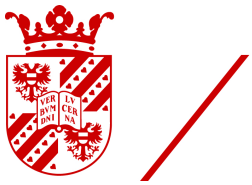

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Exploring the Relationship between Negative Career Feedback and Goal Engagement: The Roles of Goal Discrepancy and Professional Skills and Abilities Growth Mindset

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Abstract

In today's rapidly changing job market, understanding how negative career feedback influences employee motivation and goal engagement is crucial for fostering long-term career development. This study explores goal discrepancy as a mechanism through which negative career feedback impact's goal engagement and the moderating effect of professional skills and abilities growth mindset. The hypotheses were tested using data from an online survey conducted among 220 career starters aged 18 to 35, collected via convenience and snowball sampling. Linear regression analyses were used to test the mediating role of goal discrepancy and the moderated mediation with professional skills and abilities growth mindset. Findings revealed that negative career feedback negatively relates to goal engagement and is positively associated with goal discrepancy supporting Hypothesis H1. However, goal discrepancy did not mediate the relationship between negative career feedback and goal engagement, rejecting Hypothesis H2. Additionally, professional skills and abilities growth mindset did not moderate the relationship between negative career feedback and goal discrepancy, rejecting Hypothesis H3. Hypothesis H4 testing the moderated mediation, was rejected as professional skills and abilities growth mindset did not moderate the relation between negative career feedback and goal engagement, through goal discrepancy. The results suggest that organisations should focus on improving the quality of negative feedback, ensuring it is constructive and supportive, while encouraging a professional skills and abilities growth mindset to mitigate the impact of feedback on employees' goal engagement. Future research should investigate other mediators, such as emotional resilience, in cross-cultural and longitudinal settings.

Exploring the Relationship between Negative Career Feedback and Goal Engagement: The Role of Goal Discrepancy and Professional Skills and Abilities Growth Mindset

Why do people react differently to negative career feedback? While some people disengage from their career goals when faced with negative career feedback (Hu et al., 2017) , others persevere and remain committed (Burnette et al., 2013). This raises the fundamental question: What causes these different reactions to negative career feedback in work settings?

In today's fast changing job market, feedback has been shown to be essential for employee's career development. Organisations increasingly use tools like 360-degree feedback, where employees receive evaluations on their performance from supervisors, co-workers, and subordinates (Kanaslan & Iyem, 2016). While this comprehensive feedback aims to foster growth and improvement, research has shown that negative career feedback can decrease motivation, self-efficacy and goal engagement (Fonteyne et al., 2018; Hu et al., 2017).

Previous studies have highlighted the role of goal discrepancy—the gap between an individual´s career goals and their current progress—as a key factor in understanding how negative career feedback affects motivation (Praskova & McPeake, 2022). Research shows that negative career feedback not only exacerbates people´s awareness of goal discrepancies (Widyowati et al., 2024) but also increases career distress (Creed et al., 2015).

However, there is limited research on the role of goal discrepancy in the relationship between negative career feedback and goal engagement. Additionally, the role of people's belief systems such as professional skills and abilities growth mindset, which can help buffer the negative effects of feedback (Burnette et al., 2013), has been so far underexplored.

The study intends to fill this research gap by examining the mechanisms through which negative career feedback influences goal engagement and additionally investigates

how a professional skills and abilities growth mindset can buffer the effects of negative career feedback. This multifaceted approach helps identifying the various pathways through which negative feedback impacts goal engagement and illustrates the importance of personal beliefs in career adaptability.

Therefore, the study aims to answer the following research question: “How does negative career feedback influence goal engagement, and what roles do goal discrepancy and professional skills and abilities growth mindset play in mediating and moderating this role?” Understanding these dynamics could set the direction for future research and provide organisations with insightful knowledge and strategies to design interventions that foster resilience and sustained engagement, ultimately helping employees to cope with feedback and to achieve long-term success and enhance well-being.

Negative Career Feedback and Goal Engagement

Negative career feedback is a specific form of ego threat, which refers to any feedback or event that negatively impacts an individual´s self-view (Fonteyne et al., 2018). Research has shown that receiving career feedback is decisive for the way employees manage and redirect their career goals, as it highlights their progress and current actions concerning a desired outcome (Hu et al., 2017). Negative career feedback in particular can have a profound impact on individuals by reducing their goal engagement and increasing the likelihood of disengagement (Fonteyne et al., 2018). Therefore, goals are more frequently revised and motivation and self-efficacy is decreased (Hu et al., 2017).

According to the dual process framework by Rothermund and Brandtstädter (2019), when individuals encounter discrepancies between their behaviour and desired goals set, such as through receiving negative career feedback, they often respond by either assimilating or accommodating (Haratsis et al., 2015). Assimilation, also called goal engagement, involves actively pursuing goals, leading to increased motivation and energy. Assimilation is

especially observed in young adults due to their increased access to resources and confidence in goal attainment (Haratsis et al., 2015).

Given these theoretical insights, it can be hypothesised that negative career feedback reduces goal engagement, as individuals receiving such feedback are more likely to perceive their career goals as unattainable.

Hypothesis 1 (H1): Receiving negative career feedback negatively impacts employees' career goal engagement.

The Role of Goal Discrepancy as a Mediator in the Relationship of Negative Career Feedback and Goal Engagement

Building upon the understanding of the impact of negative career feedback on goal engagement (Fonteyne et al., 2018), it is important to consider the mechanisms through which this effect appears. One such mechanism is goal discrepancy, defined as the perceived gap between an individual's current performance and career goal (Creed & Hood, 2015).

When individuals perceive a significant discrepancy between their goals and their current progress, their engagement tends to decrease, and disengagement increases (Creed & Hood, 2015; Praskova & McPeake, 2022). Research has shown that negative career feedback can exacerbate individuals' awareness of goal discrepancies (Widyowati et al., 2024). Through negative career feedback, individuals perceive a heightened awareness of goal discrepancy, which is subsequently associated with decreased levels of goal engagement (Praskova & McPeake, 2022).

This phenomenon of decreased goal engagement in response to the perception of goal discrepancy noticed through negative career feedback, can be described using the identity control theory, derived from the theoretical framework of control theory (Anderson & Mounts, 2012; Kerpelman et al., 1997). The identity control theory can be used as a

framework to understand which processes are involved in the formation of an individual's identity and it has been shown that individuals maintain their identity standards that guide their behaviour and self-perception (Kerpelman et al., 1997). When individuals perceive a discrepancy between their goal and their current progress, self-monitoring processes are triggered, which often lead to defensive or adjusting responses. These self-monitoring behaviours are often prompted by feedback received through their social environment (Creed & Hood, 2015). If individuals are certain about their identity standard, they tend to behave defensively and resist change in their behaviour (Anderson & Mounts, 2012; Kerpelman et al., 1997). However, when they experience low certainty about their identity standards, they are more likely to explore alternative career paths (Anderson & Mounts, 2012). This self-monitoring process is crucial of an individual's development, as they adjust their self-perceptions and behaviours based on internal identity standards and external appraisals or feedback (Kerpelman et al., 1997).

Therefore, discrepancies in goal progress can diminish goal engagement by encouraging people to reassess or stick with their goal, depending on the level of certainty they have in their existing identity standards. On this basis, the hypothesis that negative career feedback increases the perception of goal discrepancy, which in turn reduces goal engagement, can be stated.

Hypothesis 2 (H2): Goal discrepancy mediates the relationship between negative career feedback and goal engagement.

The Buffering Role of Professional Skills and Abilities Growth Mindset in the Relationship of Negative Career Feedback and Goal Discrepancy

Furthermore, studies demonstrated that different belief systems, such as incremental and entity beliefs, can have an impact on individuals' goal achievements and engagement

(Burnette et al., 2013; Hu et al., 2017). Incremental beliefs are characterised by the idea that individual qualities are flexible and can evolve over time (Burnette et al., 2013). Research has shown that having strong incremental beliefs, particularly, can enhance individuals' engagement in goal setting and operation, especially when they face ego threats such as negative career feedback (Burnette et al., 2013). These beliefs align with a professional skills and abilities growth mindset, where individuals perceive attributes and skills as changeable and evolving (Hu et al., 2017). It has been shown that individuals with higher level of professional skills and abilities growth mindset exhibit more positive emotions and optimism regarding their career prospects compared to those with a lower professional skills and abilities growth mindset (Burnette et al., 2013). A professional skills and abilities growth mindset is also a significant determinant of how individuals respond to challenges and setbacks, including negative career feedback. This growth mindset contrasts with a fixed mindset. People with a fixed mindset believe that their abilities and intelligence are static and unchangeable (Burnette et al., 2013; Hu et al., 2017).

The understanding of how incremental beliefs and professional skills and abilities growth mindset influence responses to negative career feedback is grounded in theoretical frameworks, such as the implicit theory (Dweck, 2012) and career construction theory (Savickas, 2005). According to the implicit theory by Dweck (2012), those with a professional skills and abilities growth mindset view challenges and setbacks as learning opportunities and chances for improvement, while those with a fixed mindset may see them as threats or as confirmations of their personal limitations. These beliefs shape how individuals approach achievement, relationships, and personal development across various domains (Dweck, 2012). Furthermore, Savickas' career construction theory (2005) postulates that individuals actively construct their careers through personal narratives and adaptive responses to career-related experiences. A professional skills and abilities growth mindset

enhances adaptability by positively influencing individuals' learning processes, career flexibility, and engagement by influencing their adaptive readiness and willingness (Schmitt & Scheibe, 2023). Those with higher levels of career adaptability are more likely to engage in career-related behaviours and successfully navigate changes in the work environment (Schmitt & Scheibe, 2023).

Thereby, both theoretical frameworks suggest that the perspective of having a professional skills and abilities growth mindset can mitigate the perceived threat of negative career feedback and enable individuals to reframe negative feedback as constructive information that can guide future efforts and improvement (Dweck, 2012; Savickas, 2005). In summary, a professional skills and abilities growth mindset buffers the effects of negative career feedback on goal discrepancy by fostering a constructive interpretation of feedback, sustaining effort and persistence, and promoting adaptive coping strategies. Therefore, it is hypothesised that specifically individuals with a professional skills and abilities growth mindset are better equipped to handle negative feedback, thereby experiencing lower goal discrepancy.

Hypothesis 3 (H3): Professional skills and abilities growth mindset moderates the relationship between negative career feedback and goal discrepancy.

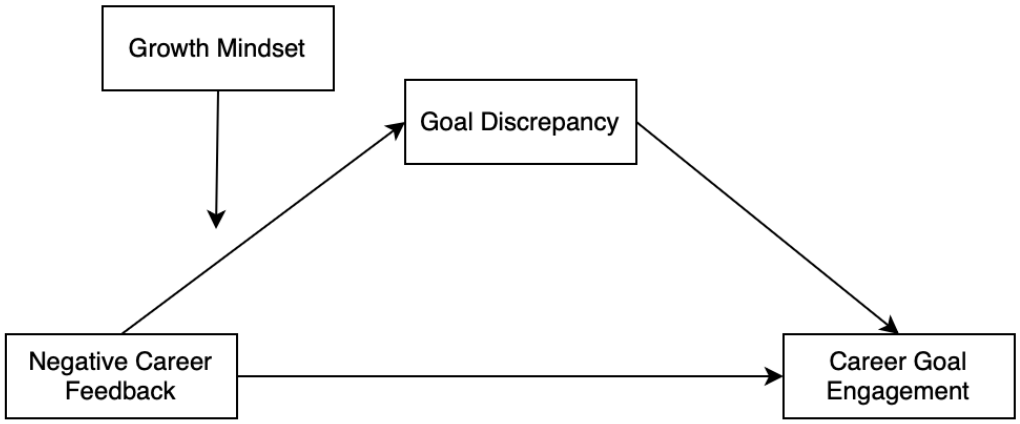
Additionally, this buffering effect of professional skills and abilities growth mindset ultimately increases goal engagement. Individuals with a professional skills and abilities growth mindset are better equipped to navigate and overcome the challenges posed by negative feedback, maintaining alignment with their career goals (Dweck, 2012; Savickas, 2005). Therefore, it is hypothesised that specifically individuals with a professional skills and abilities growth mindset are less likely to experience goal discrepancy when receiving

negative career feedback, which in turn, can be associated with higher levels of goal engagement.

Hypothesis 4 (H4): Professional skills and abilities growth mindset moderates the relationship between negative career feedback and goal discrepancy, such that people with a professional skills and abilities growth mindset experience reduced goal discrepancy and higher goal engagement.

Figure 1

Proposed relationships among the variables



Method

Design and Procedure

An online survey in Qualtrics, part of a larger three-wave research conducted by the University of Groningen in English, was applied to test the hypotheses of the study. The target sample included career starters aged between 18 and 35 years. The desired sample size for the study was set at 210 participants, following a power analysis. The power analysis was conducted with medium effect size of, a significant level of .05 and a target power of .80 (1 – β). Participation in the study was voluntary. The study was approved by the ethics committee of the Department of Psychology, BSS faculty, of the University of Groningen on the 21st of January 2024 and data collection took place from February, 2024 until 10th of October, 2024.

Participants were recruited by Bachelor and Master Thesis students. The questionnaire was distributed through convenience sampling by publishing links and QR codes on social media accounts, like Instagram and specifically LinkedIn to reach career starters. Posters with QR codes for the study were also handed out in different faculty buildings at the University of Groningen to reach a diverse range of students. Snowball sampling was used by asking participants to forward the link to other people in their network.

Participants were required to provide informed consent before beginning the questionnaire, which explained their right to withdraw at any time and noted that no compensation would be provided (Appendix A and B). Demographic information was collected first, including age, gender, country of residence, study/work status, education level, subjective socioeconomic status, tenure, and occupational sector. The following questions in the study measured the constructs negative career feedback, career self-efficacy, career distress, exploration, goal engagement/disengagement, goal discrepancy, professional skills and abilities growth mindset, and perfectionism. The survey ended with a thank-you page and a request for participants' email addresses for two follow-up surveys. This research focuses only on data from the first wave and uses the variables negative career feedback, goal engagement, goal discrepancy and professional skills and abilities growth mindset. At the end of the third questionnaire, all participants were debriefed on the study's purpose.

Sample

A total of 413 participants were initially recruited to complete the questionnaire. Following the exclusion of participants who did not provide informed consent (n = 36), did not complete the study (n = 110), fell outside the age range of 18 to 35 years (n = 12), did not report a career goal (n = 13), had missing data (n = 21), or were neither employed nor students (n = 1), the final sample consisted of 220 participants.

Of these participants, 137 (62.3%) were female, their mean age was 23.77 years (*SD* = 3.13), and almost half of the participants (47.73%), indicated the Netherlands as their country of residence. More than half of the participants (62.3%) were students. Participants occupation encompasses various sectors, including business, education, engineering, arts and culture, as well as health and social welfare.

Measures

Negative Career Feedback

16 items from the original 24-item scale developed by Hu et al. (2017) are used to measure negative career feedback (Appendix C). The variable is defined as a multidimensional construct that encompasses information about the suitability of one's career goals, progress towards achieving those goals, and improvements or adjustments needed for further advancement. Additionally, the scale measures feedback from both internal sources, like as self-reflection, and external sources as family, friends and other peers. Example items of the 6-point Likert scale include “My experience tells me that I am not progressing my career goals as well as I should.” and “People tell me that what I have achieved so far is not good enough to get into/maintain the career I want.” (Hu et al., 2017). The scale measuring negative career feedback has been tested and validated with both Chinese and Australian university students (Hu et al., 2017). In this study, the scale shows good internal consistency with a Cronbach’s alpha of .85.

Career Goal Engagement

Goal engagement, also known as assimilation, is measured using nine items from the originally 10-item assimilation and accommodation scale developed by Haratsis et al. (2015) (Appendix C). In the 5-point Likert scale example items like “When you encounter struggles or unfavourable feedback regarding your career that jeopardize your career goal, you developed plans and goals for your future career” are included (Haratsis et al., 2015). The

scale has been developed especially for young adults. The scale shows good internal consistency with a Cronbach's alpha of .83.

Career Goal Discrepancy

The variable goal discrepancy is measured through a 12-item scale developed by Creed and Hood (2015) (Appendix C). The scale measures the four underlying constructs of goal discrepancy, namely achievement, effort, ability, and standard discrepancy. Example items of the 6-point Likert scale include "Even with my best efforts, I think I will have to settle for something less than my ideal career." and "I doubt I can meet the standards of entry to my ideal career." (Creed & Hood, 2015). The scale is particularly well-suited for young adults, as at this age occupational goals and progress toward these goals become especially significant (Creed & Hood, 2015). The Cronbach's alpha of the scale has been tested and is .94, indicating very good internal consistency.

Professional Skills and Abilities Growth Mindset

The 6-item professional skills and abilities growth mindset scale developed by Schmitt and Scheibe (2023) derived from Dweck's (1999) intelligence mindset scale, is used (Appendix C). Three items of the 5-point Likert scale measure participants' professional skills and abilities growth mindset using items like "No matter what job people hold, they can always change their professional skills and abilities.", while the other three items measure the extent to which participants have a fixed mindset (Schmitt & Scheibe, 2023). In a recent study by Schmitt and Scheibe (2023), the scale was tested and showed good psychometric qualities as well as good convergent and criterion validity. In this study, the scale shows acceptable to low internal consistency with a Cronbach's alpha of .62.

Control variables

While the survey encompasses additional variables, this study specifically controls for the demographics of gender and age. Given that females tend to receive less negative career

feedback than males (Praskova & McPeake, 2022) and young adults tend to in general be more goal-engaged (Haratsis et al., 2015), controlling for these variables is crucial. Additionally, Bernerth and Aguinis (2016) recommend the use of theoretically justified control variables to ensure transparency. This aligns with the choice to control for gender and age, as these are theoretically relevant and empirically linked to the model.

Data Analysis

The data was analysed by using the statistical software R Studio and the level of statistical significance was set to $p < .05$. Data exported from Qualtrics was pre-processed in R Studio to exclude invalid responses, non-responses, participants who did not consent, and those who did not report a career goal. Responses to the 5-point and 7-point Likert scale items were coded with 1 representing "strongly disagree" and 5 or 7 representing "strongly agree", respectively.

To test the hypotheses, the PROCESS macro v4.1 for RStudio was used. PROCESS is useful for path analysis, allowing to examination of linear regression, mediation and moderated mediation and calculation of indirect effects along with bootstrap confidence intervals (Hayes, 2017). Before conducting the analysis, the independent variable negative career feedback, as well as the moderator professional skills and abilities growth mindset and the mediator goal discrepancy were mean-centred. For all variables descriptive statistics, measures of central tendency and variability were calculated and correlations between variables were examined.

To test the hypotheses, linear regression analysis is conducted and to ensure the validity of the analysis, four key assumptions were verified. Linearity assumption was assessed by visually inspecting scatterplots of the independent variables against the dependent variable. Second, the normality was evaluated by examining the distribution of each variable through histograms. Third, the homoscedasticity assumption was tested using

the Breusch-Pagan test, where a $p < .05$ indicated the presence of heteroscedasticity. Lastly, the independence assumption was examined using the Durbin-Watson test to detect autocorrelation in the residuals. A $p < .05$ indicated the presence of autocorrelation, suggesting a violation.

To test Hypothesis H1 a regression analysis was performed to test the direct effect of negative career feedback on goal engagement and $p < .05$ for the intercept indicated a significant effect. To test Hypothesis H2, the mediation effect of goal discrepancy in the relationship of negative career feedback and goal engagement was assessed. The PROCESS model 4 by Hayes (2017) was employed to estimate the direct and indirect effects of the independent variable on the dependent variable through the mediator. An indirect effect is considered significant if the 95% confidence interval does not include zero (Hayes, 2017).

To test Hypothesis H3 and H4 and investigate whether professional skills and abilities growth mindset moderates the indirect effect of negative career feedback on goal engagement through goal discrepancy, a moderated mediation analysis was conducted. The PROCESS macro model 7 by Hayes (2017), with bias-corrected 95% confidence intervals (n = 1000), was used to examine the significance of the indirect (mediated) effects moderated by professional skills and abilities growth mindset. To assess the significance of the moderated mediation, an index of moderated mediation was used, which compares the indirect effects across different levels of professional skills and abilities growth mindset. Significant effects are indicated when zero is not included in the confidence intervals (Hayes, 2017).

Results

The residuals for goal engagement followed a normal distribution ($p > .05$), but the assumption was violated for negative career feedback, professional skills and abilities growth mindset, and goal discrepancy. Linearity was confirmed for all models through scatterplots,

showing no evidence of curvilinearity. The assumptions of homoscedasticity and independence were both accepted for all variables.

After including gender and age as control variables, the correlation table (see Table 1) indicates a significant negative correlation between the variables negative career feedback and goal engagement and a significant positive correlation between negative career feedback and goal discrepancy. The mean scores presented in Table 1, show a high mean of 4.10 on a 5-point Likert scale for the variable professional skills and abilities growth mindset. A histogram illustrating the distribution of this variable (Appendix D) shows a right-skewed pattern, suggesting that most respondents rated their skills and abilities growth mindset toward the higher end of the scale.

Table 1

Means (M), Standard Deviations (SD), and correlations between the standardised variables

	M	SD	1	2	3	4	5
1. Gender	1.39	0.51	-				
2. Age	23.77	3.13	-.06	-			
3. Negative Career Feedback	2.63	0.54	-.32	-.27	-		
4. Career Goal Engagement	3.26	0.71	.09	.10	-.84*	-	
5. Goal Discrepancy	2.55	0.92	-.51	-.24	.85*	-.75	-
6. PSA Mindset	4.10	0.30	-.07	-.36	-.34	.35	-.45

N = 220. Gender was coded 1 = male, 2 = female. PSA = Professional Skills and Abilities Growth Mindset. *$p < .05$. ** $p < .01$.

To test Hypothesis H1 and examine the effect of negative career feedback on goal engagement, a simple linear regression analysis was conducted. The analysis revealed that the

relationship between negative career feedback and goal engagement was significant (β = -.32, p < .05*). This indicates that higher levels of negative career feedback were associated with lower levels of goal engagement. Therefore, Hypothesis H1 can be accepted.

The results of the mediation analysis testing Hypothesis H2 and including goal discrepancy as a mediator revealed a significant direct effect of negative career feedback on goal discrepancy (β = .98, p < .01**). The indirect effect of negative career feedback on goal engagement via goal discrepancy was not significant (β = -.12, p = .06), and therefore, Hypothesis H2 can be rejected. The R^2 value is .37 and significantly explains 37% of the model.

Next, Hypothesis H3, which proposes that a professional skills and abilities growth mindset moderates the relationship between negative career feedback and goal discrepancy, was tested using a moderated mediation (see Table 2). The analysis revealed a significant main effect of professional skills and abilities growth mindset on goal discrepancy (β = -.20, p < .05*). However, the interaction between negative career feedback and professional skills and abilities growth mindset in predicting goal discrepancy was not significant (β = .19, p = .18). Therefore, Hypothesis H3 can be rejected.

Furthermore, Hypothesis H4 is tested, which examines the moderated mediation of professional skills and abilities growth mindset between negative career feedback and goal engagement, through goal discrepancy. The indirect effect of negative feedback on goal engagement through goal discrepancy was examined. The confidence intervals for the conditional indirect effects included zero at any level of professional skills and abilities growth mindset, indicating that the mediation effect was nonsignificant. The index of moderated mediation for professional skills and abilities growth mindset was also nonsignificant (β = -.02, BootSE = .02, CI = -.08 to .02). Therefore, it can be stated that professional skills and abilities growth mindset did not significantly moderate the mediation

path from negative career feedback to goal engagement through goal discrepancy. For that reason, Hypothesis H4 can be rejected. The model's R^2 value is .13, indicating that it accounts for 13% of the variance in the dependent variable.

Table 2

Results of the Conditional Process Analysis Model 7, with Professional Skills and Abilities Growth Mindset as a Moderator

Variables	Goal Discrepancy			Goal Engagement		
	β	SE	*p*	β	SE	*p*
NCF	.98	.09	<.001*	-.32	.10	<.05*
PSA Mindset	-.20	.08	<.05*			
NCF * PSA Mindset	.19	.14	.18			
GD				-.12	.06	.06
R^2		.37			.13	

Note. N = 220. The predictors were mean-centred. β, standardized regression coefficient. SE, standard error. NCF = Negative Career Feedback. PSA = Professional Skills and Abilities Growth Mindset, GD, Goal Discrepancy. R^2 = proportion of variance explained in the criterion. Bootstrap sample size = 1,000. $p < .05$. * p <.001.

Discussion

Summary of the Main Findings

In today's rapidly evolving job market, feedback has become increasingly important as it can be described as a cornerstone for influencing employee goal engagement and career development. Given that particularly negative career feedback has been shown to reduce individuals' engagement with their goals and increase their awareness of goal discrepancies (Fonteyne et al., 2018; Hu et al., 2017; Widyowati et al., 2024), further research into these

relationships is valuable as it can give insights on how to support individuals in coping with the effects of negative career feedback. Nevertheless, research focusing on goal discrepancy as a mechanism through which negative career feedback influences career goal engagement and the impact of individuals' belief systems in the relationship has been underexplored so far. This research investigates the role of goal discrepancy as a mediator in the relationship between negative career feedback and career goal engagement and the moderating role of a professional skills and abilities growth mindset in the relationship between negative career feedback and goal discrepancy.

The results of the analysis indicate significant relations between negative career feedback and goal engagement. It can be stated that receiving negative career feedback negatively impacts employees' career goal engagement. These results are aligned with theories like the dual process framework by Rothermund and Brandtstädter (2019) suggesting that employees either assimilate or accommodate when they are confronted with discrepancies in their behaviour and their set goals. Previous research has also shown that ego threats like negative career feedback have been associated with lower engagement in goals in employees (Fonteyne et al., 2018; Hu et al., 2017). These results can be confirmed.

The results of the analysis additionally reveal a significant positive relation between negative career feedback and goal discrepancy. These results indicate that negative career feedback can be associated with increased goal discrepancy, which can be aligned with previous research. It has been shown that negative career feedback can heighten employees' awareness and increase their perception of goal discrepancies (Praskova & McPeake, 2022; Widyowati et al., 2024).

Even though, previous research by Praskova and McPeake (2022), suggests that increased perception of goal discrepancies in turn leads to lower levels of goal engagement, the results of the mediation analysis with goal discrepancy as a mediator were insignificant.

The results indicate that goal discrepancy does not have a significant effect on goal engagement, and therefore contradicts the role of goal discrepancy as a mediator. It can be suggested that the effect of negative career feedback on goal engagement might be explained by different variables, which have not been tested in this study.

Evaluating the descriptive statistics of the variables, it has been prominent that participants in the sample on average report high on the professional skills and abilities growth mindset scale. This indicates that the participants on average have high levels of professional skills and abilities growth mindset, defined by the belief that their skills, qualities and abilities are flexible and can evolve. Research has shown that this belief has been associated with enhanced engagement in goals, especially when faced with ego threats like negative career feedback (Burnette et al., 2013). Based on the career construction theory (Savickas, 2005) and the implicit theory (Dweck, 2012) it has been hypothesised that a professional skills and abilities growth mindset works as a buffer by weakening the effects of negative career feedback on goal discrepancy. Having a professional skills and abilities growth mindset enables individuals to reframe negative feedback as constructive information on which they base their future efforts and behaviours.

Nevertheless, the results indicate no significant role of professional skills and abilities growth mindset in the relation of negative career feedback and goal discrepancy. However, a significant negative effect of professional skills and abilities growth mindset on goal discrepancy has been identified. This indicates that higher levels of professional skills and abilities growth mindset are associated with lower levels of goal discrepancy. These results can be put in relation with previous literature, suggesting that having a professional skills and abilities growth mindset views challenges and setbacks as opportunities for learning and improvement (Dweck, 2012). This could be the reason why the discrepancies between progress and set goals are not perceived that striking.

Including the variables age and gender as control variables in the analysis showed no significant correlation with any of the variables. Even though previous research has suggested that females tend to receive less negative career feedback than their male counterparts (Praskova & McPeake, 2022) and young adults tend to in general be more goal-engaged (Haratsis et al., 2015). Additionally, there has been no significant gender difference in professional skills and abilities growth mindset, even though findings from Schmitt and Scheibe (2023), indicated a positive association between being female and possessing a professional skills and abilities growth mindset.

Limitations and Implications for Future Research

A key strength of the study is that that all scales used in the study show acceptable to good reliability. Additionally, these scales were either previously tested with a sample of young adults or were explicitly developed for this demographic, which makes the scales highly suitable to use in the study and also in future research. However, when interpreting the results, it is important to consider limitations of the study. While testing the assumptions of normality, linearity, homoscedasticity and independence, the results showed that the assumption of normality was violated for the variables negative career feedback, professional skills and abilities growth mindset, and goal discrepancy. This could have had an impact on the results and should be taken into consideration.

One of the strongest limitations of this study is that over 60% of the sample consisted of students. Even though the study targets young adults aged between 18 and 35, the study deals with topics like career goal engagement and negative career feedback, more suitable for career starters. In the study, participants are constantly asked to keep their career goal in mind and think about situations where they received negative feedback. Therefore, not having an actual career goal or having difficulties describing their career goals could have had an impact on the results.

Previous research has shown that undergraduate students often have difficulties in understanding employability and are not engaging a lot in their careers until the end of their study program (Clements & Kamau, 2018). Thereby, it might also be difficult for them to set career goals, without having a clear understanding of where they want to be in their professional life. This in turn could have had an impact on the results of this study. Additionally, it has also been shown that there is a large difference in the ability of students to set career goals, depending on their level of self-efficacy and their general belief in their capability to succeed in career settings (Clements & Kamau, 2018; Tansley et al., 2007).

It can be suggested that there might be a difference in students' and career starters' self-efficacy and belief in their capabilities, skills and abilities, influencing their ability to set career goals. Investigating the impact of those variables and exploring differences in how students, career starters and those in established careers react to negative career feedback could be important for future research. This information might also give rise to interventions and programs which should be specifically developed for students to train them in setting career goals which are challenging to reach but still manageable for them (Clements & Kamau, 2018). Helping students to engage in career-setting behaviours and train them in developing skills to effectively deal with setbacks in their career seems to be important. This could be done through career fairs and events organised by the university. Thereby, students could not only develop specific and achievable career goals but also learn early on how to deal with feedback and manage setbacks they will be confronted with in the future.

Additionally, limitations present in the study are the cultural backgrounds of the sample. Almost half of the participants in the sample were from the Netherlands and most of the other participants also indicated different western European countries as their nationality. The cultural context of the sample might also influence how the participants responded to

negative career feedback. Therefore, future research should try to reach out to a diverse cross-cultural sample to be able to verify these findings across different settings.

Furthermore, the cross-sectional nature of the data can also be stated as a limitation. The data has been collected at a single point in time, rather than over a period of time. Therefore, based on the results one cannot make a conclusion about cause and effect of the variables, as it has not been tested how the relations evolve over time or influence each other. Therefore, an improvement point which could be included in future studies is the timing of the questionnaire. Since the study focuses on negative career feedback it would be beneficial to target people who have just received some sort of feedback. Therefore, it could be helpful that future studies employ longitudinal designs starting from events like 360-degree feedback rounds or yearly supervisory meeting in companies to examine how negative career feedback affects goal engagement over time.

Furthermore, it can be suggested that future research should also investigate different mechanisms which could influence how employees respond to negative career feedback, which in turn can have an impact on their engagement in goals. Additionally, the significant negative relation between professional skills and abilities growth mindset and goal discrepancy, indicates that people with higher levels of professional skills and abilities growth mindset perceive lower levels of goal discrepancy. Therefore, it might also be important for future research to evaluate professional skills and abilities growth mindsets moderating roles.

Practical Implications

Based on the results of the analysis different practical implications for organisations and employees can be formulated. As feedback, and especially negative feedback, is part of an employee's consistent work cycle it is essential for organisations to support their employees to better manage setbacks in their professional career. The findings of the study

suggest that receiving negative career feedback can reduce engagement in goals. Therefore, organisations should exercise delivering negative career feedback with caution and focus on improving their way of approaching and communicating feedback to their employees.

Supporting employees when receiving negative career feedback and helping them develop strategies to deal with and use negative career feedback effectively in their work life seems crucial to keep them engaged and motivated in their work. Therefore, coming up with innovative and balanced feedback approaches can be described as one of the tasks organisations need to focus on. Previous research has shown that students who receive constructive feedback have higher levels of self-efficacy and motivation, which in turn has a positive effect on their engagement in tasks (Aslam et al., 2023). Similar findings have also been shown in researching employee engagement when provided with effective performance appraisals. Higher levels of goal engagement have been associated with feedback, which has high quality and transparency and includes ideas for goal arrangement and describes an ongoing process of feedback (Shawn, 2023). Based on these findings it can be stated that educating and teaching managers in constructive and effective performance and feedback appraisals can have an impact on employees by increasing their goal engagement.

Additionally, the failure to support the moderating role of professional skills and abilities growth mindset with negative career feedback and goal discrepancy might indicate that simply fostering a growth mindset may not be sufficient for employees to buffer the negative effects of career feedback on goal engagement. Therefore, coaching programs and support by organisations should be continuous and tailored to help employees better deal with negative career feedback, besides building a professional skills and abilities growth mindset.

One important facet could be tailoring seminars and programs to foster resilience in employees and help them deal with criticism and negative career feedback. The model of resilience, developed by King and Rothstein (2010), suggests that an individual´s ability to

self-regulate after an experience has an impact on their behaviour afterwards. This has also been shown in a study conducted by Daljeet et al. (2022), which tested the effects of self-regulating behaviour when participants are confronted with performance feedback. The results indicate that increased engagement in self-regulating behaviours is associated with lower engagement in counterproductive work behaviour, after receiving performance feedback (Daljeet et al., 2022). Based on these results, it can be suggested that having a better ability to self-regulate could have a moderating role in the relationship of negative career feedback and goal discrepancy. Programs offered by organisations and employees that aim to foster employees' self-regulating skills could help employers to develop effective coping strategies for managing negative career feedback.

Conclusion

In conclusion, the results of the study support that negative career feedback is significantly associated with lower engagement in career goals and a higher perception of goal discrepancies. The mediating role of goal discrepancy in the relationship between negative feedback and goal engagement could not be supported. As well as professional skills and abilities growth mindset did not moderate the relationship between negative feedback and goal discrepancy. However, it is important to notice that individuals with a stronger professional skills and abilities growth mindset reported lower levels of goal discrepancies. Implications have been formulated and put emphasis on the importance of organisations to improve their feedback tools. Ensuring negative career feedback is constructive and supportive and integrating programs to help employees manage negative feedback and stay engaged in their goals seems essential. Future research should investigate other potential mediators, such as emotional resilience or self-efficacy and test these variables in a cross-cultural longitudinal study to verify these findings, especially in real-time feedback events.

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Appendix

Appendix A: Information about the study

"Professional Skills and Career Outcomes"

We hereby invite you to participate in a study on professional skills that help people be effective at work. The research is conducted by Teodora Heihal, Susanne Scheibe, Antje Schmitt, and Psychology Bachelor and Master students at the University of Groningen.

Why this research?

People have various thoughts and perceptions on their career choice and development, which are influenced by relevant factors such as the feedback they gather from those around them or even their personality and other individual differences. In this research, we seek to better understand people's thoughts about their career goals, and what drives the differences from person to person. To this end, we are looking for participants aged between 18 and 35 years old, either employed or studying, who are willing to take part in our study.

What do we ask of you during the study?

First, we ask whether you consent to participate in this survey. Afterwards, you will provide demographic information such as your age, your country of residence, your gender and your employment status. Then, you will complete a series of questionnaires assessing your thoughts and beliefs on several areas of interest regarding your career.

Participation in this survey should take about **15 minutes.**

After two weeks, respectively a month, we will invite you to complete two (much shorter) follow-up surveys on similar topics such as the current one. **As such, we will ask you for your email address at the end of the survey, to contact you for the follow-up surveys.**

What are the consequences of participation?

Participation in this study does not pose any foreseeable risks beyond those that you would encounter in typical work situations.

Do I have to participate in this research?

Participation in the research is voluntary, however, your consent is needed. Therefore, please read this information carefully. If you decide not to participate, you do not need to explain why, and there will be no negative consequences for you. You have this right at all times, including after you have consented to participate in the research.

How will we treat your data?

We will process your data to answer our research questions. Your data will be safely kept within the servers at the University of Groningen for a maximum duration of ten years. They will only be accessible to the research team. Anonymized data can be shared with other qualified researchers or published on scientific data-sharing platforms. Your privacy will be protected. Please take note of the fact that your responses are considered personal data. You have a right to rectify and request the deletion of your personal data. You may email (t.i.heihal@rug.nl), the study's contact person regarding this matter until the 30th of June, 2024. At this point, your email address will be deleted from the dataset and you can no longer access your personal data.

Would you like to know anything else?

You may email (t.i.heihal@rug.nl) the study's contact person. Do you have questions/concerns about your rights as a research participant or about the conduct of the research? You may also contact the Ethics Committee of the Faculty of Behavioural and Social Sciences of the University of Groningen: ec-bss@rug.nl. As a research participant, you have the right to a copy of this research information, thus you may take a screenshot of this page.

Appendix B: Informed Consent

- I have read the information about the research.
- I understand what the research is about, what is being asked of me, which consequences participation can have, how my data will be handled, and what my rights as a participant are.
- I understand that participation in the research is voluntary. I myself choose to participate. I can stop participating at any moment. If I stop, I do not need to explain why and this will have no negative consequences for me.
- Below I indicate what I am consenting to.

Consent to participate in the research and to the processing of my data:

[ ] Yes, I consent to participate and to the processing of my personal data as mentioned in the research information. I know I can ask to have my data withdrawn and erased until the 30th of June 2024.

[ ] No, I do not consent to participate.

Appendix C: Qualtrics Questionnaire

Demographics

Are you employed or studying?

- ◯ Employee
- ◯ Student
- ◯ ☐ Other (namely):

What is your work sector or study domain? (e.g. tech, hospitality, education, etc.)

☐

If you are studying, what is your expected graduation date? (e.g. September 2024)

☐

If you are employed, what is your current work experience (in years)?

☐

How old are you?

What is your gender?

- ◯ Female
- ◯ Male
- ◯ Non-binary

What is your country of residence?

- ◯ Netherlands
- ◯ Germany
- ◯ Other (namely):

Moderators

Throughout this survey, you will read statements and be asked to rate your (dis)agreement with the statements. Please read carefully what the answer options are. Express your degree of agreement with each item by choosing one of the response options.

Please indicate to what extent you generally agree with the following statements on the topic of professional skills.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
No matter what job people hold, they can always change their professional skills and abilities.	◯	◯	◯	◯	◯
People can always substantially improve their professional skills and abilities.	◯	◯	◯	◯	◯

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
All people can develop their professional abilities and skills further no matter their current level.	○	○	○	○	○

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
People have certain professional skills and abilities, and they can't really do much to change these.	○	○	○	○	○
To be honest, people's professional skills and abilities are something about them that they can't change very much.	○	○	○	○	○
No matter how hard they try, people can't really develop their skills and abilities at work in any substantial way.	○	○	○	○	○

The following items are designed to measure certain attitudes people have toward themselves and their performance. It is important that your answers be true and accurate for you.

	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
I have high expectations for myself.	○	○	○	○	○	○	○
Doing my best never seems to be enough.	○	○	○	○	○	○	○
I set very high standards for myself.	○	○	○	○	○	○	○
I often feel disappointment after completing a task because I know I could have done better.	○	○	○	○	○	○	○

	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
I have a strong need to strive for excellence.	○	○	○	○	○	○	○
My performance rarely measures up to my standards.	○	○	○	○	○	○	○
I expect the best from myself.	○	○	○	○	○	○	○

	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
I am hardly ever satisfied with my performance	○	○	○	○	○	○	○

Broadly speaking, a "calling" refers to a person's belief that she or he is called upon (by the needs of society, by a person's own inner potential, by God, by a Higher Power, etc.) to do a particular kind of work. The following questions assess the degree to which you see this concept as relevant to your own life and career. Please respond honestly, not according to what is socially desirable or what you feel you "ought" to think. Please indicate the extent to which each of the following statements currently describe you.

	Not at all true of me	Mildly true of me	Moderately true of me	Mostly true of me	Totally true of me
I have a calling to a particular kind of work.	○	○	○	○	○
Please select totally true of me here.	○	○	○	○	○
I have a good understanding of my calling as it applies to my career.	○	○	○	○	○

When you compare yourself to your classmates/peers/colleagues, how would you generally describe your current financial situation?

- ○ Much worse off than others
- ○ Worse off than others
- ○ Not better or worse off than others
- ○ Better off than others
- ○ Much better off than others

Career goal

We would like you to briefly reflect on your main career goal at the moment. Please describe your career goal in 1-2 sentences below, explaining what is it that you are striving and working towards.

Have you recently (in the past six months) encountered any significant setbacks or struggles in the pursuit of your career goal?

Negative feedback

Think back on the career goal you reflected on. Look back on the past six months and rate the following statements depending on how much they apply to you and you career goal.

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
I know that the career progress I have made is less than that of others of my age.	○	○	○	○	○	○
My experience tells me that I am not progressing my career goals as well as I should.	○	○	○	○	○	○
When I reflect on it, I don't think I have made as much progress towards my chosen career as I wanted.	○	○	○	○	○	○
Compared with others of my age, I think I am less on track for the career that I want.	○	○	○	○	○	○

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
People tell me that I am not working hard enough to get into/improve/maintain my chosen career.	○	○	○	○	○	○
People around me tell me that I am not motivated enough to achieve my chosen career goal.	○	○	○	○	○	○

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
People tell me that what I have achieved so far is not good enough to get into/maintain the career I want.	○	○	○	○	○	○
I am told that I am not making good progress toward my career goals.	○	○	○	○	○	○

Think back on the career goal you reflected on. Look back on the past six months and rate the following statements depending on how much they apply to you and your career goal.

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
The career direction I have chosen feels right to me.	○	○	○	○	○	○
I do not think that my chosen career would be good for me.	○	○	○	○	○	○
My career goals do not excite me.	○	○	○	○	○	○
My career plans make a lot of sense to me.	○	○	○	○	○	○

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
I am told that my preferred career choice will not let me display my real talents.	○	○	○	○	○	○
People I trust think that my preferred career direction is not consistent with my values.	○	○	○	○	○	○
People tell me that I have chosen a career direction that does not really suit me.	○	○	○	○	○	○
People who know me well think that my chosen career will not bring me what I really want in life.	○	○	○	○	○	○

Mediators

Think about your current emotions regarding the career goal you reflected on and your progress. How well do these statements describe you?
(*Note. If you have already selected a clear career path, then the statements below are about the feelings you experience when having to* ***work towards****, NOT select, your chosen career*).

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
I often feel down or depressed about selecting OR continuing my career.	○	○	○	○	○	○
I think that I should make a career decision as soon as possible, but I can't and this makes me anxious.	○	○	○	○	○	○
I feel stress or pressure to select OR continue a satisfying career.	○	○	○	○	○	○
I frequently blame myself for something I did or did not do in selecting OR continuing my career.	○	○	○	○	○	○
I tend to smooth over any career problem and pretend it does not exist.	○	○	○	○	○	○
I often hope that the problems I have in selecting OR continuing my career would just disappear.	○	○	○	○	○	○

When reading the following statements, keep in mind your career goal and the progress you made on it so far. How well do they describe your thoughts and actions regarding your career goal?

	Completely true	True	Somewhat true	Somewhat not true	Not true	Not at all true
Thanks to my resourcefulness, I know how to handle unforeseen situations in my chosen career.	○	○	○	○	○	○
If I am in trouble in my career, I can usually think of something to do.	○	○	○	○	○	○
I can remain calm when facing difficulties in my career because I can rely on my abilities.	○	○	○	○	○	○

	Completely true	True	Somewhat true	Somewhat not true	Not true	Not at all true
When I am confronted with a problem in my chosen career, I can usually find several solutions.	○	○	○	○	○	○

	Completely true	True	Somewhat true	Somewhat not true	Not true	Not at all true
No matter what comes my way in my career, I'm usually able to handle it.	○	○	○	○	○	○
My past experiences in my career have prepared me well for my occupational future.	○	○	○	○	○	○
I meet the goals that I set for myself in my career.	○	○	○	○	○	○
I feel prepared to meet most of the demands in my career.	○	○	○	○	○	○

Career goal Discrepancy

Keep your career goal in mind and your general sense of progress on it. Rate the following statements depending on how well they apply to you.

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
Despite my best efforts, I think I am going to miss out on my ideal career.	○	○	○	○	○	○
Even with my best efforts, I think I will have to settle for something less than my ideal career.	○	○	○	○	○	○
I am working hard, but still doubt I will end up with the career I would really like.	○	○	○	○	○	○
My plans are not working out to get the career I really want.	○	○	○	○	○	○

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
What I have achieved to date doesn't give me confidence that I will reach my career goals.	○	○	○	○	○	○

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
I am making progress on my career goals, but I don't think I have achieved enough to get the career I want.	○	○	○	○	○	○
My plans are not working out to get the career I really want.	○	○	○	○	○	○
What I have achieved to date doesn't give me confidence that I will reach my career goals.	○	○	○	○	○	○

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
I am making progress on my career goals, but I don't think I have achieved enough to get the career I want.	○	○	○	○	○	○
I doubt I can meet the standards of entry to my ideal career.	○	○	○	○	○	○
I have set my sights on a particular career, but I don't think that I am going to reach it.	○	○	○	○	○	○
I have an image of my dream job, but I think it is out of my reach.	○	○	○	○	○	○

Dependent Variables

Think about your career goal and any feedback you might have received on it over the last three to six months. When you encounter struggles or unfavourable feedback regarding your career that jeopardize your career goal, you ...

	Not much	Little	Somewhat	Much	A great deal
Actively sought to design your professional future	○	○	○	○	○
Undertook things to achieve your career goals	○	○	○	○	○
Cared for the development of your career	○	○	○	○	○
Developed plans and goals for your future career	○	○	○	○	○

	Not much	Little	Somewhat	Much	A great deal
Sincerely thought about personal values, interests, abilities, and weaknesses	○	○	○	○	○

	Not much	Little	Somewhat	Much	A great deal
Collected information about employers, professional development opportunities, or the job market in your desired area	○	○	○	○	○
Established or maintained contacts with people who can help you professionally	○	○	○	○	○
Voluntarily participated in further education, training, or other events to support your career	○	○	○	○	○
Assumed duties or positions that will help you progress professionally	○	○	○	○	○

Think about your career goal and any feedback you might have received on it over the last three to six months. What do you do when you encounter struggles or unfavourable feedback regarding your career path?

	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.	○	○	○	○	○	○
I intend to pursue an easier career goal than the one I currently have.	○	○	○	○	○	○
I need to reduce my aspirations as the occupation I am aiming for is unrealistic.	○	○	○	○	○	○
I plan to aim for a less challenging career than my current choice.	○	○	○	○	○	○
I plan to lower my career goal as I am aiming too high.	○	○	○	○	○	○
I intend to pursue a less responsible career than my current choice.	○	○	○	○	○	○

One last time, keep your career goal in mind and the feedback you have received on it. If you face unexpected career changes or negative career events and you struggle to pursue my career goal, what do you do?

	Almost never true	Rarely true	Sometimes true	Very often true	Almost always true
It's easy for me to reduce my effort toward my career goal.	○	○	○	○	○
I find it difficult to stop trying to achieve my career goal.	○	○	○	○	○
I stay committed to my career goal for a long time; I can't let it go.	○	○	○	○	○
It's easy for me to stop thinking about my career goal and let it go	○	○	○	○	○

When reading the statements below, keep in mind your career goal and any feedback you received on your progress. To what extent have you behaved in the following ways over the last 3 months?

	Never	Rarely	Occasionally	Frequently	Very frequently
Investigated career possibilities.	○	○	○	○	○
Went to various career orientation programs.	○	○	○	○	○
Obtained information on specific jobs or companies.	○	○	○	○	○
Initiated conversations with knowledgeable individuals in my career area.	○	○	○	○	○
Please select Frequently here.	○	○	○	○	○
Obtained information on the labor market and general job opportunities in my career area.	○	○	○	○	○
Sought information on specific areas of career interest.	○	○	○	○	○

End

Thank you for your time! We would now ask you to complete your email below.
In two weeks, respectively one month, we will send you two follow-up surveys of about seven minutes each, which will allow us to comprehensively analyze your data and create useful, long-term suggestions that can help employees advance their careers successfully.
Your email will only be used for contacting you and will be deleted once data collection ends.

Please introduce your email address below:

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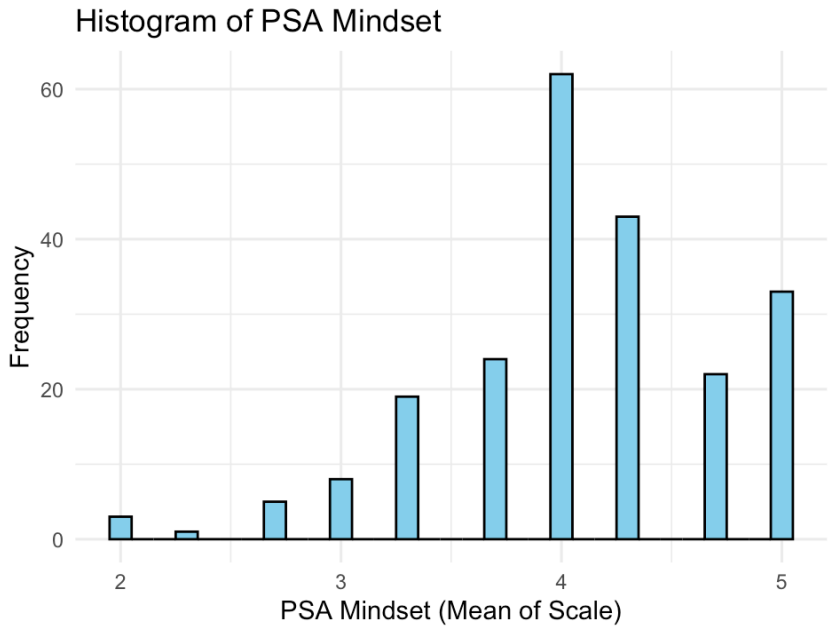
Appendix D: Histogram Professional Skills and Abilities (PSA) Mindset