Understanding Student Motivation: Exploring the Effect of Immediacy Behaviors from Peer and Faculty Mentors

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Abstract

There is much discussion at universities on improving student effectiveness, but less discussion about mentors' effectiveness. This research investigated how perceived mentor behaviors affect student motivation across peer mentors and faculty mentors. It was hypothesized that trust would mediate the relationship between immediacy and motivation, and that social congruence would act as a moderator. The study used a cross-sectional repeated measures design, in which first-year psychology students (n=288) completed an online queestionnaire. Trust and social congruence in faculty mentors were significant predictors for this relationship (p<.01 and p<.01, respectively). This effect of trust was not present for peer mentors, which may be due to safety needs already being fulfilled (Maslow, 1943) and peer mentors having a friend-like quality that presumes trust (Bouquillon, 2005). Social congruence ratings found support for the attraction to the ideal self rather than the similar self in the similarity-attraction theory (Wetzel & Insko, 1982). Immediacy was seen to have the strongest effect on trust when social congruence was low. The research is relevant as it shines light on how universities may refocus mentor trainings towards learning soft skills, highlighting how knowledge of a subject alone may not be sufficient to be an effective mentor. In a course where high trust between students and mentors is needed, hiring a peer mentor would aid in establishing trust.

Keywords: immediacy, student motivation, trust, social congruence, peer mentors, faculty mentors

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Universities offer many resources to first-year students to help them transition from secondary education to tertiary education, regarding both academic and non-academic changes. To further ease this transition, universities may provide students with certain courses that introduce the concept of an effective student. Characteristics such as critical thinking, personal growth and development, and intercultural competence, are taught to students to ease them into university life. These various skills are gradually learned over the year and can be taught by a mélange of mentor types. This allows universities to make their students more effective, but what are the ways that universities attempt to make their teachers more effective?

Effective teachers were, originally, thought to be enthusiastic, clear, and good at building rapport with their students (Murray, 1977). Now, the definition of an effective teacher is more nuanced and describes both hard and soft qualities that help students efficiently reach learning and engagement outcomes. Mentoring at a university has many functions, and new university students generally interact the most with a faculty mentor and a peer mentor. A faculty mentor (FM) is defined as a member of the staff, hired by a university to instruct students on a specialized field (Cronan-Hillix et al., 1986). This may pertain to PhD students, assistant professors, or other teaching-related positions at the undergraduate level. Faculty mentors may have expertise knowledge of a field, aiming to interact and instruct students in small cohorts on hard skills (e.g., learning how to write academic papers). Conversely, a peer mentor (PM) is an instructor that is still a student, employed by the university to obtain credits or wages. Their main duties are to teach students soft skills, such as navigating interpersonal challenges, whilst gaining instructional skills (Vaughan & Macfarlane, 2015). This may be an older student within the same program or at the same academic level. Although the roles of both mentor types are

parallel to one another; the relationship with a peer mentor may have different outcomes for students when compared to the relationship with faculty mentors.

As the student-mentor dyad may dictate learning outcomes, such as student motivation and situational interest (Christophel, 1990), other independent factors may have a further effect, such as social congruence, trust, and immediacy. Therefore, examining the factors that may enhance this association allows for university education to have a more meaningful approach regarding instructor training and the most efficient learning outcomes for its students. The aim of this research is to investigate the extent to which immediacy behaviors from faculty mentors and peer mentors affect student engagement outcomes.

Self-disclosure

A large segment of past literature has focused on the effects of mentor self-disclosure on student outcomes rather than immediacy. Cayanus and Martin (2008) concentrated on the effect of self-disclosure on the student mentor relationship, specifically the different elements of self-disclosure: negativity, relevance, and amount. The study highlighted that the relevance and valence of a mentor's self-disclosure were significant predictors of student learning outcomes.

Yet, despite self-disclosure being a common predictor variable for student learning outcomes in educational literature (Cayanus & Martin, 2008; Goodboy et al., 2014), investigating relevance within self-disclosure responses causes ambiguity. This is due to there being a discrepancy between whether the self-disclosure is relevant for the students' personal experience or the course content. This aspect can also be confounded by elements such as affect for the mentor, as self-disclosure helps individuals to gain insight into another's behaviour (Uranowitz & Doyle, 1978) which in turn increases mentor affect (Jourard, 1971). This is an issue as liking the mentor has been found to cause an over-report of how relevant the self-disclosure is (Rubin & Shenker, 1978). As the disparity of the relevance of a mentor's self-

disclosure has been debated in previous literature, it may be more effective to investigate other variables such as immediacy.

Immediacy

Immediacy is a term that well encapsulates a mélange of mentor behaviors, specifically warmth, approachability, and engagement. It has been defined as a "communication variable that impacts the perception of physical and psychological closeness" (Frymier, 1994). As immediacy describes multiple variables with one hypernym, the behaviour may elicit multiple student outcomes. Student engagement outcomes related to immediacy include affective learning and perceived learning (Witt et al., 2007), as well as student motivation and situational interest (Christophell, 1990). Higher levels of immediacy from the mentor may allow the student to feel more connected to them, thus being more engaged in the classroom and with the tasks at hand.

Immediacy behaviors have been examined to have a direct effect on engagement outcomes, however, the effects of immediacy may be different across mentor types. Christensen and Menzel (1998) observed that moderate immediacy has a stronger effect on certain student engagement outcomes compared to high immediacy. As there appears to be some discrepancy on how the level of immediacy affects students' outcomes, this may also be extrapolated to immediacy behaviors across faculty mentors and peer mentors. Specifically, the impact and value that immediacy behaviors across mentor types add to student outcomes.

Student Motivation

Motivation is an important variable when discussing student engagement outcomes. The role motivation plays in student outcomes may be observed in intention to learn and engage in material (Ames, 1992). These principal aspects must be met in learning environments in order to achieve effective learning (Dunlosky, 2013). Examining how immediacy affects state motivation allows us to observe how the relationship across various mentor types may affect

student engagement outcomes. Moreover, measuring the effect of immediacy on student motivation may have important implications for how mentors, both student and faculty, are trained to engage with students. Training, in turn, would be more concentrated on soft skills, such as how to be warmer and more approachable to students.

Student motivation is usually measured using state motivation: the motivation at a given moment to engage and persevere due to intrinsic interest and gratification from completing a task (Choi et al., 2012). Christensen and Menzel (1998) investigated the relationship between immediacy and state motivation in the academic setting and found a positive linear relationship between the two constructs, suggesting immediacy may be a predictor of student state motivation (SSM). Motivation is a very broad construct, therefore refocusing the research from SSM to student motivation reduces this ambiguity.

Moreover, there has been a divergence between studying student motivation and situational interest. The latter is a temporary state associated with a particular stimulus (Christophel, 1990), implying that the effect of situational interest is rather short lived. The outcome's short-term nature may require multiple measurement moments to accurately observe students' situational interest (Rotgans & Schmidt, 2009). In addition to this, situational interest has been seen to both negatively and positively impact classroom behaviors, and thus there is no transparent method on how it can be effectively and simply measured (Rotgans & Schmidt, 2009). Conversely, student motivation is often measured using a questionnaire, and as it has been positively impact classroom behaviors (Christophell, 1990), it does not have a similar directionality issue.

Trust

Trust is another important predictor to consider when discussing the outcome of student-mentor communications. High levels of trust are essential in the educational setting as trust facilitates a safe environment for students to engage in the material (Petrochko & Kyrychenko,

2020). Moreover, trust is associated with immediacy. If mentors are perceived as being warmer, more engaged, and more approachable, students are more likely to have a higher level of trust (Jaasma & Koper, 1999). Trustworthiness is a factor related to safety needs and a safe environment (Maslow, 1943). Maslow's hierarchy of needs (1943) proposed that safety needs must first be met in order to fulfil psychological needs, such as belongingness and esteem needs, and self-actualization needs. When students have an environment in which they feel safe to ask questions, facilitate discussions, and interact with their group, growth of the pupil can be facilitated.

Sequentially, trust may influence motivation. Trust between students in a group project highlighted an increase in perceived motivation to work in a group in the future (Huff et al., 2002). The variable has also been explored between students and mentors. Ennen and colleagues (2015) observed how students' trust in mentors has a positive linear relationship with higher grades. As trust can be associated with student outcomes, measuring the effect of trust may aid in explaining the relationship between immediacy and student motivation.

The effect of trust, however, may be different for peer mentors and faculty mentors. As previous literature does not make a distinction between different mentor types, the role of trust in peer mentors versus faculty mentors on student engagement outcomes is not extensively studied. Establishing trust has been used as an indicator that students' need for relatedness has been attained (Ryan & Deci, 2020), which suggests that eliciting trust in mentors that are more similar to their students (e.g., peer mentors) may not be necessary as the need for relatedness is already fulfilled. Investigating differences between peer and faculty mentors may shine further light on the amount of trust a specific mentor type needs to elicit in order to observe significant effects on student motivation.

Social Congruence

The relationship between immediacy and trust may be moderated by social congruence. Social congruence is defined as interpersonal similarities, such as informal and empathic communication, which allows for an open learning environment (Schmidt & Moust, 1995). The effects of social congruence across different mentor types may increase or decrease the strength of the relationship between immediacy and trust.

The degree to which social congruence moderates the relationship between immediacy and trust has not been extensively studied. As mentioned previously, Ryan and Deci (2020) found that relatedness is a prerequisite to trusting a mentor. Thus, social congruence to the peer mentor may increase the level of trust and perceived immediacy as peer mentors better empathize with the students when discussing the value of the material being taught, and whether students may struggle with its content (Loda et al., 2019). Peer mentors may be more socially congruent as they share common characteristics with their students regarding demographics and personal goals (e.g., educational attainment and career prospects). This finding would align with the similarity-attraction theory, in which we are more likely to be attracted to someone similar to the self than dissimilar. Therefore, the effects of immediacy may be perceived as higher in peer mentors (Byrne & Nelson, 1965).

Contrasting the traditional proposition of the similarity attraction theory, past research has found that we are attracted to those most similar to the ideal self. Wetzel and Insko (1982) examined the similarity-attraction theory, and whether the ideal self or similar self were more pertinent to attraction. The study found that those similar to the self remind individuals of their negative traits, therefore individuals are more attracted to those who are most similar to the ideal self. This argument may support how students perceive more immediacy in faculty mentors, as they may relate to the ideal self; faculty mentors usually have stable vocational positions and have gone beyond their bachelor’s degrees which may be used as a positive

upward comparison for students. Thus, observing this distinction may aid in understanding how student motivation can be affected by change in mentor alone.

Current Study

The current research investigates the effects of immediacy from differing mentor levels (peer and faculty mentor) on student motivation. Immediacy has been linked to student motivation, a variable that plays a key role in students' learning intentions and engagement. Successively, trust is linked to both immediacy and student motivation, thus, it is a possible mediating variable, explaining the function of immediacy behaviors on motivation. In turn, social congruence is used as a moderating variable. Considering there is some discrepancy in the similarity-attraction theory, investigating social congruence provides a dissection between peer and faculty mentor and may provide more information about which position may have a larger effecct on trust and student motivation.

The goal of the study is to examine how mentor immediacy affects state motivation and how peer and faculty mentors may affect motivation in various ways. This is relevant as it provides insight into how mentors are trained and whether there is a preferred mentor type. Identifying which mentor level has the largest effect on state motivation may aid universities when approaching hiring and training.

The hypotheses of this study are as follows:

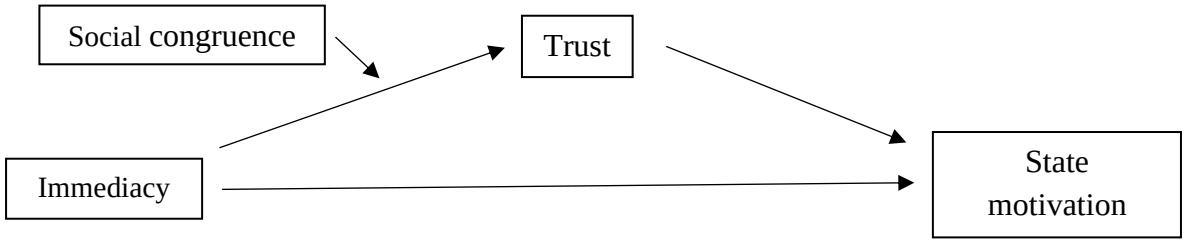
Hypothesis 1: Trust mediates in the relationship between mentor immediacy behaviors and student motivation, for both faculty and peer mentors.

Hypothesis 2: The mediating effect of trust between immediacy and student motivation is moderated by social congruence, for both faculty and peer mentors (see figure 1).

Hypothesis 3: There is a difference between peer mentor and faculty mentor's social congruence ratings.

Figure 1

Factors affecting the role of mentor immediacy on students' state motivation



Method

Participants

After removing invalid or missing cases, the participants consisted of 289 first-year university students of the Bachelor Psychology program of the University of Groningen who are currently enrolled in the course *Academic Skills*. Of these participants, 213 identified as female, 72 as male, and four as other. The age ranged from 17 to 31, with a mean of 20.28 years. Most participants were Dutch (57.4%), followed by German (20.1%). Other nationalities comprised 22.5% of the participants. The sampling procedure used convenience sampling via the university recruiting system SONA (*Sona Systems*, n.d.), offering the participants study credits.

Study Design and Procedure

This study used a cross-sectional design to examine the proposed moderated-mediation model. Data were collected via an online survey hosted by Qualtrics (Qualtrics, Provo, UT). Students were invited to participate in the research on the SONA system (*Sona Systems*, n.d.). This study was observational in nature, as the mentor's immediacy behavior was not directly manipulated or altered by the study design. This study was part of a larger bachelor thesis project and was approved by the Faculty Ethics Committee.

The survey took 15-20 minutes to complete. First, participants had to confirm that they were a first-year psychology student enrolled in the course Academic Skills, as this was the

main admission criterion. Only those who met this condition were able to proceed. An introduction to the study describing objectives and procedures was provided, followed by an informed consent form. After actively agreeing to participate, all respondents completed the same questionnaire in a fixed order. Participants were given as much time as needed to complete the questionnaire and had the option to cancel at any time. If participants chose to discontinue, their data were excluded from the study. After completing the survey, the participant received 0.9 SONA credits.

Instruments

Immediacy

To measure immediacy behaviors, Kwitonda's (2017) verbal and non-verbal immediacy scales were merged into one immediacy scale. The students were asked to rate the frequency of the mentor's immediacy behaviors in Academic Skills sessions using a 5-point Likert scale ranging from *never* (1) to *always* (5). This adapted version consisted of 23 items (e.g., "In class, the instructor smiles at individual students in the class."). Students were instructed to complete the immediacy scale twice, once regarding their faculty mentor and again regarding their peer mentor. The internal consistency of the scale, Cronbach's alpha, was computed to be α=.85 for FM and α=0.84 for PM.

Student Trust in Faculty

The Student Trust in Faculty Scale (STF; Adam & Forsyth, 2004) is a 13-item scale used to assess the degree of trust students have in their academic mentors. The scale utilizes a 4-point Likert scale, ranging from *strongly disagree* (1) to *strongly agree* (4), on items such as "My Faculty/Peer mentor is always ready to help me". As with the immediacy scale, students were instructed to fill in the scale twice. The instrument's internal consistency was α= .92 for FM and for PM.

Social and Cognitive Congruence

The 5-point Likert scale by Schmidt and Moust (1995) was used to assess students' social and cognitive congruence to their peer mentor or their faculty mentor in *Academic Skills*. The items were split into social and cognitive congruence. The scale consists of seven items, such as "The peer/faculty mentor showed that he/she liked informal contact with us" and were scaled from *not true at all* (1) to *very true* (5). Students were instructed to fill in the scale twice, for their faculty mentor and for their peer mentor, respectively. The Cronbach's alpha was α= .60 for FM and α=.70 for PM.

State Motivation and Situational Interest

To measure the state motivation of students the State Motivation and Situational Interest scale (Christophel, 1990) was used. The scale included 13 items. Students were asked to indicate their feelings (from 1 to 7) about their *Academic Skills* sessions on a semantic differential scale. The scale used bi-polar adjectives, such as *motivated* (1) opposed to *unmotivated* (7). Some adjectives were adjusted on the scale to avoid potential misunderstandings for non-native English-speaking participants. The Cronbach's alpha was α=.93.

Data Analysis

The data was analyzed using IBM SPSS software (version 28). Hayes' PROCESS macro for modeling mediation was then applied to the current data (Hayes, 2013). Model 7 – a moderated mediation effect on the independent variable to the mediating variable – was used in the analysis. This model is based on regression analysis and their assumptions, using a bootstrapping approach. As per the model, the mediating and moderating variables were examined independently, followed by a moderated-mediation analysis. The analysis used a 95% confidence interval to determine the significance of the results. When the confidence interval included non-zero values, the variable was statistically significant. The variables used in the

model included immediacy as the independent variable, social congruence as the moderating variable, trust as the mediating variable, and student motivation as the dependent variable.

Data Preparation

Originally, 330 students signed up to be part of the study. However, some participants were excluded from the sample. Twelve participants did not meet the criteria for being a first-year student enrolled in *Academic Skills* and 28 failed to finish the questionnaire. Additionally, two outliers were found, therefore their data were eliminated. In the end, 288 people made up the final sample.

Ethical Considerations

Participants were told that participation in the study was entirely voluntary and withholding consent would not have had any adverse consequences. Moreover, the participants had the freedom to leave the study at any moment. Since all responses were anonymous, the responses cannot be linked to a specific participant. By using gender neutral pronouns, we ensured that the questionnaire did not contain any discriminatory terms. Lastly, participants were given the thesis supervisor's contact information if they would have any concerns regarding the research project.

Results

Assumptions

To ensure that the data could be analyzed using Hayes' PROCESS (2013), the assumptions for a regression model must be met (Normality and homoscedasticity). The Normality of the data was met by using a bootstrapping approach. Homoscedasticity was also met using the HC4 (Cribari-Neto) assumption to assume a robust standard error.

Descriptive Statistics

Table 1

Correlations and Descriptive Statistics

Variable	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*M*	*SD*
1 Immediacy FM	-							3.45	0.52
2 Immediacy PM	.37**	-						3.56	0.49
3 Trust FM	.63**	.08	-					3.27	0.57
4 Trust PM	.25**	.52**	.29**	-				3.36	0.54
5 Student Motivation	.30**	.12*	.31**	.03	-			4.19	1.13
6 Social Congruence FM	.50**	.08	.50**	.04	.26**	-		3.45	0.67
7 Social Congruence PM	.16**	.58**	.01	.50**	.05	.20**	-	3.91	0.66

a) *FM = Faculty mentor and PM = Peer mentor*

b) * = $p<.05$; ** = $p<.001$

c) *n = 288 for all variables*

Hypothesis 1: Trust mediates in the relationship between mentor immediacy behaviors and student motivation, for both faculty and peer mentors.

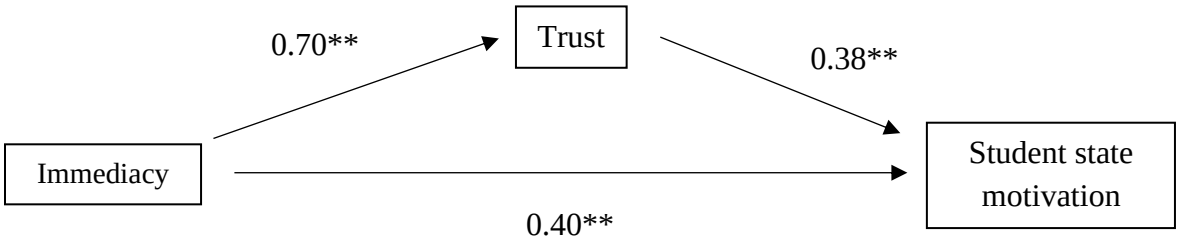
To test whether trust mediated the relationship between immediacy behaviors and student state motivation, a simple mediation analysis was conducted using Model 4 of Hayes' PROCESS (2013). The analysis was conducted separately for faculty mentors and peer mentors. When the bootstrapped confidence interval does not contain a zero, then a statistically significant effect has been observed.

Faculty Mentor (FM)

The mediation analysis for the relationship between FM immediacy and student motivation through FM trust showed a significant effect (*effect*=0.27, *SE*=0.11, *95% CI [*0.05; 0.48*])* (see Figure 2). This supports hypothesis 1, suggesting that FM immediacy behaviors affects student motivation, through the students' trust in their faculty mentor. The direct effect of FM immediacy and student motivation in the presence of FM trust was also significant (*B*=0.40, *SE*=0.16, *t*=2.53, *95% CI [*0.09; 0.71*], p*=.01*).* FM trust partially mediated the relationship between FM immediacy and student motivation.

Figure 2

Mediation model: Immediacy on student motivation through trust



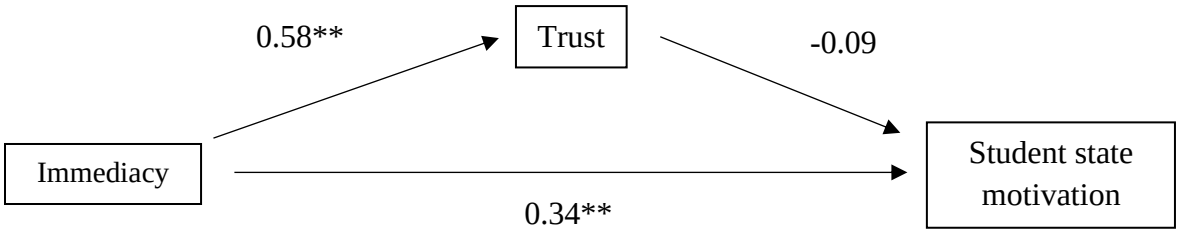
a) * = *p*<.05*;* ** = *p*<.001

Peer Mentor (PM)

Testing whether PM trust was a mediating variable between PM immediacy and student motivation did not highlight a significant effect (*effect*=-.05, *SE*=0.08, *95% CI [*-0.20; 0.12*])* (see Figure 3). This does not support hypothesis 1, suggesting that PM trust is not a mediator. The direct effect of PM immediacy and student motivation in the presence of PM trust was significant (*B*=0.34, *SE*=0.16, *t*=2.11, *95% CI [*0.02; 0.65*], p*=.04*).*

Figure 3

Mediation model: Immediacy on student motivation through trust



a) * = $p<.05$; ** = $p<.001$

Hypothesis 2: The mediating effect of trust between immediacy and student motivation is moderated by social congruence, for both faculty and peer mentors.

To examine the effect of social congruence on the model, a moderated-mediation model was tested using Model 7 of Hayes' PROCESS (2013). The analysis was conducted separately for faculty mentor and peer mentor scores for immediacy, social congruence, and trust on overall student motivation. This was measured using the index of moderated-mediation, which indicates whether there is an indirect effect that is moderated by the moderator. If the bootstrapped confidence interval does not contain a zero, then the hypothesis is supported.

Faculty Mentor (FM)

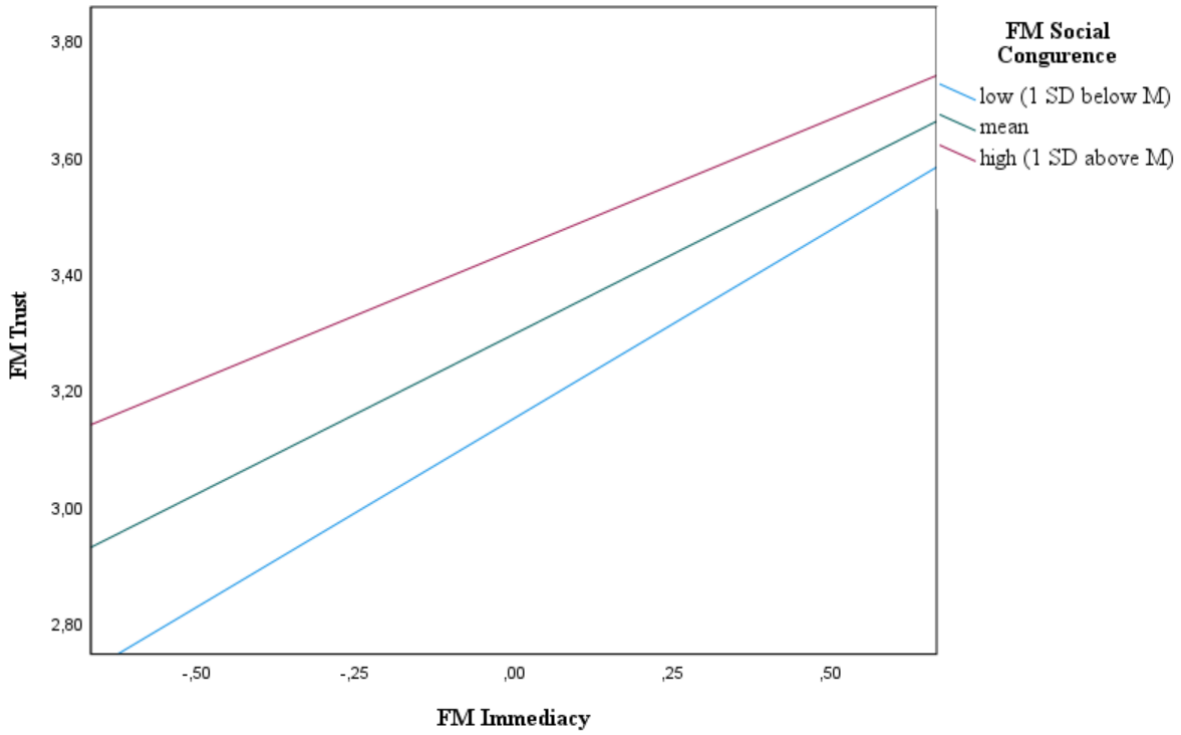
The moderated-mediation analysis highlighted that the indirect effect of FM immediacy on student motivation through FM trust is moderated by FM social congruence (*Index*= -0.06, *SE*=0.03, *95% CI [*-0.15; -0.004*]*). This supports hypothesis 2.

The conditional indirect effect was weakest at high (one SD above the mean) FM social congruence (*effect*=0.17, *SE*= 0.075, *95% CI* = [0.0295; 0.33]) and strongest at low (one SD below the mean) FM social congruence (*effect*=0.248, *SE* = 0.104, *95% CI* = [0.0452; 0.459]).

This implies that FM immediacy behaviors have a stronger effect on trust when social congruence is low (see figure 4).

Figure 4

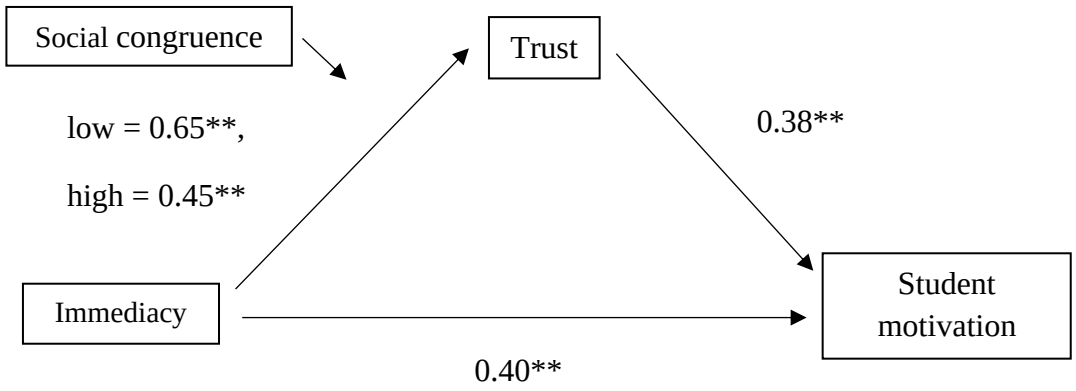
Conditional direct effects of low, average, and high FM social congruence on FM immediacy and FM trust



The tests of simple slopes (conditional effects at low, mean, and high values of the moderator) found a stronger association between immediacy and trust for those low in social congruence (*effect* = 0.65, *SE* = 0.075, *t* = 8.70, *p* < .00) relative to those high social congruence (*effect* = 0.45, *SE*= 0.074, *t* = 6.10, *p* < .00). FM immediacy behaviors have a stronger effect on FM trust when FM social congruence was low (see figure 5).

Figure 5

Moderated-mediation Model



a) * = $p<.05$; ** = $p<.001$

Peer Mentor (PM)

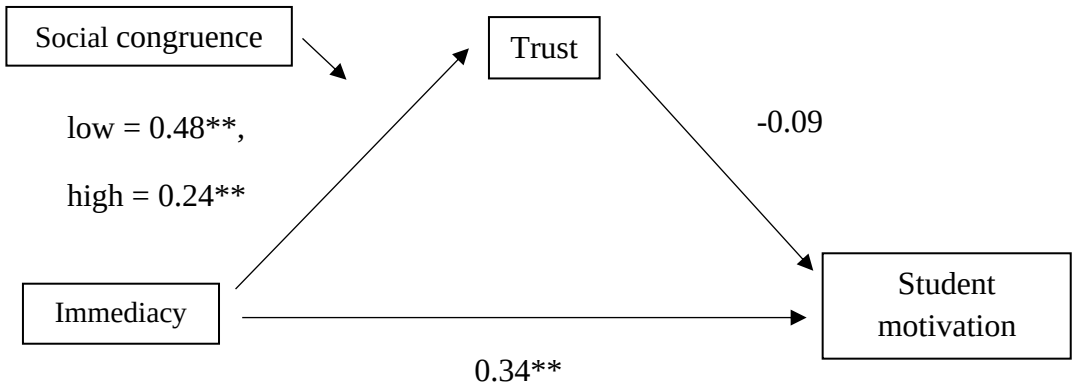
The analysis showed that the indirect effect of PM immediacy on student motivation through PM trust is not moderated by PM social congruence (*Index*= 0.016, *SE*=0.027, *95% CI [*-0.036; 0.074*]*). This suggests that social congruence does not have a moderating effect on PM trust, rejecting hypothesis 2.

The conditional indirect effect was not significant at low (one SD below the mean) PM social congruence nor was it significant at high (one SD above the mean) PM social congruence, again rejecting hypothesis 2.

The tests of simple slopes on path A found a stronger relationship between immediacy and trust for those low in social congruence (*effect* = 0.48, *SE* = 0.069, *t* = 6.93, $p < .00$) relative to those high in social congruence (*effect* = 0.24, *SE* = 0.088, *t* = 2.70, $p < .00$). PM immediacy behaviors have a higher impact on PM trust when PM social congruence is low (see figure 6).

Figure 6

Moderated-mediation Model



a) * = p<.05; ** = p<.001

Hypothesis 3: There is a difference between peer mentor and faculty mentor's social congruence ratings.

The Wilcoxon signed-rank test was used to evaluate faculty mentors and peer mentors' social congruence ratings given by students. This test was used as the data was ordinal (Likert scale) and the same sample was repeated for each type of social congruence (FM and PM). The test found that there is a statistically significant difference between students' perceptions of FM and PM's social congruence (Z=-8.351, p< .001). Specifically, participants found that peer mentors were significantly more socially congruent than faculty mentors (see table 2). Thus, we can reject the null hypothesis that there is no difference between faculty and peer mentor social congruence.

Table 2

Ranks of Social Congruence (FM and PM)

		n	*Mean Rank*	*Sum of Ranks*
Social Congruence PM – Social Congruence FM	Negative Ranks	62[a]	101.85	6314.5
	Positive Ranks	190[b]	134.54	25563.5
	Ties	36[c]		
	Total	288		

a) *FM social congruence was ranked higher than PM.*

b) *PM social congruence was ranked higher than FM.*

c) *PM and FM social congruence were ranked equally.*

Discussion

The aim of this research was to examine how university mentor immediacy behaviors influence student motivation and the extent to which trust plays a role in this relationship. It was hypothesized that social congruence would have a moderating effect, as it would be easier to build a trusting mentor-student relationship. Moreover, observing social congruence allowed us to monitor the differing effects of faculty mentors and peer mentors on students' trust in their mentor.

To support this model, three hypotheses were proposed. Hypothesis 1 suggested that mentor immediacy behaviors affect student motivation through students' trust in mentors, in both faculty and peer mentors. Hypothesis 2 suggested that mentor immediacy behaviors would increase the level of trust in mentors if the mentor was socially congruent. Hypotheses 1 and 2 were moderately supported; the effect was non-significant for students' perceptions of peer

mentors but were statistically significant for faculty mentors. This indicates that faculty mentor immediacy behaviors appear to predict student motivation through trust and social congruence. Finally, hypothesis 3 suggested that there would be a difference in perceived social congruence for faculty mentors and peer mentors. The analysis found significant results, implying that perceived social congruence was higher in peer mentors than for faculty mentors.

The Role of Immediacy on Motivation

Immediacy behaviors from both faculty and peer mentors appeared to directly affect student motivation, despite the presence of trust. As trust was only present in faculty mentors, this suggests that trust does not fully explain the relationship between immediacy behaviors and student motivation. The direct association between immediacy and motivation corroborates previous literature (Christophell, 1990; Christensen & Menzel, 1998).

The Role of Trust on Student Motivation

The analysis highlighted that trust seems to influence the relationship between immediacy and student motivation for faculty mentors. This replicates previous findings presented by Huff and colleagues (2011); faculty mentor trust enhances the effects of immediacy on student motivation. When faculty mentors appear to be immediate with their students, trust in the faculty mentor is increased, thus having a positive effect on student motivation. However, the role of trust was not found to have the same significant effect for peer mentors. As there was no effect between trust and student motivation, possible explanations may be grounded in safety needs and a narrower relatability gap between students and peer mentors compared to faculty mentors.

Firstly, a possible interpretation may be due to Maslow's hierarchy of needs (Maslow, 1943). A safe and trusting environment fulfils safety needs, thus once safety needs are met, an individual can begin to tackle belonging and self-actualization needs, including motivation and

achievement (Maslow, 1943). As peer mentors' functions focus more on student growth and development than faculty mentors, peer mentors may be perceived as more of a friend than an employee. This may imply that safety needs are already fulfilled by the peer mentor being relatable and having similar experiences. Due to safety needs being met, peer mentors may not have to increase trust in order to elicit student motivation; rather, they may focus on building belonging needs, explaining the direct effect between immediacy behaviors and motivation.

Moreover, Ryan and Deci (2000) highlight that trust may be used to indicate when a student's need for relatedness has been achieved. The pre-existing characteristics of a peer mentor may function as a "peer-like friendship" (Bouquillon, 2005); peer mentors are able to share and advise on personal and relatable educational experiences. In turn, the need to establish trust through acceptance and friendships may be redundant for peer mentors. This implies that trust in peer mentors may not be an antecedent of student motivation due to trustworthiness already being presumed. Regarding faculty mentors, they may lack the relatedness aspect students seek, thus once trust is established, it amplifies the effect of immediacy behaviors on student motivation.

The Role of Social Congruence on Trust

Immediacy behaviors were found to have an effect on trust in mentors through social congruence. When both faculty and peer mentors were perceived as less socially congruent, immediacy behaviors had a stronger effect on trust. Moreover, the effect of social congruence on student motivation was not found for peer mentors, aligning with the results found between trust and student motivation. This is an interesting finding, as originally, the effect of how a mentor's social congruence may influence students' motivation was unclear. It was suggested that mentors who were more socially congruent would elicit motivation due to the similarity attraction theory (Byrne & Nelson, 1965), as the student would relate more to the similar self

than the dissimilar self. Wetzel and Insko (1982) proposed a contrasting theory, suggesting that the ideal self would aid more in motivation than the similar self as it does not remind you of your own negative traits. In this rendition, students would be more motivated by the faculty mentor as they are able to make a positive upward comparison.

The analysis found that mentors who are perceived as less socially congruent had a stronger effect on the relationship between immediacy and trust, for both peer and faculty mentors. Specifically, this implies that mentor immediacy behaviors have a stronger impact on trust when social congruence is low. This finding supports the theory that the lower social congruence (the ideal self) may be more beneficial for immediacy to elicit trust, contradicting past research (e.g. Loda et al., 2019).

Moreover, immediacy behaviors may be important for rapport building. Mentors with lower social congruence may attempt to develop rapport with their students to bridge the gap between mentors and students (Yew & Yong, 2014). As mentors begin to build rapport, it may strengthen the influence of immediacy behaviors. Rapport is positively associated with immediacy (Manyuan, 2021) as well as trust (Honeyman et al., 2004), suggesting that rapport development may be an extension of immediacy, causing a stronger effect on trust. Therefore, rapport development from mentors that are low in social congruence may interact with the mentors' immediacy behaviors. This interaction enhances students' perception of warmth and approachability, which strengthens trust. Mentors with higher social congruence may not engage in rapport development as strongly, thus the strength of immediacy may be dampened.

Practical recommendations

Based on the findings of this paper, increased mentor immediacy behaviors may influence student motivation. Specifically, this shines light on how mentors may need to possess, or develop, extrinsic behaviors to enhance student engagement outcomes, as well as

suggesting that affinity or knowledge of a topic may not be sufficient to be an effective mentor. The findings may have practical implications for various mentor trainings, such as teaching trainees how to be immediate and warmer with students.

Furthermore, the results also suggest that trust in peer mentors could be inherit, wherein peer mentors do not have to explicitly elicit trust to enhance motivation as faculty mentors may need to. This could play a large role in, for example, a course where building trust is necessary; hiring a peer mentor may be more beneficial as trust does not need to be further established. However, if hiring a faculty mentor is necessary, increasing immediacy and rapport may enhance trust, as social congruence is low.

The juxtaposition between previous literature and the current study highlights how the effect of social congruence may be a mediator, rather than a moderator, between immediacy and student motivation. As the link between trust and motivation is not apparent for peer mentors, observing the indirect effect of social congruence may give rise to how differing mentor levels truly influence students' learning outcomes. Another recommendation for future research is to investigate the underlying mechanisms of trust in peer mentors, and why it does not elicit student motivation in a similar manner as trust does in faculty mentors.

Limitations

One of the study's main limitations is the complexity of measuring student motivation. Previous studies have used manipulation to measure SSM, however, the questionnaire "State Motivation and Situational Interest Scale" (Christophel, 1990) was able to measure student motivation. The meta-analysis on teacher immediacy and student motivation (Liu, 2021) highlights that the majority of literature regarding student motivation uses Christophel's Motivation Scale (1990), thus measuring motivation without a manipulation is not a novel approach. Moreover, as the study used convenience sampling and an online crediting system

(SONA), students may already have been motivated when completing the questionnaire. Completing studies on SONA is mandatory for first-year psychology students and grants them credits once completed. This may make the sample biased, as students were currently working towards an unrelated goal whilst filling in the questionnaire.

In terms of the characteristics of the sample, it was typically WEIRD (western, educated, industrial, rich, and democratic) and consisted of more female participants than males. This makes it difficult to replicate the data to other cultures and educational backgrounds, however, the sample is quite representative of characteristics observed in the psychology bachelor program at the University of Groningen.

Furthermore, the study is correlation-based, and therefore causality between variables cannot be assumed. However, using a mediation model as the basis for the findings implies directionality between the variables.

Conclusion

In conclusion, this study examined the underlying predictors between mentor immediacy behaviors and student motivation between peer and faculty mentors. The main hypotheses were that trust in mentors would enhance the relationship between immediacy and motivation, and that social congruence would influence this association. Trust was predicted to explain immediacy and motivation as it may help students to fulfil safety needs (Maslow, 1943). Social congruence was proposed to explain the relationship between immediacy and trust in mentors, as the function of the similar self (Byrne & Nelson, 1965) versus the ideal self (Wetzel & Insko, 1982) within the educational context was unclear.

The study found a direct association between immediacy behaviors and student motivation for both mentor types. However, trust was not found to further explain this relationship for peer mentor perceptions. This result may be due to a “peer-like friendship”

characteristic (Bouquillon, 2005) that is innate to peer mentors' qualities. Trust may not amplify student motivation due to this perceived friendship. Furthermore, immediacy behaviors were found to have a stronger effect on motivation when social congruence was low. This supported the theory that the ideal self would foster motivation.

As trust seemed to strengthen the effect between immediacy and motivation for faculty mentors, a practical recommendation for universities may be to have training aimed at verbal, non-verbal, and rapport-building behaviors for mentors. Another possible practical recommendation is to observe the effects of social congruence as a mediator rather than a moderator, in order to further explain the relationship that differing mentor types may have on student engagement outcomes.

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