

**The Social Side of Well-Being:  
Identity Compatibility, Inclusion, and Student Identification**

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### **Abstract**

Students' well-being varies considerably during the transition to university, often shaped by several academic and social factors. This study aims to examine the extent to which identity compatibility is associated with students' well-being, and how the relationship is mediated by students' perceived inclusion and student identification. Psychology students at the University of Groningen took part in the online survey ( $N = 477$ ) assessing identity compatibility, inclusion, student identification, well-being, as well as other measures not discussed by this study's model. Results showed that identity compatibility has a small positive association with well-being. The mediation analyses indicated no indirect effect via inclusion due to the non-significant relationship between identity compatibility and inclusion. On the other hand, student identification mediated the identity compatibility and well-being link, suggesting that students who felt that their background fit in the university environment tended to identify more strongly with university students, hence, promoting their well-being. These findings add to the literature highlighting student identification as a key mechanism through which perceived identity fit relates to student well-being. Future research using a longitudinal design could provide more information on how these variables are related over time.

*Keywords:* university transition, identity compatibility, student identification, inclusion, student well-being

## **The Social Side of Well-Being: Identity Compatibility, Inclusion, and Student Identification**

In recent years, young adults have reported poorer mental health more frequently (Have et al., 2023). This issue became particularly evident during the COVID-19 pandemic, when university students reported elevated stress levels (Tian et al., 2025). The well-being of students is often associated with outcomes that are crucial for universities, such as students' programme commitment and their intention to drop out (Noman et al., 2021; Zhai et al., 2023). To most, the first year of university marks the beginning of a new chapter in their lives, which may feel exciting or intimidating as new routines, new experiences, people, and challenges shape their well-being throughout their time in university (Zarbat, 2023). Differences in students' cultural and social backgrounds also guide how easily they adjust to and navigate through academic and social settings, which can either support or undermine their feelings of belonging (Ostrove & Long, 2007) and student identity (Iyer et al., 2009). In line with this, students may differ in identity compatibility, the extent to which their background and social identity align with conceptions of a model student (Easterbrook et al., 2022). To support students during this transition period, many universities have offered services to help students meet their needs and adjust to a new environment. Similarly, the University of Groningen has a Buddy programme for first-year students and assigns mentors to facilitate their academic adjustment.

The purpose of this study is to examine whether the extent to which students' background and social identity fit in the university context is related to higher well-being during the transition to university. Specifically, this paper examines whether students who report greater identity compatibility also report higher well-being, and whether this association is explained by students' sense of inclusion and their identification with university students. By looking at these mechanisms, the study addresses a gap in prior literature by

clarifying how the relationship between identity compatibility and students' perceived well-being operates. Additionally, the findings may also provide insight into what universities can do to support their students' needs and how students themselves may improve their transition period.

### **Student Well-Being in University**

Students' well-being can be perceived as the subjective well-being of students, which reflects their positive and negative emotions, as well as their life satisfaction (Busseri & Sadava, 2011). It is typically shaped by their academic and social experiences, which may influence how connected they feel with their university environment. The Need to Belong Theory provides a theoretical framework for this perspective, suggesting that individuals have a motivation to form and maintain meaningful relationships and to be accepted as members of social groups (Baumeister & Leary, 1995). When this need is satisfied, people tend to experience higher well-being, whereas unmet needs for belongingness are linked to poorer well-being (Baumeister & Leary, 1995).

Beyond the general need to belong, the Social Identity Theory (Tajfel & Turner, 1979) suggests that individuals' self-concept is built based on their memberships in social groups. When individuals perceive themselves to be members of social groups, it gives them a feeling of belonging and provides them with purpose and meaning, which have positive effects on their mental health (Haslam et al., 2008). Together, the Need to Belong Theory and the Social Identity Theory suggest that students' well-being during the transition to university may depend not only on their feelings of connectedness but also on whether students can see themselves as a part of the university student group. Students' academic and social experiences differ for individuals, and may therefore be experienced differently depending on students' perceived fit with the university environment. This is an idea captured by the concept of identity compatibility (Easterbrook et al., 2022).

## **Identity Compatibility and Well-Being**

Identity compatibility refers to the perceived fit between one's identity in relation to their social background and the general beliefs that come with the thought of academic prodigies (Easterbrook et al., 2022). Within the university, there are diverse students from various countries with different levels of socioeconomic backgrounds. These differences are linked to differences in educational attainment and may shape how compatible students perceive their backgrounds to be with the university environment (Easterbrook et al. 2022).

The Person-Environment framework (P-E fit; Lewin, 1951) is built around the idea that our behavior is derived from the interaction between the individual (person) and context (environment). A study by Suhlmann and colleagues (2018) explained the Student-University Fit concept with the P-E fit framework and how it relates to belonging. The Student-University Fit concept refers to a perceived compatibility between student characteristics (e.g., background, values, abilities, and self-construal) and the university characteristics (e.g., norms, demands, and culture) (Suhlmann et al., 2018). Results of this study indicated that higher perceived student-university fit is related to higher belonging, well-being, and academic success. Importantly, this study emphasized the notion of perceived fit rather than actual fit, suggesting that student's own subjective perception of fit influences how easily they adjust and perceive their experiences, which shapes outcomes of belonging, academic success, and well-being.

Another research looked into the association between identity incompatibility and mental health and academic distress among minority and non-minority students (Harrold et al., 2024). With the evidence they collected, Harrold and colleagues (2024) found that identity incompatibility is linked to higher levels of depression, anxiety, and academic distress for both minority and non-minority students. Higher levels of depression and anxiety are typically associated with poorer mental health and are often reflected in lower levels of overall well-

being. A more recent study by Pszczolinska and colleagues (2025) looked at the role of social support, social identification, and social identity incompatibility in predicting well-being among university undergraduate students. Evidence from this study also showed consistent results with the previous study by Harrold and colleagues (2024), indicating that identity incompatibility predicted poorer well-being among students.

It may be worth to note that these processes may not be limited to students and may also extend to workplace contexts. A study by Frings and colleagues (2024) attempted to look into the relationship between identity incompatibility and mental well-being in a work context among academic staff in the UK. The results showed supporting evidence that identity incompatibility was linked to poorer levels of mental well-being among academic staff. Overall, prior research suggests that perceptions of incompatibility may disrupt students' adjustment, highlighting the need for social processes to help buffer well-being. Whereas perceptions of compatibility are expected to facilitate adjustment and promote better well-being. Across the studies, evidence showed a consistent negative relationship between identity incompatibility and mental well-being. Hence, we expect to see congruent results from our study signifying that identity compatibility is related to better mental well-being for students.

### **The Mediating Role of Inclusion (Feelings of Belongingness)**

Building on earlier work emphasizing the role of belongingness in facilitating adjustment and well-being, this study examines the role of inclusion as a potential mediator between identity compatibility and well-being. Inclusion is often defined as a combined construct of belongingness and uniqueness (Shore et al., 2010). The need to belong or belongingness is an essential human need and motivation (Baumeister & Leary, 1995) and refers to the desire to establish and maintain meaningful relationships (Jansen et al., 2014), while uniqueness refers to the perceived difference of an individual (Jansen et al., 2014).

Hence, feelings of inclusion mean that students can feel like they belong and remain authentic to themselves.

Inclusion is expected to promote one's well-being when the basic human needs are fulfilled. This is in line with the relatedness component of the Self-Determination Theory (SDT; Deci & Ryan, 2000), which is the urge to form close relationships and connect with others. Despite it being similar to the Need to Belong Theory, relatedness is just one of the three basic psychological needs highlighted in SDT, along with autonomy and competence (Deci & Ryan, 2000). The Need to Belong Theory focuses more on the motivation to form connections and be accepted into social groups (Baumeister & Leary, 1995; Jansen et al., 2014). Accordingly, both reflect a basic need for social connections that support well-being (Baumeister & Leary, 1995; Deci & Ryan, 2000).

Consistent with these theoretical perspectives, Dias-Broens and colleagues (2024) claimed that feelings of belongingness and inclusion are essential in boosting an individual's well-being. A study on undergraduate women in the U.S. by Rosenthal and colleagues (2013) examined the relationship between identity compatibility and belongingness. They found evidence that indicated that identity compatibility is positively related to feelings of belonging. In 2018, Suhlmann and her colleagues conducted research on the mediating role of belongingness on the relationship between student-university fit and well-being, motivation, and dropout intention. They collected data from German undergraduate students, and the results indicated that students with a high fit reported a greater sense of belonging, which then translates into better student well-being, supporting an indirect effect via belongingness. In line with previous research, we expect to see that a high student identity compatibility will be associated with higher inclusion, and higher inclusion will be associated with higher well-being. Therefore, we expect to see that inclusion mediates the positive relationship between identity compatibility and well-being.

## **The Role of Student Identification**

Student identification refers to the extent to which an individual identifies or perceives themselves as similar to other university students (Rimicci et al., 2025). According to the Social Identity Theory (SIT; Tajfel & Turner, 1979), individuals form their self-concepts based on their group memberships. Ideas associated with this theory state that individuals tend to adopt the values and beliefs of the group they identify with. A recent study by Pszczolinska and colleagues (2025) also examined the link between university identification and greater well-being through the presence of social support. Their results suggest that when students strongly identify with their learning community, they are more likely to engage and feel a greater connection with their peers. With this, they are more likely to seek support from their friends and family. Moreover, students who generally have higher well-being are often more likely to perceive and be supported by others. Hence, as students' identity is strengthened, they are likely to develop stronger support systems, which leads to a higher overall well-being.

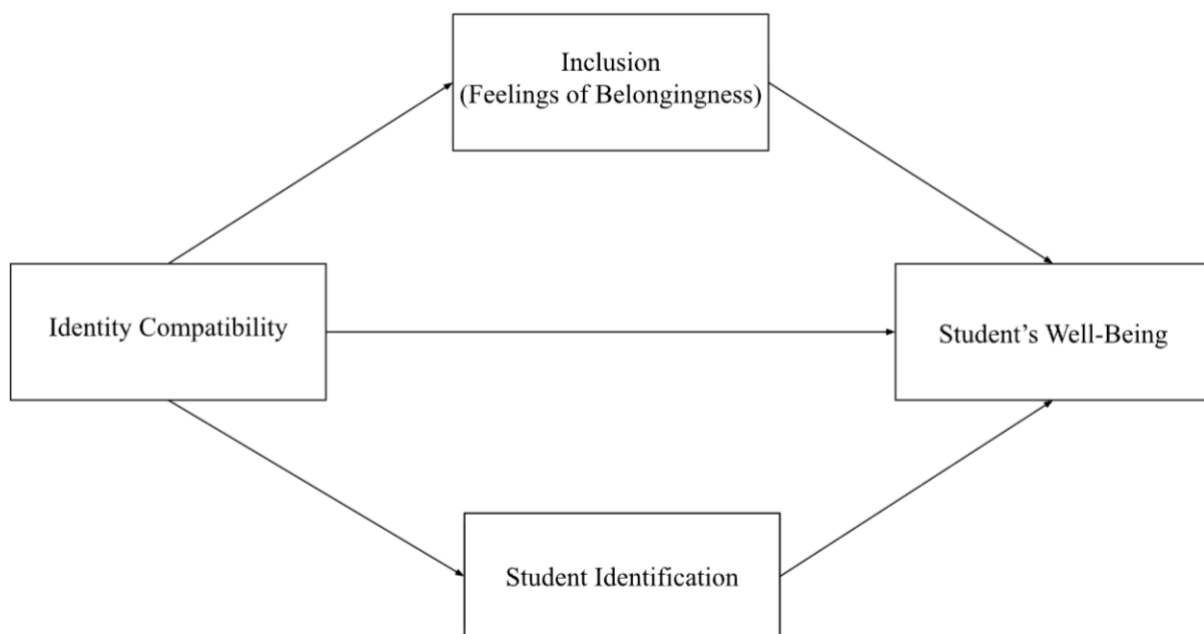
The relationship between identity compatibility, group memberships, group identification, and well-being has been examined by Iyer and colleagues (2009). They aimed to examine the role of social identity in well-being after transitioning to university. The results showed that the more individuals identify with university students, the greater their well-being is after transition. Results also showed that identity incompatibility was negatively associated with group identification, meaning that students who felt that their background did not fit with the university environment were less likely to identify with the student group. This reduced identification leads to students struggling to feel like they belong and feeling less connected with their peers, which, in turn, leads to poorer well-being. Building on this research, we expect to see that student identification will mediate the relationship between identity compatibility and well-being.

## The Present Study

Previous studies link identity compatibility with a better perceived well-being, and highlight the importance of well-being in students' adjustment to university life. The present study aims to expand research on the relationship between identity compatibility and students' well-being. Building on previous research, we focus on two processes that may help explain this relationship: inclusion (feelings of belongingness) and student identification. Figure 1 shows a complete graphical research model.

### Figure 1

#### *Graphical Representation of the Research Model*



In light of the evidence presented, in this current study, we test the following hypotheses:

1. Identity compatibility is positively related to students' well-being.
2. Inclusion mediates the relationship between identity compatibility and students' well-being.
3. Student identification mediates the relationship between identity compatibility and students' well-being.

## Method

## **Participants**

511 undergraduate psychology students from the University of Groningen participated in this study. Demographics were available for 452 participants, since 59 participants did not provide data on this. Of the 452 participants, 18.6% ( $n = 84$ ) were males, 80.3% ( $n = 363$ ) were females, 0.9% ( $n = 4$ ) preferred to self-describe, and 0.2% ( $n = 1$ ) preferred not to say. The mean age was 19.98 ( $SD = 5.34$ ). A total of 442 students participated for course credits through the university's research participation platform (SONA), which is a course requirement for first-year students enrolled in the Research Methods course. Data from 34 students were excluded due to incomplete survey completion up to the buddy programme question, a double response, and the survey completion duration. The final sample consisted of 477 students. Of the 477 students, 281 were from the Dutch programme, 162 were from the English programme, 2 students were from the Master programme, 1 student was from the Pre-Master programme, and 31 students did not specify. 410 students who participated were first-year students, 20 were second-year students, 9 were third-year students, 3 were fourth-year and above students, and 35 students did not specify their year of study.

## **Materials**

### ***Identity Compatibility***

To assess students' identity compatibility, we used a three-item Identity Compatibility scale ( $\alpha = .79$ ) developed by Easterbrook and colleagues (2022). One of the items from this scale was "Working hard at university fits with my social background." These answers were rated on a 7-point scale (1 = strongly disagree, 7 = strongly agree).

### ***Inclusion***

Inclusion was measured using five items ( $\alpha = .92$ ) adapted from the Perceived Group Inclusion Scale (Jansen et al., 2014), which initially consisted of 16 items ( $\alpha = .97$ ). The scale for inclusion consists of two subscales for belongingness and authenticity. This scale assesses

the extent to which students feel accepted, included, and valued within the learning community. The shortened scale for inclusion used in this survey consisted of three items for the belongingness subscale and two items for the authenticity subscale. One of the items from the belongingness subscale was “My learning community gives me the feeling that I belong,” and one item from the authenticity subscale was “My learning community allows me to express my authentic self,” both rated on a 7-point scale (1 = strongly disagree, 7 = strongly agree).

### ***Student Identification***

Student identification was assessed using a four-item measure ( $\alpha = .78$ ) based on Rimicci et al. (2025), which evaluates the extent to which individuals perceive themselves as identifying with the student group. One item from this scale includes “I identify with university students.” Responses were given on a 7-point scale (1 = strongly disagree, 7 = strongly agree).

### ***Student's Well-Being***

Students' well-being was measured using the seven-item Short version of the Warwick–Edinburgh Mental Well-being Scale ( $\alpha = .77$ ) (SWEMWBS; Stewart-Brown & Janmohamed, 2008). This scale intends to assess mental well-being, which was rated on a 5-point scale (1 = Never, 5 = Always). This scale includes items such as “I've been feeling optimistic about the future,” and “I've been dealing with problems well.”

### **Procedure**

Participants were recruited in various ways, through mentor groups, the university's research participation platform (SONA), and posters displayed throughout the university buildings. The participants were Psychology students at the University of Groningen. The research was voluntary, while the majority (86.5%) participated for course credits through SONA.

The data were collected through the online Qualtrics platform, which took an average of 30 to 50 minutes to complete the survey. After participants opened the survey, they were presented with an information page about the study and what they should expect from the larger longitudinal study, “Psychological Needs and Wellbeing at University”, which this cross-sectional study is a part of. The voluntary participation, data handling process, withdrawal rights, and contact information of the research team and the Ethics Committee were also presented on this page. Following this, the participants signed the informed consent to take part in the research, as well as to the processing of their personal data in accordance with the fast-track ethical approval granted by the Ethics Committee of the Psychology department of the University of Groningen.

The participants filled in the questionnaire after giving their consent. Participants first answered questions regarding the Buddy Programme, followed by background and demographic questions, such as gender, age, programme, and study year. Participants then completed the measures relevant to the present study, which are identity compatibility, inclusion, student identification, and well-being. The full questionnaire also included additional scales (e.g., academic self-efficacy, stress, emotions, openness to diversity, and student engagement) that were collected as part of the wider project, which may be examined by other students as part of their projects, but were not included in the present study. Appendix A contains a list of the scales included in the survey.

All of the data were pseudonymized, and the linking file can only be accessed by one research team member. The participants were given until March 2026 to withdraw from the study, and after that point, data will be pseudonymized, and they will no longer be able to withdraw.

## **Results**

### **Descriptive Statistics**

Descriptive statistics and correlation of variables are shown in Table 1. All variables were rated on a 7-point scale (1 = Strongly Disagree, 7 = Strongly Agree), except the variable ‘Student Well-Being’ which was rated on a 5-point scale (1 = Never, 5 = Always). On average, students reported a high level of compatibility between their identity at the university and their background ( $M = 5.4$ ,  $SD = 1.0$ ). Students also reported moderate to high feelings of inclusion within their learning community ( $M = 5.1$ ,  $SD = 1.1$ ) and moderate to high identification with being a university student ( $M = 5.1$ ,  $SD = 1.0$ ). Furthermore, students reported a moderately high mental well-being ( $M = 3.5$ ,  $SD = 0.5$ ).

As shown in Table 1, identity compatibility was weakly positively correlated with student well-being ( $r = .17$ ,  $p < .001$ ). Identity compatibility did not correlate with inclusion ( $r = .01$ ,  $p = .874$ ). On the other hand, identity compatibility did have a moderate positive correlation with student identification ( $r = .31$ ,  $p < .001$ ). Contrasting with identity compatibility, student well-being and student identification were moderately positively correlated with inclusion, with a correlation of  $.26$  ( $p < .001$ ) and  $.28$  ( $p < .001$ ) respectively. Student well-being was also shown to have a moderate positive relationship with student identification ( $r = .23$ ,  $p < .001$ ).

**Table 1**

*Means (M), Standard Deviations (SD), and Correlation of Variables*

Variable	<i>M</i>	<i>SD</i>	1.	2.	3.	4.
1. Identity Compatibility	5.4	1.0	—			
2. Student Well-Being	3.5	0.5	.17**	—		
3. Inclusion	5.1	1.1	.01	.26**	—	
4. Student Identification	5.1	1.0	.31**	.23**	.28**	—

\* $p < .05$ . \*\*  $p < .001$ .

### Assumption Checks

Prior to running the main analyses, a series of assumption checks was carried out. The assumption checks were done for the two mediators, corresponding to their regression analyses. Conducting these assumption checks ensures that the assumptions of independence of residuals, normality, homoscedasticity, linearity, and absence of any multicollinearity are met.

Due to the nature of the data collection, we can assume that the independence assumption is met. To check for normality, a Q-Q plot of the standardized residuals was used. The plots for all of the regressions showed that the residuals are all approximately normally distributed, hence the normality assumption is met. The residual plots are used to check for homoscedasticity and linearity. Based on the residual plots, it showed that there were no significant deviations around the horizontal line and no patterns present, hence the homoscedasticity and linearity assumptions are met. Lastly, to check for multicollinearity, we consider the value of the VIF. All values of VIF appear to be less than 4, which indicates that there is no evidence of multicollinearity. Appendix B contains figures and tables related to the assumption checks.

### **Hypothesis Testing**

To test the hypothesis, we first conducted a simple linear regression on JASP with identity compatibility as the predictor and student well-being as the outcome variable. The first hypothesis states that identity compatibility is positively associated with student well-being. Identity compatibility significantly explains 2.8% of the variance in student well-being ( $R^2 = .028$ ,  $F(1,466) = 13.54$ ,  $p < .001$ ). Results from the regression analysis indicated that identity compatibility was a significant positive predictor of student well-being ( $B = .09$ ,  $p < .001$ ). Although the relationship was weak, identity compatibility was positively associated with student well-being, supporting the first hypothesis.

To test Hypothesis 2 and Hypothesis 3, we conducted a mediation analysis test on JASP with Identity Compatibility as the predictor, Inclusion and Student Identification as the mediators, and Student Well-Being as the outcome (*see* Table 2). The second hypothesis states that inclusion mediates the relationship between identity compatibility and student well-being. Identity compatibility on its own does not explain any variance in inclusion ( $R^2 < .001$ ,  $F(1,403) = 0.025$ ,  $p = .874$ ). However, identity compatibility and inclusion together explain 9.7% of the variance in student well-being ( $R^2 = .097$ ,  $F(2,402) = 21.66$ ,  $p < .001$ ). The mediation analysis indicated that the indirect effect of identity compatibility on student well-being via inclusion is estimated to be .0004 ( $p = .942$ ). This indicates that there is no meaningful effect. On that note, the second hypothesis was not supported.

The third hypothesis states that student identification mediates the effect of identity compatibility and student well-being. Identity compatibility explains 9.7% of the variance in student identification ( $R^2 = .097$ ,  $F(1,470) = 50.24$ ,  $p < .001$ ), and identity compatibility and student identification together explain 6.5% of the variance in student well-being ( $R^2 = .065$ ,  $F(2,465) = 16.09$ ,  $p < .001$ ). Results from the mediation analysis showed that the indirect effect via student identification is .02 ( $p = .010$ ), indicating a small positive but significant relationship. Thus, we can conclude that the third hypothesis was supported. Figure 2 shows a graphical representation model with the path coefficients.

**Table 2**

*Mediation Analysis*

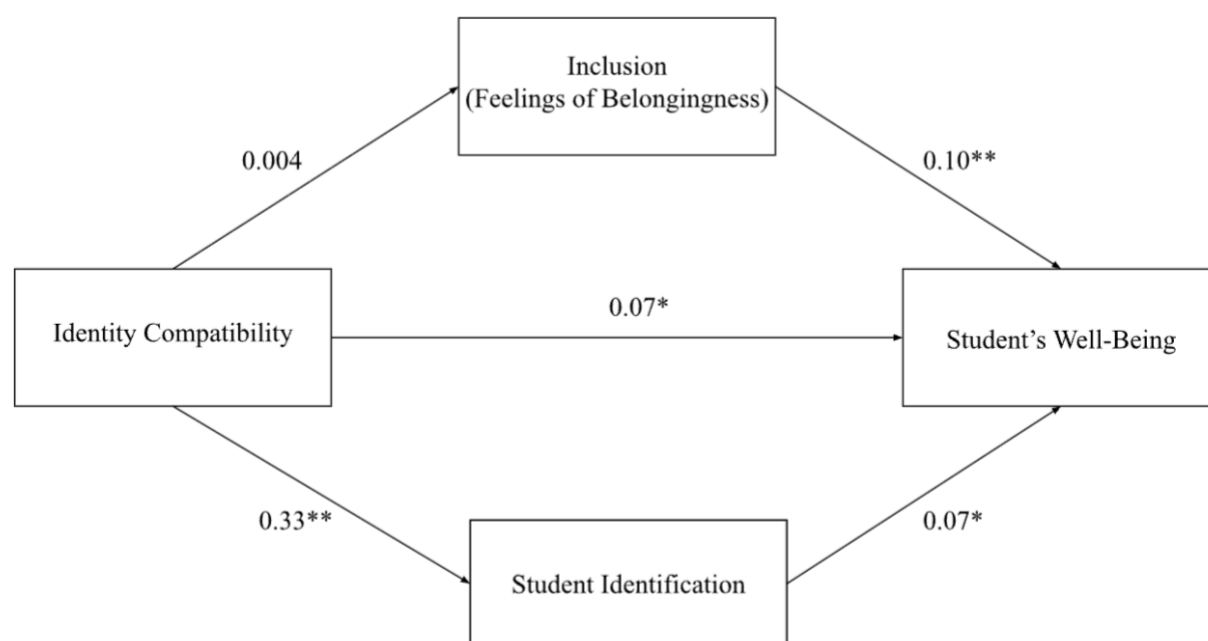
	<i>B</i>	<i>SE</i>	<i>z</i>	<i>p</i>	95% CI	
					Lower	Upper
Direct Effects						
IC → SWB	.07	.03	2.36	.019	0.01	0.12
Indirect Effects						

IC → INCL → SWB	.0004	.01	0.07	.942	-0.01	0.02
IC → SI → SWB	.02	.01	2.59	.010	0.01	0.05
Total Effects						
IC → SWB	.09	.03	3.68	< .001	0.03	0.14

*Note.* IC – Identity Compatibility, SWB – Student Well-Being, INCL – Inclusion, SI – Student Identification, CI – Confidence Interval.

**Figure 2**

*Graphical Representation Model with Path Coefficients*



*Note.* Values shown are unstandardized path coefficients.

\*  $p < .05$ . \*\*  $p < .001$ .

### Exploratory Analysis

Given the non-significant correlation between identity compatibility and inclusion, we conducted an exploratory analysis to examine the association between identity compatibility and the belongingness subscale of the inclusion scale, based on prior research. The result of this analysis indicated a non-significant correlation of .03 ( $p = .529$ ), meaning identity compatibility did not correlate with the belongingness subscale of the inclusion scale.

### Discussion

The purpose of this study was to further understand the mechanism by which identity compatibility relates to student well-being during the transition to university, with a particular focus on the roles of inclusion and student identification as potential mediators. There are three key findings of this research. First, the results provided evidence in support of Hypothesis 1, which shows that identity compatibility is positively associated with students' well-being. Second, contrary to Hypothesis 2, we found no evidence that inclusion mediated the relationship between identity compatibility and well-being. Third, consistent with Hypothesis 3, the results show that student identification does mediate the relationship between identity compatibility and well-being.

Our findings suggest that when students perceive their background and identity as more compatible with the university environment, they tend to report slightly higher well-being. In other words, during the transition to university, students who felt that "people like me fit in here" reported somewhat better well-being. However, this association was relatively small, suggesting that identity compatibility is only one of several factors linked to students' well-being. Moreover, since the result is correlational, the directionality of this relationship cannot be determined. It is possible that feeling compatible supports well-being, but it is also possible that students with higher well-being tend to perceive themselves as more fitting.

This pattern aligns with prior research indicating that perceived fit with the university environment is related to students' well-being. Previous studies that have looked into identity incompatibility have shown that a perceived mismatch is linked to poorer mental health outcomes, such as depression and anxiety (Harrold et al., 2024), as well as poorer mental well-being (Pszczolinska et al., 2025). Although the two prior studies focused on the contrasting construct identity incompatibility, the findings of this present study suggest a mirroring pattern, which indicates that a greater perceived identity compatibility was associated with higher mental well-being.

Given the small effect size, it is evident that other factors contribute to one's mental well-being in the university context. This can be further explained by the idea that students' well-being is shaped by a much larger range of academic and social experiences, such as social support, academic pressure, and stress. It is therefore plausible that identity compatibility is linked to well-being indirectly through other underlying mechanisms, such as student identification, and through other mechanisms that were not examined in the present study. In line with this, the present study tested whether inclusion and student identification helped explain the positive association between identity compatibility and well-being.

Unexpectedly, the mediation analysis provided no evidence that inclusion explained the association between identity compatibility and well-being. In particular, the link between identity compatibility and inclusion was not significant, which may explain the non-significant mediation effect via inclusion. This means that students who felt more "compatible" did not necessarily feel more included, and due to this absence, inclusion in the current study does not explain the identity compatibility and well-being link. It is also possible that identity compatibility is not meaningfully related to inclusion in this university context or at this time during the transition period. As a result, it may not represent a potential mechanism through which identity compatibility relates to well-being in the present study.

This finding partly aligns with prior research, which emphasizes that the need to belong, the need to connect, and the need to feel included are associated with higher well-being (Baumeister & Leary, 1995; Deci & Ryan, 2000; Dias-Broens et al., 2024), yet identity compatibility did not correlate with inclusion. One possible explanation for this is the difference in operationalization of the inclusion construct. Previous studies often examined belongingness directly and found that higher identity compatibility is associated with stronger belongingness (Rosenthal et al., 2013) and that belongingness mediates the link between student-university fit and well-being (Suhlmann et al., 2018). In the present study, the

mediator was inclusion, which is often defined as a construct that combines two subscales, belongingness and uniqueness (Shore et al., 2010). Identity compatibility may be more strongly related to the belongingness subscale than to inclusion as a broader construct, which also includes uniqueness. However, the exploratory analysis did not support this explanation, as identity compatibility did not correlate with the belongingness subscale of the inclusion scale.

Another possible explanation is that inclusion is still an important predictor of well-being, even if it does not function as a significant mediator between identity compatibility and well-being. The Self-Determination Theory (Deci & Ryan, 2000) and the Need to Belong Theory (Baumeister & Leary, 1995) emphasize relatedness and belongingness as a fundamental need to foster one's well-being. Consistent with this, Dias-Broens and colleagues (2024) found that feelings of inclusion and belongingness are important in fostering one's well-being. However, for inclusion to be a mediator, identity compatibility must be associated with inclusion. Given the non-significant link between identity compatibility and inclusion, inclusion could still relate to well-being and not explain the link between identity compatibility and well-being in this university context. In line with this, inclusion was positively associated with well-being (*see* Table 1).

Although inclusion was not a suitable mediator in the present study, it is still significantly associated with student identification and well-being. This means that inclusion may still be related to well-being through alternative pathways not captured by this model. Additionally, inclusion and feelings of belongingness may take time to develop because it depends on day-to-day interactions, active participation, and the development of relationships within the learning community (Kane et al., 2014). Therefore, inclusion may be more informative when examined later in the academic year, once students have had more time to establish these relationships and have more positive experiences.

In contrast, the mediation analysis provided evidence that student identification significantly mediated the positive association between identity compatibility and well-being. This finding aligns with the Social Identity Theory (SIT; Tajfel & Turner, 1979), which suggests that group memberships contribute to an individual's self-concept and promote their mental well-being (Haslam et al., 2008). In the context of transition to university, students who perceive their background as compatible with the concept of a "successful student" may be more likely to see themselves as members of the university student group, reflecting a stronger student identification. Stronger identification with a group may, in turn, promote one's psychological well-being by fostering meaning, connectedness, and shared understanding within the university.

The results align with previous research findings showing that the perceived identity incompatibility is linked with weaker group identification and poorer well-being following transition to university (Iyer et al., 2009). In line with this, the present findings also suggest a mirroring pattern, where a greater identity compatibility facilitates a stronger student identification and is associated with higher well-being. Student identification may help explain this association, as it can help students form more positive experiences with their peers and be more engaged with their university life, which, in turn, can facilitate the establishment of relationships, positively affecting one's well-being. This interpretation matches findings by Pszczolinska and colleagues (2025), showing that stronger student identity is linked to greater perceived social support, which is then related to higher overall well-being. Given that the mediation effect via student identification was also relatively small, this suggests that additional mechanisms may also contribute to the link between identity compatibility and well-being. Even so, the present findings highlight student identification as a significant mechanism through which identity compatibility relates to better student well-being.

## **Strengths and Limitations**

Despite the mixed findings, the present study has several strengths. First, the study adds to prior research linking identity compatibility to student well-being by testing potential explanatory pathways during the transition to university. Specifically, this study investigated whether the relationship between identity compatibility and well-being occurs indirectly through students' sense of inclusion and student identification. With this approach, this study extends beyond associations and provides a more nuanced understanding of how perceptions of identity fit relate to well-being during a crucial transition period to university, with results indicating that student identification, but not inclusion, explained the association between identity compatibility and well-being.

A second strength of this study is the relatively large sample size, which increases the statistical power and enhances the reliability of the findings. Another strength is the study's practical relevance. Given that the transition to university is a crucial period for students' well-being and adjustment, the findings provide insight into the psychological factors that contribute to a more positive transition experience. By highlighting identity compatibility, inclusion, and student identification as relevant correlates of well-being, the study may help inform how universities can support students during this period. For example, universities can expand peer mentoring programmes, Buddy programmes, and first-year activities that foster student identification and promote peer connections, thereby supporting student well-being.

While the study has strengths, it also has limitations that should be acknowledged. One of the most crucial limitations is the cross-sectional design, as all variables were measured at the same time. As a result, we cannot determine the temporal order of the variables, which also limits the interpretation of the findings. In addition, data collection took place during the exam period, which may have influenced students' responses due to heightened stress.

Another limitation concerns the homogeneity of the sample, which consists of a majority of female students in the Psychology Programme at the University of Groningen. This limits the generalizability of findings to other faculties, other universities, and more gender-balanced samples. Students in other faculties and institutions may differ in their experiences of identity compatibility, inclusion, student identification, and well-being, which may lead to different results and show different patterns of associations.

### **Future Research and Directions**

To address these limitations, future research could consider several directions. First, a longitudinal study design with multiple measurement points across the first year, before the start of the first semester, after the first semester, and at the end of the academic year, would help establish the temporal ordering of the variables. Such a design would also allow researchers to examine how these experiences change over time and better consider changes in how people feel throughout the year. Additionally, researchers could also opt to recruit a more diverse sample consisting of students from different faculties and universities to improve the generalizability of the findings. In addition, further insight can be gained by examining the other constructs already measured in the broader questionnaire to test alternative explanations for the identity compatibility and well-being link. This could be addressed through additional analyses using the present dataset to examine whether these relationships differ for different student groups (e.g., first-generation students, different socioeconomic backgrounds, and international or domestic students) and by testing additional mediators or moderators (e.g., social support, academic self-efficacy, and perceived stress). Given that inclusion was positively associated with student identification and well-being, future research could examine alternative models to clarify these links. For example, future work could examine inclusion as a possible mediator of the relationship between student

identification and well-being or student identification as a possible mediator of the relationship between inclusion and well-being.

### **Conclusion**

In conclusion, this study examined whether identity compatibility is associated with student well-being and whether this relationship operates indirectly via inclusion and student identification. The findings indicated a weak but positive association between identity compatibility and well-being. Notably, student identification emerged as a significant mediator of this relationship, whereas inclusion did not mediate the association. Although the study is limited due to its cross-sectional design and relatively homogeneous sample, it contributes to existing literature by highlighting student identification as a potential mechanism through which perceived identity fit relates to student well-being. Future research using longitudinal designs and more diverse samples may provide greater clarity on how these processes unfold and identify additional mechanisms that may support students' well-being during this critical period.

## References

- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, *117*(3), 497–529. <https://doi.org/10.1037/0033-2909.117.3.497>
- Busseri, M. A., & Sadava, S. W. (2010). A review of the tripartite structure of subjective well-being: Implications for conceptualization, operationalization, analysis, and synthesis. *Personality and Social Psychology Review*, *15*(3), 290–314. <https://doi.org/10.1177/1088868310391271>
- Chen, B., Vansteenkiste, M., Beyers, W., Boone, L., Deci, E. L., Van Der Kaap-Deeder, J., Duriez, B., Lens, W., Matos, L., Mouratidis, A., Ryan, R. M., Sheldon, K. M., Soenens, B., Van Petegem, S., & Verstuyf, J. (2014). Basic psychological need satisfaction, need frustration, and need strength across four cultures. *Motivation and Emotion*, *39*(2), 216–236. <https://doi.org/10.1007/s11031-014-9450-1>
- Cohen, S., & Williamson, G. (1988). Perceived stress in a probability sample of the United States. In S. Spacapan & S. Oskamp (Eds.), *The social psychology of health* (pp. 31–67). Sage.
- Deci, E. L., & Ryan, R. M. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, *55*(1), 68–78. <https://doi.org/10.1037/0003-066x.55.1.68>
- Dias-Broens, A. S., Meeuwisse, M., & Severiens, S. E. (2024). The definition and measurement of sense of belonging in higher education: A systematic literature review with a special focus on students' ethnicity and generation status in higher education. *Educational Research Review*, *45*, 100622. <https://doi.org/10.1016/j.edurev.2024.100622>

- Easterbrook, M. J., Nieuwenhuis, M., Fox, K. J., Harris, P. R., & Banerjee, R. (2022). ‘People like me don’t do well at school’: The roles of identity compatibility and school context in explaining the socioeconomic attainment gap. *British Journal of Educational Psychology*, 92(3), 1178–1195. <https://doi.org/10.1111/bjep.12494>
- Frings, D., Albery, I. P., & Wood, K. V. (2024). Mission impossible? Identity based incompatibilities amongst academic job roles relate to wellbeing and turnover. *Social Psychology of Education*, 27(5), 2233–2248. <https://doi.org/10.1007/s11218-024-09890-7>
- Harrold, K., Fett, A. K., & Haenschel, C. (2024). The effects of social identity incompatibility on student mental health. *Education Sciences*, 14(12), 1407. <https://doi.org/10.3390/educsci14121407>
- Haslam, S. A., Jetten, J., Postmes, T., & Haslam, C. (2008). Social identity, health and well-being: An emerging agenda for applied psychology. *Applied Psychology*, 58(1), 1–23. <https://doi.org/10.1111/j.1464-0597.2008.00379.x>
- Have, M. T., Tuithof, M., Van Dorsselaer, S., Schouten, F., Luik, A. I., & De Graaf, R. (2023). Prevalence and trends of common mental disorders from 2007-2009 to 2019-2022: results from the Netherlands Mental Health Survey and Incidence Studies (NEMESIS), including comparison of prevalence rates before vs. during the COVID-19 pandemic. *World Psychiatry*, 22(2), 275–285. <https://doi.org/10.1002/wps.21087>
- Hu, S., & Kuh, G. D. (2003). Diversity experiences and college student learning and personal development. *Journal of College Student Development*, 44(3), 320–334. <https://doi.org/10.1353/csd.2003.0026>
- Hughes, M. E., Waite, L. J., Hawkey, L. C., & Cacioppo, J. T. (2004). A short scale for measuring loneliness in large surveys: Results from two population-based studies. *Research on Aging*, 26(6), 655–672. <https://doi.org/10.1177/0164027504268574>

- Iyer, A., Jetten, J., Tsivrikos, D., Postmes, T., & Haslam, S. A. (2009). The more (and the more compatible) the merrier: Multiple group memberships and identity compatibility as predictors of adjustment after life transitions. *British Journal of Social Psychology*, *48*(4), 707–733. <https://doi.org/10.1348/014466608x397628>
- Jansen, W. S., Otten, S., Van Der Zee, K. I., & Jans, L. (2014). Inclusion: Conceptualization and measurement. *European Journal of Social Psychology*, *44*(4), 370–385. <https://doi.org/10.1002/ejsp.2011>
- Kane, S., Chalcraft, D., & Volpe, G. (2014). Notions of belonging: First year, first semester higher education students enrolled on business or economics degree programmes. *The International Journal of Management Education*, *12*(2), 193–201. <https://doi.org/10.1016/j.ijme.2014.04.001>
- Lewin, K. (1951). *Field theory in social science*. New York, NY: Harper and Row.
- Noman, M., Kaur, A., & Nafees, N. (2021). Covid-19 fallout: Interplay between stressors and support on academic functioning of Malaysian university students. *Children and Youth Services Review*, *125*, 106001. <https://doi.org/10.1016/j.childyouth.2021.106001>
- Ostrove, J. M., & Long, S. M. (2007c). Social class and belonging: Implications for college adjustment. *The Review of Higher Education*, *30*(4), 363–389. <https://doi.org/10.1353/rhe.2007.0028>
- Parpala, A., & Lindblom-Ylänne, S. (2012). Using a research instrument for developing quality at the university. *Quality in Higher Education*, *18*(3), 313–328. <https://doi.org/10.1080/13538322.2012.733493>
- Pekrun, R., Goetz, T., Frenzel, A. C., Barchfeld, P., & Perry, R. P. (2010). Measuring emotions in students' learning and performance: The Achievement Emotions

- Questionnaire (AEQ). *Contemporary Educational Psychology*, 36(1), 36–48.  
<https://doi.org/10.1016/j.cedpsych.2010.10.002>
- Pintrich, P. R., Smith, D. a. F., Garcia, T., & Mckeachie, W. J. (1993). Reliability and predictive validity of the Motivated Strategies for Learning Questionnaire (MSLQ). *Educational and Psychological Measurement*, 53(3), 801–813.  
<https://doi.org/10.1177/0013164493053003024>
- Pszczolinska, M. W., Mavor, K. I., & Miles, P. J. (2025). Student wellbeing in higher education: the role of stressors, student identity, and social support. *SAGE Open*, 15(3). <https://doi.org/10.1177/21582440251359418>
- Rimicci, A. G., Kuppens, T., Easterbrook, M. J., & Spears, R. (2025). Perceptions of misalignment and the academic achievement of underrepresented groups in higher education. *L'Année Psychologique*, 125(1), 109–132.  
<https://doi.org/10.3917/anpsy1.251.0109>
- Rosenthal, L., Levy, S. R., London, B., Lobel, M., & Bazile, C. (2013). In pursuit of the MD: The impact of role models, identity compatibility, and belonging among undergraduate women. *Sex Roles*, 68(7–8), 464–473. <https://doi.org/10.1007/s11199-012-0257-9>
- Shore, L. M., Randel, A. E., Chung, B. G., Dean, M. A., Ehrhart, K. H., & Singh, G. (2010). Inclusion and diversity in work groups: A review and model for future research. *Journal of Management*, 37(4), 1262–1289.  
<https://doi.org/10.1177/0149206310385943>
- Stewart-Brown, S., & Janmohamed, K. (2008). Warwick–Edinburgh Mental Well-being Scale (WEMWBS) user guide (Version 1). University of Warwick.
- Suhlmann, M., Sassenberg, K., Nagengast, B., & Trautwein, U. (2018). Belonging mediates effects of student-university fit on well-being, motivation, and dropout intention. *Social Psychology*, 49(1), 16–28. <https://doi.org/10.1027/1864-9335/a000325>

- Tajfel, H., & Turner, J.C. (1979). An integrative theory of intergroup conflict. In W.G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33–47).  
Monterey, CA: Brooks/Cole.
- Tian, C., Zuñiga, R. a. A., Foláyan, M. O., Tuominen, J., & Virtanen, J. I. (2025).  
Psychological distress and loneliness among European university students during the  
COVID-19 pandemic: a European survey. *BMC Public Health*, 25(1), 3841.  
<https://doi.org/10.1186/s12889-025-25001-3>
- Tomlinson, M., & Jackson, D. (2021). Professional identity formation in contemporary higher  
education students. *Studies in Higher Education*, 46(4), 885–900.  
<https://doi.org/10.1080/03075079.2019.1659763>
- Veiga, F., Robu, V., Appleton, J. J., Festas, I., & Galvão, D. (2014). Students' engagement in  
school: Analysis according to self-concept and grade level. In *EDULEARN14  
Proceedings* (pp. 7476–7484). IATED.
- Zarbat, A. (2023). Social-psychological adaptation of first-year students to the university  
learning process. *Eurasian Science Review.*, 1(4). <https://doi.org/10.63034/esr-18>
- Zhai, Y., Almaawali, M., & Bannish, L. (2023). Mental well-being, academic experience, and  
dropout intention among counseling students affected by the shift to online instruction  
during the COVID-19 pandemic. *Journal of Technology in Counselor Education and  
Supervision*, 3(2). <https://doi.org/10.61888/2692-4129.1054>

## Appendix A

### Scales Used in Survey

The following list consists of the scales used in the survey:

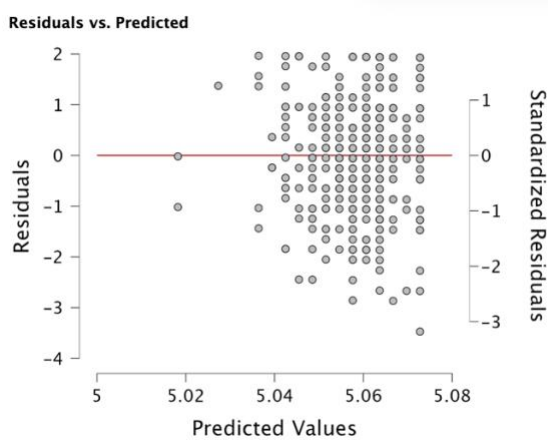
- i. Identity Compatibility Perceptions (Easterbrook et al., 2022)
- ii. Openness to Diversity in College Student Experience Questionnaire (Hu & Kuh, 2003)
- iii. Academic Self-Efficacy (Parpala & Lindblom-Ylänne, 2012; Pintrich et al., 1993)
- iv. Perceived Group Inclusion Scale (Jansen et al., 2014)
- v. UCLA Short-Form Loneliness Scale (Hughes et al., 2004)
- vi. Professional Awareness (Tomlinson & Jackson, 2021)
- vii. Student Engagement in School (Veiga et al., 2014)
- viii. Basic Psychological Need Satisfaction (Chen et al., 2015)
- ix. Social Identity Threat (Rimicci et al., 2025)
- x. Student Identification (Rimicci et al., 2025)
- xi. Emotions About Studies (Achievement Emotions Questionnaire; AEQ) (Pekrun et al., 2011)
- xii. Perceived Stress (Cohen & Williamson, 1988)
- xiii. Motivated Strategies for Learning Questionnaire (MSLQ) (Pintrich et al., 1993)
- xiv. Short version of the Warwick–Edinburgh Mental Well-being Scale (Stewart-Brown & Janmohamed, 2008)

## Appendix B

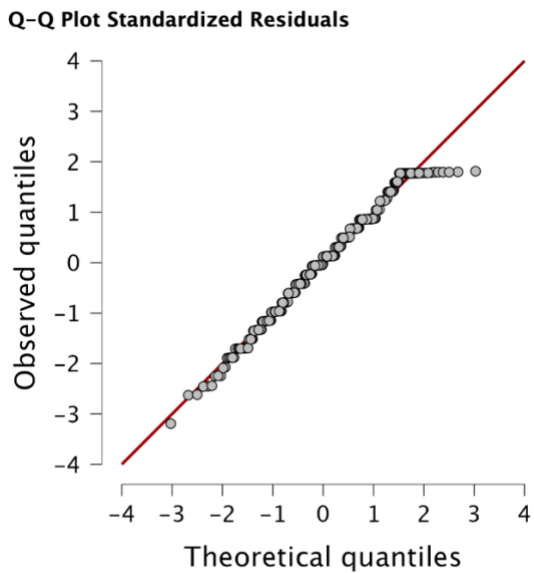
### Assumption Checks

Assumption checks for the regression model predicting inclusion from identity compatibility.

**Figure B1**



**Figure B2**

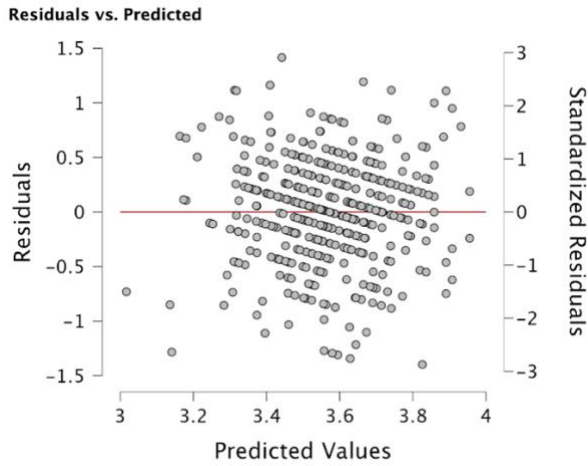


**Table B1**

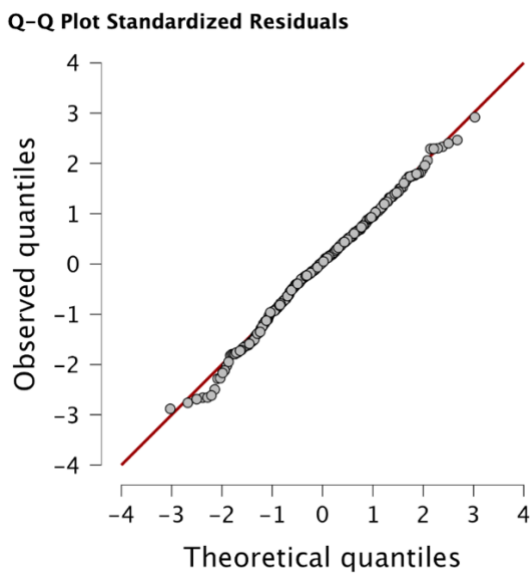
<i>Coefficients</i>						<i>Collinearity Statistics</i>		
Model		Unstandardized	Standard Error	Standardized	t	p	Tolerance	VIF
M <sub>0</sub>	(Intercept)	5.058	0.054		93.221	< .001		
M <sub>1</sub>	(Intercept)	5.009	0.315		15.887	< .001		
	Identity Compatibility	0.009	0.057	0.008	0.158	.874	1.000	1.000

Assumption checks for the regression model predicting student well-being from identity compatibility and inclusion.

**Figure B3**



**Figure B4**

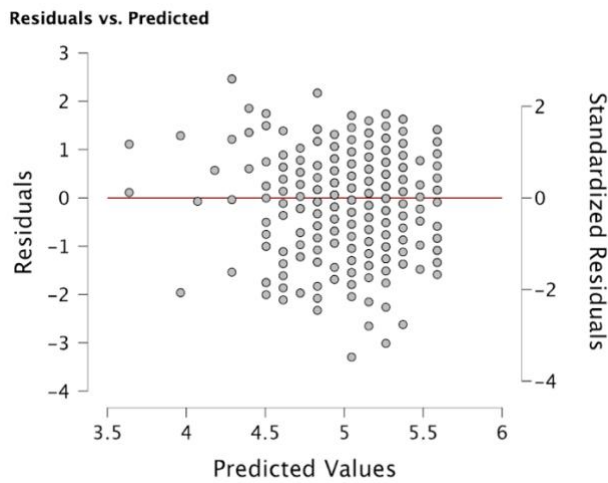


**Table B2**

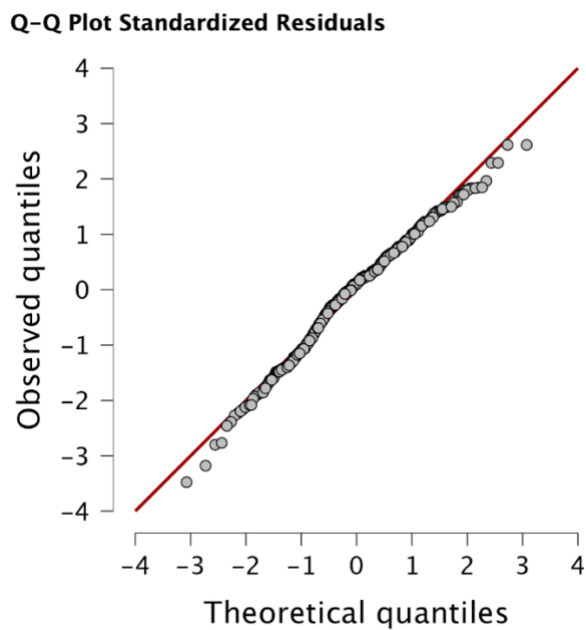
<i>Coefficients</i>						<i>Collinearity Statistics</i>		
Model		Unstandardized	Standard Error	Standardized	t	p	Tolerance	VIF
M <sub>0</sub>	(Intercept)	3.570	0.025		140.288	< .001		
M <sub>1</sub>	(Intercept)	2.444	0.179		13.623	< .001		
	Identity Compatibility	0.097	0.026	0.179	3.780	< .001	1.000	1.000
	Inclusion	0.119	0.022	0.254	5.357	< .001	1.000	1.000

Assumption checks for the regression model predicting student identification from identity compatibility.

**Figure B5**



**Figure B6**

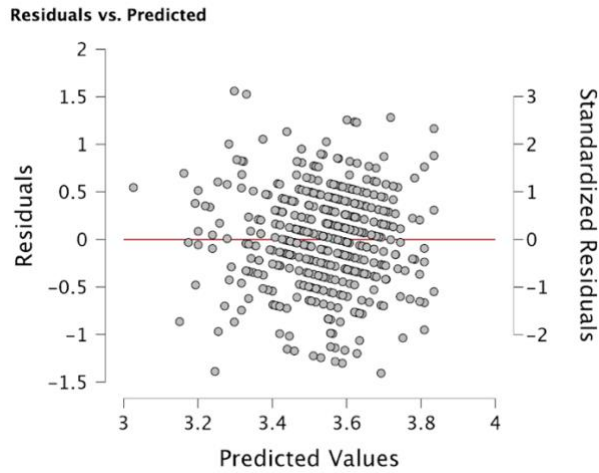


**Table B3**

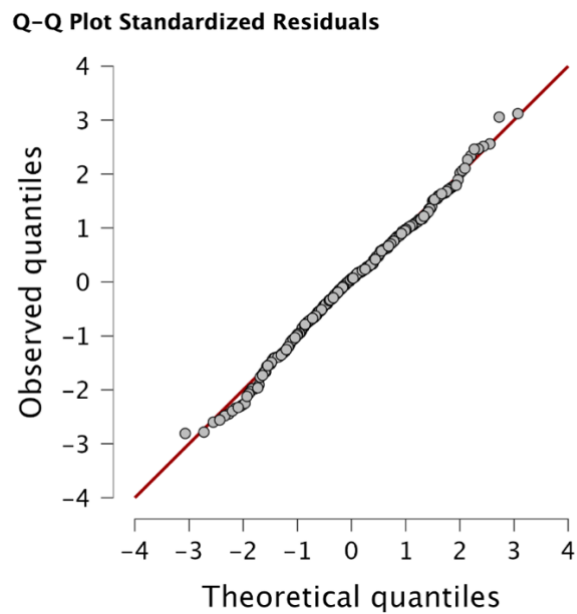
<i>Coefficients</i>						<i>Collinearity Statistics</i>		
Model		Unstandardized	Standard Error	Standardized	t	p	Tolerance	VIF
M <sub>0</sub>	(Intercept)	5.070	0.046		110.418	< .001		
M <sub>1</sub>	(Intercept)	3.313	0.252		13.162	< .001		
	Identity Compatibility	0.325	0.046	0.311	7.088	< .001	1.000	1.000

Assumption checks for the regression model predicting student well-being from identity compatibility and student identification.

**Figure B7**



**Figure B8**



**Table B4**

*Coefficients*

Model		Unstandardized	Standard Error	Standardized	t	p	Collinearity Statistics	
							Tolerance	VIF
M <sub>0</sub>	(Intercept)	3.542	0.024		147.879	< .001		
M <sub>1</sub>	(Intercept)	2.703	0.157		17.238	< .001		
	Identity Compatibility	0.058	0.026	0.106	2.238	.026	0.904	1.107
	Student Identification	0.104	0.024	0.201	4.260	< .001	0.904	1.107

### **Appendix: AI Use Summary**

AI system: ChatGPT

Final Prompts used: “Do these paragraphs flow together and make sense?”; “Does this paraphrased sentence still grasp the original idea mentioned by the author?”

Use case: The prompt regarding the paragraph flow and clarity was used to make sure that the transition between paragraphs was clear and that the gist was properly stated and made sense.

The prompt regarding paraphrasing was used to ensure that the paraphrased sentence still captured the idea delivered by the author, and how I can improve the sentence structuring.

Modifications: For both prompts, the AI-generated texts were all reviewed and modified based on my own understanding and judgment of the outputs.