

**A Qualitative Analysis of Cognitive Congruence and Student Engagement in Peer and
Faculty Mentoring: The Perspective of the Student**

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In recent years, a growing numbers of curriculums have been using student tutors in addition to faculty tutors (Lockspeiser et al., 2008). Different schools have implemented the concept in various ways. From students tutoring each other one on one to students teaching full courses independently. Ntoliou et al. (2016) describe it as a method where a more capable and experienced student in knowledge and skills teaches a less capable one. The purpose of such an instructional style is to have students help other students, while learning more themselves at the same time (Topping, 1996). Problem-based learning is meant to develop problem solving skills among students through collaboration and drawing from relevant practical examples (Yew and Yong, 2013). Peer-assisted learning can benefit students by increasing participation and enjoyment (Rotgans and Schmidt, 2011). Additionally, peer tutoring has been found to be useful in declining fails in difficult courses (Malm et al., 2018).

Santee and Garavalia (2006) reviewed several studies comparing faculty tutors and peer tutors. In over half of those studies student tutors performed as well as or even better than faculty tutors. Students reported to value peer tutoring. They report peer tutors to give useful feedback and clear explanations (Yew and Young, 2013). Furthermore, Lockspeiser et al. (2008) reported that students thought peer tutors have a better understanding of what the basics are in a course. One student quotes: "When you're an expert like the faculty what you think is basic, is no longer basic." Another mentioned that peer tutors were able to explain what puzzled them and how they overcame this, which helped students understanding of the course material greatly.

The aims of this study are to take a closer look at how first year psychology students perceive cognitive congruence in their student and faculty mentor, and how these experiences affect their perceived engagement.

Peer-assisted learning

Peer-assisted learning has been described by Ntoliou et al. (2016) as “a method where a more capable and experienced student in knowledge and skills teaches a less capable one.” Topping (1996) describes it as “the development of knowledge and skill through active help and support among status equals or matched companions.” This teaching strategy is used primarily in medical education, particularly for first year students (Nestel and Kidd, 2003). The positive effects of near-peer tutoring stand out. Lockspeiser et al. (2008) reported that students found peer tutors to better anticipate problems than faculty mentors were. They automatically assisted their students’ learning process by sharing how they overcame difficulties themselves. Because peer mentors generally have followed the course they’re teaching recently, they are better able to remember challenges that came up for themselves (Yew and Yong, 2013). Lockspeiser et al. (2008) found that peer mentors use different teaching strategies as well. Students appreciated that their peer mentors were able to dumb down the material using silly mnemonics. Additionally, peer mentors provided more visual stimuli and interaction in their lessons. In problem-based learning, the effectiveness of peer-assisted learning is achieved through cognitive congruence.

Cognitive congruence

One way in which student tutors excel over faculty tutors is in their use cognitive congruence (Loda et al. 2020). This concept is described as “the ability to explain oneself in the language of students, using concepts they use and explain things in ways easily grasped by students” (Schmidt and Moust, 1995). This allows tutors to notice which topics

are more or less difficult to grasp for students and explain the course material at an appropriate level (Loda et al., 2019). According to Lockspeiser et al. (2008), students reported that peer mentors were better able to anticipate problems than faculty mentors were. They automatically assisted their students' learning process by sharing how they overcame difficulties themselves. Peer mentors generally have followed the course they're teaching recently. Because of this they are better able to remember challenges that came up during studying the material (Yew and Young, 2013). Due to this and similarities in age, students and peer mentors naturally communicate with similar language (Loda et al., 2020).

As a result of better cognitive congruence peer mentors are seen as more honest, realistic, and helpful compared to faculty mentors (Loda et al., 2019). Lockspeiser et al. (2008) found that peer mentors use different teaching strategies as well. Students appreciated that their peer mentors were able to dumb down the material using silly mnemonics. Additionally, peer mentors provided more visual stimuli and interaction in their lessons. They also note that peer-teaching is most effective for first year students and in the beginning of the school year. This is because those students are often overwhelmed with the work load and still figuring out what works best for them. Until that point, having a peer mentor provides someone to seek guidance and reassurance with (Lockspeiser et al., 2008).

In problem-based learning, good use of cognitive congruence is especially important. According to Yew and Yong (2013), you need cognitive congruence to apply scaffolding learning. Using this technique, tutors act adaptively to students' learning needs and explain concepts at the appropriate level. To achieve this type of adaptivity, a tutor must be able to tell when a student rises in their understanding of the course or when a student

needs more explanation on a certain topic. A similar knowledge base between student and mentor facilitates this process.

Engagement

In the present study, cognitive congruence is linked to engagement. Engagement is defined by Newmann et al (1992) as a situation where a student proactively invests their time and effort into the learning process in order to understand and internalize the knowledge. Engagement is a multi-dimensional theme. Ben-Ilyahu et al. (2018) therefore conceptualized it in three categories: affective engagement, behavioural engagement and cognitive engagement. Affective engagement represents the positive and negative feelings that occur in reaction to experiences in class, behavioural engagement represents observable behaviours of engagement like asking questions and participating. Cognitive engagement represents the mental effort a student puts in the learning-activity.

One way in which teachers can affect engagement in the classroom is by focussing on autonomy supportive teaching (Reeve, 2016). Reeve explains this as a motivating style that respects students' perspective and supports their need for autonomy. It's fitting for a problem-based learning environment because the role of a tutor in such an instructional style is to support students by having them tackle problem themselves (Rotgans and Schmidt, 2011). In practise, autonomy supportive teaching is performed by taking the students' perspective, by acknowledging any negative feelings that may arise and by using non-pressuring language with students. These techniques ensure that students achieve better learning satisfaction, intrinsic motivation and engagement (Reeve, 2016).

A tutor is able to increase engagement by behaving cognitively congruent (Rotgans and Schmidt, 2011). By correctly predicting and summarizing what students already know, an instructor is able to provide them with scaffolding in their learning. This promotes an active

learning attitude. They further describe that in order to be cognitively congruent and increase situational interest a teacher breaks down difficult topics by asking guiding questions, doesn't interrupt discussions among students, and doesn't put themselves in the centre of attention. Lavrijsen et al. (2021) further emphasises the use of cognitive congruence to make lessons engaging. They state that by assessing which topics are difficult or not, a tutor is able to prepare lessons to have an adequate difficulty.

Peer tutors are often closer to students in age, knowledge and experience (Safari et al., 2022). These similarities positively affect engagement (Rotgans and Schmidt, 2011) by communicating with students on a casual and friendly level. According to Lockspeiser et al. (2008), peer tutoring increases attendance and decreases student drop-out rates. This illustrates a certain interest peer tutors create among students. Another factor that benefits engagement in peer-assisted learning, according to Lockspeiser et al. (2008), is useful feedback and advice provided by peer tutors. This is made possible by having recent experiences with the course they're teaching. Peer tutors often actively remember their own feelings and experiences and are able to use those to make lessons more engaging.

Present study

Present study consists of a qualitative research design. Using semi-structured interviews, first-year psychology students will be asked to elaborate on their experiences of being taught by both a student and a faculty mentor. Interviews zoomed in on their courses Academic Skills, taught by both their student and faculty mentor, and Practical Introduction to Research Methods, taught by their student mentor. The aims of this study are to gain a deeper understanding of how students perceive cognitive congruence in their mentors and how this affects engagement. The following questions guide this research paper:

1. To what extent is cognitive congruence present in the student and faculty mentor?

2. Do differences in cognitive congruence between mentors result in differences in affective and behavioural engagement?

A qualitative research method was chosen to answer these questions in a meaningful way (Borman et al., 1986). The interest here doesn't just lie with whether or not cognitive congruence is present in both mentors. The research focus lies more-so with reporting students' authentic experiences regarding this topic. This study intends to add to previous literature by going in-depth into student perceptions effective classroom facilitation.

A focus on cognitive congruence is justified by Moust and Schmidt (1995). In their theoretical model, they describe tutors can differ on three dimensions: social congruence, cognitive congruence and expertise. Additionally, they found social congruence and expertise to be necessary factors in exhibiting cognitive congruence. Therefore, by focussing on cognitive congruence it is intended to get a complete picture of tutor functioning. Additionally, Loda et al. (2019) found that students didn't miss expertise in peer tutors as much when it was compensated with cognitive congruence.

Engagement was partly chosen as a focus because of the recent Covid-19 pandemic. Students largely reported loss of engagement during lessons. This had several negative consequences including lack of active study attitude, loss of motivation, and loss of enjoyment (Hsu, 2022). The pandemic helped realise the importance of in-class engagement, both for learning outcomes and study enjoyment. Rotgans and Schmidt (2011) name engagement as a powerful construct, because it can be directly influenced by teachers. Furthermore, the link between cognitive congruence and engagement is an underrepresented topic in current literature (Loda et al., 2019; Rotgans and Schmidt, 2011).

Method

Design

This study employed a qualitative phenomenological approach to investigate student perceptions of their mentors. Specifically, the aim is to compare student and faculty mentors in terms of social and cognitive congruence and examine how these factors influence student engagement during class. The phenomenological approach, as outlined by Husserl (1859), focuses on understanding and exploring the lived experiences of individuals. It can provide greater opportunity to uncover psychological processes that can influence engagement (Ring 2017), which might be missed when using a quantitative approach. Additionally, the current method has previously been used in the educational setting to shed light on problems and experiences of the students (Ring 2017).

Method

Through the utilisation of semi-structured interviews, there is an opportunity to conduct an in-depth exploration of the students' experiences, a task that would prove challenging when employing a questionnaire that restricts participants to predetermined response options considering the limitations associated with questionnaires (Razavi, 2001). Given the capacity of the phenomenological approach to accommodate open-ended questions (Ring, 2017), we opted for a comparable semi-structured format. The questions were divided into two sections, with one section focusing on social congruence and the other on cognitive congruence. Within each section, the latter half concomitantly asked about cognitive, affective, and behavioural engagements. When warranted, follow-up questions were asked. Thus, there was ample opportunity to elaborate and ask follow-up questions, to ensure that we captured the unique, subjective experiences of the students.

Participants

The study employed a purposive sampling approach. Contact with potential participants was established through a combination of in-person and online methods as part of the meticulous sampling process. Once participants provided their informed consent, interviews were scheduled at mutually agreed-upon dates and locations. To ensure consistency and adherence to specific criteria, we specifically targeted first-year psychology students at the University of Groningen who possessed proficient English language skills and were actively enrolled in the "Academic Skills" course. This particular course provides valuable academic support to students through the provision of both a faculty mentor and a peer mentor. A total of 12 participants were gathered as this has been found to reach data saturation (Guest, Bunce, and Johnson, 2006). This indicates that the sample size was sufficient to capture a comprehensive range of perspectives and insights relevant to the research objectives.

Data collection

This research study was approved by the ethics committee of the University of Groningen in April 2023. To ensure anonymity of all parties involved the participants were asked not to mention anyone by name during the interview. During the transcribing phase, all names were removed from the text altogether. Second, participants were told that the interview was confidential. Additionally, participants were asked to sign an informed consent form where it was briefly explained to them what the study is about and that the interview would be recorded. Lastly, participants were told they could retract their data from the study within 10 days and that they were entitled to their right to withdraw.

Regarding the research timeline, the initial phase encompassed the formulation of interview questions. Prior to commencing actual data collection, practice interviews were conducted as a preparatory measure. To enhance the validity of the questions, several measures were implemented. The first version of the interview script underwent scrutiny by

our supervisor and an external expert well-versed in qualitative research. Subsequently, a pilot study was conducted, involving three practice interviews. In addition to the two designated interviewers, an additional researcher was present to carefully monitor the participants' comprehension of the questions and evaluate whether the questions effectively elicited the desired information. As the researcher's interviewing skills improved and confidence grew, the interview format transitioned from group sessions with three interviewers to sessions conducted by two interviewers. However, it should be noted that one interview was conducted by a single interviewer. These meticulous steps were taken to ensure the integrity and reliability of the interview process, and to continuously refine and enhance the methodology throughout the study. We chose to revise the script after the practice interviews and after the first real interviews due to a lack of response or confusion from the participant. This is a common event in qualitative research as it is a reflexive process (DeCarlo, 2019). The main changes during these revisions consisted of cutting out questions that did not give new information, finding clearer formulations for questions that were confusing to the participants, and adding follow-up questions in places where we did not get sufficient depth of information with our original questions. Thus, the quality of the script was continually improved to ensure that the acquired information fit the constructs the study was designed to measure and had enough depth to answer the research questions.

Procedure

Before the interviews the participants were informed about the confidentiality of the data and each interview started with small talk and a few easy questions.. The questions were based on previous literature (Schmidt & Moust, 1995; Loda et al., 2020). More specifically, we adopted similar themes in order to better understand the student experience of congruence. The duration of the interviews ranged from 35 to 80 minutes. All the interviews were conducted in the Faculty of Behavioural and Social Sciences. For most interviews a private

room could be arranged, but some interviews were conducted in public areas; in those cases, it was ensured no one could overhear the interview. Most of the participants were provided with snacks and/or something to drink in order to make them feel comfortable and relaxed enough to engage in conversation. Furthermore, all the interviews were audio recorded on a device, as well as a second recording to prevent loss of data. Recordings were transcribed and all the participants were given a number from one to twelve to sort the transcripts. Names were only used to keep track of which transcripts were done and kept between members of the research team. Lastly, the names of the mentors of the students were not mentioned in the interviews and otherwise excluded in the transcript.

Data analysis

After the successful collection and transcription of data, a systematic process was initiated to analyse the data. Predetermined categories, informed by the literature, allowed for a predominantly deductive analytical approach (Brinkmann, 2023; Döringer, 2021). Any instances of inductive analysis followed thereafter, to capture emergent insights or themes not initially considered. Using ATLAS.ti software (version 23.0.6), the transcripts were meticulously coded according to these categories, ensuring the representation of every piece of information was accurate (G. Tort-Nassarre et al., 2023). Upon conducting a comprehensive deductive analysis, a layer of inductive analysis was carried out (Döringer, 2021; Bingham and Witkowsky, 2022). This facilitated the identification of new themes or patterns that emerged from the data, potentially offering novel insights (G. Tort-Nassarre et al., 2023). To support the results, quotes that accurately reflected the categories and unique findings were carefully selected and extracted from the transcripts (Loda et al., 2020; G. Tort-Nassarre et al., 2023).

Results

Sample

The sample for this study consisted of twelve first-year psychology students. The sample was limited at twelve as this is the number of participants Guest et al. (2006) described where data saturation occurs. All participants followed the BSC Psychology programme at the University of Groningen. Using semi-structured interviews, their perception on cognitive congruence and engagement during lessons with their student and faculty mentor were recorded. Afterwards, both a deductive and inductive analysis was conducted (Bingham and Witkowsky, 2022).

Results of cognitive congruence

To analyse the concept of cognitive congruence, Loda et al. (2020)'s method was partially replicated. Categories were created to show how students perceived different aspects of cognitive congruence. These include a mentor's use of language and their knowledge framework. These categories are consistent with the definition of cognitive congruence set by Moust and Schmidt (1995): "the ability to explain oneself in the language of students, using concepts they use and explain things in ways easily grasped by students." They point out that language and having a similar knowledge framework are important aspect cognitive congruence, Rotgans and Schmidt (2011)'s research strengthens this choice by stating that these factors lead to effective knowledge transfer and engagement. Engagement is divided into two categories: affective engagement and behavioural engagement. To analyse those categories meaningfully, they have been divided into the subcategories positive and negative effects. Positive effects for affective engagement include: enjoyment, interest, feeling comfortable, and confidence in the Academic Skills course. Negative effect include: boredom,

feeling confused, feeling overwhelmed, frustration and anxiety. Positive effect for behavioural engagement include: actively participating, being prepared, behaving professionally, and following rules. Negative effects include: procrastination, not paying attention, disturbing the class, and lack of voluntary participation. These subcategories are partially based on research by Rotgans and Schmidt (2011) and have been partially coded inductively, depending on participant responses.

Key results of the deductive analysis are that student mentors use simple and familiar language, while faculty mentors use complicated and academic language. This is consistent with Loda et al. (2020). Additionally, consistent with Yew and Young (2013), faculty mentors find it difficult to simplify their explanation to students' level. Furthermore, student mentors have a closer, but slightly advanced, knowledge framework to students compared to faculty mentors. This is consistent with results of Loda et al. (2020). Lastly, faculty mentors were able to use their expert knowledge framework to explain difficult topics. This is consistent with Williams et al. (2011). Key results of the inductive analysis are that not just cognitive congruence influences engagement. Consistent with Schmidt and Moust (1995)'s original model, social congruence and expertise are important to consider as well. Additionally, not one mentor was better than the other one. Instead, both mentors complemented each other in knowledge and skills.

Results of language

To analyse a mentor's use of language, categories were created to distinguish quotes from one another. These categories include: academic, casual, complicated, familiar and simple. These categories were chosen inductively after quotes about use of language were collected, while keeping in mind coding in previous literature on the topic by Loda et al. (2020). What stood out most about mentor's use of language is that student mentors tended to

use simple language that is familiar to students, while faculty mentors tended to use more complicated and academic language.

- *“With the faculty mentor, it was kind of more like theoretical, like up in the air, hard to understand and they used a lot of analogies.”* Participant 5
- *“I think for the student mentor, they felt a lot more comfortable going into more slang term.”* Participant 2

Overall, student mentors had a positive effect on affective engagement. Students reported feeling of enjoyment and interest in their explanations, whereas during faculty mentor explanations, students reported feelings of confusion and frustration for the session. Regarding behavioural engagement, students reported that the use of simple language made them more comfortable to speak up when they didn't understand something. Students reported that they felt pressure to conform to their faculty mentor's academic manner of speaking, this caused anxiety and a decrease in participation but also ensured that most participants prepared for the sessions.

- *“The language he would expect from us, even though I have like taken bilingual classes since 7th grade, it's still not that level. So I still like get criticised on this like a lot.”* Participant 8
- *“The faculty mentor is a lot more intimidating, so nobody wanted to raise their hand ever.”* Participant 5
- *“With the student mentor, it seems a little more like a talk with, not with friends specifically, but more like that with like peers, just about academic topic.”*
Participant 9

Furthermore, participant reported that their faculty mentors found it difficult to simplify their explanations to students' level. This is consistent with Yew and Young (2013) and is

expressed in the use of examples and analogies that students find difficult to understand.

Students mention that the use of academic language is one factor that makes explanations more complicated.

- *“They find it a bit, maybe harder to kind of tone down their explanations for students sometimes.”* Participant 2
- *“I just remember once the faculty mentor was trying to explain something and in order to explain it he got up a YouTube video that had nothing to do with it. Yeah. <laugh> and then made some weird analogy.”* Participant 5

The complexity of some explanations by faculty mentors had negative effects on both affective and behavioural engagement. Participants reported that they felt confused and overwhelmed. Some participants also mentioned that they felt criticised by their faculty mentor if they didn't understand something right away. Regarding behavioural engagement, students mentioned participating less when the explanation was not on the right level, additionally they reported getting distracted sometimes to google certain difficult terms.

- *“I feel like sometimes she cannot explain it to me properly because she doesn't, really. Know how I think? Yeah. Because it's like so natural to her.”* Participant 7
- *“People were a little confused during their explanations and googling the words.”*
Participant 9

Results of knowledge framework

To analyse the results of students' and mentors' knowledge framework, subcategories have been created inductively. These categories are: helping with problems, similar, understanding problems, and using own experiences. The extent to which a mentor's knowledge framework is similar to that of their students is expressed in the examples, analogies and advice they provide students with. Lockspeiser et al. (2008) states that when

personal examples given by mentors, the closer they are to student experiences, the more similar a mentor's knowledge framework is perceived. Consistent with Loda et al. (2020), student mentors had a similar but slightly advanced knowledge framework to their students. This slight advancement was due to having followed the course recently. There was more distance between faculty mentors and students in this regard, as faculty mentors are experts in their course.

- *"I feel like, if you are that deep into research paper writing and stuff like that, you sometimes don't really get how someone thinks when they just start to learn the skill."*

Participant 7

- *"I think the student mentor, again, is just better at explaining it because they've been through the course as well."* Participant 5

Overall, the students mentor's use of their knowledge framework had positive effects on affective engagement. Students reported they could relate to their student mentor and felt connected as a group during those lessons. With the faculty mentor, students reported feeling more pressure and anxiety to conform to their faculty mentor's knowledge framework. When either of the mentors gave good advice, this released some stress. Students also report that their student mentor has positive effects on their behavioural engagement. They used the extra resources their mentor provided and came to them when they needed advice on studying. Student mentors also had a better effect on participation because they often paired students together who got along.

- *"She [faculty mentor] just said something rather generic. Like, It's going to get better and the first year is always tough, but I felt like with my student mentor I also contacted him and we actually sat down. I think at least for like 45 minutes and went through the most important materials."* Participant 9

- *“That was very encouraging and he [faculty mentor] gave me a lot of advice, so I think that then, because I knew what I was doing, I felt more encouraged and more motivated towards the class and more kind of comfortable and overall less stress.”*

Participant 11

Another trend regarding a mentor’s knowledge framework, is that faculty mentors were able to use their expert knowledge framework to explain difficult topics. This is consistent with Williams et al. (2011). Student mentors often weren’t able to explain these topics on the spot and had to look it up for next lesson.

- *“I felt like it was easier for him [student mentor] to understand, but easier for her [faculty mentor] to explain.”* Participant 7
- *“The student mentor just wasn’t equipped. Like, I wouldn’t be equipped, even if I aced this course. I would not be equipped to answer such a question.”* Participant 10

Regarding affective engagement, the lack of expertise in student mentors lead to disappointment in some participants. On the contrary, faculty mentors were able to ease students’ worries about a difficult topic by explaining it well. For behavioural engagement, students reported that they payed less attention when they didn’t understand their student mentor’s explanation properly. One participant mentioned that he treated those lessons more like a tea-party than a lesson. Students also chat more amongst each other. During faculty mentor lessons, students tended to behave more professionally.

- *“She’s [faculty mentor] just more of an authority figure but also I think the class was very rule following, nobody was very outside the range or something, everyone was always listening and participating.”* Participant 4

- *“I was a bit more motivated doing research with the faculty mentor, because we talked with her more about academic stuff and really stuff that I still have to learn. And so I pay more attention, also probably prepared a bit more.”* Participant 7

Results of inductive analysis

Inductive analysis resulted in the discovery that not only cognitive congruence has an influence on engagement. A mentor's expertise and social congruence are important factors as well. This is consistent with Schmidt and Moust (1995)'s original model, in which they describe that both social congruence and expertise are necessary factors in being cognitively congruent. Additionally, students reported that student and faculty mentors complemented each other in their skills and knowledge. Specifically, what their student mentor lacked in expertise was compensated by cognitive congruence and what their faculty mentor lacked in cognitive congruence was compensated by expertise. This is consistent with Long and Koehler (2021).

Summary

Overall, student mentors enhanced affective and behavioural engagement. They did this by having a similar but slightly advanced knowledge framework to their students. Additionally, they used simple and familiar language, enhancing student understanding. This resulted in better participation and enjoyment in the class. However, student mentors were often unable to explain difficult topics, resulting in disappointment among students. Faculty mentors had mixed effects on affective and behavioural engagement. On one hand, students reported that faculty mentors misunderstood their struggles and questions, resulting in confusion, frustration and inattention by students. On the other hand, faculty mentors used their expert knowledge framework to provide explanations of difficult topics, resulting in students feeling relieved and an increase in their motivation.

Discussion

The aims of this study are to gain a deeper understanding of students' perceptions on the role cognitive congruence plays in the teaching style of student and faculty mentors, and its effect on affective and behavioural engagement. Using a qualitative approach, interviews were conducted with first year psychology students. Cognitive congruence was represented by the following categories: use of language and knowledge framework. Meaningful responses were gathered by dividing the codes into subcategories. Use of language was divided into the following categories: academic, casual, complicated, similar, and simple. Knowledge framework was divided into the following categories: helping, similar, understanding, and using their own experiences.

Key findings

Consistent with Loda (2020), this study indicates that student mentors are more cognitively congruent than faculty mentors, as perceived by students. This is illustrated by the use of simple and familiar language by student mentors and the use of academic and complicated language by faculty mentors (Loda et al. 2020). Participants noticed this especially during explanations of course material. Student mentors explained the material in a way students were easily able to understand it, while faculty mentors were described as giving complicated, theoretical and long explanations, as is consistent with Yew and Young (2013)'s results. For affective engagement, this led to students feeling more confident and interested during lessons with their student mentor. They described that student mentors were able to make the material sound doable. Participants reported that they dreaded the lessons with the faculty mentor a little bit. For behavioural engagement, students felt more comfortable to speak up when they didn't understand something with their student mentor as compared to their faculty mentor. Another trend regarding tutor language that students reported is faculty mentors having difficulty simplifying their explanations to students' level. This is again

consistent with Loda (2020). Participants described this by mentioning that they often didn't understand certain terms or words their faculty mentor uses. This happened both with academic terms as with less common words in the English language. For affective engagement, this led to students feeling confused and criticized. Boredom was also reported during difficult explanations. Regarding behavioural engagement, this led to a decrease in participation. Participants also became distracted to google terms they didn't understand.

Cognitive congruence was also illustrated in this study by student mentors having a knowledge framework that is closer to students, compared to faculty mentors. Students perceived similarities in knowledge frameworks in the examples, analogies and advice their mentors provided. When personal examples by mentors were close to a student's own experience, they perceived this mentor to have a closer knowledge framework to their own (Lockspeiser, 2008). Additionally, similarities in knowledge framework were perceived when mentors were able to break topics down in an understandable manner (Schmidt and Moust, 1995). Present study was consistent with Loda's (2020) results, student mentors had a closer knowledge framework to their students compared to faculty mentors. Student mentors did have a slightly advanced knowledge framework compared to students. Students reported that their student mentors were better able to understand them and used their own experiences to give advice. Although students were more positive on their student mentors' knowledge framework, they emphasized that their faculty mentors were able to understand and help them as well. Especially when it came to difficult topics, faculty mentors used their expertise on the course to facilitate students' learning (Schmidt and Moust, 1995). For affective engagement, participants reported that they felt more pressure during faculty mentor lessons to conform to their mentors knowledge level, this caused anxiety. They reported feeling more comfortable and less pressured during student mentor lessons and feeling relieved after being given helpful advice. Regarding behavioural engagement, this led to increases in participation during

student mentor lessons. Students used the recourses and advice their student mentors provided them with. Students also reported coming to their student mentor for advice on studying.

Findings explained

Schmidt and Moust (1995) emphasize that explaining concepts using language that students understand is a key concept of cognitive congruence. During their research, they also found that student tutors are often rated better in their ability to explain concepts. Present study support their findings. Faculty and student tutors differed in use of theoretical and technical language. Student mentors often used simple language to explain concepts, participants rated this as easier to understand compared to faculty mentor's technical language use. Loda et al. (2020) explains this by describing that simple language leads to effective knowledge transfer. Furthermore, Rotgans and Schmidt (2011) reported that providing structure and scaffolding in student learning, was an important factor in predicting engagement. Scaffolding is provided by keeping track of which topics are perceived as difficult, and which not. In the present study, student mentors were better in teaching students on the right level. This was illustrated by participants reporting that their faculty mentors were sometimes unable to simplify their explanations. Yew and Young (2013) reported that because of their expertise, faculty tutors found it difficult to understand which terms are too technical and which not. Participants mentioned that they suspected this expertise to sometimes negatively influence the use of understandable terms by faculty mentors as well. Student mentors were therefor reported to be more adaptive to students' learning needs.

This is unexpected as it conflicts with Long and Koehler (2021)'s findings about a tutors adaptivity. They reported that faculty mentors are more adaptive to students' learning needs, because of their experience in teaching and expertise in the course content. In their study, student mentors tended to stay close to their prepared lesson plan and showed little flexibility. A small portion of participants did report similar concerns as Long and Koehler

pointed out, although the majority of participants found their student mentors' explanations to be sufficient. These differences in perception of student mentor performance, might be influenced by the level of expertise an individual student mentor has. Better expertise leads to more confidence, and therefore more adaptability in class (Yew and Young, 2013). The differences in ratings of student mentor performance are also explained by De Rijdt et al. (2012), they state that because student mentors tend to be more cognitively congruent, they are able to compensate their lack of expertise by explaining the material on the right level. Regardless of confusions in literature, it is clear that expertise is an important factor to be considered. A focus on just cognitive congruence does not seem sufficient in explaining mentor behaviour. Therefore, it is suggested that future research is done on the interaction between expertise and cognitive congruence, and what effect this might have on engagement.

These findings can be viewed through the lens of the autonomy support theory (Reeve, 2016) as well. As per Reeve's description, autonomy supported teaching involves motivating students to be independent learners by allowing them to have autonomy over their learning experience. It ensures students achieve better learning satisfaction, intrinsic motivation and engagement. According to several participants, student mentors tend to share a lot of resources that help students achieve better learning results and simultaneously increase their independence. According to Reeve, student autonomy is also supported by teachers imagining themselves in students positions. Teachers can do this by for example considering how engaging or fun their lesson plan is, or by understanding their students' current learning level. Participants reported that they perceived this clearly in their student mentors, mostly due to them having followed the course recently.

One goal of problem-based learning is to emphasize self-regulated learning (Paris and Paris, 2001). They state that this is achieved through actively supporting autonomy and self-improvement in students. Present study has shown that student mentors are supporting self-

regulated learning by sharing resources and study advice with their students. Students reported that this made them feel more confident in their own abilities but also made them more motivated to do the course work. This shows a clear increase in their affectional and cognitive engagement.

Inductive analysis resulted in the discovery that another factor important in problem-based learning is having sufficient knowledge on the course material, this is emphasized by Schmidt and Moust (1995) as well. In the present study, expertise is shown in both mentors, although it was clear faculty mentors possessed expert knowledge over the course. Both teachers used their knowledge in different ways, to guide students through the course. Participants reported that student tutors used their recent experiences with the course to provide useful resources that facilitated achievement success. Faculty mentors were able to use their advanced knowledge to explain difficult topics. Students reported an appreciation of both tutors when it came to their knowledge. This is explained by Paris and Paris (2001)'s research, although both mentors used their knowledge framework differently, both were capable of supporting autonomy and self-improvement in students.

Implications

Loda (2020) emphasizes sharing learning experiences between student and student tutors, as an important factor in facilitating students. Present study marks this as important as well, illustrated by the recourses student mentors provided. Our findings suggest that a small portion of student tutors lack general knowledge on the course, while faculty tutors are generally recognized as experts in their field. Additionally, while student tutors are able to explain material to students on the appropriate level, this is something that most faculty mentors had trouble with. Mawhinney (2010) showed that sharing professional knowledge among teachers benefits creativity, collaboration and professional. The way the Academic Skills course is currently structured, it doesn't seem to take full advantage of the skills both

student and faculty mentor have. Student mentor and faculty mentor complement each other. The student mentor is more cognitively congruent and therefore better able to communicate clearly with students, while the faculty mentor has more expertise on the course content. Currently, most lessons in the Academic Skills course are taught individually. To make use of both mentors' competences equally, both mentors should be teaching at the same time. That way they can complement one another most effectively (Mawhinney, 2010).

Specific behaviours and implementations that were well-perceived by students and that are therefore recommended for practical use, are as follows: using student tutors that have followed the course they are teaching recently. This is also supported by Loda et al. (2019), they described that student tutors should have advanced knowledge in the course they're teaching, when compared to their students. Sharing resources to aid learning was also highly appreciated by students. Not only from their student tutors. When given, they appreciated the resourced faculty tutors provided as well. Lockspeiser et al. (2008) support these findings, they reported that student tutors tended to share their advice and resources automatically with students.

Limitations

Present study is limited in its generalisability. As the sample only consisted of twelve first-year psychology students, these findings might not replicate to students in general. Guest et al. (2006) described that a small sample size might lead to reliability issues, as data saturation may not have been reached and information might be left out. The solution offered here is to replicate the study across different groups of students. Because previous literature has mostly been focused on medical students (Lockspeiser et al., 2008), future research could focus on trying to replicate these findings with students across other disciplines and faculties.

Other limitations include the use of a purposive sampling technique. By using subjective judgement to seek out students that fit our requirements, the selection of participants is prone to a researcher bias (Gratton and Jones, 2010). Additionally, due to lack of experience in interviewing, the first interviews were lower in quality than the last interviews. This may have caused less effective information transfer during those first few interviews. Lastly, given the subjective nature of qualitative research analysing, confirmation bias may have occurred during the coding process (Jager et al., 2021). By choosing which quotes to include in certain categories, pre-made beliefs may have influenced which quotes have been chosen.

Conclusion

The present study contributed to existing research by looking in-depth at the perceptions of students regarding cognitive congruence and engagement in their student and faculty mentor. Using a qualitative approach, student experiences were examined closely using semi-structured interviews. By making use of both a deductive and inductive analysing approach, themes were brought to light that are valuable topics for future research.

Key findings of the deductive approach are in line with previous research (Loda et al. 2020; Yew and Young, 2013). Student mentors showed more cognitive congruence because they used simple language and had a knowledge base closer to their students, compared to the faculty mentor. Overall, this had positive effects on engagement. Participants reported that they felt comfortable and motivated during student mentor lessons and participated more compared to lessons with their faculty mentors. However, using an inductive analysis, it was found that cognitive congruence was not the only predictor of engagement and understanding of the course material. When students were confronted with difficult topics, they preferred the explanations by their faculty mentor. Expertise is therefore an important factor to consider in future research. To make use of both mentor's skills, it is suggested that they teach together.

Using faculty and student tutor's next to one another is a good way to facilitate both their teaching skills and learn from each other. Student mentors can seek advice on course material and teaching experience, while faculty tutors can learn cognitively congruent behaviours (Long and Koehler, 2021).

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Appendix A: Interview concept 26-02-2023

Introduction

Social congruence

- How did your teacher show interest in your personal life? (enjoyment)
- How important do you think it is that your teacher knows you personally? (trust, safety?)
- How much did the teacher involve in conversations before/after the meetings or during the breaks? (enjoyment)
- How comfortable do you feel bringing up an issue with your teacher? (trust, safety)
- Can you describe the first meeting with your teacher (getting to know the group)? (safety)
- How formal do you speak with him or her? (respect, hierarchy)
- In what ways did your tutor make you look forward to the sessions? (motivation)
- What do you have in common with the tutor? (identification)

Cognitive congruence

- What is one strength and weakness that this course has brought your attention to? (knowledge transfer; knowledge receiving)
- What did you think about the explanations of the teacher?
- Can you describe a typical discussion?
- What are the differences between being taught by a student mentor or a faculty member?

Use of expertise

- To what extent are your teachers knowledgeable of the material? How did you recognize that?
- What competences does the teacher have?
- How does the teacher answer your questions?
- How well does the teacher answer your questions?
- To what extent do you feel your question is answered?
- To what extent do you feel that your teacher is well organised and prepared?

Other questions

- What can you learn from the teacher?
- What do you find important in a teacher? Can you relate this to your academic skills teachers?
- To what degree do you see yourself taking on the roles and responsibilities of your mentor?
- How much do you feel you have learned from these teachers?
- How do you think things would have been different if the sessions were all online (follow-up)
- How well did your teachers handle the change of environment?

Appendix B: Interview concept 01-04-2023

Questions concerning cognitive congruence

Cognitive congruence refers to the ability to express oneself in a language students can understand, using concepts they use and explaining concepts in ways easily grasped by students (Schmidt & Moust, 1995)

- How effectively did the peer mentor use the tutorial itself to convey knowledge? What made it effective? How did this compare to the Faculty mentor? What did you prefer and why?
- What worked well? Why do you think this worked well? How did this compare to the Faculty mentor? What did you prefer and why?
- Did anything not quite work as well with the peer mentor? Why do you think this was? How did this compare with the faculty mentor?
- What kind of language/terminology did your peer mentor use? Was it used in a way that you could understand? How did this compare to the Faculty mentor? What did you prefer and why?
- Was the peer mentor able to break down difficult concepts by breaking them down at all into simpler concepts. How did this compare to the Faculty mentor? What did you prefer and why?
- Did the peer mentor communicate effectively? How did this compare to the Faculty mentor? What did you prefer and why?
- Which topics did you feel were particularly difficult and challenging? How did your peer mentor explain/teach you these? Did you feel this worked? How did this compare to the Faculty mentor? What did you prefer and why?
- Do you feel that your peer mentor was able to stretch you? How did this compare to the Faculty mentor? What did you prefer and why?
- To what extent was your peer mentor capable of understanding students' problems? How did this compare to the Faculty mentor? What did you prefer and why?

Questions concerning social congruence:

Social congruence refers to a teacher's personal interest in or concern for his/her students

- What do you and your peer mentor have in common? In what ways are they 'like you'? How did this compare to the Faculty mentor?
- Do you think the peer mentor cared about their students? What makes you say this? How did this compare to the Faculty mentor? What did you prefer and why?
To what extent did your peer mentor seem sympathetic and supportive towards the students? How did this compare to the Faculty mentor? What did you prefer and why?
- Was the peer mentor approachable? How did this compare to the Faculty mentor?

- Do you think they were empathetic towards your needs and expectations? Do you think they understood the difficulties that you may be facing. How did this compare to the Faculty mentor?
- How interested do you think the peer mentor is in his/her students? How did this compare to the Faculty mentor?
- How did your peer mentor express praise and criticism? Did they acknowledge the effort you had put into the work? How did this compare to the Faculty mentor? What did you prefer and why?

Subject knowledge a teacher has positively affects student achievement in the active-learning classroom

Did the peer mentor have a lot of knowledge about the subjects being taught? How do you know this? How did this compare to the Faculty mentor? What did you prefer and why?

Did the mentor use his or her knowledge of the subject to help you? Can you provide some examples? How did this compare to the Faculty mentor? What did you prefer and why?

General engagement:

- Were you able to stay focussed throughout the lessons? why/how?
- Did you actively participate during the lessons? How did you teachers motivate you to actively participate?

Behavioural Engagement:

1. How often did you attend class?
 - Did you feel motivated to attend class? Why or why not?
2. How often did you participate in class discussions?
3. How often did you complete assignments on time?
 - Did you feel motivated to complete assignments? Why or why not?

Affective Engagement:

1. Did you enjoy the course material? Why or why not?
2. To what extent did you experience the lessons positively?
3. Whom did you feel more comfortable asking for help: your peer mentor or faculty mentor? Why?
4. Whom did you feel more supported by: your peer mentor or faculty mentor? Why?

Cognitive Engagement

1. Were you able to explain the course material in your own words?
2. Did you feel challenged by the course material? Why or why not?
3. What strategies did your peer mentor use to help you understand the course material?

Appendix C: Interview questions version 1: 07-05-2023

Introduction:

- Get them comfortable with questions like: Did you find your way here well? What do you think of the psychology program so far? How do you like living in Groningen?
- Confidentiality
- Sign the informed consent
- 10 days to email that they want the recording deleted
- Ask them if it's okay to record the interview
- there are no right or wrong answers
- They can stop at any time
- Interview is about an hour

Broad starter question

- What did you think about the course?
- How did you like your class?

Questions concerning cognitive congruence

Cognitive congruence refers to the ability to express oneself in a language students can understand, using concepts they use and explaining concepts in ways easily grasped by students (Schmidt & Moust, 1995)

- What did you think about the explanations of the mentors? How did they compare? Whom did you prefer? Why?
- What did you prefer about the way your mentors communicated during the explanations, and why? What did you not like as much? Whom did you prefer?
- How understandable was the language that the tutor used? How did the mentors compare? What did you prefer and why? How did they use terminology?
- How did the mentors explain difficult topics? Were they able to break down difficult concepts into simpler ones? How did they compare? Whom did you prefer and why?
- To what extent were your mentors capable of understanding your academic problems? How did they differ from each other in this regard? Whom did you prefer and why?

* Short intro what we talked about and what it does to engagement*

- we have talked about the language that your tutors used to explain the material
- let's focus on the consequences that it might have had on you

Engagement questions

cognitive engagement

- How did your mentors' explanations of difficult topics influence your motivation to learn?
- How did your mentors' skill of explaining topics influence your ability to understand the course material? What about your ability to take on challenging tasks? Why do you believe so?

affective engagement

- How did your mentors' way of explaining difficult topics make you feel during class?
- How did your mentors' teaching style influence your sense of belonging and connectedness to the class environment?
- To what extent, do you believe that your mentors' understanding of your academic struggles influence your emotions, feelings, and attitudes towards the class?

behavioural engagement

- How did your mentors' way of leading discussions influence the extent to which you participated in class? What made you participate?
- How does your mentors' way of presenting the material influence your desire to follow the class rules? (attendance, positive conduct, effort)

Questions concerning social congruence:

Social congruence refers to a teacher's personal interest in or concern for his/her students

- How much do you believe your mentors showed care for their students?
 - Can you provide an example of this?
 - Were there any differences between the two and whom did you prefer? Why?
- How approachable were each of your mentors? How did they differ from each other? Why do you believe so? Whom did you prefer in this aspect and why?
- In what ways did your mentors display empathy and emotional support towards you? Were there any differences between their competence in these matters? Why?
- How did your mentors show interest in their students? Yes, in terms of their personal lives and well-being? Were there any differences between the two?
- How did your mentors express praise and criticism? How much did they acknowledge the effort you had put into the work? How did this compare to the other mentor? Whom did you prefer and why?
- Overall, what do you and your mentors have in common? In what ways are they 'like you'? What makes you say this? Were there any differences between the two? Why do you think so? Whom did you prefer, regarding this?

Short intro what we talked about and what it does to engagement*

- We have already talked about tutors' interest in your personal life etc.
- let's focus on the consequences that it might have had on you

Engagement questions (updated 23.04)

cognitive engagement

- In what ways do you believe that your mentor's interest in your personal life impacts your motivation to learn? How did having experiences in common influence your motivation?
- How did the extent to which your mentors' encouraged collaboration influence your ability to understand the course material? What about your ability to take on challenging tasks? Why do you believe so?

affective engagement

- During the lessons, how did your mentor's interest in your personal life make you feel?
 1. How did that influence your attitudes towards the class?
- How did your teachers' concern for you influence your sense of connectedness to the class environment?

behavioural engagement

- What influence did the mentor's interest in the students personal lives, and emotional support, have on the extent to which you participated in class?
- How did your mentor's relationship with you affect your desire to follow the class rules? (attendance, positive conduct, effort)

Appendix D: Interview questions version 2: 09-05-2023

Introduction:

- Get them comfortable with questions like: Did you find your way here well? What do you think of the psychology program so far? How do you like living in Groningen?
- Confidentiality
- Sign the informed consent
- 10 days to email that they want the recording deleted
- Ask them if it's okay to record the interview
- They can stop at any time
- Interview is about an hour
- We will ask about your experiences with the course, Academic Skills, and your student and faculty mentors.

Broad starter question

- What did you think about the course?
- How did you like your class?

Questions concerning cognitive congruence

Cognitive congruence refers to the ability to express oneself in a language students can understand, using concepts they use and explaining concepts in ways easily grasped by students (Schmidt & Moust, 1995)

- What did you like about the way your mentors communicated? What did you not like as much? Whom did you prefer? Why?
- What did you think about the explanations of the mentors? How did they compare? Whom did you prefer? Why?
- How understandable was the language that the tutor used? How did the mentors compare? What did you prefer and why? How did they use terminology?
- How did the mentors explain difficult topics? Were they able to break down difficult concepts into simpler ones? How did they compare? Whom did you prefer and why?
- To what extent were your mentors capable of understanding your academic problems? How did they differ from each other in this regard? Whom did you prefer and why?

* Short intro what we talked about and what it does to engagement*

- we have talked about the language that your tutors used to explain the material
- let's focus on the consequences that it might have had on you

Engagement questions

Met opmerkingen [1]: If information is insufficient up until this point, we can follow up with the following: "What would you change, about the way your mentors communicated?"

Met opmerkingen [2]: Also, do try to follow these questions with "how did your mentors differ in this context?" and "Why" or "Why do you believe so?"

cognitive engagement

- How did your mentors' explanations of difficult topics influence your motivation to learn?
- Earlier we asked you how your mentors explained difficult topics. In that regard, how did this affect your confidence in your ability to understand the course material? What about your confidence in your ability to take on challenging tasks? Why do you believe so?

affective engagement

- How did your mentors' way of explaining difficult topics make you feel during class?
- How did your mentors' teaching style influence your sense of belonging and connectedness to the class environment?
- Going back to obstacles that you faced throughout the course, how did your mentor's understanding of these struggles influence your emotions, feelings, and attitudes towards the class?

Met opmerkingen [3]: You can specify what you mean if you think the participant will digress too much from cognitive congruence.

behavioral engagement

- How did your mentors' way of leading discussions influence the extent to which you participated in class? What made you participate?
- How does your mentors' way of presenting the material influence your desire to follow the class rules? (attendance, positive conduct, effort)

Questions concerning social congruence:

Social congruence refers to a teacher's personal interest in or concern for his/her students

- How much do you believe your mentors showed care for their students?
 - Can you provide an example of this?
 - Were there any differences between the two and whom did you prefer? Why?
- In what ways did your mentors display empathy and emotional support towards you? Were there any differences between their competence in these matters? Why?
- How approachable were each of your mentors? How did they differ from each other? Why do you believe so? Whom did you prefer in this aspect and why?
- How did your mentors show interest in their students? Yes, in terms of their personal lives and well-being? Were there any differences between the two?
- How did your mentors express praise and criticism? How much did they acknowledge the effort you had put into the work? How did this compare to the other mentor? Whom did you prefer and why?
- Overall, what do you and your mentors have in common? In what ways are they 'like you'? What makes you say this? Were there any differences between the two? Why do you think so? Whom did you prefer, regarding this?

Short intro what we talked about and what it does to engagement*

- We have already talked about tutors' interest in your personal life etc.
- let's focus on the consequences that it might have had on you

Engagement questions

cognitive engagement

- In what ways do you believe that your mentor's interest in your personal life impacts your motivation to learn?
- Earlier, you talked about what you had in common with the mentors. How did having these experiences in common influence your motivation to learn?
- How did the extent to which your mentors' encouraged collaboration influence your ability to understand the course material? What about your ability to take on challenging tasks? Why do you believe so?

affective engagement

- During the lessons, how did your mentor's interest in your personal life make you feel?
 - a. How did that influence your attitudes towards the class?
- How did your teachers' concern for you influence your sense of connectedness to the class environment?

behavioral engagement

- What influence did the mentor's interest in the students personal lives, and emotional support, have on the extent to which you participated in class?
- How did your mentor's relationship with you affect your desire to follow the class rules? (attendance, positive conduct, effort)

Appendix E: Interview questions version 3: 19-05-2023

Introduction:

- Get them comfortable with questions like: Did you find your way here well? What do you think of the psychology program so far? How do you like living in Groningen?
- Introduce everyone and explain what they will do (especially the one taking notes)
- Confidentiality
- Sign the informed consent
- 10 days to email that they want the recording deleted
- Ask them if it's okay to record the interview
- They can stop at any time
- Interview is about an hour
- We will ask about your experiences with the course, Academic Skills, and your student and faculty mentors.

Broad starter question

- What did you think about the course?
- How did you like your class?

Questions concerning cognitive congruence

Cognitive congruence refers to the ability to express oneself in a language students can understand, using concepts they use and explaining concepts in ways easily grasped by students (Schmidt & Moust, 1995)

- What did you like about the way your mentors communicated? What did you not like as much? Whom did you prefer? Why?
- What did you think about the explanations of the mentors? How did they compare? Whom did you prefer? Why?
- How understandable was the language that the tutor used? How did the mentors compare? What did you prefer and why? How did they use terminology?
- How did the mentors explain difficult topics? Were they able to break down difficult concepts into simpler ones? How did they compare? Whom did you prefer and why?
- To what extent were your mentors capable of understanding your academic problems? How did they differ from each other in this regard? Whom did you prefer and why? How did you find the individual meeting with your faculty mentor?

* Short intro what we talked about and what it does to engagement*

- we have talked about the language that your tutors used to explain the material
- let's focus on the consequences that it might have had on you

Engagement questions

Met opmerkingen [4]: -more follow up questions about things that the P says

cognitive engagement

- How did your mentors' explanations of topics influence your motivation to learn? How was your motivation different after a meeting with your student mentor or with your faculty mentor?
- Earlier we asked you how your mentors explained difficult topics. In that regard, how did this affect your confidence in your ability to understand the course material? What about your confidence in your ability to take on challenging tasks? Why do you believe so?

Met opmerkingen [5]: good question avoids repetition

Met opmerkingen [6]: however one has to pay attention to whether they actually share how it affected their confidence

affective engagement

- How did your mentors' way of explaining topics make you feel during class?
- How did your mentors' teaching style influence your sense of belonging and connectedness to the class environment?
- Going back to obstacles that you faced throughout the course, how did your mentor's understanding of these struggles influence your emotions, feelings, and attitudes towards the class?

behavioral engagement

- How did your mentors' way of leading discussions influence the extent to which you participated in class? What made you participate?
- How does your mentors' way of presenting the material influence your desire to follow the class rules? (attendance, positive conduct, effort)

Questions concerning social congruence:

Social congruence refers to a teacher's personal interest in or concern for his/her students

- How much do you believe your mentors showed care for their students?
 - Can you provide an example of this?
 - Were there any differences between the two and whom did you prefer? Why?
- In what ways did your mentors display empathy and emotional support towards you? Were there any differences between their competence in these matters? Why?
- How approachable were each of your mentors? How did they differ from each other? Why do you believe so? Whom did you prefer in this aspect and why?
- How did your mentors show interest in their students? Yes, in terms of their personal lives and well-being? Were there any differences between the two?
- How did your mentors express praise and criticism? How much did they acknowledge the effort you had put into the work? How did this compare to the other mentor? Whom did you prefer and why?

- Overall, what do you and your mentors have in common? In what ways are they 'like you'? What makes you say this? Were there any differences between the two? Why do you think so? Whom did you prefer, regarding this?

Short intro what we talked about and what it does to engagement*

- We have already talked about tutors' interest in your personal life etc.
- let's focus on the consequences that it might have had on you

Engagement questions

cognitive engagement

- In what ways do you believe that your mentor's interest in your personal life impacts your motivation to learn?
- Earlier, you talked about what you had in common with the mentors. How did having these experiences in common influence your motivation to learn?
- How did the extent to which your mentors' encouraged collaboration influence your ability to understand the course material? What about your ability to take on challenging tasks? Why do you believe so?

affective engagement

- During the lessons, how did your mentor's interest in your personal life make you feel?
 - a. How did that influence your attitudes towards the class?
- How did your teachers' concern for you influence your sense of connectedness to the class environment?

behavioral engagement

- What influence did the mentor's interest in the students personal lives, and emotional support, have on the extent to which you participated in class?
- How did your mentor's relationship with you affect your desire to follow the class rules? (attendance, positive conduct, effort)