesis akademik, artikel jurnal, dan / atau presentasi konferensi. Namun, anonimitas Anda akan selalu dijaga.

Semua data (transkrip, respons survei, dan analisis) akan disimpan dalam kabinet yang terkunci dan / atau file elektronik yang dilindungi kata sandi di Griffith University, Australia atau disimpan di platform

Storage Research Griffith University selama lima tahun sebelum dihancurkan. Untuk informasi lebih lanjut, telepon +61 7 3735 4375, atau hubungi Griffith University Privacy Plan pada tautan <http://www.griffith.edu.au/about-griffith/plans-publications/griffith-university-privacy-plan>.

Partisipasi Anda bersifat sukarela

Anda dapat mengundurkan diri dari grup fokus kapan saja tanpa penjelasan atau sanksi.

Pertanyaan / informasi lebih lanjut

Silakan hubungi Sari Zakiah Akmal untuk informasi tambahan (lihat di atas untuk detail kontak).

Umpan balik untuk Anda

Jika Anda tertarik untuk menerima ringkasan hasil penelitian ini, harap beri tahu peneliti (Sari Zakiah Akmal).

Perilaku etis dari penelitian ini

Penelitian ini akan mengikuti *Australian National Statement on Ethical Conduct in Human Research*. Jika Anda memiliki masalah atau keluhan tentang pelaksanaan proyek, Anda dapat menghubungi ketua peneliti (Assoc Prof Hood pada perincian di atas) atau Manajer, Etika Penelitian Griffith University di +61 3735 4375 atau research-ethics@griffith.edu.au.

Self-regulatory responses to career goal discrepancies in young adults

Lembar Persetujuan Diskusi Kelompok

Tim Peneliti

A/Prof. Michelle Hood Ketua supervisor michelle.hood@griffith.edu.au School of Applied Psychology, Griffith University, Gold Coast	Prof Peter Creed Anggota tim supervisor p.creed@griffith.edu.au School of Applied Psychology, Griffith University, Gold Coast	Dr. Amanda Duffy Anggota tim supervisor A.Duffy@griffith.edu.au School of Applied Psychology, Griffith University, Gold Coast	Sari Zakiah Akmal Phd Candidate sari.akmal@griffithuni.edu.au School of Applied Psychology, Griffith University, Gold Coast
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Dengan menandatangani di bawah ini, saya mengkonfirmasi bahwa saya telah membaca dan memahami informasi yang disampaikan dan khususnya:

- Saya mengerti bahwa keterlibatan saya dalam penelitian ini akan mencakup pemberian pendapat saya mengenai pengembangan karier dalam diskusi dengan siswa lain yang seusia;
- Saya setuju untuk merahasiakan informasi peserta lain;
- Saya memahami risiko jika terlibat dalam penelitian ini;
- Saya mengerti bahwa partisipasi saya dalam penelitian ini bersifat sukarela;
- Saya mengerti bahwa jika saya memiliki pertanyaan tambahan saya dapat menghubungi tim peneliti;
- Saya mengerti bahwa saya bebas untuk menarik kapan saja, tanpa penjelasan atau penalti;
- Saya mengerti bahwa saya dapat menghubungi Manajer, Etika Penelitian, di Komite Etika Penelitian Manusia Griffith University di +61 3735 4375 (atau research-ethics@griffith.edu.au) jika saya memiliki kekhawatiran tentang perilaku etis proyek tersebut.

Saya setuju untuk berpartisipasi dalam penelitian ini Ya Tidak

Saya ingin menerima ringkasan hasil penelitian ini jika tersedia Ya Tidak

Email: _____

(Mohon cantumkan email Anda jika ingin mendapatkan ringkasan hasil penelitian)

**Self-regulatory responses to career goal discrepancies in young adults
Undangan Mengikuti Diskusi Kelompok – Disampaikan di Kelas**

Mahasiswa yang terhormat,

Anda diundang untuk berpartisipasi dalam studi penelitian yang bertujuan untuk mengembangkan pemahaman tentang bagaimana dewasa muda berjuang untuk, dan mencapai, tujuan karir mereka.

Anda diminta untuk berpartisipasi dalam diskusi kelompok fokus dengan 6-7 peserta lainnya (sekitar 60 menit) untuk mendiskusikan tentang bagaimana dewasa muda berjuang untuk, dan mencapai, tujuan karir mereka.

Sebagai ucapan terima kasih atas partisipasi Anda, Anda akan mendapatkan voucher belanja Rp. 150.000, - setelah diskusi beralngsung.

Jika Anda ingin mengambil bagian dalam penelitian ini, berikan detail kontak Anda dan ketersediaan waktu Anda dengan mengisi formulir ini. Sari Zakiah Akmal akan menghubungi Anda untuk memverifikasi waktu dan pengaturan.

Untuk mengirimkan detail Anda, klik URL ini:

<http://bit.ly/31HRMAE>

PhD candidate, Sari Zakiah Akmal
School of Applied Psychology
Griffith University, Gold Coast Campus
sari.akmal@griffithuni.edu.au

Self-regulatory responses to career goal discrepancies in young adults Focus Group – Formulir Pendaftaran

Waktu pelaksanaan: xx December 2019

Tempat : Ruang Rapat Fakultas Psikology Universitas YARSI, Menara YARSI

No. HP +62 852 80233727 (Whatsapp only)

* Wajib diisi

Focus Group Discussion Registration Form

1. Nama *

2. Jenis Kelamin *

Pilih salah satu

Perempuan

Laki-laki

Tidak memilih

3. Usia *

4. Email *

5. Nomor HP *

Data ini hanya akan digunakan untuk mengatur jadwal pelaksanaan diskusi kelompok

6. Jurusan *

7. Kapan waktu yang paling sesuai untuk mengikuti diskusi kelompok?

Silahkan pilih beberapa waktu yang mungkin dapat Anda hadiri (silahkan isi lebih dari satu).

	Pagi (9.00 - 12.00)	Siang (1.00 - 4.00)
Senin	<input type="checkbox"/>	<input type="checkbox"/>
Selasa	<input type="checkbox"/>	<input type="checkbox"/>
Rabu	<input type="checkbox"/>	<input type="checkbox"/>
Kamis	<input type="checkbox"/>	<input type="checkbox"/>
Jumat	<input type="checkbox"/>	<input type="checkbox"/>

Terimakasih atas respon yang diberikan.

Sari Zakiah Akmal akan menghubungi Anda untuk mengatur waktu pelaksanaan.

Self-regulatory responses to career goal discrepancies in young adults

Focus Group - Guide

Tujuan

- a. Untuk mengembangkan pemahaman tentang bagaimana dewasa muda berjuang untuk, dan mencapai, tujuan karir mereka;
 - b. Secara khusus, untuk membahas “perbedaan tujuan karir” (misalnya: apakah itu, bagaimana mereka berkembang, apa yang Anda pikirkan / lakukan ketika Anda mengalaminya?);
 - c. Identifikasi siapa atau apa yang Anda gunakan sebagai pembanding untuk menilai kemajuan karier Anda? (mis., ambisi orang tua Anda untuk Anda, teman Anda); dan
 - d. Untuk membuat siswa menghasilkan pertanyaan yang dapat digunakan untuk mengukur perbedaan tujuan karir.
1. Peneliti akan memperkenalkan diri dengan memberikan beberapa informasi yang relevan dengan penelitian ini, seperti: nama, latar belakang pendidikan dan minat penelitian.
 2. Sebelum memulai kegiatan, seluruh partisipan dipersilahkan untuk memperkenalkan diri (sebelum kita mulai kegiatan ini, silahkan perkenalkan diri Anda dengan menyebutkan nama, jurusan saat ini dan apa tujuan karier Anda).
 3. Bagaimana dewasa muda mendefinisikan “kesuksesan” dalam kariernya?
 4. Bagaimana dewasa muda mengevaluasi atau memberikan penilaian terhadap proses pencapaian tujuan kariernya?
 - Bagaimana dengan evaluasi positif? (Jika peserta sama sekali tidak menceritakan tentang positive feedback).
 - Apa atau siapa yang biasanya dijadikan patokan bagi dewasa muda dalam melakukan evaluasi kariernya?

Ketika partisipan berdiskusi mengenai pemikiran mereka, informasi ini akan dijadikan sebagai referensi dalam melakukan probing dalam FGD.

Positive Career Goal Discrepancies

Goal-performance discrepancies didefinisikan sebagai perbedaan/jarak antara pencapaian individu saat ini dengan standar atau target yang telah mereka tetapkan, dan hal ini diperoleh ketika individu melakukan evaluasi terhadap pencapaiannya (Lord et al., 2010). Perbedaan tersebut bisa saja bersifat positive, artinya individu saat ini menunjukkan performa yang melebihi target yang sebelumnya telah ditetapkan. Selain itu, perbedaan tersebut bisa saja dinilai negative ketika individu menilai pencapaiannya saat ini belum sesuai dengan standar (Lord et al., 2010). Dalam melakukan evaluasi terhadap tujuan yang telah ditetapkan, individu umumnya membandingkan dirinya dengan tiga hal utama: dengan performa/keberhasilan mereka sebelumnya, dengan tujuan yang telah ditetapkan dan dengan performa atau harapan orang lain di sekitarnya (Bandura, 1991).

Penelitian ini akan fokus pada positive career goal discrepancies, yaitu ketika individu menilai bahwa pencapaian kariernya saat ini melampaui target yang telah ditetapkan sebelumnya. Creed dan Hood (2015) menyatakan terdapat empat domain utama dalam melihat kesenjangan antara capaian saat ini dan tujuan yang telah ditetapkan:

- a. *Perbedaan prestasi (achievement discrepancy) adalah penilaian apakah prestasi/capaian saat ini memadai/tidak memadai untuk mencapai tujuan karir di masa depan.*
- b. *Kesenjangan upaya (effort discrepancy) adalah perbedaan antara upaya yang sebelumnya dilakukan dan upaya yang diperlukan untuk mencapai tujuan karir.*

- c. *Perbedaan standar (standard discrepancy) adalah persepsi bahwa tujuan karier ditetapkan terlalu tinggi.*
- d. *Perbedaan kemampuan (ability discrepancy) adalah persepsi bahwa individu mengenai keterampilan dan kemampuan pribadi yang diperlukan untuk mencapai tujuan yang diinginkan.*

Perbedaan tersebut diperoleh dengan melakukan penilaian terhadap pencapaian saat ini, dibandingkan dengan hal internal seperti pengalaman/capaian di masa lalu dan tujuan yang telah ditetapkan, dan hal eksternal seperti harapan dari orang tua dan pencapaian teman sebaya.

Kemudian peneliti akan menjelaskan bahwa salah satu tujuan dari penelitian ini adalah untuk membuat sebuah kuesioner untuk mengukur positive career goal discrepancy (penilaian positive yang diberikan seseorang karena merasa proses/ perkembangan kariernya berjalan lebih baik dari yang diharapkan/ditargetkan). Berikut ini akan diberikan beberapa contoh aitem atau stimulus untuk membantu partisipan dalam membuat beberapa pertanyaan yang berebeda dan sesuai dengan pemahaman mereka.

Bagian “Contoh pernyataan” dan “Pertanyaan Anda” akan diberikan kepada peserta dalam bentuk lembar kerja

Contoh Pernyataan

Berikut adalah beberapa pertanyaan yang telah kami buat untuk mengukur evaluasi positif terhadap proses pencapaian karier. Jika kita menggunakan skala peringkat 6 poin (1 = sangat tidak setuju sampai 6 = sangat setuju), skor yang lebih tinggi pada item tertentu akan mencerminkan persepsi perbedaan tujuan karir yang lebih besar.

1. *Rencana saya berjalan lebih baik dari harapan saya untuk mencapai tujuan karier yang saya inginkan.*
2. *Usaha yang saya lakukan untuk mencapai tujuan karier saya lebih dari yang dibutuhkan.*
3. *Kemampuan saya untuk mencapai tujuan karier, lebih baik daripada teman-teman saya.*
4. *Pencapaian saya pada karier yang saya pilih, saat ini melebihi standar orang tua saya.*

Pertanyaan Anda

Dapatkah kamu menuliskan beberapa contoh ide untuk menanyakan tentang positive career goal discrepancies?

- *Silahkan diskusikan dengan teman yang ada di sebelah Anda.*
- *Silahkan diskusikan dalam kelompok untuk mendapatkan ide lainnya.*

Kumpulkan daftar pertanyaan yang telah dibuat oleh partisipan

Ucapkan terimakasih kepada partisipan

Beberapa contoh pertanyaan untuk lebih memperdalam jawaban saat diskusi berjalan:

- Dapatkah Anda menceritakan lebih lanjut mengenai pengalaman tersebut?
- Bagaimana pendapat Anda mengenai hal tersebut?
- Itu ide yang menarik, bisakah Anda jelaskan lebih lanjut?
- Ceritakan lebih banyak mengenai pengalaman Anda!

Self-regulatory responses to career goal discrepancies in young adults

Focus Group Discussion – Lembar Kerja

Contoh Pernyataan

Berikut adalah beberapa pertanyaan yang telah kami buat untuk mengukur evaluasi positif terhadap proses pencapaian karier. Jika kita menggunakan skala peringkat 6 poin (1 = sangat tidak setuju sampai 6 = sangat setuju), skor yang lebih tinggi pada item tertentu akan mencerminkan persepsi perbedaan tujuan karir yang lebih besar.

Seberapa setuju Anda dengan pernyataan berikut ini?

Pernyataan	Sangat tidak setuju	Tidak setuju	Agak tidak setuju	Agak setuju	Setuju	Sangat setuju
Rencana saya berjalan lebih baik dari harapan saya untuk mencapai tujuan karier yang saya inginkan.						
Usaha yang saya lakukan untuk mencapai tujuan karier saya lebih dari yang dibutuhkan.						
Kemampuan saya untuk mencapai tujuan karier, lebih baik daripada teman-teman saya.						
Pencapaian saya pada karier yang saya pilih, saat ini melebihi standar orang tua saya.						

Pernyataan Anda

Apakah kamu dapat menuliskan beberapa aitem terkait, pada tempat yang telah disediakan?

Diskusikan pernyataan yang telah dibuat dengan teman yang ada di samping Anda.

(Anda bisa membuat catatan jika diperlukan)

Diskusikan 1-2 pernyataan yang telah dibuat dalam kelompok.

(Anda bisa membuat catatan jika diperlukan)

Appendix G: Survey Time 1 Information for Participants - English Version**Self-regulatory responses to career goal discrepancies in young adults****Study 1 – Online Invitation**

Dear student,

You are invited to participate in a research study that aims to develop an understanding of how young adults strive for, and achieve, their career goals and the factors that influence that.

This involves completing a 20-minute online survey about the experiences that young adults have and the strategies that they use as they strive to achieve their career goals.

As a thank you for your participation, you can have your name placed in a draw to win one of a hundred \$5 (\approx IDR. 50.000) vouchers.

You will also be invited to provide your contact details, so we can contact you to complete the questionnaire again in a follow-up study in about 6 months. Every participant who completed the questionnaire on the second occasion will receive \$2.5 (\approx IDR. 25.000) vouchers.

To find out more about the study, click on this URL. The first page will provide detailed information. After that, if you wish to participate, click next and begin the questionnaire. If you do not want to participate at that point, or any point after that, just exit.

URL

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School of Applied Psychology
Griffith University, Gold Coast Campus
sari.akmal@griffithuni.edu.au

Self-regulatory responses to career goal discrepancies in young adults

Study 1 – In Class Invitation

Dear student,

You are invited to participate in a research study that aims to develop an understanding of how young adults strive for, and achieve, their career goals and the factors that influence that.

This involves completing a 20-minute online survey about the experiences that young adults have and the strategies that they use as they strive to achieve their career goals.

As a thank you for your participation, you can have your name placed in a draw to win one of a hundred \$5 (\approx IDR. 50.000) vouchers.

You will also be invited to provide your contact details, so we can contact you to complete the questionnaire again in a follow-up study in about 6 months. Every participant who completed the questionnaire on the second occasion will receive \$2.5 (\approx IDR. 25.000) vouchers.

You will be provided with the questionnaire. Please read the cover sheet where more details about the study and your participation are given. After reading that, and having any questions answered, if you wish to participate, please complete the questionnaire and hand it in when done. If you do not wish to participate, you can quietly read the questionnaire, leave it blank, and return this blank questionnaire. No one will know who participated or not.

Sari Zakiah Akmal, PhD candidate
School of Applied Psychology
Griffith University, Gold Coast Campus
sari.akmal@griffithuni.edu.au

INFORMATION SHEET

The Researchers

A/Prof. Michelle Hood	Prof Peter Creed	Dr. Amanda Duffy	Sari Zakiah Akmal
Primary supervisor	Supervisor team	Supervisor team	Phd Student
michelle.hood@griffith.edu.au	p.creed@griffith.edu.au	A.Duffy@griffith.edu.au	sari.akmal@griffithuni.edu.au
School of Applied Psychology, Griffith University, Gold Coast			

Why is this research being conducted?

The research is a PhD study undertaken by Sari Zakiah Akmal. We are interested in understanding of the experiences and strategies of young adults when striving to achieve their career goals.

Who can participate?

Any undergraduate university student aged 18 to 25 years.

What are you asked to do?

- a. Complete one questionnaire now about how young adults strive for, and achieve, their career goals and the factors that influence that. This will take approx. 20 minutes of your time.
- b. You are also invited to give permission for the researchers to contact you again in approx. 6 months to complete this questionnaire again. Follow-up is important for examining changes in people's experiences and strategies over time. To be re-contacted, you will be asked to provide contact details (e.g., email/s, phone number/s).
- c. To enable us to match data from your two questionnaires, we will ask that you also provide a unique but anonymous identifying code that consists of your day of birth, mother's first name and the last 2-digits your student number (e.g., if your mother's first name is Sari and you were born on the 3rd May 1990 and the last 2-digits of your number are 87, your code is 030590Sari87).

Benefits

- a. You can enter a prize draw to win one of a hundred of \$5 electronics vouchers upon completion of this questionnaire,
- b. Your participation will contribute to a better understanding of the career development processes of young adults and how they self-regulate their progress towards achieving their goals. This information is likely to help inform universities, career counsellors, and families of young adults on how to best assist and support them in this.
- c. If you provide your contact email address, we will send you a brief newsletter with a summary of the results of this study after it is completed (approximately 2-3 months from now),
- d. If you consent to participate in the follow-up study, you will receive \$2.5 (\approx IDR. 25.000) vouchers.

Risks

There is minimal risk. However, sometimes young people can feel uncomfortable thinking about their career goals or how they are going in achieving these. If you become uncomfortable, you can stop immediately without having to explain. If you need to talk about your experiences and feelings with someone, the following service is available: Klinik Fakultas Psikologi Universitas YARSI +62 21 422 3138.

Your confidentiality

Your responses will be treated confidentially and stored anonymously. We invite you to provide your contact details so we can contact you again in 6 months for the follow-up study. Your contact details will be stored separately and securely and only used to re-contact you. They will then be destroyed. Your questionnaire responses will be identified using unique code you give us (mother's first name and day of the month of your birth). Other identifying details are needed for the prize draw entry, and these will be stored separately and securely and destroyed after the prize draw. Your identity will not appear in any publication.

Privacy statement

The information collected is confidential. It will not be disclosed to third parties without your consent, except to meet government, legal or other regulatory authority requirements. De-identified data may be used for other research purposes: for the PhD thesis of Ms Akmal, for journal articles, and/or conference presentations. However, your anonymity will always be safeguarded.

All questionnaire data will be retained in a locked cabinet and/or password protected electronic file at Griffith University, Australia or stored on the Griffith University Research Storage platform for five years before being destroyed. For more information, telephone +61 7 3735 4375, or consult the Griffith University Privacy Plan at <http://www.griffith.edu.au/about-griffith/plans-publications/griffith-university-privacy-plan>.

Your participation is voluntary

You can withdraw from completing this questionnaire at any time without explanation or penalty.

Questions / further information

Please contact Sari Zakiah Akmal for additional information (see above for contact details).

Feedback to you

If you provide your contact email address, we will email you a summary of the group-based findings in approximately 2-3 months

The ethical conduct of this research

This project will follow the National Statement on Ethical Conduct in Human Research. If you have any concerns or complaints about the conduct of the project, you can contact the Chief Investigator (Assoc Prof Hood on the details above) or the Manager, Griffith University Research Ethics on +61 3735 4375 or research-ethics@griffith.edu.au

CONSENT FORM**Research Team**

A/Prof. Michelle Hood	Prof Peter Creed	Dr. Amanda Duffy	Sari Zakiah Akmal
Primary supervisor	Supervisor team	Supervisor team	Phd Student
michelle.hood@griffith.edu.au	p.creed@griffith.edu.au	A.Duffy@griffith.edu.au	sari.akmal@griffithuni.edu.au

School of Applied Psychology, Griffith University, Gold Coast

By signing below, I confirm that I have read and understood the information provided and in particular note that:

- I understand that my involvement in this research will include a completion of a set of questionnaires that would be completed within approximately 30 minutes of my times.
- I have had any questions answered to my satisfaction.
- I understand the risks involved, which are minimal.
- I understand that there will be no direct benefit to me from my participation in this research, however I can enter a prize draw to win one of 100 of \$5 electronics vouchers upon completion of this questionnaire.
- I understand that my participation in this research is voluntary.
- I understand that if I have any additional questions, I can contact the research team.
- I understand that I am free to withdraw at any time, without explanation or penalty.
- I understand that my name and other personal information that could identify me will be removed or de-identified in publications or presentations resulting from this research.
- I understand that I can contact the Manager, Research Ethics, at Griffith University Human Research Ethics Committee on +61 3735 4375 (or research-ethics@griffith.edu.au) if I have any concerns about the ethical conduct of the project

I agree to participate in the project Yes No

I want to receive a summary of the research results when available Yes No

Email: _____

(Please provide your email address only if you want a summary of the results)

Griffith University and the research team thank you for your participation in this research

***** Win one of a hundred \$5 (≈IDR 50.000) Vouchers for completing this questionnaire *****

SELF-REGULATORY RESPONSES TO CAREER GOAL DISCREPANCIES IN YOUNG ADULTS

Assoc Prof. Michelle Hood	Prof Peter Creed	Dr. Amanda Duffy	Sari Zakiah Akmal
Primary supervisor michelle.hood@griffith.edu.au	Supervisor team p.creed@griffith.edu.au	Supervisor team A.Duffy@griffith.edu.au	Phd Candidate sari.akmal@griffithuni.edu.au

School of Applied Psychology, Griffith University, Gold Coast

ENTRY DETAILS

To enter the draw to win one of a hundred \$5 (IDR 50.000) vouchers, you need to:

- Submit your completed questionnaire and this entry form
- Add your contact details below (your name and how we can contact you if you win)

Your name:
Your contact details (email, mobile phone, or postal address):

TERMS AND CONDITIONS OF ENTRY

1. The prize draw is being run to encourage participation in the “Self-regulatory responses to career goal discrepancies in young adults” project.
2. By electing to participate, you accept these terms and conditions as governing the prize draw. Instructions on how to enter the prize draw and details advertising the survey form part of the conditions. Any personal information you provide to us in the course of entering the prize draw will be dealt with by us in accordance with our privacy policy (published at: <http://www.griffith.edu.au/about-griffith/governance/plans-publications/griffith-university-privacy-plan>).
3. Ten prizes will be awarded in the prize draw. These prizes will be shopping vouchers worth \$5 (≈IDR = 50.000) each. Should the advertised prize become unavailable as a result of

- circumstances beyond our control, we are free (at our sole discretion) to substitute a cash prize equivalent to the value of the prize advertised.
4. Entry is free (if completing this online, the cost of accessing the website is your responsibility). Entry is open **from 1st February 2020 until 30th March 2020**. Entries received after the closing date will not be accepted.
 5. To enter the prize draw, you must: (a) be a tertiary student; (b) complete the online survey “Self-regulatory responses to career goal discrepancies in young adults” and (c) provide valid contact details.
 6. You may not enter the prize draw if you are i) a member of the research team, ii) employed by the research team; iii) an immediate family member (i.e., a spouse/partner, child, or sibling) of someone identified at i) or ii), or otherwise associated with the competition.
 7. You may only submit one entry in the prize draw.
 8. All survey and other materials provided by you become our property. No responsibility is taken for late, lost or misdirected surveys or entries.
 9. Following the closing date, the prize winners will be selected randomly from valid entries received. Each entry can only be drawn once.
 10. Subject to system malfunction, the draw will occur on **30th April 2020**. If the systems supporting the draw are not functioning as they should when the draw is due, the draw will be held as soon as possible once the systems become functional again. Prize winners do not need to be present at the time of the draw.
 11. Prize winner names will not be published.
 12. The relevant prize will be sent to each prize winner at the postal address they provided with the prize draw. If an address has not been supplied, the entry will be treated in accordance with clause 14. The majority of prizes will be mailed within two weeks of the draw.
 13. The right to a prize is not transferable or assignable to another person.
 14. If any prize winner cannot be contacted within three (3) months of the draw, then that person’s right to the prize is forfeited and the prize will be treated as an unclaimed prize.
 15. Only one redraw of unclaimed prizes will take place, and other existing prizes are not affected. The redraw prize winner(s) will be randomly selected from remaining valid entries and notified within two (2) weeks of the redraw. If the redraw prize winner(s) cannot be contacted within three (3) months of the redraw, then we may determine that the relevant prize(s) will not be awarded.
 16. Prizes cannot be substituted for another prize at the election of the prize-winner.
 17. We are not liable for any loss, expense, damage or injury sustained by any entrant in connection with this prize draw, the prize or redemption of the prize, except for any liability which cannot be excluded by law (in which case, that liability is limited to the minimum allowable by law).
 18. We may suspend the promotion if we determine that the integrity or administration of the promotion has been adversely affected due to circumstances beyond its control. We may disqualify any individual who tampers with the entry process.

Appendix H: Survey Time 1 Information for Participants - Indonesian Version**Self-regulatory responses to career goal discrepancies in young adults
SURVEY 1 – Undangan Online**

Mahasiswa yang terhormat,

Anda diundang untuk berpartisipasi dalam penelitian yang bertujuan untuk mengembangkan pemahaman tentang bagaimana dewasa muda berjuang untuk, dan mencapai, tujuan karir mereka.

Penyelesaian survei online ini membutuhkan waktu selama 20 menit. Sebagai ucapan terima kasih atas partisipasi Anda, Anda mendapatkan peluang untuk mengikuti undian dan memenangkan satu dari seratus voucher Rp. 50.000, -

Anda juga akan diundang untuk memberikan rincian kontak Anda, sehingga kami dapat menghubungi Anda untuk menyelesaikan survei kedua (tindak lanjut) setelah jeda waktu sekitar enam bulan. Jika Anda menyelesaikan survei kedua, setiap partisipan akan kembali mendapatkan voucher Rp. 25.000, -, tanpa diundi.

Untuk menyelesaikan survei pertama, klik URL ini:

URL

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Self-regulatory responses to career goal discrepancies in young adults
SURVEY 1 – Undangan Partisipan di Kelas

Mahasiswa yang terhormat,

Anda diundang untuk berpartisipasi dalam penelitian yang bertujuan untuk mengembangkan pemahaman tentang bagaimana dewasa muda berjuang untuk, dan mencapai, tujuan karir mereka.

Penyelesaian survei online ini membutuhkan waktu selama 20 menit. Sebagai ucapan terima kasih atas partisipasi Anda, Anda mendapatkan peluang untuk mengikuti undian dan memenangkan satu dari seratus voucher Rp. 50.000, -

Anda juga akan diundang untuk memberikan rincian kontak Anda, sehingga kami dapat menghubungi Anda untuk menyelesaikan survei kedua (tindak lanjut) setelah jeda waktu sekitar enam bulan. Jika Anda menyelesaikan survei kedua ini, setiap partisipan akan mendapatkan voucher Rp. 25.000, - tanpa diundi.

Untuk menyelesaikan survei pertama, Anda semua akan diberikan kuesioner dan jika Anda memilih untuk tidak berpartisipasi dalam penelitian ini, dapat mengembalikan kuesioner kosong/ tidak mengisinya.

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Self-regulatory responses to career goal discrepancies in young adults

SURVEY 1 – LEMBAR INFORMASI

Tim Peneliti

A/ Prof. Michelle Hood Ketua supervisor michelle.hood@griffith.edu.au	Prof Peter Creed Anggota tim supervisor p.creed@griffith.edu.au	Dr. Amanda Duffy Anggota tim supervisor A.Duffy@griffith.edu.au	Sari Zakiah Akmal Phd Candidate sari.akmal@griffithuni.edu.au
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School of Applied Psychology, Griffith University, Gold Coast

Mengapa penelitian ini dilakukan?

Penelitian ini adalah studi PhD yang dilakukan oleh Sari Zakiah Akmal. Tujuan dari penelitian ini adalah untuk mengembangkan pemahaman tentang strategi yang digunakan orang dewasa muda untuk mencapai tujuan karir mereka.

Siapa yang bisa berpartisipasi?

Setiap mahasiswa sarjana berusia 18 hingga 25 tahun.

Apa yang perlu Anda lakukan?

- Menyelesaikan survei tentang bagaimana dewasa muda berjuang untuk mencapai, tujuan karir mereka. Penyelesaian ini akan membutuhkan waktu sekitar 20.
- Anda juga diundang untuk memberikan izin bagi para peneliti untuk menghubungi Anda lagi di sekitar. 6 bulan kemudian untuk berpartisipasi dalam survei tindak lanjut. Survei tindak lanjut penting untuk memeriksa perubahan dari waktu ke waktu. Jika Anda setuju untuk dihubungi kembali, Anda akan diminta untuk memberikan detail kontak Anda (Email, nomor telepon).
- Agar kami dapat mencocokkan dua kedua survei Anda nantinya, kami juga akan meminta Anda memberikan kode identifikasi unik namun anonim dari nama depan Anda dan tanggal lahir Anda (misalnya, jika nama depan Anda adalah Sari dan tanggal lahir Anda adalah 3 Mei 1995, kode Anda adalah Sari030595).

Manfaat untuk Anda:

- Anda dapat memasukkan undian hadiah untuk memenangkan satu dari seratus voucher Rp. 50.000, -
- Setelah survei pertama, kami akan mengirimkan Anda buletin singkat berisi ringkasan hasil penelitian,
- Jika Anda setuju untuk berpartisipasi dalam survei lanjutan (survey ke-2 setelah jeda 6 bulan), setiap partisipa yang menyelesaikan survei akan mendapatkan voucher Rp. 25.000, - tanpa diundi
- Partisipasi Anda akan berkontribusi pada pemahaman yang lebih baik tentang pengembangan karier dewasa muda, yang akan menjadi bahan pertimbangan bagi universitas, orang tua, dan penasihat karier.

Risiko bagi Anda:

Penelitian ini minimal risiko, tetapi jika Anda merasa tidak nyaman atau tertekan menyelesaikan survei ini, Anda dapat segera meninggalkannya. Layanan berikut ini juga tersedia untuk Anda: Klinik Fakultas Psikologi Universitas YARSI +62 21 422 3138.

Kerahasiaan Anda

Data akan diperlakukan secara rahasia dan disimpan secara anonim. Kami mengundang Anda untuk memberikan rincian kontak Anda sehingga kami dapat menghubungi Anda kembali setelah 6 bulan, untuk mengikuti survei tindak lanjut. Rincian kontak pribadi Anda akan disimpan secara terpisah dan hanya digunakan untuk menghubungi Anda untuk mengatur studi tindak lanjut dan kemudian dimusnahkan setelah kami berhasil menghubungi kembali Anda untuk survei kedua. Respon Anda akan di-identifikasi dan ditandai dengan menggunakan kode unik (nama depan dan tanggal lahir), agar kami dapat mencocokkan kedua survei Anda. Rincian identifikasi lainnya diperlukan untuk undian berhadiah, juga akan disimpan secara terpisah dari survei utama, data tersebut disimpan secara terpisah dan dihancurkan setelah pemenang undian diumumkan. Data akan disimpan dengan aman tanpa data identitas dan identitas Anda tidak akan muncul dalam publikasi apa pun.

Pernyataan privasi

Informasi yang dikumpulkan bersifat rahasia. Informasi tersebut tidak akan diungkapkan kepada pihak ketiga tanpa persetujuan Anda, kecuali untuk memenuhi persyaratan pemerintah, hukum atau otoritas lainnya. Data yang tidak diidentifikasi dapat digunakan untuk tujuan penelitian lain: untuk tesis akademik, artikel jurnal, dan / atau presentasi konferensi. Namun, anonimitas Anda akan selalu dijaga.

Semua data (transkrip, respons survei, dan analisis) akan disimpan dalam kabinet yang terkunci dan / atau file elektronik yang dilindungi kata sandi di Griffith University, Australia atau disimpan di platform Storage Research Griffith University selama lima tahun sebelum dihancurkan. Untuk informasi lebih lanjut, telepon +61 7 3735 4375, atau lihat Rencana Privasi Griffith University di <http://www.griffith.edu.au/about-griffith/plans-publications/griffith-university-privacy-plan>.

Partisipasi Anda bersifat sukarela

Anda dapat mengundurkan diri dari penelitian ini kapan saja tanpa penjelasan atau penalti.

Pertanyaan / informasi lebih lanjut

Silakan hubungi Sari Zakiah Akmal untuk informasi tambahan (lihat di atas untuk detail kontak).

Umpan balik untuk Anda

Jika Anda tertarik untuk menerima ringkasan hasil proyek, harap beri tahu peneliti (Sari Zakiah Akmal).

Perilaku etis dari penelitian ini

Penelitian ini akan mengikuti Australian National Statement on Ethical Conduct in Human Research. Jika Anda memiliki masalah atau keluhan tentang pelaksanaan penelitian ini, Anda dapat menghubungi Ketua Peneliti (Assoc Prof Hood pada perincian di atas) atau Manajer, Etika Penelitian Griffith University di +61 3735 4375 atau research-ethics@griffith.edu.au

Self-regulatory responses to career goal discrepancies in young adults

SURVEY 1 – LEMBAR PERSETUJUAN

Tim Peneliti

A/ Prof. Michelle Hood Ketua supervisor michelle.hood@griffith.edu.au	Prof Peter Creed Anggota tim supervisor p.creed@griffith.edu.au	Dr. Amanda Duffy Anggota tim supervisor A.Duffy@griffith.edu.au	Sari Zakiah Akmal Phd Candidate sari.akmal@griffithuni.edu.au
School of Applied Psychology, Griffith University, Gold Coast			

Dengan menandatangani ini, saya mengkonfirmasi bahwa saya telah membaca dan memahami informasi yang disampaikan dan khususnya:

- Saya memahami bahwa keterlibatan saya dalam penelitian ini akan menghendaki saya untuk mengisi dua kuesioner, yang pertama sekarang, dan berikutnya kira-kira enam bulan kemudian.
- Saya memahami risiko jika terlibat dalam penelitian ini;
- Saya mengerti bahwa partisipasi saya dalam penelitian ini bersifat sukarela;
- Saya mengerti bahwa jika saya memiliki pertanyaan tambahan saya dapat menghubungi tim peneliti;
- Saya mengerti bahwa saya bebas untuk mengundurkan diri kapan saja, tanpa penjelasan atau penalti;
- Saya mengerti bahwa tidak akan ada manfaat langsung bagi saya dengan mengikuti penelitian ini, namun, saya bisa mendapatkan kesempatan untuk memenangkan salah satu dari 100 voucher elektronik senilai Rp. 50.000, - setelah menyelesaikan kuesioner ini.
- Saya mengerti bahwa saya dapat menghubungi Manajer, Etika Penelitian, di Komite Etika Penelitian Manusia Griffith University di +6137354375 (atau research-ethics@griffith.edu.au) jika saya memiliki kekhawatiran tentang perilaku etis proyek tersebut.

Saya setuju untuk berpartisipasi dalam penelitian ini :

- Bersedia
- Tidak

Saya ingin menerima ringkasan hasil penelitian ini jika tersedia:

- Ya
- Tidak

Email: _____

(Mohon cantumkan email Anda jika ingin mendapatkan ringkasan hasil penelitian)

_____, ____/____/2020

(Tanda Tangan)

Griffith University berterimakasih atas partisipasi Anda dalam penelitian ini

***** Menangkan satu dari seratus voucher senilai Rp. 50.000, - dengan menyelesaikan survey penelitian ini *****

Self-regulatory responses to career goal discrepancies in young adults

A/Prof. Michelle Hood Ketua supervisor michelle.hood@griffith.edu.au	Prof Peter Creed Anggota tim supervisor p.creed@griffith.edu.au	Dr. Amanda Duffy Anggota tim supervisor A.Duffy@griffith.edu.au	Sari Zakiah Akmal Phd Candidate sari.akmal@griffithuni.edu.au
School of Applied Psychology, Griffith University, Gold Coast			

RINCIAN DATA

Untuk memasukkan undian untuk memenangkan satu dari seratus voucher Rp. 50.000, Anda harus:

- Lengkapi survey Anda dan formulir ini
- Tambahkan detail kontak Anda di bawah ini (nama Anda, dan bagaimana kami dapat menghubungi Anda jika Anda ingin menang)

Nama:
Data Anda (email, no. Handphone, atau alamat lengkap):

<p>Syarat dan Ketentuan</p> <ol style="list-style-type: none"> 1. Undian hadiah dijalankan untuk mendorong partisipasi dalam proyek “Self-regulatory responses to career goal discrepancies in young adults”. 2. Dengan memilih untuk berpartisipasi, Anda menerima syarat dan ketentuan ini sebagai pengaturan pengundian hadiah. Untuk dapat mengikuti undian ini, Anda diwajibkan telah mengisi kuesioner penelitian sebagai persyaratannya. Setiap informasi pribadi yang Anda berikan kepada kami saat mengikuti undian, akan kami perlakukan sesuai dengan dengan kebijakan privasi kami (dipublikasikan di: http://www.griffith.edu.au/about-griffith/governance/plans-publikasi-griffith-universitas-rencana-privasi). 3. Sepuluh hadiah akan diberikan dalam undian hadiah, hadiah ini akan berupa voucher masing-masing senilai Rp.50.000,-. Jika hadiah yang diiklankan menjadi tidak tersedia karena keadaan
--

- di luar kendali kami, kami bebas (atas kebijakan kami sendiri) untuk mengganti hadiah uang tunai yang setara dengan nilai hadiah yang diiklankan.
4. Undian ini gratis (selain biaya mengakses situs web, yang merupakan tanggung jawab Anda). Proses undian dibuka dari Februari 2020 hingga akhir Maret 2020. Data yang diterima setelah tanggal penutupan tidak akan diterima.
 5. Untuk mengikuti undian hadiah, Anda harus: (a) menjadi mahasiswa tahun pertama di sebuah universitas; (B) menyelesaikan survei penelitian dan (c) memberikan rincian kontak yang valid.
 6. Anda tidak boleh mengikuti pengundian hadiah jika Anda i) anggota tim peneliti, ii) dipekerjakan oleh tim peneliti; iii) anggota keluarga dekat (mis. pasangan / pasangan, anak, atau saudara kandung) dari seseorang yang diidentifikasi pada 1 atau 2 di atas, atau terkait dengan kompetisi.
 7. Anda hanya dapat mengirimkan satu data dalam undian hadiah.
 8. Semua survei dan materi lain yang Anda berikan menjadi milik kami. Kami tidak bertanggungjawab untuk survei atau data untuk undian yang terlambat, hilang atau salah kirim.
 9. Setelah tanggal penutupan, pemenang hadiah akan dipilih secara acak dari data yang valid yang diterima. Setiap data hanya dapat ditarik satu kali.
 10. Bergantung pada keberfungsian sistem, undian akan dilakukan pada 30 April 2020. Jika sistem yang mendukung pengundian tidak berfungsi sebagaimana mestinya saat pengundian, pengundian akan diadakan sesegera mungkin setelah sistem berfungsi kembali. Pemenang hadiah tidak perlu hadir pada saat undian.
 11. Nama pemenang hadiah tidak akan dipublikasikan.
 12. Hadiah yang sesuai akan dikirim ke setiap pemenang di alamat pos yang mereka berikan dengan pengundian hadiah. Jika alamat belum diberikan, data akan diperlakukan sesuai dengan ayat 14. Mayoritas hadiah akan dikirimkan dalam waktu dua minggu setelah undian.
 13. Hak atas hadiah tidak dapat ditransfer atau dialihkan ke orang lain.
 14. Jika pemenang hadiah tidak dapat dihubungi dalam waktu tiga (3) bulan dari pengundian, maka hadiah akan hangus dan hadiah akan diperlakukan sebagai hadiah yang tidak diklaim.
 15. Pengundian ulang dari hadiah yang tidak diklaim hanya akan terjadi satu kali, dan hadiah lain yang sudah diundi tidak akan terpengaruh. Pemenang hadiah undian ulang akan dipilih secara acak dari sisa data yang valid dan diberitahukan dalam waktu dua (2) minggu dari waktu pengundian ulang. Jika pemenang hadiah pengundian ulang tidak dapat dihubungi dalam waktu tiga (3) bulan, maka kami dapat menentukan bahwa hadiah yang sesuai tidak akan diberikan.
 16. Hadiah tidak dapat digantikan dengan hadiah lain sesuai dengan keinginan pemenang.
 17. Kami tidak bertanggung jawab atas kehilangan, biaya yang harus dikeluarkan, kerusakan atau cedera yang dialami oleh setiap peserta sehubungan dengan pengundian hadiah ini, hadiah atau penukaran hadiah, kecuali untuk setiap kewajiban yang tidak dapat dihindari karena.
 18. Kami dapat menangguhkan pemenang undian jika kami menemukan bahwa terjadi hal yang di luar kendali. Kami dapat mendiskualifikasi individu yang merusak proses pengundian.

Appendix I: Survey Time 2 Information for Participants - English Version**SELF-REGULATORY RESPONSES TO CAREER GOAL DISCREPANCIES IN YOUNG ADULTS****STUDY 2 - EMAIL INVITATION**

Dear Student,

About 6 months ago, you completed a questionnaire related to a Griffith University research project that was examining how young adults strive for, and achieve, their career goals and the factors that affect that.

At that time, you gave us permission to contact you again to invite you to participate in this follow-up study. We are interested in how your experiences and strategies might have changed over the last 6 months, so we invite you to complete this follow-up questionnaire.

If you complete this questionnaire, you will receive IDR 25.000, - (~ AUD 2.5) electronic shopping vouchers.

For more detailed information on this part of our research, please click on this URL. The first page you are taken to will give you detailed information about the study and your participation. If you consent after reading that, simply click next and complete the questionnaire. If you decide not to participate once you read that, or to withdraw at any point, simply exit the questionnaire.

URL

Thank you for your ongoing support and participation in this project.

Sari Zakiah Akmal, PhD candidate,
School of Applied Psychology
Griffith University, Gold Coast Campus
Australia

SELF-REGULATORY RESPONSES TO CAREER GOAL DISCREPANCIES IN YOUNG ADULTS**STUDY 2 Follow up - INFORMATION SHEET**

Approximately 6 months ago you participated in this study and provided your contact email so that we could invite you to participate in this follow-up study. We are very interested in how another 6 months of education and experience might have affected the strategies and experiences related to achieving your career goals.

The Researchers

PhD Student: Sari Zakiah Akmal, PhD candidate, sari.akmal@griffithuni.edu.au

Supervisors: Assoc Prof. Michelle Hood (michelle.hood@griffith.edu.au), Primary Supervisor; Prof. Peter Creed (p.creed@griffith.edu.au) and Dr Amanda Duffy (a.duffy@griffith.edu.au), Associate Supervisors

School of Applied Psychology, Griffith University, Gold Coast campus, QLD, Australia

Why is this research being conducted?

The research is a PhD study undertaken by Sari Zakiah Akmal. We are interested in understanding of the experiences and strategies of young adults when striving to achieve their career goals. Being able to follow-up participants helps us to understand the dynamic changes in this over time.

Who can participate?

Anyone who completed our first questionnaire 6 months ago.

What you are being asked to do?

- (a) Complete this questionnaire about how young adults strive for, and achieve, their career goals and the factors that influence that. This will take approx. 20 minutes of your time.
- (b) To enable us to match your responses to those on the first questionnaire, we ask you to provide the unique but anonymous code you gave us on that first questionnaire. This is your date of birth (dd/mm/yy), mother's first name and the last two digits of your students' number (e.g., if your birthdate is 3rd May 1995, your mother's first name is Sari and, your students' number is 03130187, thus your code is 030595Sari87).

Benefits

- (a) You will receive IDR 25.000, - (~ AUD 2.5) electronic shopping vouchers.
- (b) Your participation will contribute to this important research that potentially will benefit future students, as the results are expected to inform educators, counsellors who work with students in making and managing career goals, and the families of young people.
- (c) After this study, we will send you a brief newsletter with a summary of the group-based results,

Risks

There is minimal risk. However, sometimes young people can feel uncomfortable thinking about their career goals or how they are going in achieving these. If you become uncomfortable, you can stop immediately without having to explain. If you need to talk about your experiences and feelings with

someone, the following service is available: Klinik Fakultas Psikologi Universitas YARSI +62 21 422 3138.

Your confidentiality

Your responses will be treated confidentially and stored anonymously. Your questionnaire responses will be identified using the unique code you give us (date of birth (dd/mm/yy), mother's first name and the last two digits of your students' number). Other identifying details are needed for the prize draw entry and these will be stored separately and securely and destroyed after we send the reward (e-voucher). Your identity will not appear in any publication.

Privacy statement

The information collected is confidential. It will not be disclosed to third parties without your consent, except to meet government, legal or other regulatory authority requirements. De-identified data may be used for other research purposes: for the PhD thesis of Ms Akmal, for journal articles, and/or conference presentations. However, your anonymity will always be safeguarded.

All questionnaire data will be retained in electronic form on a password protected computer at Griffith University, Australia or stored on the Griffith University Research Storage platform for five years before being destroyed. For more information, telephone +61 7 3735 4375, or consult the Griffith University Privacy Plan at <http://www.griffith.edu.au/about-griffith/plans-publications/griffith-university-privacy-plan>.

Your participation is voluntary

You can withdraw from completing this questionnaire at any time without explanation or penalty.

Questions / further information

Please contact Sari Zakiah Akmal for additional information (see above for contact details).

Feedback to you

We will email you a summary of the group-based findings in approximately 2-3 months

The ethical conduct of this research

This project will follow the National Statement on Ethical Conduct in Human Research. If you have any concerns or complaints about the conduct of the project, you can contact the Chief Investigator (Assoc Prof Hood on the details above) or the Manager, Griffith University Research Ethics on +61 3735 4375 or research-ethics@griffith.edu.au

Self-regulatory responses to career goal discrepancies in young adults

Survey 2 – Consent Form

Research Team

A/ Prof. Michelle Hood	Prof Peter Creed	Dr. Amanda Duffy	Sari Zakiah Akmal
Primary supervisor	Supervisor team	Supervisor team	Phd Student
michelle.hood@griffith.edu.au	p.creed@griffith.edu.au	A.Duffy@griffith.edu.au	sari.akmal@griffithuni.edu.au

School of Applied Psychology, Griffith University, Gold Coast

By signing below, I confirm that I have read and understood the information provided and in particular note that:

- I understand that my involvement in this research will include a completion of a set of questionnaires that would be completed within approximately 20 minutes of my times.
- I have had any questions answered to my satisfaction.
- I understand the risks involved, which are minimal.
- I understand that there will be no direct benefit to me from my participation in this research, however I can receive IDR 25.000.- (~ AUD 2.5) electronic shopping vouchers upon completion of this questionnaire.
- I understand that my participation in this research is voluntary.
- I understand that if I have any additional questions, I can contact the research team;
- I understand that I am free to withdraw at any time, without explanation or penalty.
- I understand that my name and other personal information that could identify me will be removed or de-identified in publications or presentations resulting from this research.
- I understand that I can contact the Manager, Research Ethics, at Griffith University Human Research Ethics Committee on +61 3735 4375 (or research-ethics@griffith.edu.au) if I have any concerns about the ethical conduct of the project

I agree to participate in the project

Yes No

I want to receive a summary of the research results when available

Yes No

Email: _____

(Please provide your email address only if you want a summary of the results)

Griffith University and the research team thank you for your participation in this research

***** Get Electronic Vouchers for Completing This Survey *****

**SELF-REGULATORY RESPONSES TO CAREER GOAL DISCREPANCIES IN YOUNG ADULTS
FOLLOW UP**

A/ Prof. Michelle Hood Primary supervisor michelle.hood@griffith.edu.au School of Applied Psychology, Griffith University, Gold Coast	Prof Peter Creed Supervisor team p.creed@griffith.edu.au	Dr. Amanda Duffy Supervisor team A.Duffy@griffith.edu.au	Sari Zakiah Akmal Phd Candidate sari.akmal@griffithuni.edu.au
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ENTRY DETAILS

To receive the IDR 25.000, - (~ AUD 2.5) electronic vouchers, you need to:

- Submit your completed online questionnaire and this entry form
- Add your contact details below (your name, and how we can contact you to send the e-voucher)

Your name:
Your contact details (mobile phone number to send the e-voucher):

<p>TERMS AND CONDITIONS OF ENTRY</p> <ol style="list-style-type: none"> 1. The reward is being given to encourage participation in the “Self-regulatory responses to career goal discrepancies in young adults- Follow Up” project. 2. By electing to participate, you accept these terms and conditions. Instructions on how to receive the reward and details advertising the survey form part of the conditions. Any personal information you provide to us in the course of entering the prize draw will be dealt with by us in accordance with our privacy policy (published at: http://www.griffith.edu.au/about-griffith/governance/plans-publications/griffith-university-privacy-plan). 3. Each participant who completed this survey will receive the electronic shopping vouchers worth IDR 25.000, - (~AUD 2.5) each. 4. Entry is free (other than the cost of accessing the website, which is your responsibility). Entry is open from second week of September 2020 until end of September 2020. Entries received after the closing date will not be accepted. 5. To get the reward (voucher), you must: (a) be a research participant in study 1 and invited to participate in follow-up study; (b) complete the online survey “Self-regulatory responses to career goal discrepancies in young adults- Follow Up ” and (c) provide valid contact details.

6. You may not get the reward if you are i) a member of the research team, ii) employed by the research team; iii) an immediate family member (i.e. a spouse/partner, child, or sibling) of someone identified at i) or ii) above, or otherwise associated with the competition.
7. You may only submit one entry to get the reward.
8. All survey and other materials provided by you become our property. No responsibility is taken for late, lost or misdirected surveys or entries.
9. Following the closing date, the electronic voucher will be sent to valid entries received. Each entry can only get one voucher.
10. Subject to system malfunction, the electronic voucher will send starting from **19th October 2020 until 31st October 2020**. If the systems supporting the electronic voucher provider are not functioning as they should when it is due, the electronic voucher will be sending as soon as possible once the systems become functional again.
11. The relevant reward will be sent to each participants' mobile number at the mobile number they provided with the reward entry. If the correct mobile number has not been supplied, the entry will be treated in accordance with clause 13.
12. The right to an electronic voucher is not transferable or assignable to another person.
13. If any participant who completed this survey cannot be contacted within three (3) months, then that person's right to the reward is forfeited and the voucher will be treated as an unclaimed reward.
14. The electronic voucher cannot be substituted for another prize at the election of the participants.
15. We may suspend the promotion if we determine that the integrity or administration of the promotion has been adversely affected due to circumstances beyond its control. We may disqualify any individual who tampers with the entry process.

Appendix J: Survey Time 2 Information for Participants - Indonesian Version**Self-regulatory responses to career goal discrepancies in young adults
SURVEY 2 – Undangan Online**

Mahasiswa yang Terhormat,

Sekitar 6 bulan yang lalu, Anda menyelesaikan survei yang berkaitan dengan penelitian Universitas Griffith yang meneliti mengenai bagaimana dewasa muda berjuang mencapai tujuan karir mereka. Ketika Anda menyelesaikan survei itu, Anda memberi kami izin untuk menghubungi Anda lagi untuk survei lanjutan, yang sekarang kami undang untuk Anda selesaikan.

Jika Anda menyelesaikan survei ini, Anda bisa mendapatkan voucher senilai IDR 25.000., tanpa diundi.

Untuk menyelesaikan survei tindak lanjut ini, silakan klik URL ini, yang akan membawa Anda langsung ke survei.

URL

Terima kasih atas dukungan dan partisipasi Anda yang berkelanjutan dalam proyek ini.

Sari Zakiah Akmal, PhD candidate,
School of Applied Psychology
Griffith University, Gold Coast Campus
Australia

Griffith University berterimakasih atas partisipasi Anda dalam penelitian ini

***** Dapatkan Voucher Elektronik Jika Anda Menyelesaikan Survei ini *****

Self-regulatory responses to career goal discrepancies in young adults

A/Prof. Michelle Hood Ketua supervisor michelle.hood@griffith.edu.au	Prof Peter Creed Anggota tim supervisor p.creed@griffith.edu.au	Dr. Amanda Duffy Anggota tim supervisor A.Duffy@griffith.edu.au	Sari Zakiah Akmal Phd Candidate sari.akmal@griffithuni.edu.au
School of Applied Psychology, Griffith University, Gold Coast			

RINCIAN DATA

Untuk mendapatkan voucher senilai IDR 25.000, - (~ AUD 2.5), Anda perlu:

- Lengkapi survey Anda dan formulir ini
- Tambahkan detail kontak Anda di bawah ini (nama Anda, dan bagaimana kami dapat menghubungi Anda jika Anda ingin menang)

Nama:

Data Anda (email, no. Handphone, atau alamat lengkap):

Syarat dan Ketentuan

1. Voucher diberikan untuk mendorong partisipasi dalam proyek "Self-regulatory responses to career goal discrepancies in young adults"
2. Dengan memilih untuk berpartisipasi, Anda menerima syarat dan ketentuan ini sebagai pengaturan pengundian hadiah. Untuk dapat mengikuti undian ini, Anda diwajibkan telah mengisi kuesioner penelitian sebagai persyaratannya. Setiap informasi pribadi yang Anda berikan kepada kami saat mengikuti undian, akan kami perlakukan sesuai dengan dengan kebijakan privasi kami (dipublikasikan di: <http://www.griffith.edu.au/about-griffith/governance/plans-publikasi-griffith-universitas-rencana-privasi>).
3. Setiap partisipan yang melengkapi survei kedua akan mendapatkan voucher senilai IDR 25.000, - (~ AUD 2.5).

4. Aktivitas ini tidak memerlukan biaya (selain biaya mengakses situs web, yang merupakan tanggung jawab Anda). Proses pendataan akan **dibuka dari minggu kedua September 2020 hingga akhir September 2020**. Data yang diterima setelah tanggal penutupan tidak akan diterima.
5. Untuk mendapatkan voucher, Anda harus: (a) menjadi mahasiswa tahun pertama di sebuah universitas; (b) menyelesaikan survei penelitian dan (c) memberikan rincian kontak yang valid.
6. Anda tidak boleh mengikuti pengundian hadiah jika Anda i) anggota tim peneliti, ii) dipekerjakan oleh tim peneliti; iii) anggota keluarga dekat (mis. pasangan / pasangan, anak, atau saudara kandung) dari seseorang yang diidentifikasi pada 1 atau 2 di atas, atau terkait dengan kompetisi.
7. Anda hanya dapat mengirimkan satu data untuk mendapatkan voucher.
8. Semua survei dan materi lain yang Anda berikan menjadi milik kami. Kami tidak bertanggungjawab untuk survei atau data untuk undian yang terlambat, hilang atau salah kirim.
9. Setelah tanggal penutupan, pemenang hadiah akan dipilih secara acak dari data yang valid yang diterima. Setiap data hanya dapat ditarik satu kali.
10. Bergantung pada keberfungsian sistem, voucher akan dikirimkan secara bertahap antara **19th October 2020 until 31st October 2020**. Jika sistem yang mendukung pengiriman voucher tidak berfungsi sebagaimana mestinya, makan akan dikirimkan kembali sesegera mungkin setelah sistem berfungsi kembali.
11. Hak atas hadiah tidak dapat ditransfer atau dialihkan ke orang lain.
12. Jika partisipan tidak dapat dihubungi dalam waktu tiga (3) bulan dari pengundian, maka hadiah akan hangus dan hadiah akan diperlakukan sebagai hadiah yang tidak diklaim.
13. Hadiah tidak dapat digantikan dengan hadiah lain sesuai dengan keinginan pemenang.
14. Kami tidak bertanggung jawab atas kehilangan, biaya yang harus dikeluarkan, kerusakan atau cedera yang dialami oleh setiap peserta sehubungan dengan pengundian hadiah ini, hadiah atau penukaran hadiah, kecuali untuk setiap kewajiban yang tidak dapat dihindari karena.
15. Kami dapat menanggukuhkan pemberian voucher jika kami menemukan bahwa terjadi hal yang di luar kendali. Kami dapat mendiskualifikasi individu yang merusak proses pemberian reward.

Appendix K: Research Questionnaire - English Version

INSTRUCTIONS

This is a Griffith University Australia survey to understanding the experiences and strategies of young adults when striving to achieve their career goals. As there are no right or wrong answers, we ask that you answer each question as honestly as you can.

Please read the following instructions:

1. Read each question carefully.
2. Do not spend too long on any one question.
3. If you are not sure about your answer, ask yourself which response would be true most of the time for you.
4. Be sure to answer all the questions.
5. You should be able to complete the survey in about 30 minutes or less.
6. Most of the questions can be answered by crossing inside a box or circling around a response or number.

Here are the examples:

- a. A male would answer this question with a tick:
 What is your gender? Male Female

b. You would answer this one with a circle:

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly Agree
I enjoy thinking about my future career	1	2	3	4	5	6

<p>POSITIVE CAREER GOAL DISCREPANCY SCALE</p> <p>Think of the progress you have made towards achieving your future career goals.</p> <p>To what extent do you agree with these statements?</p>	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly Agree
Now I am working harder toward my career, my progress is better than I expected.	1	2	3	4	5	6
I am putting in more effort to achieve my career goals than I did in the past.	1	2	3	4	5	6
Because of my efforts toward my career, I am now making better progress than I did previously	1	2	3	4	5	6
I am putting in more effort than needed to achieve my future career goals.	1	2	3	4	5	6
The effort needed to achieve my future career goals is not as much as I anticipated.	1	2	3	4	5	6
I am working harder than needed to achieve my future career goals.	1	2	3	4	5	6
I am working harder than my parents expected I would on getting the career I want.	1	2	3	4	5	6
My parents have told me that my efforts to reach my future career goals have exceeded their expectations.	1	2	3	4	5	6
I have surprised my parents by the best effort I am putting in to get the career I want.	1	2	3	4	5	6
I am working harder at achieving my career than my friends.	1	2	3	4	5	6
I am putting in more effort to achieve my career goals than others of my age.	1	2	3	4	5	6
I am working harder than my peers to achieve the career I want.	1	2	3	4	5	6
Compared to the past, I now have a better ability to achieve my career goals.	1	2	3	4	5	6
My abilities have improved over time making it easier for me to achieve my career goals.	1	2	3	4	5	6
I have developed more career-relevant abilities than I used to have.	1	2	3	4	5	6
I believe that I am more than capable of meeting the requirements for the career I want.	1	2	3	4	5	6
My abilities exceed what is required to achieve my future career goals.	1	2	3	4	5	6
I have more skills than needed to achieve my future career goals.	1	2	3	4	5	6
My abilities to achieve my career goals have exceeded my parents' expectations.	1	2	3	4	5	6
My parents are impressed by the high level of my career-related abilities.	1	2	3	4	5	6

<p>POSITIVE CAREER GOAL DISCREPANCY SCALE</p> <p>Think of the progress you have made towards achieving your future career goals.</p> <p>To what extent do you agree with these statements?</p>	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly Agree
My career related skills and abilities have developed better than my parents expected.	1	2	3	4	5	6
Compared to my peers, I have more of what it takes to reach the career I want	1	2	3	4	5	6
I have more ability to achieve my career goals than my peers who aim for the same career.	1	2	3	4	5	6
My skills and abilities to get my career goals are better than the average person my age.	1	2	3	4	5	6
My achievements are more on track for my career now than in the past.	1	2	3	4	5	6
I am achieving more today for my career than in the past.	1	2	3	4	5	6
Compared to the past, I am making better progress towards my career.	1	2	3	4	5	6
My achievements demonstrate that I can easily reach my future career goals.	1	2	3	4	5	6
I have achieved more than enough to reach the future career I want.	1	2	3	4	5	6
My achievements exceed those needed for my future career.	1	2	3	4	5	6
I have achieved more towards my chosen career than my parents expected of me.	1	2	3	4	5	6
What I have achieved to date in my career has exceeded my parent's expectations.	1	2	3	4	5	6
I am doing better at achieving my career goals than my parents thought I would.	1	2	3	4	5	6
Because of my achievements so far, I am better prepared to achieve my career goals than my friends.	1	2	3	4	5	6
I am achieving better than my peers who aim for the same career.	1	2	3	4	5	6
To date, I have achieved more than others my age who want the same career as me.	1	2	3	4	5	6
I am confident that I can achieve a higher career goal than I thought possible before.	1	2	3	4	5	6
I am aiming for a better career now than I once thought I was capable of.	1	2	3	4	5	6
I have set my career goals higher as I now think I can do better than I thought previously.	1	2	3	4	5	6
My plans are working out better than expected for me to get the career I want.	1	2	3	4	5	6

POSITIVE CAREER GOAL DISCREPANCY SCALE Think of the progress you have made towards achieving your future career goals. To what extent do you agree with these statements?	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly Agree
I am sure that I will surpass the goals I set for my chosen career.	1	2	3	4	5	6
I am closer than I expected to be at this point to reach the career I want.	1	2	3	4	5	6
I have higher career goals for myself than my parents have for me.	1	2	3	4	5	6
I have set my sights on a career that goes beyond my parents' expectations.	1	2	3	4	5	6
I have an image of my dream job, which exceeds my parents' expectations.	1	2	3	4	5	6
I am closer to achieving my career goals than my peers who want the same job as me.	1	2	3	4	5	6
I am more on track to meet my career goals than my peers.	1	2	3	4	5	6
I am on track to get the job I want, which is more than I can say for others my age.	1	2	3	4	5	6

ADOLESCENT-PARENT CAREER CONGRUENCE SCALE The following statements inquire about you and your parents. Please decide to what extent do you agree with these statements?	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly Agree
My parents encourage me to explore the career areas I am interested in.	1	2	3	4	5	6
My parents support me in my career plans.	1	2	3	4	5	6
My parents show me how to get the information I need for my career interest (e.g., go to career exhibition, see someone)	1	2	3	4	5	6
My parents approve of the plans I am making for my future career.	1	2	3	4	5	6
The progress I have made towards my career goals make my parents happy	1	2	3	4	5	6
My parents help me to explore my career interests (e.g., by buying me books, taking me to career fairs)	1	2	3	4	5	6
My parents are satisfied with the effort I have put in so far to achieve my career goals.	1	2	3	4	5	6

ADOLESCENT-PARENT CAREER CONGRUENCE SCALE	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly Agree
The following statements inquire about you and your parents.						
Please decide to what extent do you agree with these statements?						
My parents want the same career for me as I want for myself.	1	2	3	4	5	6
My parents and I have similar career interests.	1	2	3	4	5	6
The career plans I have for myself are similar to the plans that my parents have for me	1	2	3	4	5	6
I am interested in the career areas that my parents expect me to enter	1	2	3	4	5	6
My parents and I have the same way of defining career success.	1	2	3	4	5	6

CAREER SATISFACTION SCALE	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly Agree
Please decide to what extent do you agree with these statements?						
I am satisfied with the success I have achieved in my career.	1	2	3	4	5	6
I am satisfied with the progress I have made toward meeting my overall career goals.	1	2	3	4	5	6
I am satisfied with the progress I have made toward meeting my goals for income.	1	2	3	4	5	6
I am satisfied with the progress I have made toward meeting my goals for advancement.	1	2	3	4	5	6
I am satisfied with the progress I have made toward meeting my goals for the development of new skills.	1	2	3	4	5	6

CAREER OPTIMISM	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly Agree
Please decide to what extent do you agree with these statements?						
I get excited when I think about my career	1	2	3	4	5	6
Thinking about my career inspires me	1	2	3	4	5	6

CAREER OPTIMISM						
Please decide to what extent do you agree with these statements?	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly Agree
Thinking about my career frustrates me	1	2	3	4	5	6
It is difficult for me to set career goals	1	2	3	4	5	6
It is difficult to relate my abilities to a specific career plan	1	2	3	4	5	6
I understand my work-related interests	1	2	3	4	5	6
I am eager to pursue my career dreams	1	2	3	4	5	6
I am unsure of my future career success	1	2	3	4	5	6
It is hard to discover the right career	1	2	3	4	5	6
Planning my career is a natural activity	1	2	3	4	5	6
I will definitely make the right decisions in my career	1	2	3	4	5	6

CAREER RELATED SELF-EFFICACY						
In relation to your career, how confident are you that you could ...	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly Agree
Thanks to my resourcefulness, I will know how to handle unforeseen situations in my future career.	1	2	3	4	5	6
If I get into trouble at my future career, I will be able to think of something to do.	1	2	3	4	5	6
I will be able to remain calm when facing difficulties in my career because I will be able to rely on my abilities.	1	2	3	4	5	6
When I am confronted with a problem in my future career, I will be able to find several solutions.	1	2	3	4	5	6
No matter what comes my way in my future career, I'm usually going to be able to handle it.	1	2	3	4	5	6
My past experiences have prepared me well for my future career.	1	2	3	4	5	6
I will be able to meet the goals that I set for myself in my career.	1	2	3	4	5	6
I feel prepared to meet most of the demands in my career.	1	2	3	4	5	6

VOCATIONAL OUTCOME EXPECTATIONS SCALE						
From what you have done, what do you expect to happen?						
Please decide to what extent do you agree with these statements?	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly Agree
My career planning will lead to a satisfying career for me.	1	2	3	4	5	6
I will be successful in my chosen career/occupation.	1	2	3	4	5	6
The future looks bright for me.	1	2	3	4	5	6
My talents and skills will be used in my career/occupation.	1	2	3	4	5	6
I have control over my career decisions.	1	2	3	4	5	6
I can make my future a happy one.	1	2	3	4	5	6

UPWARD GOAL REVISION						
Please decide to what extent do you agree with these statements?						
	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly Agree
I plan to raise my career goal, as I am not aiming high enough.	1	2	3	4	5	6
I intend to pursue a career with higher responsibility than my current choice.	1	2	3	4	5	6
The occupation I am aiming for is too low; I need to increase my aspirations.	1	2	3	4	5	6
I plan to aim for a career that is more demanding than my current choice.	1	2	3	4	5	6
I intend to pursue a higher career goal than the one I currently have.	1	2	3	4	5	6
I plan to aim for a more challenging career than my current choice.	1	2	3	4	5	6

COASTING SCALE						
Please decide to what extent do you agree with these statements?						
When I feel I am ahead in my career progress, I...	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly Agree
do not work as hard on building my career	1	2	3	4	5	6
allocate less energy to things related to my career	1	2	3	4	5	6
reduce my effort on progressing my career direction	1	2	3	4	5	6

COASTING SCALE						
Please decide to what extent do you agree with these statements?	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly Agree
When I feel I am ahead in my career progress, I...						
push tasks related to my career to the background	1	2	3	4	5	6
do not devote as much energy to career-related tasks	1	2	3	4	5	6
put off doing anything more in that direction	1	2	3	4	5	6
focus my thoughts on other life goals instead of my career	1	2	3	4	5	6
give my attention to other things in my life	1	2	3	4	5	6
shift my attention to other life goals	1	2	3	4	5	6
concentrate on other important things in my life	1	2	3	4	5	6
give priority to other aspects of my life	1	2	3	4	5	6
focus my energy on other aspects of my life	1	2	3	4	5	6

CAREER EXPLORATION SCALE						
To what extent do you agree that you have engaged with the following?	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly Agree
Informal learning about unfamiliar careers to find a few to explore further.	1	2	3	4	5	6
Trying to have many different experiences so that I can find several jobs that might suit me.	1	2	3	4	5	6
Thinking about how I could fit into many different careers.	1	2	3	4	5	6
Learning about various jobs that I might like.	1	2	3	4	5	6
Keeping my options open as I learn about many different careers.	1	2	3	4	5	6
Identifying my strongest talents as I think about careers.	1	2	3	4	5	6
Learning as much as I can about the particular educational requirements of the career that interests me the most.	1	2	3	4	5	6
Learning what I can do to improve my chances of getting into my chosen career.	1	2	3	4	5	6
Trying to find people that share my career interests.	1	2	3	4	5	6
Thinking about all the aspects of working that are important to me.	1	2	3	4	5	6

NEGATIVE CAREER GOAL DISCREPANCIES						
Please decide to what extend do you agree with these statements?	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly Agree
My plans are not working out to get the career I really want.	1	2	3	4	5	6
What I have achieved to date doesn't give me confidence that I will reach my career goals.	1	2	3	4	5	6
I am making progress on my career goals, but I don't think I have achieved enough to get the career I want.	1	2	3	4	5	6
Despite my best efforts, I think I am going to miss out on my ideal career.	1	2	3	4	5	6
Even with my best efforts, I think I will have to settle for something less than my ideal career.	1	2	3	4	5	6
I am working hard, but still doubt I will end up with the career I would really like.	1	2	3	4	5	6
I doubt I can meet the standards of entry to my ideal career.	1	2	3	4	5	6
I have set my sights on a particular career, but I don't think that I am going to reach it.	1	2	3	4	5	6
I have an image of my dream job, but I think it is out of my reach.	1	2	3	4	5	6
I thought I had the ability to get the career I want, but now I am not so sure.	1	2	3	4	5	6
I know the career I want, but don't think I have what it takes to reach it. I am not sure	1	2	3	4	5	6
I am capable of meeting the requirements for the career I really want.	1	2	3	4	5	6

DOWNWARD GOAL REVISION						
Please decide to what extend do you agree with these statements?	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly Agree
I plan to aim for a career that is less demanding than my current choice.	1	2	3	4	5	6
I intend to pursue an easier career goal than the one I currently have.	1	2	3	4	5	6
I need to reduce my aspirations as the occupation I am aiming for is unrealistic.	1	2	3	4	5	6

DOWNWARD GOAL REVISION Please decide to what extend do you agree with these statements?	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly Agree
I plan to aim for a less challenging career than my current choice.	1	2	3	4	5	6
I plan to lower my career goal as I am aiming too high.	1	2	3	4	5	6
I intend to pursue a less responsible career than my current choice.	1	2	3	4	5	6

CAREER CALLING Please decide to what extend do you agree with these statements?	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly Agree
It is my calling to benefit others in my future chosen career	1	2	3	4	5	6
I think of benefiting others through my future chosen career all the time; it is like my calling	1	2	3	4	5	6
It is more important that my career benefits others, rather than just benefits me	1	2	3	4	5	6
I believe that I can make an important contribution to the community in my future chosen career	1	2	3	4	5	6
I enjoy that my future career will be recognized in the community as important	1	2	3	4	5	6
I have no clear sense of a future career direction that would be meaningful for me	1	2	3	4	5	6
I struggle to identify an important career goal that would give me a reason to get up in the morning and do something about it	1	2	3	4	5	6
I feel a sense of satisfaction because I have chosen a career path that I see as personally meaningful	1	2	3	4	5	6
Preparing for my career is contributing to my personal growth	1	2	3	4	5	6
I have chosen a career path that will give a real purpose to my life	1	2	3	4	5	6
All I want to do now is to pursue the career that is inspiring me	1	2	3	4	5	6
I am obsessed about the career I am aiming for to the point that sometimes nothing else interests me	1	2	3	4	5	6

CAREER CALLING	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly Agree
Please decide to what extent do you agree with these statements?						
Everything I do to prepare for my career is enjoyable and draws me toward it	1	2	3	4	5	6
When it comes to planning for my dream career, I do not waste time; it is like I am on a mission	1	2	3	4	5	6
I take every opportunity to progress my career goals.	1	2	3	4	5	6

DEMOGRAPHIC INFORMATION

1. What is your gender?
 - Male
 - Female
 - Other/Prefer not to say
2. What is your age in years? _____
3. What is the name of your university? _____
4. What year of your course are you in? _____
5. What is your grade point average? _____
6. What is your academic course? _____
7. When you compare yourself to others at university, how would you describe your current financial position?
 - Much better than others
 - A little better than others
 - About the same as others
 - A little worse than others
 - Much worse than others

CONTACT DETAILS

We would like to contact you to invite you to participate in a follow-up survey in six months so we can understand how things might change over your time at university.

1. Please enter email address/es and phone number/s that we can use to contact you - if you have more than one then please enter a second one.

Best email contact _____

Other email contact _____

Best phone number _____

Other phone number _____

2. As your survey responses are anonymous, we need a code that you choose so we can match this survey with the follow-up one. Your unique code will be comprised of the following:

Your date of birth (dd/mm/yy) _____

Your mother's first name _____

The last 2 digits in your student number _____

Appendix L: Research Questionnaire - Indonesian Version

PETUNJUK PENGISIAN

Bacalah setiap pertanyaan dan pernyataan dengan cermat.

- Jangan habiskan waktu terlalu lama pada satu pernyataan.
- Jika tidak yakin pada jawaban Anda, pilih jawaban yang paling sesuai atau paling sering terjadi.
- Pastikan Anda memberikan respon pada seluruh pernyataan dan pertanyaan.
- Anda diperkirakan dapat menyelesaikan kuesioner ini dalam 20—30 menit atau kurang dari waktu tersebut.
- Sebagian besar pertanyaan dapat dijawab dengan memberi tanda silang dalam kotak atau melingkari pilihan respon atau nomor yang tersedia.

Contoh:

Apa jenis kelaminmu?

Laki-laki Perempuan

Kamu akan menjawab pertanyaan ini sebagai berikut:

Tentukanlah seberapa setuju atau tidak setuju kamu dengan pernyataan berikut ini:	Sangat tidak setuju	Tidak setuju	Agak tidak setuju	Agak setuju	Setuju	Sangat setuju
Saya menyukai ice cream	1	2	3	4	5	6

<p>Pikirkan tentang kemajuan yang telah Anda tunjukkan dalam mencapai tujuan karier Anda.</p> <p>Tentukanlah seberapa setuju Anda dengan pernyataan-pernyataan berikutini.</p>	Sangat tidak setuju	Tidak setuju	Agak tidak setuju	Agak setuju	Setuju	Sangat setuju
Saat ini saya berusaha lebih keras untuk mencapai tujuan karier saya daripada yang saya lakukan di masa lalu.	1	2	3	4	5	6
Karena usaha saya dalam mencapai tujuan karier saya, saat ini saya membuat kemajuan lebih baik daripada sebelumnya.	1	2	3	4	5	6
Saya berusaha lebih keras dari apa yang dibutuhkan untuk mencapai tujuan karier masa depan saya.	1	2	3	4	5	6
Usaha yang diperlukan untuk mencapai tujuan karier masa depan saya, tidak sebanyak yang saya perkirakan.	1	2	3	4	5	6
Saya bekerja lebih keras daripada yang di- harapkan orang tua saya untuk mendapat karier yang saya inginkan.	1	2	3	4	5	6
Usaha yang saya lakukan untuk mencapai tujuan karier saya di masa depan telah melampaui harapan orang tua saya.	1	2	3	4	5	6
Saya bekerja lebih giat dalam mencapai tujuan karier saya dibandingkan teman-teman saya.	1	2	3	4	5	6
Saya melakukan lebih banyak usaha dalam mencapai tujuan karier saya daripada kebanyakan orang sesusia saya.	1	2	3	4	5	6
Kemampuan saya terus meningkat dari waktu ke waktu sehingga saya lebih mudah mencapai karier saya.	1	2	3	4	5	6
Dibandingkan sebelumnya, saat ini saya telah mengembangkan lebih banyak kemampuan yang terkait dengan pilihan karier saya.	1	2	3	4	5	6
Saya percaya bahwa kemampuan saya lebih dari cukup untuk memenuhi persyaratan karier yang saya inginkan.	1	2	3	4	5	6
Saya memiliki keterampilan yang melampaui apa yang dibutuhkan untuk mencapai tujuan karier saya.	1	2	3	4	5	6
Orang tua saya terkesan dengan kemampuan saya yang tergolong tinggi untuk bidang karier yang saya tekuni.	1	2	3	4	5	6
Keterampilan dan kemampuan saya yang terkait dengan karier berkembang lebih baik dari yang diharapkan orang tua saya.	1	2	3	4	5	6
Dibandingkan dengan rekan-rekan saya, saya memiliki kemampuan yang melebihi apa yang diperlukan untuk mencapai karier yang saya inginkan.	1	2	3	4	5	6
Keterampilan dan kemampuan saya untuk mendapatkan tujuan karier saya lebih baik daripada rata-rata orang seusia saya.	1	2	3	4	5	6

<p>Pikirkan tentang kemajuan yang telah Anda tunjukkan dalam mencapai tujuan karier Anda.</p> <p>Tentukanlah seberapa setuju Anda dengan pernyataan-pernyataan berikutini.</p>	Sangat tidak setuju	Tidak setuju	Agak tidak setuju	Agak setuju	Setuju	Sangat setuju
Pencapaian saya saat ini lebih sesuai dengankarier saya daripada di masa lalu.	1	2	3	4	5	6
Dibandingkan dengan yang lalu,sekarang saya membuat kemajuan yang lebih baik untuk mencapai tujuan karier saya.	1	2	3	4	5	6
Pencapaian saya menunjukkan bahwa saya dapat menggapai tujuan karier masa depan saya dengan mudah.	1	2	3	4	5	6
Prestasi saya melebihi apa yang dibutuhkanuntuk karier masa depan saya.	1	2	3	4	5	6
Saya telah memiliki pencapaian lebih banyakke arah karier pilihan saya daripada yang diharapkan orang tua saya.	1	2	3	4	5	6
Apa yang telah saya capai saat ini dalam karier saya telah melampaui harapan orangtua saya.	1	2	3	4	5	6
Karena pencapaian saya selama ini, saya lebih siap untuk mencapai tujuan karier sayadarpada teman-teman saya.	1	2	3	4	5	6
Sampai saat ini, saya telah memiliki pen- capaian yang lebih baik daripada orang lainusia saya yang juga menginginkan karier yang sama.	1	2	3	4	5	6
Saya yakin bahwa saya dapat mencapai tujuan karier yang lebih tinggi daripada yang saya pikirkan sebelumnya.	1	2	3	4	5	6
Saya telah menetapkan tujuan karier yang lebih tinggi, karena saya berpikir bahwa sekarang saya bisa melakukan lebih baik da- ripada yang saya pikirkan sebelumnya.	1	2	3	4	5	6
Rencana saya berjalan lebih baik daripada yang saya harapkan untuk bisa mencapai tujuan karier yang saya inginkan	1	2	3	4	5	6
Saya yakin bahwa saya akan melampaui tar- get yang telah saya tetapkan untuk karier pilihan saya.	1	2	3	4	5	6
Saya menetapkan tujuan karier yang lebih tinggi daripada tujuan karier yang ditetapkan orang tua saya.	1	2	3	4	5	6
Saya telah menetapkan tujuan karier yang melampaui harapan orang tua saya.	1	2	3	4	5	6
Saya lebih mendekati tujuan karier saya da- ripada rekan-rekan yang memiliki tujuan karier yang serupa.	1	2	3	4	5	6
Saya berada di jalur karier yang tepat untuk mendapatkan pekerjaan yang saya inginkan; dan hal tersebut lebih baik dibandingkan anak lain usia saya.	1	2	3	4	5	6

Pernyataan-pernyataan berikut ini menanyakan tentang kamu dan orang tuamu. Tentukanlah seberapa setuju Anda dengan pernyataan-pernyataan berikutini.	Sangat tidak setuju	Tidak setuju	Agak tidak setuju	Agak setuju	Setuju	Sangat setuju
Orang tua mendorong saya untuk mengeksplorasi bidang karier yang saya minati.	1	2	3	4	5	6
Orang tua mendukung saya dalam merealisasikan rencana karier saya.	1	2	3	4	5	6
Orang tua menunjukkan pada saya cara mendapatkan informasi yang saya butuhkan untuk menunjang minat karier saya (misalnya pergi ke pameran karier).	1	2	3	4	5	6
Orang tua menyetujui rencana-rencana yang saya buat untuk masa depan saya.	1	2	3	4	5	6
Kemajuan yang sudah saya buat menuju tercapainya cita-cita/ karier saya membuat orang tua senang.	1	2	3	4	5	6
Orang tua membantu saya mengeksplorasi minat-minat karier saya (misalnya dengan membelikan buku, atau mengajak ke pameran karier).	1	2	3	4	5	6
Orang tua puas dengan usaha yang sudah saya lakukan sejauh ini dalam meraih cita- cita karier saya.	1	2	3	4	5	6
Karier yang saya inginkan sama dengan karier yang diinginkan orang tua untuk saya miliki.	1	2	3	4	5	6
Orang tua dan saya memiliki minat-minat karier yang mirip.	1	2	3	4	5	6
Rencana-rencana karier yang saya miliki selaras dengan rencana orang tua untuk saya.	1	2	3	4	5	6
Saya tertarik pada bidang-bidang karier yang diharapkan orang tua untuk saya masuki.	1	2	3	4	5	6
Orang tua dan saya memiliki cara yang sama dalam mendefinisikan kesuksesan karier.	1	2	3	4	5	6

Tentukanlah seberapa setuju atau tidak setuju kamu dengan pernyataan berikut ini:	Sangat tidak setuju	Tidak setuju	Agak tidak setuju	Agak setuju	Setuju	Sangat setuju
Saya puas dengan kesuksesan yang telahsaya capai dalam karier saya.	1	2	3	4	5	6
Saya puas dengan kemajuan yang telah sayalakukan untuk mencapai tujuan karier saya secara umum.	1	2	3	4	5	6
Saya puas dengan kemajuan yang telah sayalakukan dalam mencapai tujuan saya untuk mendapatkan penghasilan.	1	2	3	4	5	6
Saya puas dengan perkembangan yang sayabuat dalam mencapai tujuan saya untuk kemajuan saya.	1	2	3	4	5	6
Saya puas dengan kemajuan yang saya buat dalam mencapai tujuan saya untuk mengembangkan keterampilan baru.	1	2	3	4	5	6

Tentukanlah seberapa setuju atau tidak setuju kamu dengan pernyataan berikut ini:	Sangat tidak setuju	Tidak setuju	Agak tidak setuju	Agak setuju	Setuju	Sangat setuju
Saya menjadi bersemangat ketika memikirkan karier saya.	1	2	3	4	5	6
Memikirkan mengenai karier saya membuat saya terinspirasi.	1	2	3	4	5	6
Memikirkan mengenai karier membuat saya frustrasi.	1	2	3	4	5	6
Sulit bagi saya menetapkan tujuan karier.	1	2	3	4	5	6
Sulit untuk mengaitkan kemampuan saya dengan rencana karier yang spesifik.	1	2	3	4	5	6
Saya memahami keterkaitan antara pekerjaan dan minat saya.	1	2	3	4	5	6
Silahkan lingkari kolom sangat setuju untuk memastikan kamu membaca pernyataan ini.	1	2	3	4	5	6
Saya bersemangat untuk mencapai karier impian saya.	1	2	3	4	5	6
Saya merasa tidak yakin dengan kesuksesan karier saya di masa depan.	1	2	3	4	5	6
Sulit untuk menemukan karier yang tepat.	1	2	3	4	5	6
Membuat perencanaan karier merupakan aktivitas yang lumrah dilakukan.	1	2	3	4	5	6
Saya pasti membuat keputusan yang tepat dalam karier saya.	1	2	3	4	5	6

Terkait dengan kariermu, seberapa setuju kamu dengan pernyataan berikutini	Sangat tidak setuju	Tidak setuju	Agak tidak setuju	Agak setuju	Setuju	Sangat setuju
Berkat kemampuan saya, saya akan mengetahui bagaimana menangani situasi yang tidak terduga dalam karier masa depan saya.	1	2	3	4	5	6
Jika saya mengalami masalah dalam karier saya di masa yang akan datang, saya akan dapat memikirkan hal yang perlu saya lakukan.	1	2	3	4	5	6
Saya akan bisa tetap tenang ketika menghadapi kesulitan dalam karier saya karena saya dapat mengandalkan kemampuan yang saya miliki.	1	2	3	4	5	6
Ketika saya dihadapkan dengan masalah di karier saya yang akan datang, saya akan mampu menemukan beberapa solusi.	1	2	3	4	5	6
Tidak peduli apapun yang menghadang karier saya di masa depan, saya akan bisa menanganinya.	1	2	3	4	5	6
Pengalaman masa lalu saya telah mempersiapkan saya dengan baik untuk karier masa depan saya.	1	2	3	4	5	6

Terkait dengan kariermu, seberapa setuju kamu dengan pernyataan berikutini	Sangat tidak setuju	Tidak setuju	Agak tidak setuju	Agak setuju	Setuju	Sangat setuju
Saya akan mampu mencapai tujuan yang telah saya tetapkan untuk karier saya sendiri.	1	2	3	4	5	6
Saya merasa siap untuk memenuhi sebagian besar tuntutan dalam karier saya.	1	2	3	4	5	6

Dari apa yang kamu lakukan saat ini, apayang kamu bayangkan akan terjadi?	Sangat tidak setuju	Tidak setuju	Agak tidak setuju	Agak setuju	Setuju	Sangat setuju
Rencana karier yang saya miliki saat ini akan memberi peluang pada saya untuk memiliki karier yang memuaskan.	1	2	3	4	5	6
Saya akan meraih kesuksesan dalam karier yang saya pilih.	1	2	3	4	5	6
Masa depan terlihat cerah bagi saya.	1	2	3	4	5	6
Bakat dan kelebihan yang saya miliki akanbisa saya gunakan dalam pekerjaan yang saya tekuni.	1	2	3	4	5	6
Saya bisa mengontrol keputusan-keputusan karier yang saya ambil.	1	2	3	4	5	6
Saya bisa membuat masa depan saya menyenangkan.	1	2	3	4	5	6

Tentukanlah seberapa setuju kamu dengan pernyataan berikut ini: Ketika saya merasa saya berada di depan(unggul) dalam proses karier saya, saya ...	Sangat tidak setuju	Tidak setuju	Agak tidak setuju	Agak setuju	Setuju	Sangat setuju
Tidak bekerja keras seperti ketika saya membangun karier saya.	1	2	3	4	5	6
Mengalokasikan lebih sedikit energi (usaha) untuk hal yang berkaitan dengan karier saya.	1	2	3	4	5	6
Mengurangi usaha saya dalam mengembangkan karier saya.	1	2	3	4	5	6
Tidak memprioritaskan tugas yang terkait dengan karier saya	1	2	3	4	5	6
Tidak mencurahkan banyak energi untuk tugas-tugas yang berhubungan dengan karier.	1	2	3	4	5	6
Manunda melakukan sesuatu yang lebih ke arah karier.	1	2	3	4	5	6
Memusatkan pikiran saya pada tujuan hiduplain daripada karier saya.	1	2	3	4	5	6
Memberikan perhatian saya pada hal laindalam hidup saya.	1	2	3	4	5	6
Mengalihkan perhatian saya pada tujuan hiduplainnya.	1	2	3	4	5	6
Berkonsentrasi pada hal penting lainnya dalam hidup saya.	1	2	3	4	5	6

Memberikan prioritas pada aspek lain dari hidup saya.	1	2	3	4	5	6
Memusatkan energi (usaha) saya pada aspeklain dalam hidup saya.	1	2	3	4	5	6

Tentukanlah seberapa setuju atau tidak setuju kamu dengan pernyataan berikut ini:	Sangat tidak setuju	Tidak setuju	Agak tidak setuju	Agak setuju	Setuju	Sangat setuju
Saya berencana untuk meningkatkan tujuankarier saya, karena tujuan karier saya sebelumnya tidak terlalu tinggi.	1	2	3	4	5	6
Saya berencana untuk mencapai karier yangmemiliki tanggung jawab lebih tinggi dibandingkan pilihan karier saya saat ini.	1	2	3	4	5	6
Pekerjaan yang saya tuju terlalu rendah, saya perlu meningkatkan aspirasi karier saya.	1	2	3	4	5	6
Saya berencana untuk mengejar karier yang lebih menuntut daripada pilihan saya saat ini.	1	2	3	4	5	6
Saya bermaksud untuk mengejar tujuan karier yang lebih tinggi daripada yang sayamiliki saat ini.	1	2	3	4	5	6
Saya berencana untuk mengejar karier yanglebih menantang daripada pilihan saya saat ini.	1	2	3	4	5	6
Silahkan lingkari kolom sangat setuju untuk memastikan kamu membaca pernyataan ini.	1	2	3	4	5	6

Tentukanlah seberapa setuju atau tidak setuju bahwa kamu telah terlibat dalam hal berikut ini:	Sangat tidak setuju	Tidak setuju	Agak tidak setuju	Agak setuju	Setuju	Sangat setuju
Belajar informal mengenai karier yang tidak familiar untuk mendapatkan sedikit informasiagar ditelusuri lebih lanjut.	1	2	3	4	5	6
Mencoba untuk memiliki beragam pengalaman sehingga saya mendapatkan pekerjaan terten- tu yang mungkin cocok untuk saya.	1	2	3	4	5	6
Memikirkan mengenai bagaimana saya dapatcocok untuk berbagai karier yang berbeda.	1	2	3	4	5	6
Mempelajari mengenai berbagai pekerjaan yang mungkin saya sukai.	1	2	3	4	5	6
Menjaga pilihan karier saya agar tetap terbuka terhadap berbagai kemungkinan, ketika saya belajar tentang berbagai karier yang berbeda.	1	2	3	4	5	6
Mengidentifikasi bakat terkuat saya ketikasaya memikirkan mengenai karier.	1	2	3	4	5	6
Belajar sebanyak mungkin tentang persyaratan pendidikan khusus dari karieryang paling menarik minat saya.	1	2	3	4	5	6

Tentukanlah seberapa setuju atau tidak setuju bahwa kamu telah terlibat dalam hal berikut ini:	Sangat tidak setuju	Tidak setuju	Agak tidak setuju	Agak setuju	Setuju	Sangat setuju
Belajar mengenai apa yang dapat saya lakukan untuk meningkatkan peluang sayamencapai karier yang saya pilih.	1	2	3	4	5	6
Mencoba menemukan orang lain yang memiliki minat yang sama dengan minat karriersaya.	1	2	3	4	5	6
Memikirkan semua aspek pekerjaan yangpenting bagi saya.	1	2	3	4	5	6

Tentukanlah seberapa setuju atau tidak setuju kamu dengan pernyataan berikut ini:	Sangat tidak setuju	Tidak setuju	Agak tidak setuju	Agak setuju	Setuju	Sangat setuju
Rencana saya tidak berjalan untuk mendapatkan karier yang benar-benar saya inginkan.	1	2	3	4	5	6
Apa yang sudah saya capai hingga hari ini tidak membuat saya yakin bahwa saya akanmampu mencapai tujuan karier saya.	1	2	3	4	5	6
Saya membuat kemajuan dalam tujuan karriersaya, tetapi saya tidak berpikir bahwa kema-juan tersebut cukup untuk mendapatkan karier yang saya inginkan.	1	2	3	4	5	6
Terlepas dari upaya terbaik saya, saya pikirsaya akan kehilangan karier ideal saya.	1	2	3	4	5	6
Saya pikir saya harus puas dengan sesuatu yang kurang dari karier ideal saya, bahkan ketika saya sudah melakukan upaya terbaik.	1	2	3	4	5	6
Saya bekerja keras, namun saya masih ragu saya akan mendapatkan karier yang benar- benar saya suka.	1	2	3	4	5	6
Saya ragu bahwa saya dapat memenuhi standar untuk dapat masuk karier ideal saya.	1	2	3	4	5	6
Saya telah menetapkan pandangan saya pada karier tertentu, tetapi saya tidak berpikirbahwa saya akan mencapainya.	1	2	3	4	5	6
Saya sudah memiliki bayangan mengenai pekerjaan impian saya, tapi saya pikir pekerjaan tersebut diluar jangkauan saya.	1	2	3	4	5	6
Saya dulu berpikir bahwa saya dapat mencapai karier yang saya inginkan, tapisekarang saya tidak yakin.	1	2	3	4	5	6
Saya mengetahui karier yang saya inginkan,tetapi saya tidak yakin saya memiliki kemampuan untuk mencapainya.	1	2	3	4	5	6
Saya dapat memenuhi persyaratan untuk karier yang saya inginkan.	1	2	3	4	5	6

Tentukanlah seberapa setuju atau tidak setuju kamu dengan pernyataan berikut ini:	Sangat tidak setuju	Tidak setuju	Agak tidak setuju	Agak setuju	Setuju	Sangat setuju
Merupakan panggilan dalam diri saya agar bermanfaat bagi orang lain pada karier pilihansaya di masa depan.	1	2	3	4	5	6
Saya memikirkan mengenai bagaimana agarbermanfaat untuk orang lain melalui pilihan karier saya di masa depan, hal ini seperti panggilan dalam diri saya.	1	2	3	4	5	6
Merupakan hal penting bahwa kerier saya bermanfaat untuk orang lain, dibandingkan hanya bermanfaat untuk saya.	1	2	3	4	5	6
Saya yakin bahwa saya dapat memberikankontribusi penting pada masyarakat pada karier pilihan saya di masa depan.	1	2	3	4	5	6
Saya merasa senang membayangkan bahwapilihan karier saya nantiakan diakui di masyarakat sebagai hal yang penting.	1	2	3	4	5	6
Saya tidak memiliki perasaan yang jelas ten-tang arah karier di masa depan yang akan berarti bagi saya.	1	2	3	4	5	6
Saya kesulitan dalam menemukan sebuah tujuan karier yang memberi saya alasan un-tuk bangun di pagi hari dan melakukan sesuatu untuk itu.	1	2	3	4	5	6
Saya merasa puas karena telah memilih jalurkarier yang secara pribadi bermakna bagi saya.	1	2	3	4	5	6
Mempersiapkan karier saya berkontribusiuntuk perkembangan diri saya.	1	2	3	4	5	6
Saya telah memilih sebuah jalur karier yangakan menjadi tujuan nyata di hidup saya.	1	2	3	4	5	6
Hal yang ingin saya lakukan saat ini adalah mewujudkan karier yang menginspirasi saya.	1	2	3	4	5	6
Saya terobsesi akan karier yang ingin saya capai hingga saya merasa tidak ada hal lain yang lebih menarik.	1	2	3	4	5	6
Segala sesuatu yang saya lakukan untuk mempersiapkan karier saya terasa me-nyenangkan dan menarik saya ke arah itu.	1	2	3	4	5	6
Ketika merencanakan karier impian saya,saya tidak merasa membuang waktu; itu seperti saya sedang dalam sebuah misi.	1	2	3	4	5	6
Saya mengambil setiap peluang untuk kema-juan pencapaian tujuan karier saya.	1	2	3	4	5	6
Saya berencana untuk mengejar karier yangtidak terlalu menuntut dibandingkan pilihan saya saat ini.	1	2	3	4	5	6
Saya berencana untuk mencapai tujuan karier yang lebih mudah dibandingkan pilihan karier saya saat ini.	1	2	3	4	5	6

<p>Tentukanlah seberapa setuju atau tidak setuju kamu dengan pernyataan berikut ini:</p>	<p>Sangat tidak setuju</p>	<p>Tidak setuju</p>	<p>Agak tidak setuju</p>	<p>Agak setuju</p>	<p>Setuju</p>	<p>Sangat setuju</p>
<p>Saya perlu menurunkan aspirasi karier saya karena pekerjaan yang saya inginkan tidak realistis.</p>	<p>1</p>	<p>2</p>	<p>3</p>	<p>4</p>	<p>5</p>	<p>6</p>
<p>Silahkan lingkari kolom sangat setuju untuk memastikan kamu membaca pernyataan ini.</p>	<p>1</p>	<p>2</p>	<p>3</p>	<p>4</p>	<p>5</p>	<p>6</p>
<p>Saya berencana untuk mengejar karier yang kurang menantang dibandingkan pilihan karier saya saat ini.</p>	<p>1</p>	<p>2</p>	<p>3</p>	<p>4</p>	<p>5</p>	<p>6</p>
<p>Saya berencana untuk menurunkan tujuan karier saya karena tujuan karier saat ini terlalu tinggi.</p>	<p>1</p>	<p>2</p>	<p>3</p>	<p>4</p>	<p>5</p>	<p>6</p>
<p>Saya berencana untuk mencapai karier dengan tanggung jawab yang lebih sedikit dibandingkan pilihan karier saya saat ini.</p>	<p>1</p>	<p>2</p>	<p>3</p>	<p>4</p>	<p>5</p>	<p>6</p>

DATA DIRI

Apa jenis kelamin Anda? Laki-laki Perempuan

Berapa usia Anda? _____ (tahun)

Apa nama universitas tempat Anda belajar saat ini? _____

Saat ini Anda sedang melanjutkan pendidikan tahun ke ____

Berapa Indeks Prestasi (IPK) terakhir Anda? _____

Apa jurusan/fakultas Anda saat ini? ____

Jika Anda membandingkan diri Anda dengan mahasiswa lain di universitas Anda, bagaimana Anda menjelaskan kondisi keuangan Anda saat ini?

Jauh lebih buruk	Sedikit lebih buruk	Kira-kira sama	Sedikit lebih baik	Jauh lebih baik
1	2	3	4	5

Pada saat Anda sekolah (SMA/SMK), berapa umumnya nilai yang Anda peroleh di seluruh mata pelajaran?

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

KONTAK DETAIL

Kami akan menghubungi dan mengundang Anda untuk berpartisipasi dalam survei kedua (*follow up*) dalam enam bulan ke depan, sehingga kami dapat mengetahui berbagai perubahan yang terjadi seiring waktu selama Anda menjalani proses pendidikan di universitas.

1. Mohon tuliskan alamat email dan nomor *hand phone* (HP) yang bisa kami gunakan untuk menghubungi Anda. Jika Anda memiliki lebih dari satu, mohon untuk juga mencantumkan alamat kedua.

Alamat email 1: _____

Alamat email 2: _____

Nomor HP 1: _____

Nomor HP 2: _____

2. Karena survei ini bersifat anonim (tanpa mencantumkan nama jelas), kami membutuhkan kode unik yang dapat kami gunakan untuk mencocokkan survei pertama dan survei kedua. Kode unik Anda akan terdiri atas:

Tanggal lahir (dd/mm/yy) _____

Nama depan ibu kandung _____

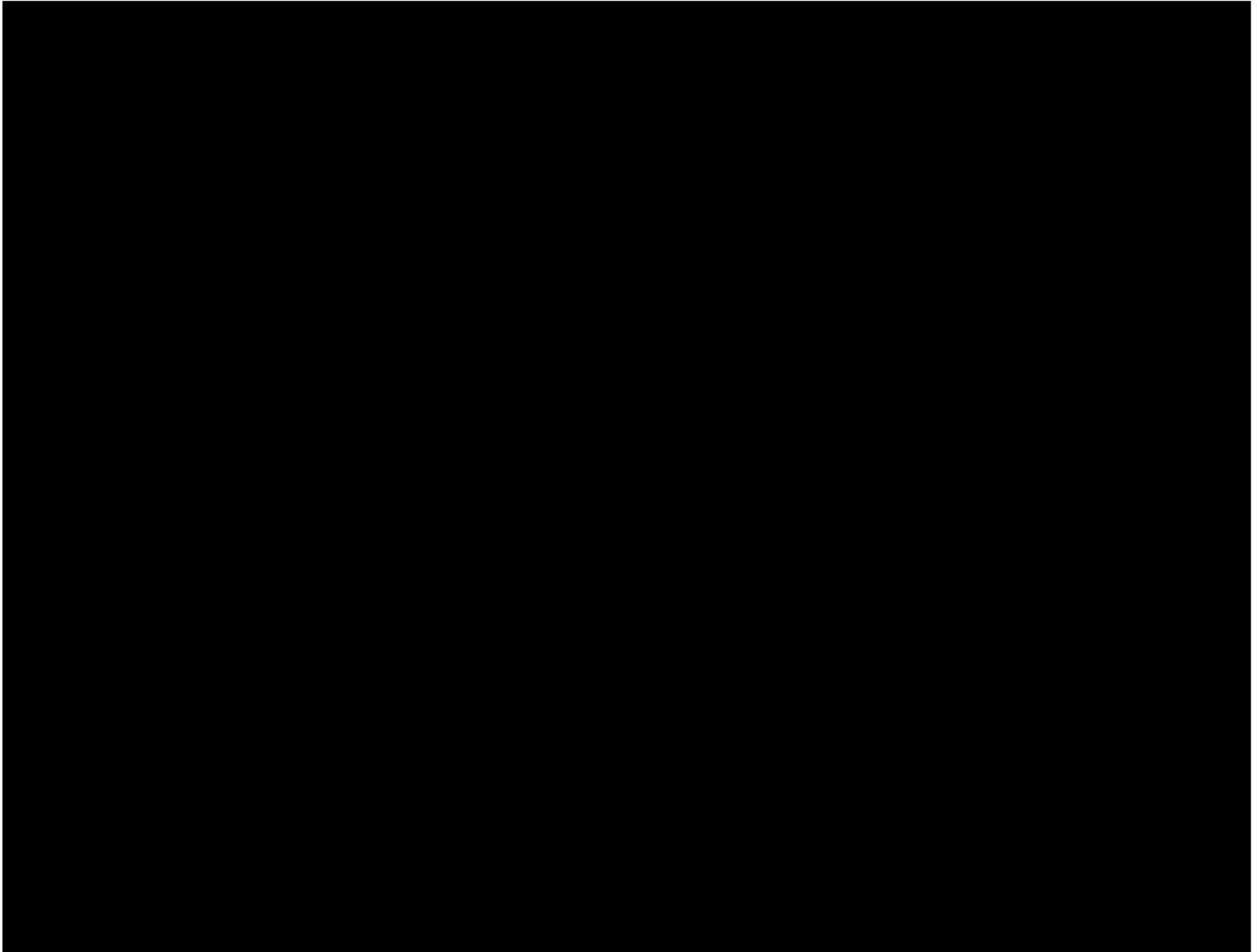
2 angka terakhir nomor mahasiswa Anda _____

Mohon periksa kembali jawaban Anda untuk memastikan semua pertanyaan dan data diisi secara lengkap.

TERIMAKASIH ATAS PARTISIPASI ANDA DALAM PENELITIAN INI

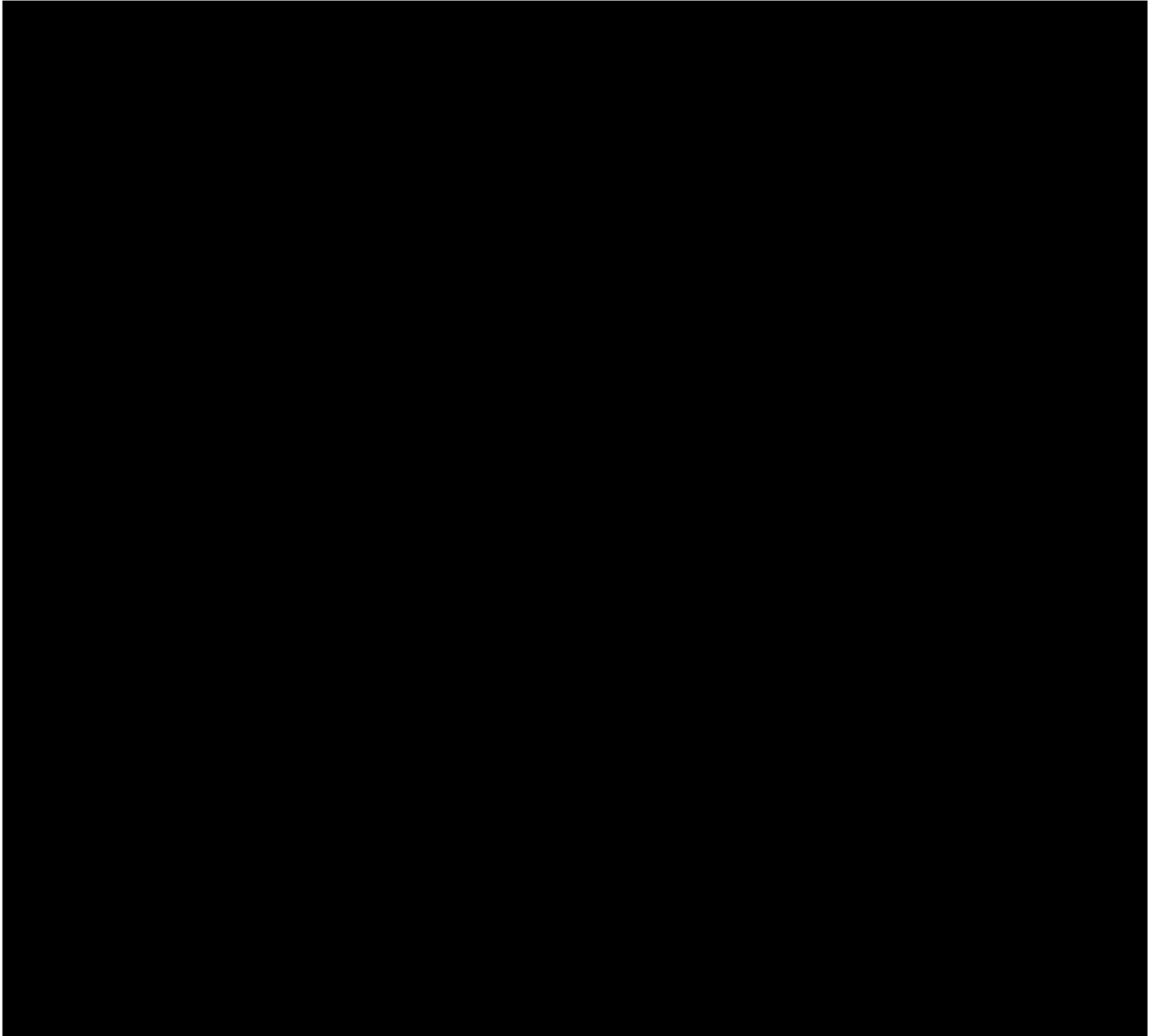
Appendix M: Letter of Acceptance from Journal of Career Assessment for Study 1:

"The positive career goal discrepancy scale: Development and initial validation"



Appendix N: Letter of Acceptance from Journal of Career Assessment for Study 3:

"Young adults' self-regulatory responses to positive career goal discrepancies: Testing cross-lagged relationships"



Appendix O: Acceptance for School of Applied Psychology Research Conference 2020

HDR Hot Takes Submission

Flag for follow up.



Louise Johnson

Thu 10/22/2020 1:05 PM

To: Sari Akmal

Cc: Natalie Loxton <n.loxton@griffith.edu.au>; Daniel Phipps <d.phipps@griffith.edu.au>

Dear Shari

Thank you for submitting your abstract for the School of Applied Psychology Research Conference 2020 HDR Hot Takes. We are pleased to inform you that the Research Conference Committee has accepted your abstract and we have scheduled your presentation for 11.42am on Thursday 26 November. Could you please confirm your availability for this presentation time by replying to this email.


Thanks again, I look forward to hearing from you.

Louise Johnson | Administrative Support Officer (Research)
School of Applied Psychology | Griffith Health
Griffith University | Mt Gravatt Campus | QLD 4122 | M24_4.09
T (07) 3735 3469 | Email: louise.johnson@griffith.edu.au

11.00am - 12.00pm	HDR Hot Takes
11.00am	Jannatul Shimul Ferdousi <i>Through thick and thin: Instagram advertising and its effects on adolescent girls' body image</i>
11.06am	Stacey Bernardin <i>Preparing for fatherhood: Early indicators of paternal adjustment during the antenatal period</i>
11.12am	Jessie Mitchell <i>The affiliative power of pain online</i>
11.18am	Jessica Arentz <i>Patient conceptualisation of working alliance: Identification of critical physician behaviours in the management of chronic illness</i>
11.24am	Chloe Kidd <i>Thin idea internalisation: Development and psychometric validation of a new measure of female body image</i>
11.30am	Sujin Kim <i>Key mechanisms in protean career processes for young adults</i>
11.36am	Jules Finch <i>Searching for the HERO in youth: Does psychological capital (PsyCap) predict mental health symptoms and subjective wellbeing in Australian school-aged children and adolescents</i>
11.42am	Sari Akmal <i>The positive career goal discrepancy scale: Development and initial validation</i>
11.48am	Stephanie Smith <i>Social-cognitive predictors of parental supervised toothbrushing</i>
11.54am	Olivia Elvin <i>Joining the pieces in childhood irritability: Distinct typologies predict conduct, depressive and anxiety symptoms</i>

Appendix P: Acceptance for School of Applied Psychology Research Conference 2021

School Research Conference 2021 Abstract Decision

 Flag for follow up.



Natalie Loxton
Mon 9/6/2021 2:41 PM



To: Sari Akmal
Cc: Tia Campbell

Dear Sari,

On behalf of the School of Applied Psychology 2021 Conference Committee, I am pleased to inform you that your submission for the HDR session at this year's School Research Conference has been accepted as a presentation.

Congratulations on your successful submission. We look forward to seeing you at the conference. The conference is being held at the Nathan campus in Room N78 -[1.11](#) and -1.12, on the 19th of October. Further detail regarding the schedule of the conference will be made available soon.

Best Regards,

Natalie Loxton & Tia Campbell

On behalf of the Conference Organising committee.

Dr Natalie Loxton | Senior Lecturer
Director, Applied Personality Psychology Lab | M24 4.36

School of Applied Psychology

SCHOOL OF APPLIED PSYCHOLOGY RESEARCH CONFERENCE 2021

PROGRAM GUIDE

TIME	SESSION	SPEAKERS	SESSION TITLE
9:30-10:00	Arrival & coffee		
10:00-10:15	Introduction	Professor Allison Waters & Professor Caroline Donovan	
10:15-11:45	Research Impact Session Dr Bonnie Clough	Professor Sharon Dawe	The challenge of documenting impact: Lessons learnt and yet to learn from the Parents under Pressure Program
		Professor Caroline Donovan	BRAVE and beyond: The highs and the lows
		Professor Mark Kebbell	Improving the impact of psychological research on policing: Using the Pareto Principle and Hammurabi's Law
		Dr Lisa Jefferies	Communicating Impact in Basic Research
11:45-1:00	HDR Student Session Dr Natalie Loxton & Miss Tia Campbell	Ned Chandler-Mather	Prenatal alcohol exposure can lead to a constellation of neurodevelopmental impairments in offspring
		Michael Jauch	A Qualitative Study into the Relative Stigmatisation of Mental Illness by Mental Health Professionals: Preliminary Finding
		Alex Marshall	Evaluating the use of equivalence analyses in psychology: a scoping review
		Lindsay Eastgate	Managing the present demands, while aiming for the future
		Sujin Kim	"New Career" Profiles for Young Adults Incorporating Traditional and Protean Career Orientations and Competencies
		Sari Akmal	Antecedents and Outcomes of Positive Career Goal Discrepancies in Young Adults
		Natalja Nabinger de Diaz	Kids in Mind - A feasibility study of in-person and online mindful parenting interventions for stressed parents of clinically anxious children

Appendix Q Submission Confirmation from the International Journal for Educational and Vocational Guidance for Study 2: “Antecedents and outcomes of positive career goal discrepancies in young adults”.

