Understanding the Link Between Purpose in Life and Positive Affect Among First-Year

Students: A Mediating Role for Academic Self-Concordance?

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PSB3E-BT15: Bachelor Thesis

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July 1st, 2025

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Abstract

Mental health concerns are prevalent among university students in the Netherlands, highlighting the importance of identifying psychological factors that foster mental well-being. This study examines whether academic self-concordance serves as a mediator between purpose in life and positive affect, while controlling for the influence of negative affect. The sample of the study consists of 193 first-year psychology students at the University of Groningen who completed an online survey of validated scales regarding the variables. Baron and Kenny's classic mediation method, along with Hayes' PROCESS macro, were used in SPSS to analyse the mediation effect. Results indicate a significant mediation effect through both methods. A strong sense of purpose guides students towards setting concordant academic goals aligned with their values, which in turn promotes greater positive affect about their studies. This is due to the inherently rewarding nature of pursuing autonomously chosen goals. These findings indicate that enhancing students' sense of purpose and helping them set up self-concordant academic goals could increase their well-being, which may additionally positively influence student results and motivation.

Keywords: purpose in life, academic self-concordance, positive affect, negative affect, mediation, first-year students

Understanding the Link Between Purpose in Life and Positive Affect Among First-Year Students: A Mediating Role for Academic Self-Concordance?

Various research on student well-being and mental health in the Netherlands has revealed that approximately 51% of students experience mental health issues, including loneliness, stress, sleeping disturbances, and symptoms of depression and anxiety (National Institute for Public Health and the Environment [RIVM], 2021; Caring Universities, 2023). Generally, university students are at higher risk for mental health problems and psychological distress, which can negatively impact their physical health and academic achievements (Ryan et al., 2010). High prevalence rates and negative consequences highlight the importance of enhancing student mental well-being in the Netherlands.

One aspect that has consistently been associated with higher well-being for both students and the general population is having a purpose in life (Hill et al., 2020). A strong sense of purpose is related to numerous benefits, including higher affective well-being, characterised by feeling increased positive affect and reduced negative affect (Krok & Gerymski, 2019). However, there is a lack of research explaining how purpose in life is associated with affective well-being (Burrow et al., 2023). With that in mind, this paper aims to examine the mediation pathway through which purpose in life and positive affect are associated. Specifically, academic self-concordance, i.e. pursuing autonomously chosen goals that align with interests and values, is examined as a potential mediator of this link (see Figure 1).

To better understand this relationship, it is important to first classify what is meant by a sense of purpose in life, which can be characterised by the feeling that one's life has significance, direction, and goals (Burrow et al., 2023; Hill et al., 2020; Sutin et al., 2023). It is the extent to which an individual feels that they have personally meaningful goals and aims guiding them through life (Pfund et al., 2020). Kashdan et al. (2023) further define purpose in

life as a central, self-organising life aim. Such an aim can relate to many different domains, such as family, career, or success (Kashdan et al., 2023).

In addition to its association with well-being, purpose in life has been linked with many benefits relevant to university students. These include being valuable in decision-making, helping to deal with daily life stress or major stressors, improving physiological and cognitive health, and increasing life expectancy (Hill et al., 2020; Kashdan et al., 2023; Sutin et al., 2023). The former two benefits are particularly valuable for university students. They are experiencing a shift in their lives, with a new physical, social, and academic environment (Lohani et al., 2022). When they start university, students face overwhelming new responsibilities and have to become independent. This is a time when they figure out their identity and what future path they want to take. Making such important life decisions can be stressful and lead to a decline in mental health, as increasingly reported at universities (RIVM, 2021; Caring Universities, 2023). Since feeling a sense of purpose can facilitate decision-making (Pfund et al., 2020) and has been associated with reduced stress and tension during complex decision-making (Kashdan et al., 2023), it may be particularly beneficial for students faced with many decisions and responsibilities.

Considering the benefits in decision-making, they suggest that purpose may shape how students set and prioritise goals. Therefore, it is crucial to understand how purpose relates to goal pursuit, especially among university students. Many researchers have linked purpose in life with goal organisation. For example, Krok (2020) describes purpose in life as a cognitive map that helps one find value, select potential plans, and engage in goal-related behaviour. Additionally, clarity about values and purpose can serve as a tool in setting and pursuing meaningful goals (Kashdan & Goodman, 2023). To emphasise the definition of purpose in life by Kashdan et al. (2023), they describe it as self-organising, i.e. it motivates a person to dedicate time and resources towards certain goals. This process operates within a

goal hierarchy, wherein higher-order goals relevant to one's purpose are selected and then produce sub-goals (Lewis, 2020). To illustrate, a student whose purpose is to help others may generate the long-term higher-order goal to become a psychologist. This results in sub-goals, such as getting admitted to the psychology programme and achieving advanced knowledge of the course topics. Through this, studying hard becomes a sub-goal that is motivated by purpose. In this way, purpose serves as a regulator that helps navigate daily life and leads individuals to engage in daily and long-term goals that fit their life aim (Hill et al., 2020). That is, purpose promotes engagement in life goals related to one's values, and guides goal pursuit through goal selection.

This alignment between goals and personal values is central to the self-concordance model. Self-concordance theory describes that goals that are concordant with one's central values and identity bring about more motivation, commitment, and personal reward for individuals (Kelly et al., 2015). In this context, purpose in life promotes engagement in academic goals that are concordant with students' identity and purpose (Lewis, 2020). Essentially, purpose helps them navigate the world by increasing clarity about values, which can help students organise their goals. When students pursue goals that align with their values, they are usually pursuing concordant goals, which will lead to more motivation and rewards. Therefore, this past research indicates that with a higher purpose in life, there will be higher self-concordance and that those with a higher purpose in life are more likely to select concordant goals.

To further explore the self-concordance model, one key aspect is the autonomous choice and self-determination of goals, without external influence (Kelly et al., 2015). This connects the self-concordance model to self-determination theory (Ryan & Deci, 2000), which differentiates between an internal and external perceived locus of causality (PLOC) in an individual's actions. A high internal PLOC reflects a sense of autonomy while a high

external PLOC is associated with feelings of external pressure and obligation in relation to goal pursuit. In self-concordance, the internal PLOC is greater than the external PLOC, i.e. goal motivation is characterised by a sense of autonomy (Sheldon et al., 2004). Self-determination theory identifies four kinds of motivations, two of which are concordant (intrinsic and identified), and two nonconcordant (external and introjected). The first concordant motivation, intrinsic motivation, is characterised by being inherently interesting and pleasant to the individual. The second concordant motivation is identified motivation, stemming from norms and personal beliefs. The two nonconcordant motivations are external motivation, controlled by external pressures, and introjected motivation, controlled by one's own emotions such as guilt or other internal processes (Kelly et al., 2015; Nowell, 2017; Sheldon et al., 2004; Smith et al., 2011). Concordant goals are autonomously motivated goals, as they are freely chosen by the individual with the sense that they are authentic choices that represent one's interests and passion, as well as central values (Sheldon et al., 2004; Smith et al., 2011). Self-concordance is important to consider among students who have to choose career goals, as choosing goals that are not aligned with one's interests and values can have long-term effects on their careers (Sheldon et al., 2020). Academic self-concordance can help students in their motivation and action planning and has been shown to relate to lower burnout rates among adolescents, therefore improving the well-being of students (Sheldon et al., 2020).

Beyond helping students in motivation and reducing burnout, concordant motivations are positively associated with affective well-being and positive affect in various studies (Kelly et al., 2015; Sheldon et al., 2004). Nowell (2017), for example, found that university students were happiest when pursuing autonomously chosen academic goals. Several theoretical mechanisms have been proposed to explain the association between self-concordance and positive affect. According to self-determination theory, concordant goals

foster deeper engagement and higher motivation in that goal (Krok, 2020), and increased effort is positively associated with goal achievement. In turn, goal achievement is positively associated with higher positive affect. Kelly et al. (2015) found that those who pursue concordant goals anticipate greater happiness on the completion of their goal. Thus, the successful pursuit of personally meaningful goals leads to more positive affect (Smith et al., 2011). Importantly, self-concordant goals tend to be inherently more rewarding precisely because they are autonomously chosen, are rooted in an individual's passions, and align with their values and sense of self, leaving them feeling more accomplished and satisfied (Krok & Gerymski, 2019; Lewis, 2020). In the context of a psychology student whose purpose is to help others, this student will study harder because the goal is aligned with their purpose. The student feels more autonomy in this goal and is more motivated to achieve it. If the goal is accomplished, it will be more rewarding due to the goal being important for the student's identity. In consequence, the student will feel happier in their studies. Therefore, this thesis predicts that with higher academic self-concordance there will be an increase in positive affect.

To ensure conceptual clarity regarding affective states, it is worth noting that positive affect and negative affect are not opposites, but independent from each other, and can therefore be felt at the same time (Watson et al., 1988). Correlations between purpose in life and negative affect (Burrow et al., 2023; Pfund et al., 2020), and between self-concordance and negative affect (Stanley & Schutte, 2022, Sheldon et al., 2004; Kelly et al., 2015) have been reported as well, suggesting these constructs may protect students from negative affect. Thus, controlling for negative affect in the present study ensures that the link between purpose in life and academic self-concordance with positive affect is not simply due to low negative affect and instead measures the unique effect onto positive affect.

In summary, purpose in life has been linked to a range of benefits, one of which is greater affective well-being, specifically feeling more positive affect (Hill et al., 2020). This thesis proposes this association is mediated by academic self-concordance among students, a type of goal organising in which self-chosen goals that align with one's personal values enhance motivation and reward (Sheldon et al., 2004). It is hypothesised that purpose in life and academic self-concordance are positively associated due to purpose guiding value-driven goal setting. In turn, academic self-concordance fosters positive affect by promoting the feeling of autonomy and motivation. Additionally, the inherently rewarding nature of goals that reflect one's identity leads to a greater sense of accomplishment (Lewis, 2020). This research is especially relevant for first-year university students given the increasing rates of mental health issues among students, who are navigating new environments and facing decisions regarding their future (Pfund et al., 2020). The present study hypothesises that academic self-concordance mediates the relationship between purpose in life and positive affect while controlling for the effects of negative affect.

Figure 1

Proposed Mediation Model with Academic Self-Concordance as Mediating Variable Between Purpose in Life and Positive Affect and Negative Affect as Covariate
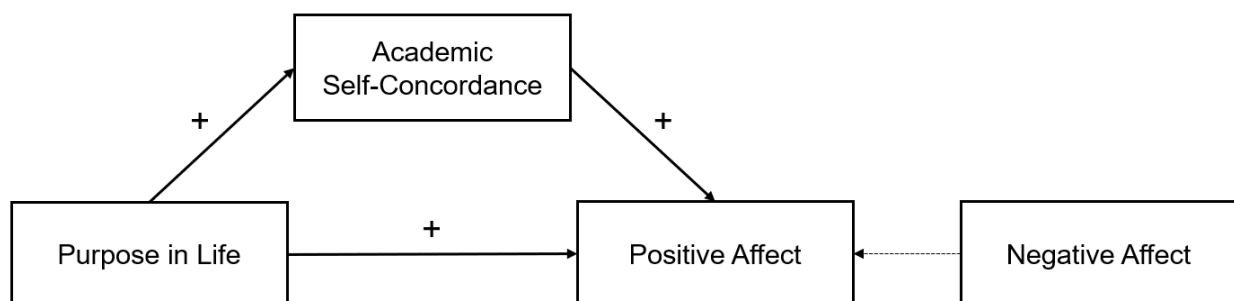
Methods

Participants

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

Measures

Purpose in life

Purpose in life was operationalised using a four-item subscale developed by Hill et al. (2016). Examples of items are "There is a direction in my life" and "My life is guided by a set of clear commitments." Items are rated on a 5-point Likert-type scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*), with higher scores indicating a stronger sense of purpose in life. Previous research using this scale found a Cronbach's alpha of 0.84 (Hill et al., 2016). 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 goal 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 are rated on a 7-point Likert-type scale, ranging from 1 (*not at all for this reason*) to 7 (*completely for this reason*). In analysis, external and introjected motivation items were combined to represent non-concordance while identified and intrinsic motivation items together made up concordance. Previous measures of this scale found an acceptable internal reliability for both concordant (α = .69) and non-concordant goal motivation (α = .65; Zhang & Fu, 2025). Similarly, in this study, Cronbach's alpha for concordant goal pursuit was 0.70 and for non-concordant goal pursuit it was 0.73.

Positive affect and negative affect

The Positive and Negative Affect Schedule (PANAS; Watson et al., 1988) was used to operationalise positive affect and negative affect. To assess positive affect in the questionnaire, students were asked to indicate the extent they felt certain emotions during their academic studies (e.g. "Excited", "Interested", "Proud") across 10 items. Items are rated on a 5-point Likert-type scale ranging from 1 (*Very slightly or not at all*) to 5 (*Extremely*). The internal reliability for the measure was high in the current sample (α = .87), aligning with prior studies (α = .89; Hill et al., 2014).

Negative affect was assessed similarly to positive affect, with 10 items such as "Distressed" or "Irritable", on the same 5-point Likert-type scale. However, instead of asking for feelings during their academic studies, students were asked to rate the extent they felt a certain way over the past week. The reliability analysis indicated good internal consistency with Cronbach alpha of 0.88, similar to measures found in prior studies using this scale (α = 0.81; Eryilmaz et al., 2023).

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 available to first year psychology students through the Sona System, which links undergraduate students to researchers as a way of obtaining participants. In exchange for participation, students received SONA credits, which are part of a university course. Before participating in the study, participants were informed about the study's topic, expected questions, and estimated duration, and then provided their informed consent. Following that, the questionnaire contained demographic information (i.e., gender, nationality, and age), as well as measures of purpose in life, academic self-concordance, positive affect, and negative affect.

Statistical Analysis

To increase confidence in the results, mediation analyses were conducted based on the rationales of both Baron and Kenny (1986) and Hayes (2013). Both approaches assessed whether academic self-concordance mediates the relationship between purpose in life and positive affect using the statistical software SPSS. For both of these analyses, negative affect was added as a covariate to control for differences in emotional disposition.

Following Baron and Kenny's rationale, three regression models are assessed. First, academic self-concordance is regressed on purpose in life (path A). Second, in the reduced model, positive affect is regressed on purpose in life (path C) to estimate the total effect. Lastly, in the full model, positive affect is regressed on both purpose in life and academic self-concordance (path C') to assess the direct effect. Additionally, path B from academic self-concordance to positive affect is tested (Baron & Kenny, 1986). Generally, when path A and path B are significant, there is evidence for mediation (MacKinnon et al., 2007). A partial mediation is present if the R^2_{change} between the reduced and the full model is significant and the direct effect of purpose in life stays significant when academic self-concordance is added. In that case, there may be other mediating factors. In contrast, a full mediation is present if

the R^2_{change} is significant while the direct effect is no longer significant. The indirect effect, or mediated effect, is calculated by multiplying path A with path B (MacKinnon et al., 2007), and its significance tested using the Sobel Test Calculator (Sobel, 1982).

Due to the logical stepwise process in the Baron and Kenny approach, it is one of the most commonly used approaches for mediation analysis (Zhao et al., 2010). However, its low statistical power and focus on individual pathways can conceal the indirect mediation effect (MacKinnon et al., 2007; Pardo & Román, 2013). Accordingly, to increase reliability, this thesis supplemented the classic mediation approach with Hayes's (2013) bootstrapping approach.

Therefore, following the guidelines provided by Hayes (2013), a bootstrapping procedure with 5,000 resamples was conducted with the PROCESS macro for SPSS. This model corresponds to Model 4 in Hayes's (2013) framework and was used to assess whether purpose in life affects positive affect through academic self-concordance. Mediation was evaluated by analysing both the effect size and the statistical significance of the direct and indirect effects, with especially the indirect effect being important to determine mediation (Igartua & Hayes, 2021). A full mediation is present if only the indirect effect is significant, while a partial mediation is present if both direct and indirect effects are significant.

Results

Preliminary Analysis

Before the main analysis, preliminary checks were conducted to ensure that regression analysis assumptions are met, the first of which was to check for the assumption of linearity by making scatterplots of the standardised residuals (Ernst & Albers, 2017). These scatterplots do not show any pattern, suggesting linear relationships (Figure 4-7 in the Appendix). Additionally, these residual plots allow a check for homoscedasticity, i.e. the constant variance of residuals (Hutcheson, 1999), which looks to be present as the residuals are approximately equally spread. Second, to check for normality, histograms of each variable and standardised residuals, and Q-Q plots of the standardised residuals (Ernst & Albers, 2017) were computed. The graphs look normally distributed, and the values are closely aligned along the diagonal line in the Q-Q plots (Figure 8-17 in the Appendix), implying normality. To test the assumption of independence of errors, the Durbin-Watson test was conducted, which tests serial correlations between residuals. The analysis yielded a value of 2.19, and since this falls between the acceptable range of 1 to 3, the independence of errors can be assumed (Field, 2017). Another assumption that is necessary for a parsimonious model is that there is no multicollinearity (Ernst & Albers, 2017), and as can be seen in the correlation table, there are no correlations greater than .8 (Table 1), which would imply multicollinearity (Hutcheson, 1999). That the assumption is not violated is further confirmed by the Variance Inflation Factor (VIF; Field, 2017) values close to 1 (1.13 for purpose in life, 1.19 for academic self-concordance, and 1.07 for negative affect). Finally, a check for outliers was made through the case-wise diagnostics table that revealed no residuals with a value greater than ±3 (Table 2 in the Appendix), the common cut-off score for outliers (Field, 2017). This implies there are no outliers present in the data, and that the assumptions necessary for a mediation analysis are met.

Descriptive and Correlation Analysis

Table 1 reports descriptive statistics such as means and standard deviations of the proposed variables. To test whether purpose in life, academic self-concordance, and positive affect are positively related, Pearson's correlations were performed, which are also reported in Table 1. In line with expectations, the correlations between the measured variables were positive, medium-sized (i.e., between .30 and .49), and significant. The correlations with negative affect were also checked, and only the correlation between negative affect and academic self-concordance was significant, being a small negative correlation.

Table 1

Descriptives and Pearson Correlations Among the Examined Variables

	n	*M*	*SD*	1	2	3	4
1. PIL	193	3.48	0.79	-			
2. ASC	193	2.71	3.23	.34*	-		
3. PA	193	3.86	0.70	.39*	.32*	-	
4. NA	193	3.49	0.79	-.11	-.24*	.01	-

Note. PIL: Purpose in Life; ASC: Academic Self-Concordance; PA: Positive Affect; NA: Negative Affect.
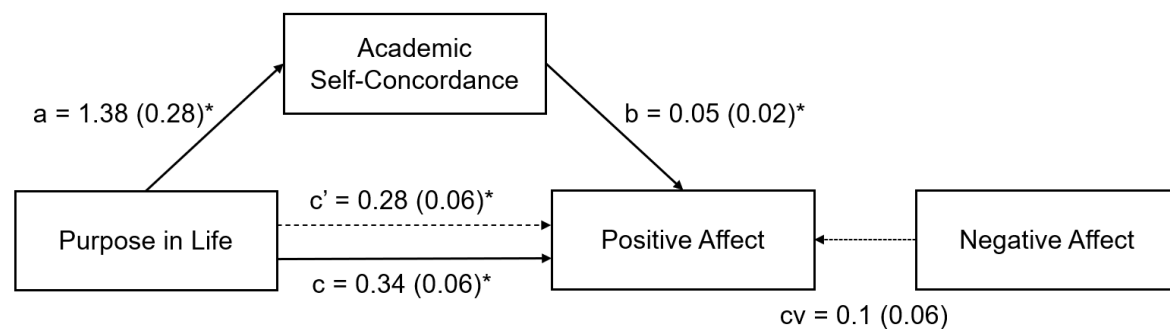
* $p < .001$.

Mediation Analysis

Two different mediation analyses were conducted, the classic Baron and Kenny mediation (Baron & Kenny, 1986) and Hayes's bootstrap mediation with PROCESS macro Model 4 (Hayes, 2013) to assess the mediation variable academic self-concordance in the relationship between purpose in life and positive affect. For the classic Baron and Kenny mediation, effect A of purpose in life onto academic self-concordance, and effect B of academic self-concordance onto positive affect were assessed. Both of the paths were significant, path A showing that purpose in life was significantly associated with higher academic self-concordance ($B = 1.38$, $SE = 0.28$, $t = 4.98$, $p < .001$, 95% CI [0.84, 1.93]), and path B showing that academic self-concordance was significantly related to greater positive affect, with purpose in life included in the model ($B = 0.05$, $SE = 0.02$, $t = 3.11$, $p = .002$, 95% CI [0.02, 0.08]). Path A and path B being significant suggests a mediation (MacKinnon et al., 2007). The reduced model, or path C, where positive affect is regressed onto purpose in life, is also significant ($B = 0.34$, $SE = 0.06$, $t = 5.76$, $p < .001$, 95% CI [0.22, 0.46]). Finally, the full model with both purpose in life and academic self-concordance is tested, once without the control variable negative affect, and once including it. This model implies a significant direct effect of purpose in life onto positive affect, both without the covariate ($B = 0.28$, $SE = 0.06$, $t = 4.49$, $p < .001$, 95% CI [0.15, 0.40]), and with the covariate ($B = 0.28$, $SE = 0.06$, $t = 4.56$, $p < .001$, 95% CI [0.16, 0.40]). Figure 2 illustrates the effects. The full model analysis revealed that the model explains 20% of the variance in positive affect ($R^2 = 0.20$, $F(3,189) = 15.80$, $p < .001$). Adding the control for negative affect did not significantly change the model ($R^2_{change} = 0.01$, $F_{change}(1, 189) = 2.65$, $p_{Fchange} = .106$). Because the R^2_{change} statistic between the reduced and full model is significant ($R^2_{change} = 0.04$, $F_{change} = 9.65$, $p_{Fchange} = .002$), but the direct effect of purpose in life remains significant, partial mediation can be assumed (Baron & Kenny, 1986). The indirect effect, calculated with A × B, results in 1.38 × 0.05 =

0.07. To test the significance of the indirect effect, the Sobel Test Calculator (Preacher & Leonardelli, 2001) was used, showing that the mediation effect of purpose in life on positive affect through academic self-concordance is significant ($z = 2.65$, $SE = 0.02$, $p = .008$). Additionally, the ratio of the indirect effect to the total effect, also known as mediation ratio, can be calculated to estimate the effect size, using the formula: $\frac{a \times b}{c}$, resulting in $\frac{1.38 \times 0.05}{0.34} =$ 0.20, considered a medium to large effect size according to Cohen (Preacher & Kelley, 2011).

Figure 2

The Effects of Purpose in Life on Positive Affect Through Academic Self-Concordance

Following Baron and Kenny's (1986) Rationale

Note. Unstandardised coefficients with standard errors in parentheses are presented for each pathway. Negative Affect is the covariate. C signifies the total effect and C' is the direct effect given by SPSS output.
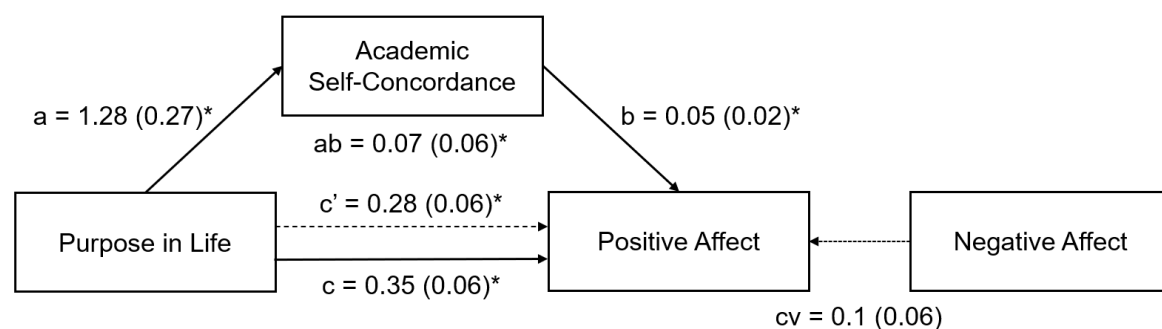
* $p < .001$

The second analysis was made through Hayes' PROCESS macro model 4 with 5000 bootstrap resamples. Similar to the classic mediation analysis, results revealed a significant indirect effect of purpose in life on positive affect ($B = 0.07$, $SE = 0.02$, 95% CI [0.03, 0.12]) when including academic self-concordance as a mediator and negative affect as a covariate. Purpose in life was significantly associated with academic self-concordance ($B = 1.28$, $SE =$

0.27, $t = 4.71$, $p < .001$, 95% CI [0.75, 1.82]). In the complete model, positive affect was significantly influenced by purpose in life ($B = 0.28$, $SE = 0.06$, $t = 4.56$, $p < .001$, 95% CI [0.16, 0.40]) and academic self-concordance ($B = 0.05$, $SE = 0.02$, $t = 3.40$, $p < .001$, 95% CI [0.02, 0.08]), and 20% of the variance in positive affect was explained by purpose in life, academic self-concordance, and negative affect ($R^2 = 0.20$, $F(3, 189) = 15.8$, $p < .001$). Adding negative affect to the model was not significant ($B = 0.1$, $SE = 0.06$, $t = 1.63$, $p = .106$, 95% CI [-0.02, 0.21]) and did not change the significance of the mediation effect. Effects are illustrated in Figure 3. Furthermore, seeing as the direct effect between purpose in life and positive affect in the presence of academic self-concordance was significant, the results suggest a partial, not a full mediation. This mediation effect is complimentary, with a positive effect. Taken together, these findings support this study's prediction of a mediation pathway.

Figure 3

The Effects of Purpose in Life on Positive Affect Through Academic Self-Concordance

Following Hayes (2013) Rationale

Note. Unstandardised coefficients with standard errors in parentheses are presented. Negative Affect is the covariate. C signifies the total effect, C' is the direct effect, and AB is the indirect effect given by SPSS output.

* $p < .001$

Discussion

Student mental well-being is notably lower than that of the general adult population, with many students experiencing symptoms of depression and anxiety (Pfund et al., 2020). Understanding what leads to positive emotions among students is critical in ensuring not only their mental well-being but also their academic engagements and achievements (Heffner & Antaramian, 2015). With this in mind, the present study investigated whether academic self-concordance mediates the association between purpose in life and positive affect while controlling for negative affect. In line with theoretical expectations, results revealed a significant mediation effect, suggesting that students with a strong sense of purpose are more likely to pursue academic goals that align with their values, which in turn fosters positive emotions.

These findings support prior research that has established the positive impact purpose in life can have on subjective well-being and positive affect (Krok & Gerymski, 2019; Steger et al., 2006). Simultaneously, this research builds upon past findings by explaining one possible path through which purpose in life relates to positive affect, which is through academic self-concordance. Thus, this study conforms with the idea of Kashdan et al. (2023) that purpose can function as a goal organiser and is linked to self-concordance, and the idea of Lewis (2020) that self-concordant goals can facilitate experiencing positive affect, thereby increasing well-being. These findings are especially relevant for students, who could increase their positive affect during class by aligning their academic goals with their values and purpose in life.

The first part of the mediation pathway is the significant association found between purpose in life and academic self-concordance. This finding aligns with previous literature that found associations between purpose in life and self-concordance (Sangeorzan et al., 2024), indicating that purpose is self-organising (Kashdan & Goodman, 2023) and guiding

students towards concordant academic goals that align with their identity and purpose. According to the self-concordance model, engagement and motivation in those academic goals are then encouraged due to the personal significance and feeling of autonomy brought about by those goals (Lewis, 2020). For example, a student may have a purpose that guides them to set the goal to attain a certain grade, and because this goal is related to their purpose and value of doing well, they will work harder to receive said grade.

Future research could include a qualitative design, examining not only the strength of sense of purpose measured in this study but also the content of a student's purpose in life. By knowing the purpose content of students, it could be confirmed that the concordant academic goals chosen by students align with the content of their purpose. A qualitative study could provide valuable insight into the way types of contents of purpose can affect academic self-concordance and positive affect. Kashdan et al. (2023) have suggested that there are other-oriented purposes, e.g. improving society, and self-oriented purposes, e.g. accepting one's true self. This orientation could serve as a moderator. To explore this idea, qualitative research that investigates what type of purpose may be most effective in improving academic goal setting and increasing positive affect is needed. Such research could help generate hypotheses that could then be tested with future quantitative research.

The second part of the mediation pathway concerns the positive association observed between academic self-concordance and positive affect regarding studies. This result is consistent with prior evidence indicating that self-concordant motivations and autonomously chosen goals can lead to positive psychological states, such as interest or excitement (Stanley & Schutte, 2022). This is due to the basic psychological need for autonomy that self-concordant goals fulfil (Smith et al., 2011), and autonomous goals conforming with one's central values (Krok & Gerymski, 2019). Additionally, goals with intrinsic or identified motivations, i.e. self-concordant goals, elicit higher engagement in those goals, which is in

turn associated with higher chances of goal achievement (Smith et al., 2011). Accomplishing one's goals leads to further positive emotions, especially when that goal is personally relevant and autonomously chosen (Lewis, 2020). As one example, a psychology student who wants to attain a certain grade will be more motivated to pursue this goal if it is aligned with their purpose of helping others. Then, they feel in control and happy due to the goal reflecting their identity and are more engaged and interested during class, increasing positive affect. When students feel happy about their studies, their academic achievements and overall well-being may increase too.

Describing the significance of positive affect, the broaden-and-build theory proposed by Fredrickson (2001) highlights its long-term benefits. It posits that even brief positive emotions can have long-lasting effects, such as fostering individual growth, undoing lingering negative emotions, and improving physical health (Fredrickson, 2001). In turn, it may lead to academic success and increase positive affect again, emphasising the significance of helping students increase positive affect. Therefore, purpose in life is important, helping students freely choose academic goals that are in line with their purpose and that reflect their identity. This indirectly leads to them studying harder and becoming more successful, resulting in more positive affect regarding their studies due to the accomplishment and sense of autonomy.

Notably, the present mediation effect remained significant even when controlling for negative affect, strengthening the robustness of the model. However, this study found that negative affect was not significantly associated with positive affect or purpose in life, and only significantly correlated with academic self-concordance. Findings therefore indicate that positive affect and negative affect are not associated, contrary to some prior research (Larsen et al., 2016). One potential explanation is that the questionnaire recorded positive affect during academic studies, while negative affect was recorded over the week. In future

research, it would be important to measure each variable in the same way, i.e. using the same context for both positive affect and negative affect measures. Moreover, further studies could consider subjective well-being as an overall variable, encompassing positive affect, negative affect, and life satisfaction (Diener, 1984), to explore how each aspect of subjective well-being could be related to academic self-concordance. In addition, the study could be expanded to include a test of the broaden-and-build theory, as it may increase positive affect in the long term.

Since the direct effect of purpose in life on positive affect remained significant in the mediation model, it is worth considering other potential mediators. One such possible mediator is recentring. According to Burrow et al. (2023), purpose in life has a homeostatic effect, explained through recentring. It directs one's conscious attention towards an overarching goal and broader desires, i.e. one's purpose, and hence away from stressors. By directing attention, recentring reduces reactivity to daily challenges, and serves as a protection against stress. Thus, it increases positive affect and overall subjective well-being. For students, this means that a sense of purpose may help them remain focused on long-term goals even through stressors such as the challenges of being in a new environment. This raises the possibility that having a purpose in life facilitates recentring, thereby leading to a homeostatic effect in which especially negative emotions can be avoided. Consequently, subjective well-being is improved. Therefore, recentring describes an alternative way in which purpose in life can manifest positive affect in the long run and should be considered as a possible mediating variable on top of academic self-concordance.

There are several practical applications to these research findings. This study highlights the importance of raising students' awareness of the positive effects purpose in life can have, especially when ensuring that academic goals are aligned with that purpose. Adolescence represents a crucial time for developing a sense of purpose, highlighting the

urgency for interventions in this age frame (Damon et al., 2003). There are various pathways through which purpose in life can be promoted among university students, as outlined by Pfund et al. (2020). The first pathway is the proactive route, in which life direction is found through the active exploration of options. To help students through this pathway, universities should teach them about purposeful lives and offer exercises that promote their self-knowledge, including reflection on personal strengths and values. Such activities should encourage them to seek out different paths for their future purpose in life. The second pathway is the social learning route, in which students are inspired by examples of others who have developed a sense of purpose by overcoming challenges. Teachers can provide role models for students to look up to and offer mentoring support to help them find their purpose. Lastly, there is the reactive path, in which major life events occur, e.g. failing admission to a dream degree or a personal loss, that can help direct or reinforce the student's sense of purpose. To help the student in this path, self-reflective activities encourage the processing of experiences and enhancement of purpose (Pfund et al., 2020). Furthermore, research suggests that providing professional life coaching services among university students can strengthen confidence in their purpose (Huffman et al., 2025), offering an additional opportunity for universities to provide support for students' purpose development. Coaching or counselling services can further help in setting up concordant academic goals that connect with students' values and purpose (Steger et al., 2006). By developing students' purpose and helping them select academic goals that reflect their identity, thereby promoting the feeling of autonomy and accomplishment, students may feel increased positive affect, improving student well-being. Such interventions may be especially useful for first-year university students (Lohani et al., 2022), who are still navigating new academic and social environments and may need additional guidance to help in the transition.

Limitations of the present study should be acknowledged. First, cross-sectional mediation analyses have been criticised by some researchers, suggesting that these can underestimate or overestimate effects, and are often wrongly interpreted since temporal ordering cannot be established (Maxwell et al., 2011). Therefore, it is important to note that causation cannot be determined from these findings and that temporal inferences of the direction of the effects cannot be made based on cross-sectional data. Further studies should be conducted using a longitudinal research design to extend the present findings and make inferences regarding directionality. Additionally, the sample consisted mostly of first-year psychology students at the University of Groningen, limiting the generalisability. The study would have to be replicated among students from other universities, in other programmes, and in other academic levels, in order to be able to generalise results to the student population overall (Morling, 2021).

Conclusion

To summarise, this study found evidence to support that academic self-concordance mediates the relationship between purpose in life and positive affect, such that purpose in life guides students in selecting self-concordant academic goals, leading to more positive emotions. This highlights the important role a sense of purpose plays within the university context, as it may lead to increased student mental well-being. These findings align with previous research regarding associations between purpose in life and positive affect. Importantly, they also expand previous knowledge by identifying one mediating variable, academic self-concordance, which explains the positive correlation. By highlighting academic self-concordance as a mediator, interventions to promote purpose in life among university students can focus on concordant goal setting to enhance the effect of purpose in life onto positive affect. These insights could play a significant role in improving student well-being among first-year students. In conclusion, helping students cultivate a strong sense

of purpose can foster self-concordant goal setting, which, in turn, may result in students

feeling more positive emotions and improving their well-being.

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Appendix

Table 2

Case-wise diagnostics table reporting the residuals

	Minimum	Maximum
Predicted Value	3.17	4.92
Residual	-1.79	1.38
Std. Predicted Value	-2.21	3.37
Std. Residual	-2.83	2.18

Figure 4

Residual vs fitted scatterplot of the relationship between Purpose in Life and Positive Affect
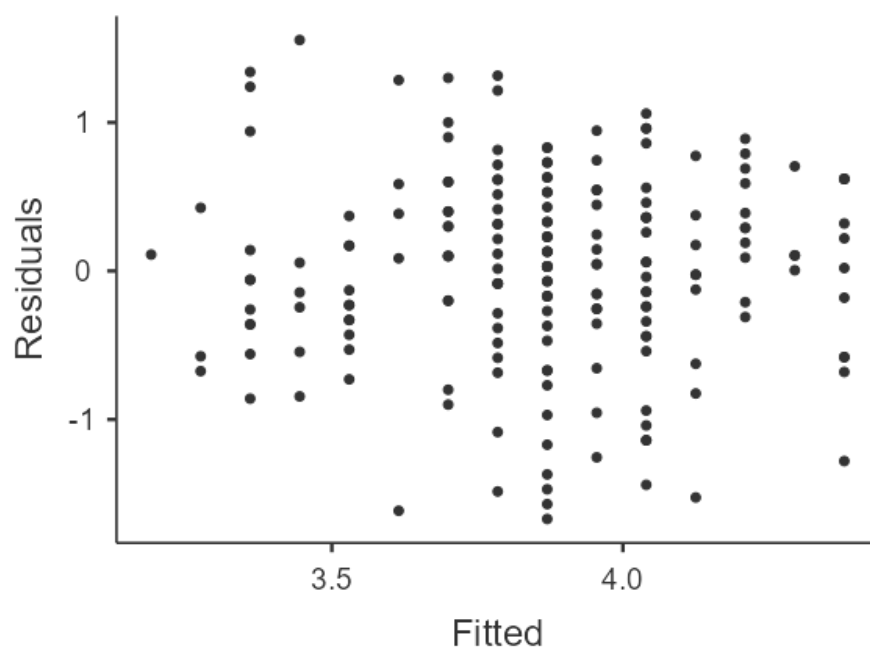
Figure 5

Residual vs fitted scatterplot of the relationship between Purpose in Life and Academic Self-
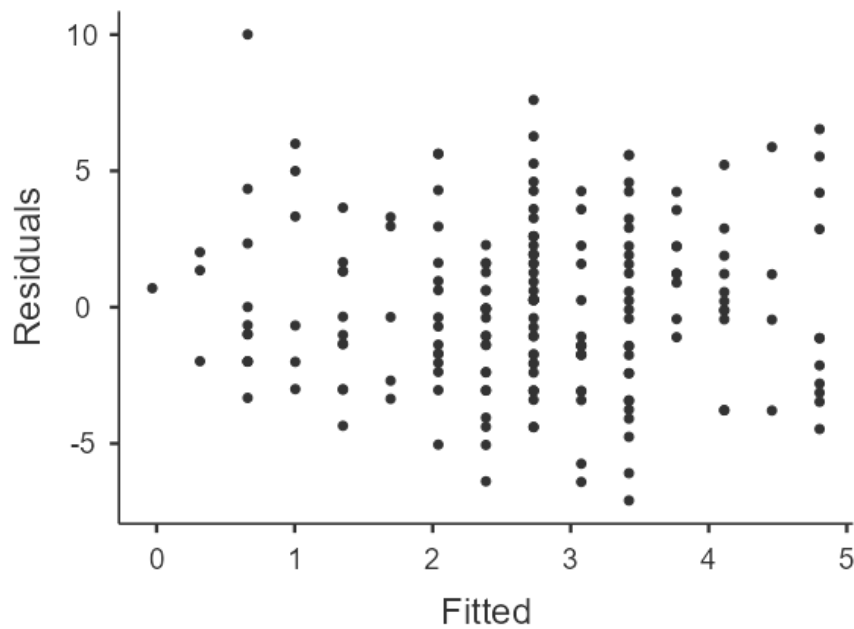
Concordance

Figure 6

Residual vs fitted scatterplot of the relationship between Academic Self-Concordance and
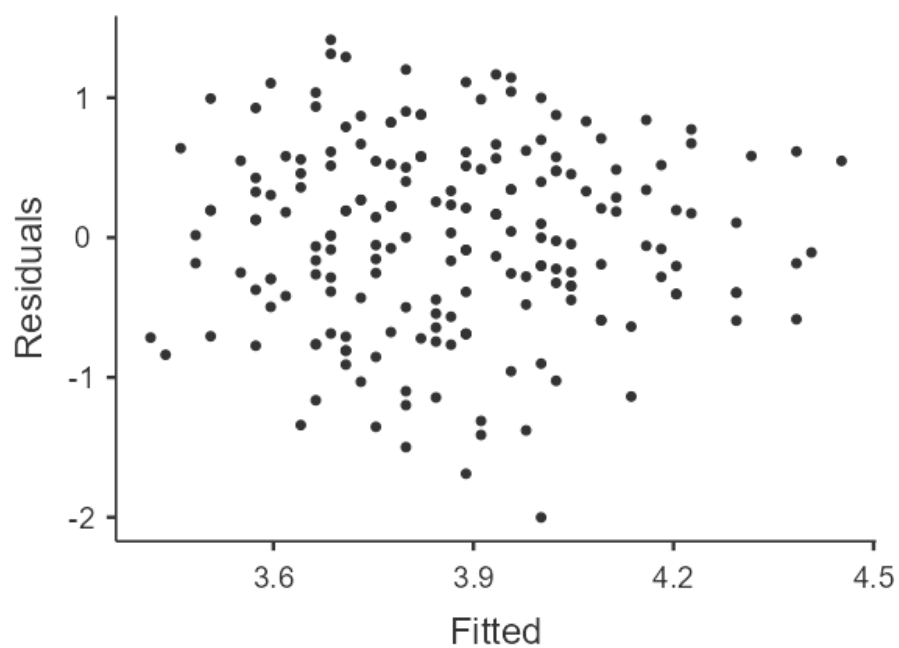
Positive Affect

Figure 7

Residual vs fitted scatterplot of the relationship between Negative Affect and Positive Affect
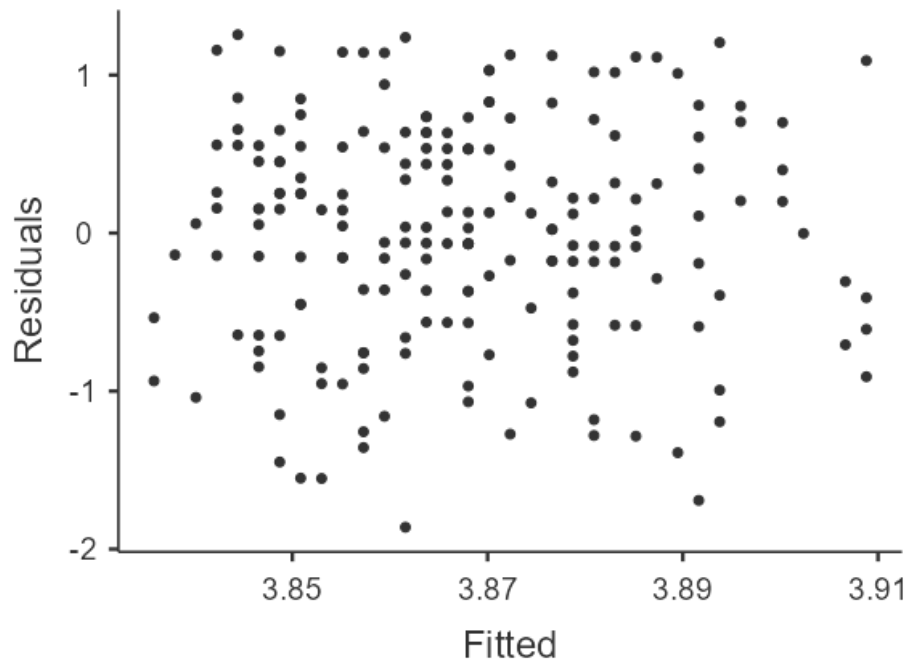
Figure 8

Histogram of Purpose in Life
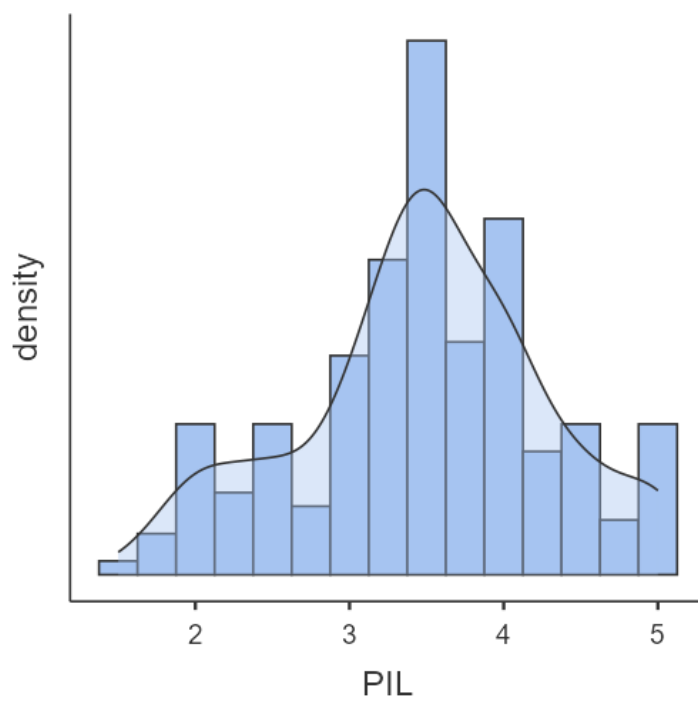
Figure 9

Histogram of Academic Self-Concordance
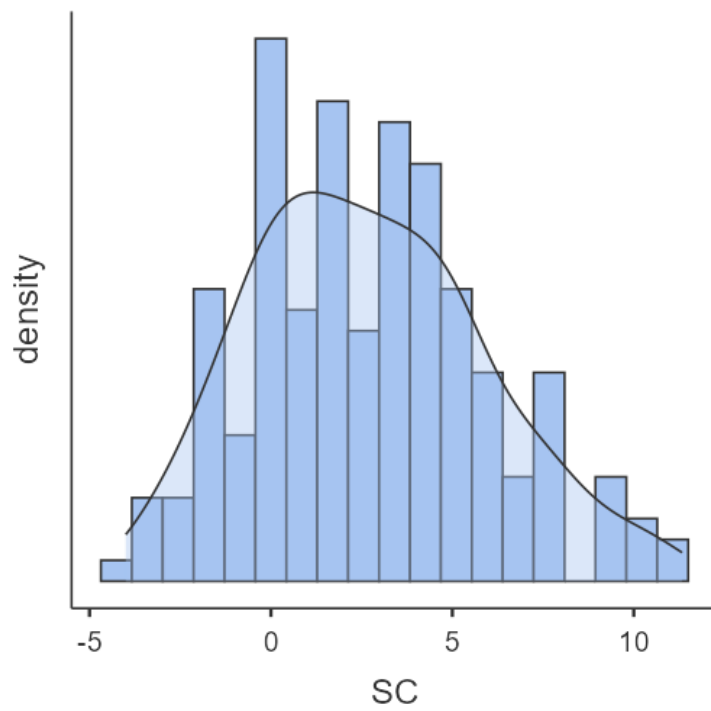
Figure 10

Histogram of Positive Affect
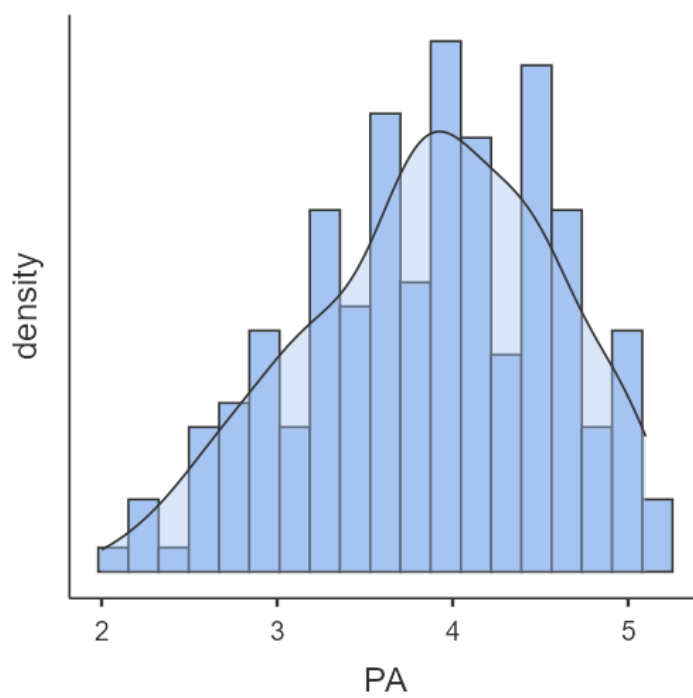
Figure 11

Histogram of Negative Affect
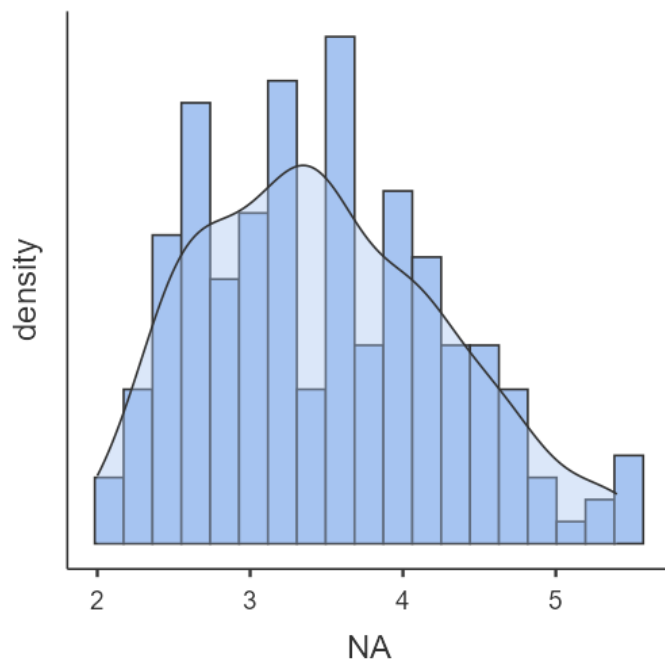
Figure 12

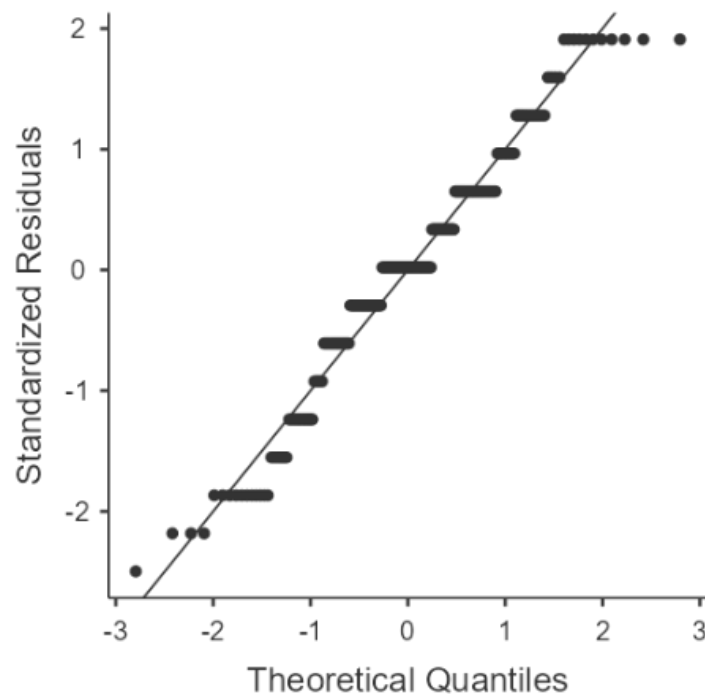*Histogram of the standardised residuals of the model*
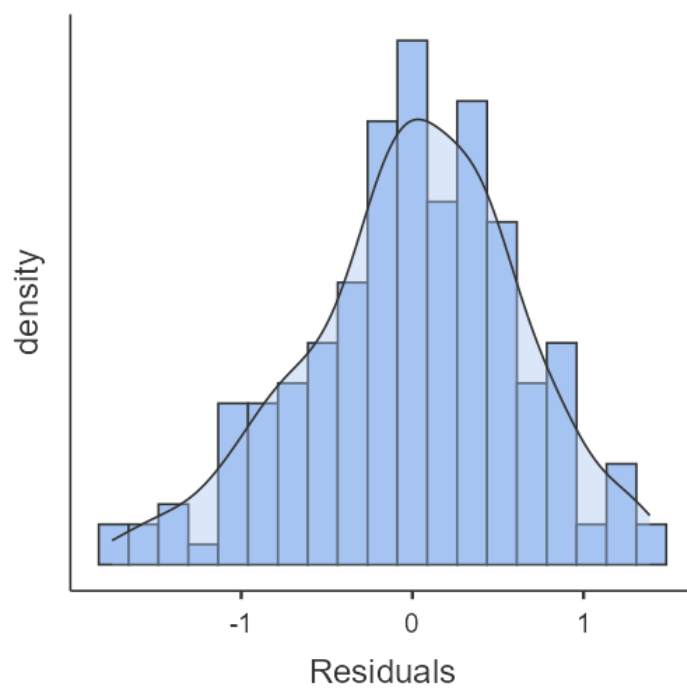
Figure 13

Q-Q Plot of the standardised residuals of Purpose in Life

Figure 14

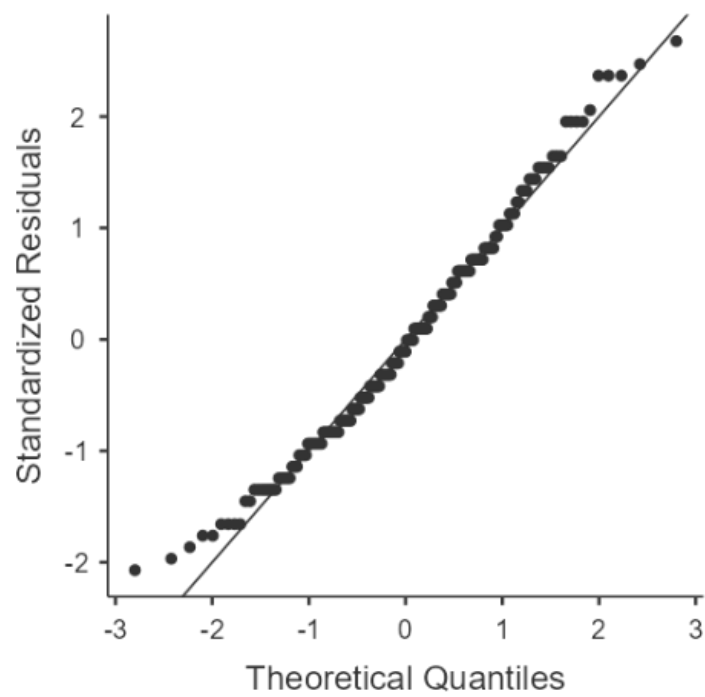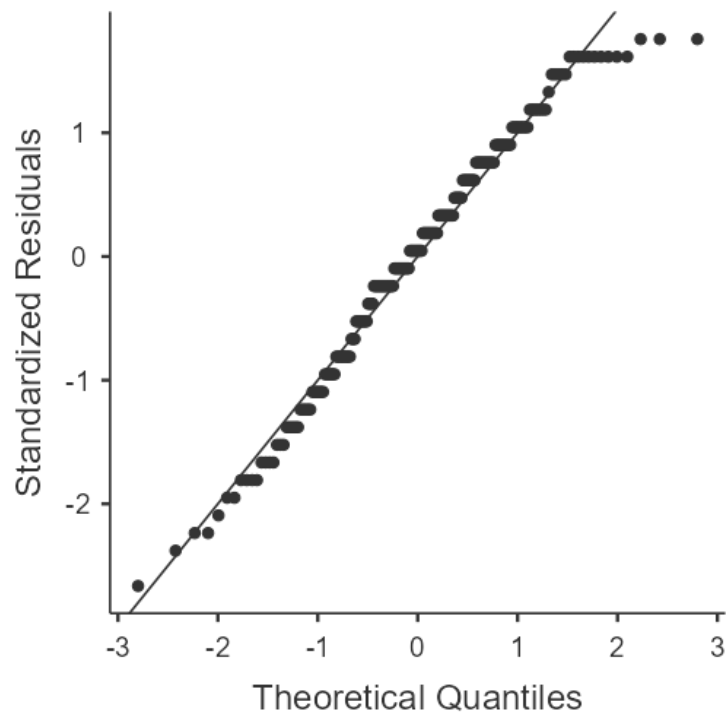*Q-Q Plot of the standardised residuals of Academic Self-Concordance*

Figure 15

Q-Q Plot of the standardised residuals of Positive Affect

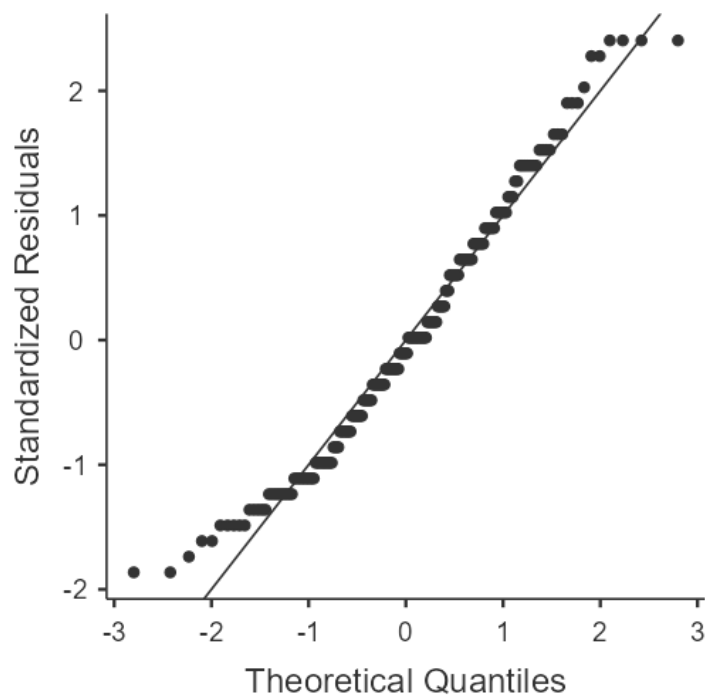**Figure 16**

Q-Q Plot of the standardised residuals of Negative Affect

Figure 17

Q-Q Plot of the standardised residuals of the model