

Purpose in Life and Academic Satisfaction: The Mediating Role of Academic Self-Concordance

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Abstract

Having a sense of purpose in life has been identified as an important predictor of psychological and academic outcomes for students. Still, the mechanisms underlying its relationship with academic satisfaction remain underexplored. The current study proposes a mediating role of academic self-concordance in the relationship between purpose in life and academic satisfaction among university students. The study sample consisted of 193 first-year psychology students from the University of Groningen who completed a questionnaire assessing their sense of purpose in life, academic self-concordance, and academic satisfaction. A mediation analysis was conducted using Baron and Kenny's (1986) approach as well as Hayes' (2013) bootstrapping model. Results showed that purpose in life significantly predicted both academic satisfaction and academic self-concordance, and that academic self-concordance significantly predicted academic satisfaction. Furthermore, the indirect effect of purpose in life on academic satisfaction through academic self-concordance was significant, suggesting a partial mediation. The findings suggest that students with a strong sense of purpose are more likely to pursue self-concordant academic goals, which contributes to increased academic satisfaction. Finally, these results support self-determination theory and suggest practical implications for improving student well-being through goal-setting in line with students' life purpose.

Keywords: purpose in life, self-concordance, academic satisfaction, mediation

Purpose in Life and Academic Satisfaction: The Mediating Role of Academic Self-Concordance

Well-being among students is a critical area of concern in higher education. The topic has received considerable attention in contemporary research, often with the aim of identifying factors that promote and sustain high levels of student well-being (Barbour & van Meggelen, 2023). However, a universally effective approach has yet to be discovered (Hossain et al., 2022). In fact, the most recent report from Caring Universities (2024) revealed that psychological well-being among students in the Netherlands is deteriorating, showing a 13.8% increase in mood-related complaints and an 11.5% increase in anxiety-related complaints from 2023 to 2024 (Caring Universities, 2024). For students, a central part of life revolves around pursuing academic goals, making academic satisfaction an important component of student well-being (Hossain et al., 2022). Academic satisfaction refers to students' subjective evaluation of their educational experience, including satisfaction with their progress, performance, and whether their expectations are being met (Naeem et al., 2020). Indeed, research by Wilcox and Nordstokke (2019) identified academic satisfaction to be a predictor of overall life satisfaction. Furthermore, higher student satisfaction is associated with increased motivation as well as student retention (Sum et al., 2010). Considering that some Dutch universities report dropout rates as high as 11.2% (Ministerie van Onderwijs, Cultuur en Wetenschap, 2024), enhancing student satisfaction can offer considerable benefits both at the societal and individual level.

One factor that has been found to predict both psychological and physiological well-being is the presence of a sense of purpose in life (Lewis, 2020; Pfund et al., 2020; Steptoe & Fancourt, 2019). Indeed, research by Mestan (2016) found that, along with factors such as career direction and peer bonding, lack of purpose can help explain why students prematurely discontinue their university education. However, while purpose in life has previously been

linked to academic satisfaction (Pfund et al., 2020), underlying factors contributing to this process are less studied (Burrow et al., 2023; Kashdan & Goodman, 2023). In light of this, the current study examines whether having a strong sense of purpose in life contributes to greater academic satisfaction by increasing the motivation to pursue self-concordant academic goals. Specifically, it proposes that the relationship between purpose in life and academic satisfaction is mediated by the extent to which students select academic goals that align with their values and overarching life aim. In doing so, it aims to provide insight into potential ways to enhance academic satisfaction, and thereby general well-being, among students.

Existing literature has established that having a sense of purpose in life is a predictor of various positive outcomes, including life satisfaction, among adolescents and all adult age groups (Cotton Bronk et al., 2009; Pfund et al., 2020). According to Kashdan and colleagues (2024), life purpose is defined through three key characteristics. First, purpose takes a central role in a person's sense of identity. Secondly, it serves as a long-term guiding aim, distinguishing it from short-term goals that are more easily attained. Finally, purpose is self-organizing, meaning that it motivates people to allocate resources toward goals that are in concordance with their life purpose (Kashdan et al., 2024). The latter component implies that purpose itself manages goals in a hierarchical manner, such that it stimulates higher-order goals, which in turn stimulate lower-order goals (McKnight & Kashdan, 2009). An example of this could be a student feeling that their purpose in life is to help others. This purpose drives the student to select the higher-order goal of becoming a psychologist. In order to become a psychologist, the student needs to reach a series of lower-order goals, including obtaining a degree in psychology. To achieve this, they need to work toward the subordinate goal of earning high grades, and so forth. All of these goals are related to the student's purpose in a hierarchical manner. Thus, purpose in life is self-organizing because it provides a direction for which goals to select to fulfill it (Lewis, 2020; McKnight & Kashdan, 2009).

Furthermore, the pursuit of these goals is seen as more rewarding than goals that are not in line with one's purpose (Lewis, 2020). Therefore, the theoretical framework of the current study is based on research which suggests that the positive effects of purpose in life are contingent on whether the individual acts in line with their perceived purpose, a concept referred to as self-concordance (Sheldon et al., 2004).

The term self-concordance, derived from self-determination theory (Ryan & Deci, 2000), refers to the extent to which an individual's choices align with their deeply held values and intrinsic motivations (Sheldon et al., 2004). According to self-determination theory, motivation exists on a continuum from controlled to autonomous. As specified by Ryan and Deci (2020), four types of motivation can be found on this continuum: extrinsic, introjected, identified, and intrinsic motivation. These types differ in the degree to which they are considered internalized (Nowell, 2017). While extrinsic and introjected motivations are externally driven, identified and intrinsic motivations reflect a greater sense of autonomy. Specifically, intrinsic motivation is driven by enjoyment and interest in the activity itself, while identified motivation arises when a person values a task as personally important, without finding it inherently enjoyable (Ryan & Deci, 2020). Both types are relevant to self-concordance because they reflect perceived autonomy. This is also referred to as an internal perceived locus of causality (I-PLOC; Sheldon et al., 2004). When individuals perceive their goals to be self-chosen, rather than externally imposed, they experience a greater sense of engagement and psychological well-being (Nowell, 2017).

The relationship between purpose in life and academic satisfaction may therefore not be direct but rather dependent on how well students' academic goals align with their sense of purpose. Students with a strong sense of purpose may be more likely to select academic goals that feel personally meaningful, thereby making their academic efforts more self-concordant. In turn, the self-concordant goals are more likely to be pursued with academic satisfaction

because they are selected for reasons that align with the students' personal values rather than external factors (Nowell, 2017).

Empirical work by Sheldon and colleagues (2004) underlines the importance of an autonomous source of motivation for the well-being of the individual. In their study, they found self-concordant forms of motivation to be positively correlated with subjective well-being while the effect was reversed for non-concordant motivation (Sheldon et al., 2004). In academic contexts, Gaudreau (2012) found that students who pursue goals for internalized reasons experience higher levels of academic satisfaction, likely because they have a greater sense of clarity of why they pursue these goals. This aligns with research by Barron and Harackiewicz (2001), which emphasizes that a core part of the academic experience involves striving to develop skills and task-based competence. When these competence-related goals are pursued for autonomous rather than external reasons, they are more likely to contribute to meaningful engagement. Supporting the notion that source of motivation plays a defining role in the educational experience, Dompnier and colleagues (2009) found that students' desire to learn was weaker if their goals were driven by social desirability (i.e., teachers' approval) rather than social utility (i.e., succeeding at university). Together, these findings suggest that academic satisfaction is not only about the goals students pursue, but the internalization of those goals. When students engage in academic tasks because they value them or see them as connected to their broader purpose, their goals are considered more self-concordant, which in turn leads to greater academic satisfaction and well-being.

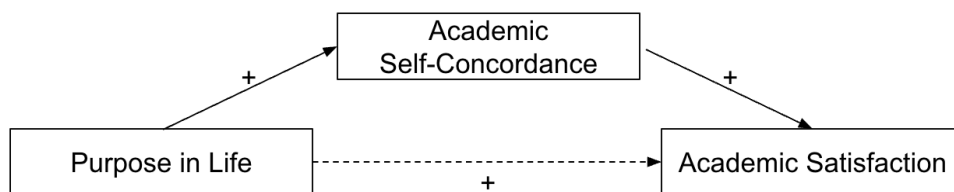
In summary, existing research suggests that a sense of purpose contributes to numerous positive outcomes, including enhanced well-being, student retention, academic achievement, and satisfaction. Self-determination theory (Ryan & Deci, 2000) provides a useful framework for understanding the role of internalized motivation in shaping academic experiences. According to self-determination theory, individuals are more likely to experience

satisfaction when their behavior aligns with intrinsic goals and values. This is in line with research suggesting that self-concordant motivation fosters engagement and fulfillment in academic settings (e.g., Gaudreau, 2012).

Building on this research, the present study predicts that academic self-concordance mediates the relationship between purpose in life and academic satisfaction. It is proposed that students with a strong sense of purpose in life are more likely to pursue academic goals that are concordant with their personal values and life aim, which in turn enhances their academic satisfaction. Figure 1 summarizes the predicted mediation model as well as the direction of the relationships. Identifying this underlying mechanism may contribute to future interventions aimed at improving well-being by enhancing students' awareness of their life purpose and helping them select academic goals aligned with this.

Figure 1

Predicted relationships between the variables in the current study



Method

Participants

Of the 222 first-year students from the University of Groningen who participated in the study, 22 responses were excluded from the analysis due to not completing the questionnaire and seven were excluded because participants were not psychology students enrolled in the Academic Skills course. The final sample consisted of 193 participants, including 134 women, 52 men, two participants who identified as another gender, three who preferred not to disclose their gender, and two who did not fill out this category. Participants ranged in age from 17 to 35 years ($M = 19.8$, $SD = 1.95$). The majority of participants were from the Netherlands, totaling 126 individuals, followed by 18 participants from Germany and 49 from other countries.

Measures

Purpose in life

Purpose in life was operationalized using a four-item subscale developed by Hill and colleagues (2016). Examples of items are “There is a direction in my life” and “My life is guided by a set of clear commitments.” Items were rated on a 5-point Likert-type scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Higher scores on the subscale indicated a stronger sense of purpose in life. Previous research using this scale found high internal reliability (Cronbach’s $\alpha = .84$; Hill et al., 2016). Similarly, in this study, the internal reliability was high ($\alpha = .92$).

Academic self-concordance

To measure academic self-concordance participants were asked to report three academic goals and rate the extent to which they pursued each of them for external, introjected, identified, or intrinsic reasons, respectively. The items were based on Sheldon and Elliot’s (1999) goal self-concordance model with each item measuring a different type of

motivation. For example, the item measuring external motivation read “Because somebody else wants you to, or because you will get something if you do” while the intrinsic motivation item read “Because of the fun and enjoyment which the goal will provide you - the primary reason is simply your interest in the experience itself.” Items were rated on a 7-point Likert-type scale, ranging from (1) not at all for this reason to (7) completely for this reason.

Following procedures used in recent research (Zhang & Fu, 2025), external and introjected motivation items were combined to create a measure of non-concordant motivation while identified and intrinsic motivation items were combined to create a measure of self-concordant motivation. Previous measures of this scale have found Cronbach’s alpha to be acceptable for both non-concordant ($\alpha = .65$) and self-concordant ($\alpha = .69$) motivation (Zhang & Fu, 2025). Similarly, in this study, internal consistency was acceptable both for non-concordant ($\alpha = .73$) and self-concordant motivation ($\alpha = .70$).

Academic satisfaction

Academic satisfaction was measured on a subscale based on Vallerand and Bissonnette’s (1990) Scale of Satisfaction in Studies. The scale consisted of four items, such as “I am pleased with how my university education is going so far” and “I am happy with how I have done in my classes.” Items were rated on a 7-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). Higher scores on the subscale indicate higher academic satisfaction. Face validity was evaluated by experts in the field and the internal reliability was high ($\alpha = .88$), suggesting that the subscale reliably measured the intended construct.

Procedure

The study was first approved by the Ethical Committee for Psychology at the University of Groningen, fulfilling the criteria for the fast track submission procedure. The survey was an online self-report questionnaire conducted using the Qualtrics platform. It was

made available to first-year psychology students through the Sona System, which links undergraduate students with researchers for the purpose of participation in studies. In exchange for participation, students received Sona credits, which are a part of a university course. Before participating in the study, participants were informed about the study's topic, expected questions, and estimated duration, prior to providing their informed consent.

The questionnaire contained demographic information (i.e., gender, nationality, and age), as well as measures of purpose in life, academic self-concordance, academic satisfaction, positive affect, intellectual risk-taking, and harmonious passion.

Statistical Analysis

Although the statistical method proposed by Baron and Kenny (1986) remains influential in conceptualizing mediation, recent methodological literature has advised applying more statistically rigorous techniques, such as Hayes' (2013) PROCESS model (Zhao et al., 2010). The stepwise structure of the Baron and Kenny (1986) approach is useful for conceptual clarity (Vanderweele & Vansteelandt, 2009). However, it has been criticized for its limited statistical power and dependence on the significance of individual path coefficients, which can overlook meaningful indirect effects (MacKinnon et al., 2007; Rucker et al., 2011). As suggested by critics of Baron and Kenny's (1986) approach, Hayes' (2013) model is added for increased statistical power (Zhao et al., 2010). Thus, for higher statistical confidence both the methods outlined by Baron and Kenny (1986) and Hayes (2013) were followed.

Following Baron and Kenny's (1986) rationale, two models were assessed to test the proposed mediation, in which purpose in life functioned as the predictor variable, academic self-concordance as the mediating variable, and academic satisfaction as the outcome variable. A reduced model that regressed purpose in life on academic satisfaction and a full model that regressed both purpose in life and academic self-concordance on academic

satisfaction. A partial mediation was present if the R^2 -change between the reduced and the full model was significant and purpose in life remained significant even after adding academic satisfaction. A full mediation was present if the R^2 -change was significant while purpose in life was no longer significant in the full model.

Furthermore, following the guidelines provided by Hayes (2013) and Selker (2017), a bootstrapping procedure with 5,000 resamples was conducted. This model corresponded to Model 4 in Hayes' (2013) PROCESS framework and was used to assess whether purpose in life affected academic satisfaction through academic self-concordance. Mediation was evaluated through analysis of the statistical significance of the direct and indirect effects. The models were estimated using the statistical software jamovi (Version 2.6.26), specifically the medmod extension (Selker, 2017).

Results

Preliminary analysis

Prior to conducting the mediation analyses, the assumptions of normality, linearity, homoscedasticity, and independence were assessed, following the guidelines provided by Ernst and Albers (2017). All relevant figures are presented in the Appendix. Visual inspection of histograms and Q-Q plots indicated that the variables purpose in life, academic self-concordance, and academic satisfaction were approximately normally distributed. Furthermore, residual plots did not suggest violations of linearity or homoscedasticity. Independence of errors was evaluated using residual plots and autocorrelation of residuals; no violations were found (Durbin-Watson value = 2.04; Field, 2024). To ensure minimal multicollinearity, a requirement for a parsimonious model (Ernst & Albers, 2017), the variance inflation factor was computed and found to be unproblematic (VIF = 1.13; Field, 2024). Inspection of boxplots indicated that there are no outliers for purpose in life and academic self-concordance (Field, 2024). Two lower-end outliers were identified for academic satisfaction. However, following the recommended cut-off criteria of 3 standard deviations (Field, 2024), these outliers were determined not to be erroneous and were kept in the dataset.

Pearson's r correlations between the variables showed that purpose in life was positively associated with both academic self-concordance and academic satisfaction, and that academic self-concordance was significantly positively correlated with academic satisfaction. Descriptive statistics and correlation coefficients are presented in Table 1.

Table 1*Descriptive Statistics and Pearson Correlations for Study Variables*

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	1	2	3
1. PIL	193	3.48	0.79	-		
2. ASC	193	2.71	3.23	.34**	-	
3. AS	193	4.71	1.21	.24**	.30**	-

Note. PIL: Purpose in Life; ASC: Academic Self-Concordance; AS: Academic Satisfaction.

** $p < .01$.

Mediation analysis

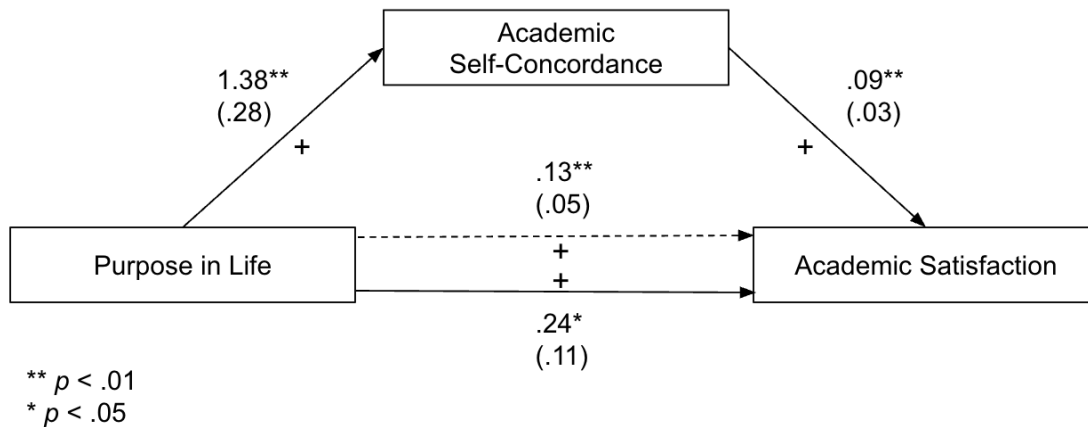
After verifying that all assumptions were met (Ernst & Albers, 2017), a mediation analysis was conducted to examine whether academic self-concordance mediates the relationship between purpose in life and academic satisfaction. This analysis was performed using the medmod module in jamovi, which implements the approach outlined by Baron and Kenny (1986). Results showed that the total effect of purpose in life on academic satisfaction was significant ($B = 0.367$, $SE = 0.106$, $Z = 3.45$, $p < .001$, 95% CI [0.16, 0.58]). In a simple regression model, purpose in life explained 5.8% of the variance in academic satisfaction ($R^2 = .058$, $F(1, 191) = 11.8$, $p < .001$). When academic self-concordance was added as a second predictor, the model explained 11.04% of the variance in academic satisfaction ($R^2 = .110$, $F(2, 190) = 11.8$, $p < .001$). Thus, inclusion of academic self-concordance as a mediator resulted in a significantly improved model fit ($\Delta R^2 = .052$, $F(1, 190) = 11.1$, $p = .001$).

Furthermore, purpose in life was significantly associated with academic self-concordance ($B = 1.381$, $SE = 0.276$, $p < .001$, 95% CI [0.84, 1.92]), explaining 11.5% of the variance in academic self-concordance ($R^2 = .115$, $F(1, 191) = 24.8$, $p < .001$). In turn, academic self-concordance was significantly associated with academic satisfaction ($B = 0.091$, $SE = 0.027$, $p < .001$, 95% CI [0.04, 0.14]). The indirect effect of purpose in life on

academic satisfaction through academic self-concordance was significant ($B = 0.125$, $SE = 0.045$, $p = .005$, 95% CI [0.04, 0.21]), and so was the direct effect ($B = 0.242$, $SE = 0.11$, $p = .028$, 95% CI [0.03, 0.46]). These results indicate partial mediation. They suggest that higher levels of purpose in life are associated with greater academic satisfaction, in part because academic goals are pursued with a higher degree of self-concordance (see Figure 2).

Figure 2

Mediation of Academic Self-Concordance in the Relationship Between Purpose in Life and Academic Satisfaction (Baron & Kenny, 1986 Approach)



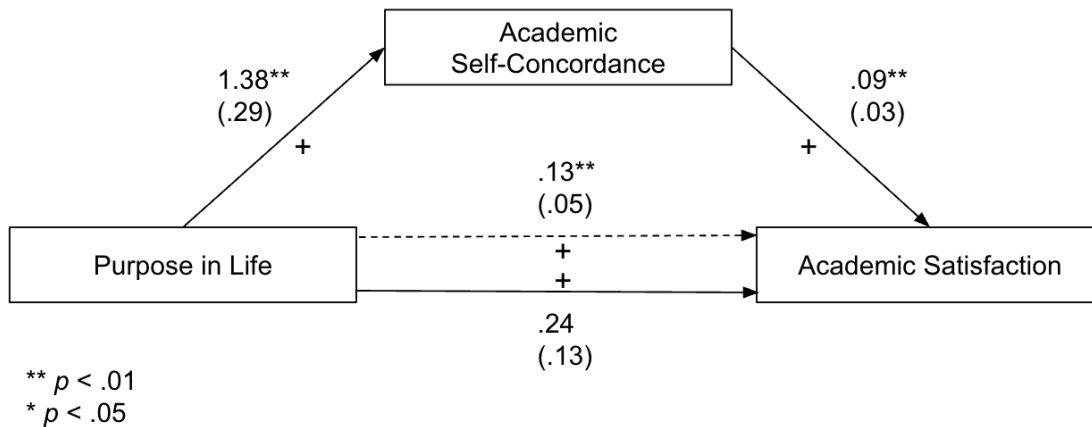
Note. Unstandardized coefficients with standard errors in parentheses are presented. The dashed line indicates the indirect effect.

To further assess the mediation, a bootstrapping analysis was conducted using the jamovi medmod module based on Hayes' PROCESS Model 4 with 5,000 samples and 95% confidence intervals. Analysis showed that the path between purpose in life and academic self-concordance was significant ($B = 1.381$, $SE = 0.293$, $p < .001$, 95% CI [0.82, 1.96]). Furthermore, academic satisfaction was significantly associated with academic satisfaction ($B = 0.091$, $SE = 0.029$, $p = .002$, 95% CI [0.03, 0.15]). The indirect effect of purpose in life on academic satisfaction through academic self-concordance was significant ($B = 0.125$, $SE = 0.047$, $p = .008$, 95% CI [0.04, 0.22]), while the direct effect was found to be not significant ($B = 0.242$, $SE = 0.132$, $p = .067$, 95% CI [-0.03, 0.50]). The non-significant direct effect

suggests a significant mediation effect of academic self-concordance on the relationship between purpose in life and academic satisfaction. Results are summarized in Figure 3.

Figure 3

Mediation of Academic Self-Concordance in the Relationship Between Purpose in Life and Academic Satisfaction (Hayes, 2013 Approach)



Note. Unstandardized coefficients with standard errors in parentheses are presented. The dashed line indicates the indirect effect.

These results support the proposed model. The mediation analysis based on Baron and Kenny's (1986) model found purpose in life to predict academic self-concordance, and academic self-concordance to predict academic satisfaction. The bootstrapping analysis based on Hayes' (2013) model revealed that, when including academic self-concordance, only the indirect effect of purpose in life on academic satisfaction was significant. Thus, the study provides evidence for the hypothesis that there is a positive relationship between purpose in life and academic satisfaction which is mediated by academic self-concordance.

Discussion

While the relationship between purpose in life and various aspects of well-being is well-documented, scholars argue that the mechanisms through which purpose exerts its positive effects remain largely unknown (Burrow et al., 2023; Kashdan & Goodman, 2023). Identifying and understanding these mechanisms can contribute to enhancing student satisfaction and well-being in higher education. Building on this, the current study proposed that having a sense of purpose in life fosters motivation to pursue self-concordant academic goals which leads to higher academic satisfaction among students. As predicted, purpose in life was found to have a positive effect on academic satisfaction which was mediated by academic self-concordance.

This study supports previous findings regarding the positive effects of having a sense of purpose in life on well-being (Sheldon et al., 2004). The results align with the conceptualization of purpose in life as a psychological system that organizes and manages goal selection (McKnight & Kashdan, 2009; Kashdan et al., 2024). In this framework, purpose in life functions as a goal manager, prioritizing higher-order goals that guide the pursuit of subordinate goals across life domains, including education. Research by Sheldon and colleagues (2004) further underscores that a clearly defined life purpose is positively associated with subjective well-being, as individuals who experience a strong sense of meaning are more likely to engage in behaviors that fulfill their psychological needs. This link between purpose and well-being is especially relevant in academic contexts where alignment between educational goals and life purpose can foster increased satisfaction (Dompnier et al., 2009). Furthermore, the results are consistent with self-determination theory and literature on self-concordance (Gaudreau, 2012; Sheldon et al., 2004), which demonstrate that goals driven by internalized, and thus self-concordant, motivation are linked to greater satisfaction and well-being (Nowell, 2017; Ryan & Deci, 2020). Given the significant positive relationships

observed between purpose in life and self-concordance, and between self-concordance and academic satisfaction, the findings presented in this paper further support the theoretical claim that acting in line with one's life purpose fosters academic satisfaction and well-being.

The first path of the mediation examined the relationship between purpose in life and academic self-concordance. A significant positive relationship was found, suggesting that students with a stronger sense of purpose in life are more likely to select academic goals that align with this purpose. This finding supports McKnight and Kashdan's (2009) conceptualization of purpose in life as a self-organizing life-aim that helps individuals to structure their goals hierarchically. For students, this may involve an overarching purpose giving rise to higher-order goals (e.g., career goals) and shorter-term academic subgoals (e.g., passing exams) (McKnight & Kashdan, 2009). These goals are more likely to be considered self-concordant because they align with the students' own values and interests (Sheldon et al., 2004). Accordingly, this alignment may also explain why previous research has found that students with a strong sense of purpose report greater commitment to completing their degrees (Pfund & Bono, 2020), and higher levels of goal-directedness (Bundick, 2011). While the current study focused on students' general sense of purpose in life, it did not explore the specific content of that purpose. Future research should investigate the content of students' purpose in life, for example by using qualitative methods such as Schwartz's value model, as suggested by (Kuusisto et al., 2025). This would allow for investigation of how students articulate their life purpose and how this content shapes their academic motivation. Furthermore, this could provide insight into whether self-focused compared to other-focused life purposes relate differently to academic outcomes (Kashdan et al., 2024; Sheldon et al., 2004).

The second path of the mediation investigated the relationship between academic self-concordance and academic satisfaction. A significant positive relationship was found,

indicating that students are more satisfied with their academic experience when their goals are chosen autonomously and reflect their underlying values and long-term purpose. In other words, students feel more fulfilled when their academic pursuits are not only self-chosen but also meaningfully connected to their life purpose. This supports the idea that purpose in life is central to one's identity and acts as a guiding framework for goal pursuit (Kashdan et al., 2024). When academic goals are aligned with this purpose, they are experienced as more authentic and personally significant (Sheldon et al., 2004). This interpretation is in line with literature on self-determination theory, which suggests that internalized motivation leads to positive outcomes such as increased motivation and satisfaction (Ryan & Deci, 2020; Wilcox & Nordstokke, 2019). Moreover, it lends support to findings indicating that the level of self-concordance involved in goal-directed behavior is of more importance than the content of goals for academic satisfaction and achievement (Gaudreau, 2012). Further research could build on these findings by identifying ways in which educational environments might support students in clarifying their life purpose and setting academic goals that are meaningfully connected to their identities.

While this study found evidence of a mediating role of academic self-concordance, the statistical significance of the direct pathway between purpose in life and academic satisfaction implies that additional factors may serve as mediators in the relationship. Burrow and colleagues (2023) propose that purpose in life acts as a maintainer of psychological homeostasis by recentering attention toward important life goals in the face of aversion. They argue that external stressors are less influential for people with a strong sense of purpose in life, such that stressful experiences are perceived as challenging more so than threatening (Burrow et al., 2023). Similarly, Lohani and colleagues (2022) found purpose to be positively related to adaptive self-regulatory strategies such as problem-solving, an important skill in higher education, and negatively related to maladaptive strategies. Future research should

investigate similar models with potential mediators such as recentering (Burrow et al., 2023), and other adaptive self-regulation strategies (Lohani et al., 2022).

The findings of this study suggest that enhancing students' sense of purpose in life could improve academic satisfaction, and consequently, student retention and well-being (Mestan, 2016; Sum et al., 2010). Educational institutions should inform students about the benefits of having a clear life purpose and pursuing academic goals that are consistent with their purpose. Although guided purpose discussions may not directly strengthen life purpose, they are associated with increased goal-directedness and life satisfaction (Bundick, 2011). As low-cost and accessible interventions, such discussions, facilitated by study advisors, parents, teachers, and others around the students, can support students in clarifying their core values and goals. Additionally, future research should explore the three proposed pathways to life purpose development, namely proactive, reactive, and social learning (Kashdan et al., 2024). As Pfund and Bono (2020) suggest, several strategies can be employed by educational institutions to enhance students' sense of purpose through all three pathways to purpose development. These include encouragement of reflection on students' own skills and interests, seminars, mentorship, expressive writing, and more (see Pfund & Bono, 2020).

A further way to enhance academic satisfaction through purpose in life is by strengthening academic self-concordance. While some students naturally select goals directly aligned with their life purpose, others may struggle to see the link. In such cases, Kashdan and Goodman (2023) suggest cognitive reappraisal strategies as a way to derive meaning from the goals. One such strategy is repurposing. This involves the acknowledgement that the fulfilment of one's life purpose is not dependent on only one goal (Kashdan & Goodman, 2023). Students who do not feel that their academic goals are directly related to their life purpose could thus benefit from repurposing their current academic goals as part of a more overarching goal related to their life aim (Kashdan & Goodman, 2023). To revisit McKnight

and Kashdan's (2009) hierarchical goal structure, such interventions support students in recognizing how lower-level academic subgoals contribute to higher-order goals connected to their purpose. Research shows that self-concordance can be enhanced through self-regulatory strategies that help individuals identify aspects of their tasks that align with their personal values. These strategies involve modifying either the task itself or one's perception of it to increase the presence and awareness of personal meaning (Unsworth & Mason, 2016).

A main limitation of the current research is its correlational and cross-sectional nature. This results in uncertainty regarding the directionality of the mediation pathway findings (Maxwell et al., 2011). In this regard, it cannot be ruled out that academic satisfaction positively affects the sense of autonomy involved in students' choice of university degree or that a high level of autonomy fosters a stronger sense of life purpose. Longitudinal studies are necessary to establish causation and direction of the relationship between the variables tested in this study (Maxwell et al., 2011). Moreover, such studies will allow for investigation of the long-term effects of purpose in life on (academic) satisfaction. A further limitation is the generalizability of these results to other student populations. As this study contained a sample of first-year psychology students from one Dutch university, further research should focus on replicating the current study at other Dutch universities as well as across other cultures and academic disciplines. Research by Sheldon and colleagues (2004) already suggests that internalized forms of motivation have a positive effect on subjective well-being in several cultures, including the United States, Taiwan, China, and South Korea. Replication of the current study in non-Western cultures can provide an additional, education-oriented, dimension to those results.

Taken together, the results of the current study indicate that a strong sense of purpose in life motivates academic goals that are in accordance with this life purpose and in turn leads to higher academic satisfaction in university students. The results conform with existing

literature on self-determination theory (e.g., Ryan & Deci, 2020), purpose in life (e.g., Kashdan et al., 2024; Pfund & Bono, 2020), and goal self-concordance (e.g., Gaudreau, 2012; Sheldon et al., 2004). With the mediation model presented in this study, a new dimension is offered to aid understanding of the positive outcomes associated with the presence of a sense of purpose in life. The findings of this study provide additional direction for future research and indicate a need for increased focus on purpose in life among students (Bundick, 2011; Pfund & Bono, 2020) as well as enhancement of academic self-concordance (Unsworth & Mason, 2016). Finally, helping students to see the connection between their purpose and academic activity may foster more self-concordant goal pursuit and thus enhance academic satisfaction and overall well-being.

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Appendix

Figure A1

Histogram of Purpose in Life Scores

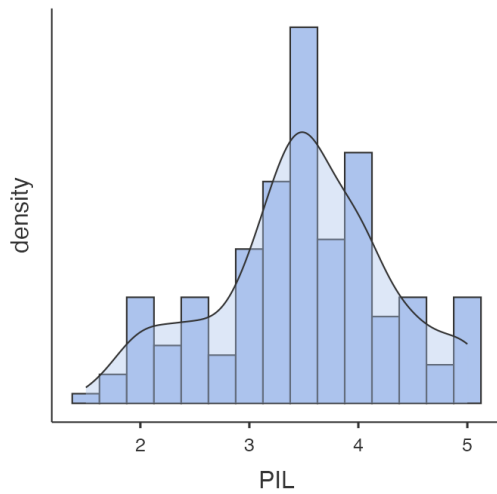


Figure A2

Q-Q Plot of Purpose in Life Scores

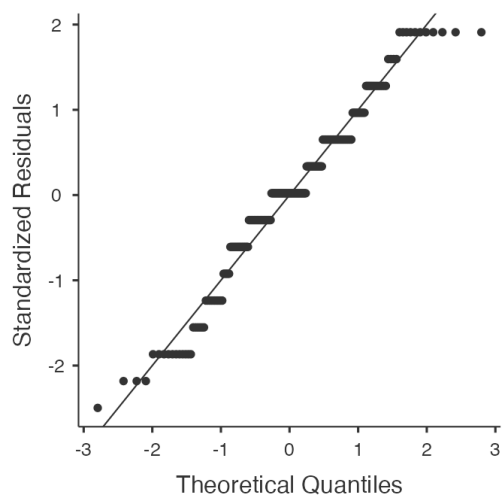


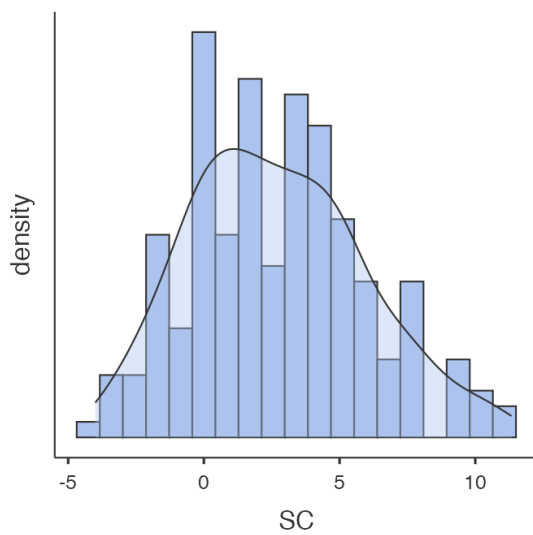
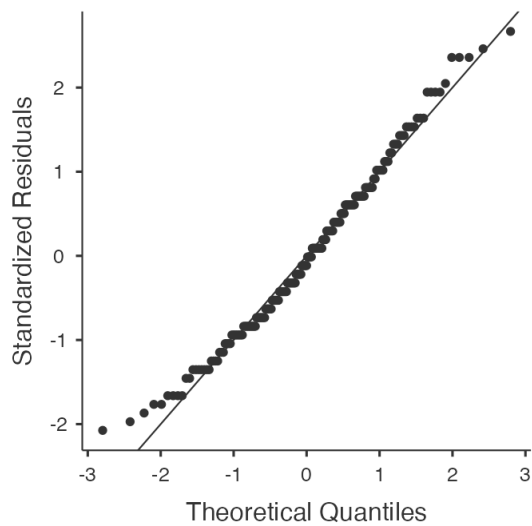
Figure A3*Histogram of Self-Concordance Scores***Figure A4***Q-Q Plot of Self-Concordance Scores*

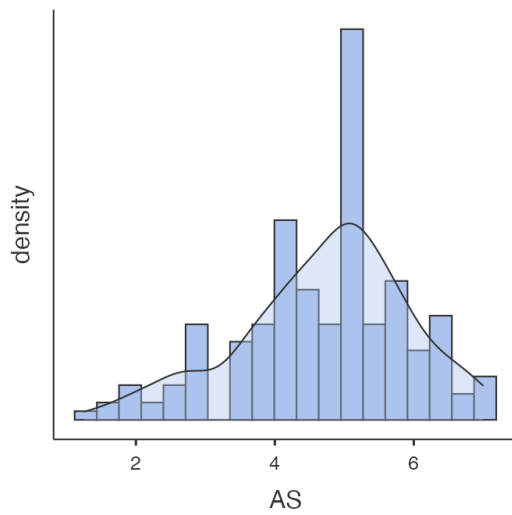
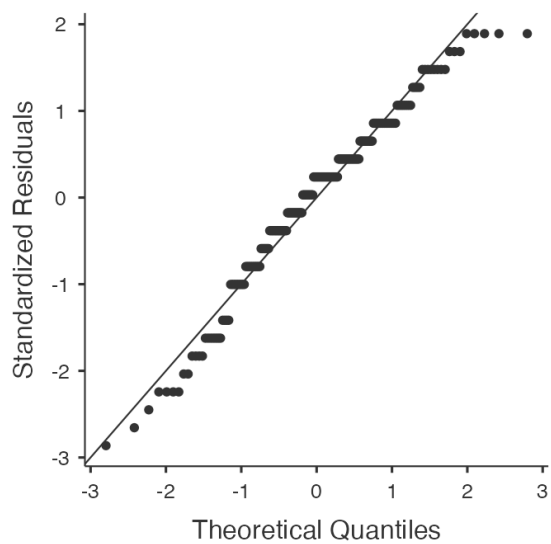
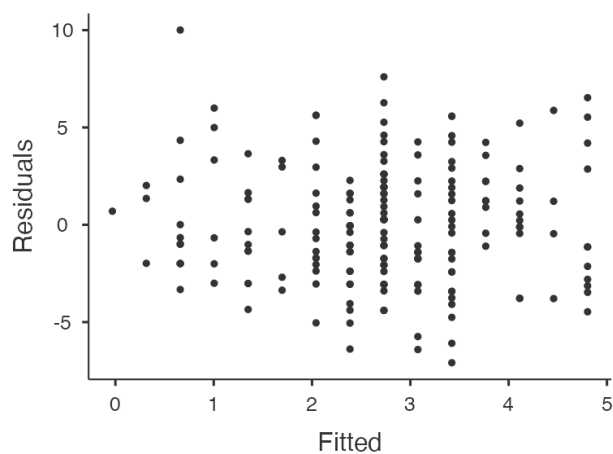
Figure A5*Histogram of Academic Satisfaction Scores***Figure A6***Q-Q Plot of Academic Satisfaction Scores*

Figure A7

Residuals vs. Fitted Values Plot for the Regression of Self-Concordance on Purpose in Life

**Figure A8**

Residuals vs. Fitted Values Plot for the Regression of Academic Satisfaction on Self-Concordance

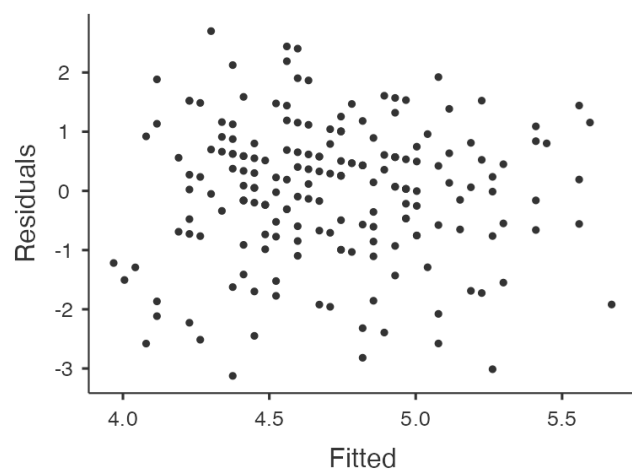
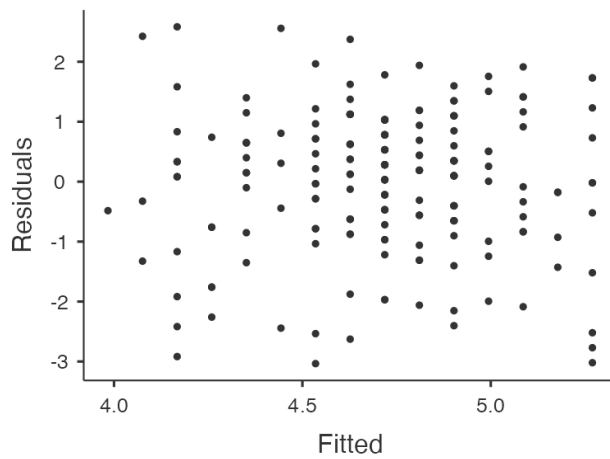


Figure A9

Residuals vs. Fitted Values Plot for the Regression of Academic Satisfaction on Purpose in Life

**Figure A10**

Boxplot of Purpose in Life Scores

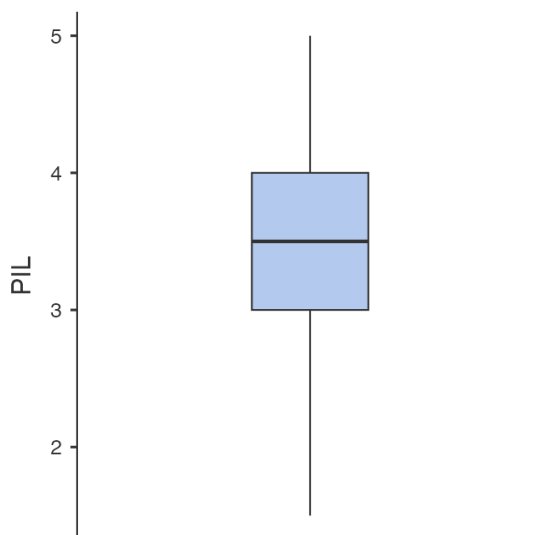
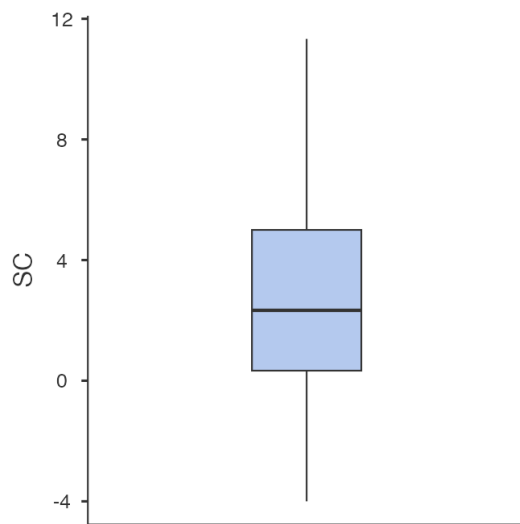


Figure A11*Boxplot of Self-Concordance Scores***Figure A12***Boxplot of Academic Satisfaction Scores*