

International Student Feedback on Support Methods within the University of Groningen

Jolevi van Delft - S3896234
Rijksuniversiteit Groningen
Bachelorproject Spatial Planning and Design
Charlotte Miller & Paul van Steen
17-2-2022

Abstract

This research aims to build on different ways to support international students within the context of the Covid-19 pandemic and the University of Groningen, based on the international student experiences. This is done by using a survey that was disseminated to 30 international students. The main results show that a majority of student support methods were not received by a large portion of the international students, despite the positive influence that the international students stated the majority of these methods (would) have had on them. The international students also brought up other criticisms of the available support methods and suggested new support methods as well. The results indicate that an increase in the supply and quality of certain student support methods can improve student mental health and educational progress.

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1. Introduction

1.1 Background

The city and municipality of Groningen harbors a relatively high percentage of international students. There are over 60000 international students in the Netherlands (Meent, 2021), and Rijksuniversiteit Groningen supports upwards of 8500 of them, while supporting over approximately 36000 students in total (University of Groningen, 2020). This makes the international student demographic significant within the city and University of Groningen. Due to the positive influence international students have on our city, they should not be ignored. One of the most concrete examples of this positive influence is the economic effects of internationalization of education. On average, the international students from the EU within the Netherlands generate a 37900 euro net positive per student, while international students from outside of the EU generate a 94300 euro net positive per student (Centraal Planbureau, 2019).

To not lose out on these positive effects, international students' satisfaction needs to be accounted for when making decisions, especially when strain is put on this group of people. In light of this, it becomes necessary to look at the recent development of the Covid-19 pandemic. The pandemic and its measures have impacted university students quite significantly, with major negative effects on both their mental health (Son et al. 2020) and learning progress (Aristeidou & Cross, 2021). 71% of the participants in the study of Son et al. (2020) indicated an increased level of anxiety and stress, and 82% reported an increase in worries about their academic performance due to the Covid-19 pandemic.

However, when comparing native students to international students, Firang (2020) and Orygen (2020) conclude that there is a more significant impact on international students and other vulnerable demographics. This is because campus shutdowns and lockdowns are more likely to cause anxiety in international students than regular students due to a weaker social network and a lack of financial support from governments (Firang, 2020). On top of this, international students also experience extra challenges compared to native students in general, outside of the Covid-19 pandemic (Beresin & Nadal-Vicens, 2013). These challenges, such as language barriers, social isolation, and a lack of access to mental health services, have only worsened in recent times due to the pandemic. An examination of international student mental health using a cross sectional study conducted in Hubei (Kulyar et al., 2020) concluded that due to Covid-19, 49.6% of questioned international students were unhappy, while 23.21% felt helpless. It might therefore not be a coincidence that in the city of Groningen, many international students left their student homes during the pandemic (Veen, 2020).

This means that extra attention needs to be paid to international students, to try and prevent these negative effects in potential future pandemics (Murdoch, 2020). Government support and policies can be part of the solution, as they help the situation of international students (Kulyar et al. 2020). The government is however not solely capable of supporting international students, as the universities can and should too. This is because it is also in

the university's best interest to keep their international students satisfied for their own financial gain. Saho (2020) and Son et al. (2020) confirm this by noting that it is important for universities to take proactive measures that support students during a pandemic.

Organizations have developed ways and methods that could help to support these students educationally, but also socially, during times of a pandemic. It is however not a guarantee that these methods work within every context, as policy should be decided locally instead of globally, using place-based knowledge instead of generalities (Portnoi, 2016). Next to this, international students within the context of the Covid-19 pandemic are often overlooked, both in the literature and in society according to Firang (2020). This research will therefore help fill the research gap within this context and investigate the availability and quality of several support methods that are used within the University of Groningen.

1.2 Research Problem

The aim of this research is to build on different ways to support international students within the context of the University of Groningen and the Covid-19 pandemic, based on the experiences of the students. Investigating what kind of support the University of Groningen can best give international students within the city of Groningen, especially in dire times such as the Covid-19 pandemic, will be useful. This is because it will not just prevent the negative effects on the city of Groningen, but also benefit the wellbeing of the international students themselves. The following research questions were formulated:

Main Research Question:

- Based on international student experiences during the Covid-19 pandemic, in what ways can the University of Groningen improve student support systems during a time of crisis?

Sub-questions:

1. What support measures did international students receive during the Covid-19 pandemic?
2. In what ways were international students satisfied with their received educational and mental support methods during the Covid-19 pandemic?
3. Do international students think that other suggested methods can further improve international student satisfaction?

1.3 Thesis Structure

Following this introduction, the theories and hypotheses on student support systems are discussed in the theoretical framework. In the next section, the methodology and the data collection process and methods are noted. Afterwards, the results of the research are presented. Finally, the research ends with a discussion of the results and a concise conclusion.

2. Theoretical Framework

2.1 Existing Theories and Concepts

Pandemics create a need for both universities and young people to adapt to rapid educational and social change (Drane et al., 2021). Furthermore, pandemics like Covid-19 are likely to come again (Murdoch, 2020), and the negative effects that arise out of the educational and social changes that are brought with pandemics can potentially be mitigated using certain mental or educational support methods (Saho, 2020).

Lai et al. (2020) concluded after a questionnaire of U.K. and U.S. international students that resilience & positive thinking were some of the most significant predictors of less severe mental health impacts. Exercise also had a significant positive impact on mental health. On the other hand, factors such as a lack of available reliable information, social support, and educational achievement “predict the most negative mental health impacts” (Lai et al., 2020, p.1). This makes way for the discussion of these potential support methods that can promote or counteract these most significant predictors below.

Mental Health Support Methods

By improving positive thinking & resilience within international students through the use of certain support methods, such as using workshops, seminars, or “talents and advocacy of youth” (Drane et al., 2021, p.599), a more proactive and multifaceted mindset within international students can be stimulated. This can help create a better vision for disaster preparedness and improve resilience, which is the capacity to cope with disruption for future crises. It can also improve positive thinking and thus the mental health of international students. This is why the University of Groningen should potentially offer these kinds of support methods to their (international) students. Furthermore, there are major mental health benefits to exercising for university students which are undisputed in the literature, according to Herbert et al. (2020). These benefits include mental buffers against stress and depression within university students due to exercising. That is why offering opportunities to exercise for students on campus, even if it is just short-term, can be beneficial at the University of Groningen.

Preventing negative mental health impacts by providing enough reliable available information should also be a priority for universities according to Lai et al. (2020). This includes the fact that international students often have difficulties obtaining information due to language barriers, and isolation from their families and culture (Orygen, 2020). International students increasingly experience an increased amount of social isolation due to the Covid-19 pandemic as well (Son et al. 2020), which means that there could also be a need for some sort of social support to be offered by the University of Groningen.

Educational Progress Support Methods

A lack of educational achievement is a negative predictor of mental health. Therefore, support that is theorized to be the most effective to limit the disruption of education is also necessary for international student wellbeing. The scoping review from Drane et al. (2021)

together with UNESCO (2020) concludes that systems need to be in place to prevent further educational inequities in future pandemics, if in-person teaching can't proceed. These systems include approaches which have a high accessibility for the most amount of students as possible, which can be done by an appropriate usage of technology or other modalities, and providing support for teachers and families. These studies state that there is also a great importance in making communities to facilitate learning. However, the most engaging way for students to learn is still by maximizing in-person teaching, as done before the pandemic in most universities, according to the U.S. Department of Education (2021). Son et al. (2020) confirms that students perceive the transition to online classes from in-person classes as the biggest challenges when it comes to their educational progress. In this study, the most significant issue that many students note is that studying online leads to various concentration difficulties due to distractions at home. Therefore, in-person teaching should be stimulated wherever possible. With the social distancing measures, this might unfortunately not always be feasible.

Because of this, universities need to strive for the systems mentioned before as well. This can be done by making sure that international students, despite the Covid-19 measures, are included within student networks or communities. This can promote the engagement of international students and create social resilience that can benefit their educational progress, as stated by Raaper (2020). An appropriate use of technology is also crucial for international students, as Lazar (2021) notes how important it is that international students have ample opportunities to access distance learning programs and educational services. Not only should the used technology be appropriate, the report by Parker (2021) also confirms that supporting families and teachers to adapt to the pandemic is crucial. By teaching them how to properly use technology and remote learning, it can benefit the inclusion of marginalized groups such as international students.

The aforementioned factors that influence international students also interact with each other in certain ways. The Covid-19 pandemic and the support methods influence international student mental health and educational progress, which in turn affects international student satisfaction. The concepts of mental health and educational progress are defined by the international students themselves, as they are the ones that give their own meaning to these terms in the survey. To properly investigate the adequacy of the support methods, the relationships between them are tested within this research by surveying the international students. Just as with the concepts of mental health and educational progress, the international students decide themselves if a certain support method was adequate to them, as this research is based on their experiences. A visual representation of international student satisfaction and the expected relationships between the mentioned support methods can be seen in the conceptual model below (Figure 1). Using this model, the research probes for appropriate student pandemic support within the context of the University of Groningen with input from its own international students.

2.2 Conceptual Model

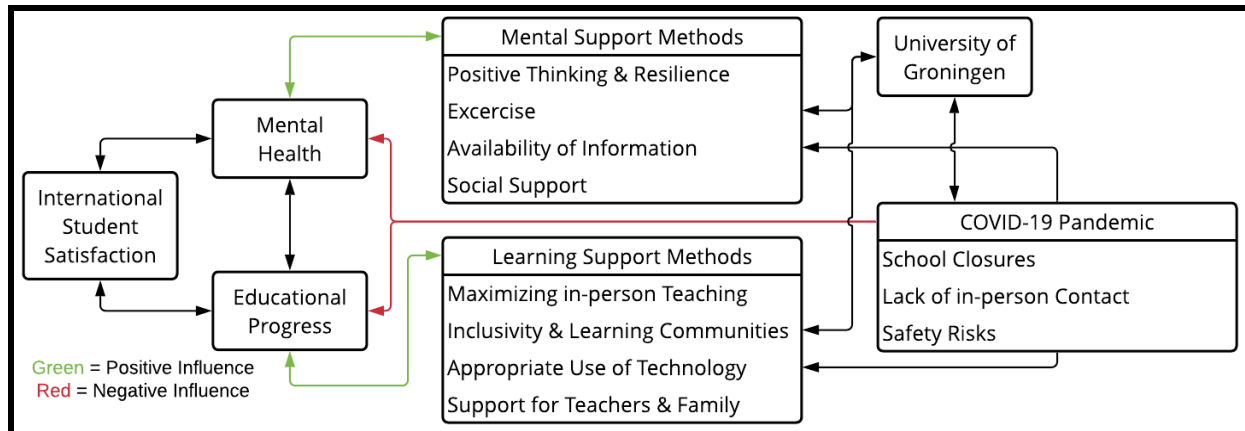


Figure 1: Conceptual Model

The University of Groningen can potentially prevent the negative effects on international student satisfaction during a pandemic. This can be done by maintaining a regular level of mental health along with educational progress using several kinds of support methods, as is presented in the conceptual model above (Figure 1).

2.3 Hypotheses

Due to the Covid-19 pandemic and the restrictions imposed by the national government, the international students at the University of Groningen are hypothesized to be affected in an undesirable way, both academically and mentally. On the other hand, the support methods during pandemics are hypothesized to provide a positive influence on international students within the University of Groningen, both on educational progress and mental health. Whether these hypotheses are accurate within the context of the University of Groningen will become apparent in the results of the research.

3. Data and Methodology

3.1 Methodology

In this research on the methods in which the University of Groningen can support international students, a quantitative survey with qualitative elements was conducted. For the survey, a sample of international students within the University of Groningen on mostly the Zernike Campus have been questioned on whether they have been offered any of the supportive methods mentioned before. It was then asked if they think these support methods had or would have had a positive effect on either their educational efforts, or their mental health. The survey also asked if the international student has any other remarks on international student support. The answers were analyzed to find the best ways to apply pandemic support measures within the context of the University of Groningen.

An online survey was chosen as the data collection instrument in this context because the questions that were asked are relatively straightforward, and no in-depth answers were required. Next to this, a survey is more efficient to collect data on a larger sample of international students and allows the researcher to perform statistical analysis on the results. The qualitative element of the survey consists of an optional 'Why?' question that survey respondents could fill in to elaborate on their answer if they wanted. It also contains optional open questions on any other suggestions for support methods. These questions were optional because the turnout of the survey responses was expected to be too low otherwise. This means that these questions should not be taken as definitive, as only a couple of international students filled in these questions. The multiple-choice results are presented in pie charts, while the open-ended answers are all mentioned in the results.

3.2 Recruiting Participants

A link to the online survey was distributed in several different WhatsApp groups of the chats associated with University of Groningen students. This was done in a period from the 14th of October 2021 until the 25th of November 2021. The online survey asked respondents to spread the survey to other international students, if possible. Furthermore, students near the Zernike campus buildings were asked in-person to complete the survey as well. This way, the survey was spread amongst different international students within different years, faculties, and studies. Most of these international students were located within the Zernike Campus area of the University of Groningen and a total of 30 responses were gathered. More information on the sample characteristics can be found in the Appendix. The recruitment of participants was a difficult process. Almost no international student was interested in taking part in the survey, especially through WhatsApp or other forms of social media. This means that almost all of the international students from this sample were asked to fill it in in-person on campus. This needs to be kept in mind when questioning the representativeness of the sample.

3.3 Survey Design

First, the conditions and terms of agreement, such as anonymity of the results, of the survey are accepted by the respondent. After that, the first part of the survey asked about certain general characteristics of the respondents, such as their age, home country, study program, and year. The survey proceeds with asking about the effects of the Covid-19

pandemic and the support methods that the university has provided for them along with the opinions on potential support methods the international students have (not) received. Lastly, the international students were asked for any suggestions or anything else they would like to highlight. Most of the multiple-choice answers were followed up by an open-ended question in case the international student wanted to elaborate on their answer. These open-ended answers give more insight into how to improve the support systems at the University of Groningen, which can be seen in the results. The answers to all of the survey questions were ultimately used to answer the research questions. More details on the survey design and its exact multiple choice and short answer questions can be found in the Data Analysis Scheme and in the Appendix. There is also more information on the quality of the data in the Discussion section.

3.4 Statistical Analysis

The results of the survey are converted into a 1-5 likert scale, which will be statistically analyzed using a one-sample t-test. This test will show if the results are significant and in which direction (positive or negative) they are significant by using a certain test value (3). With questions that have 30 responses only the p-value (2-tailed) will be examined, while the normal distribution of the questions that have less than 30 responses are also analyzed before determining whether the results of the t-test on these questions should be taken seriously. Furthermore, the confidence interval will also be analyzed to decide in which direction the results are significant, or not.

3.5 Data Analysis Scheme

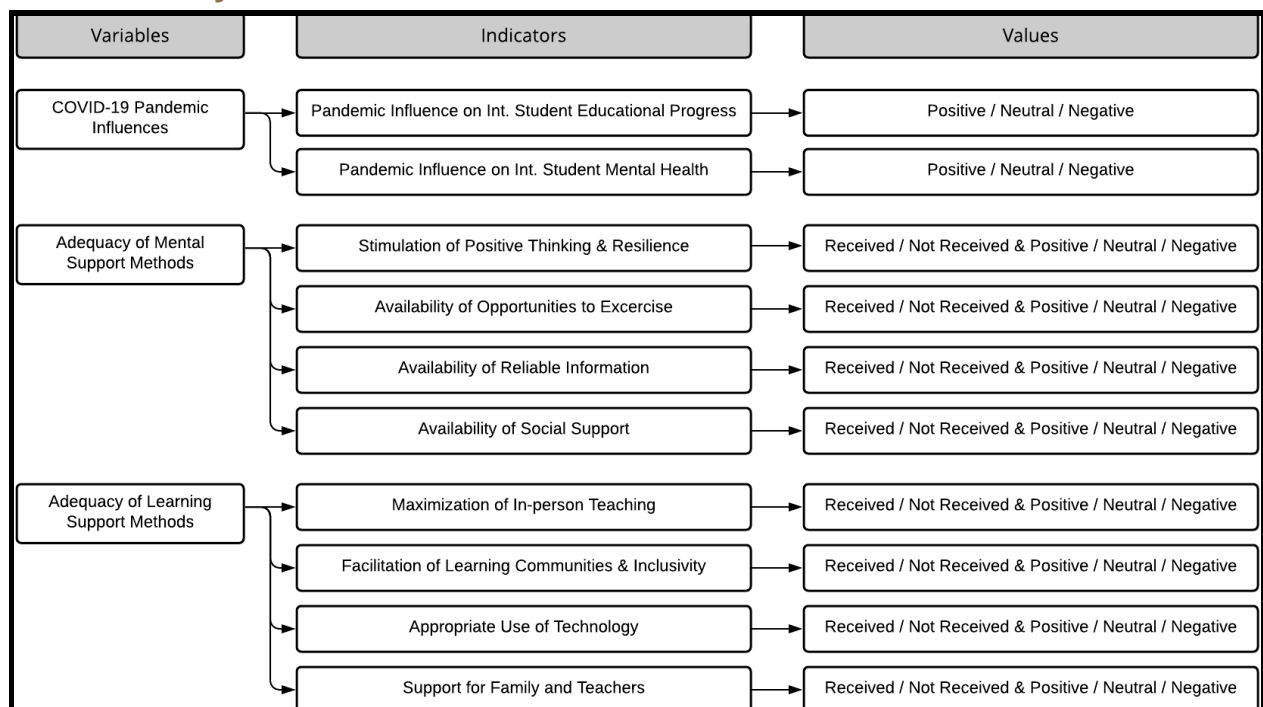


Figure 2: Data Analysis Scheme

This data analysis scheme reflects the basis on which the survey guide is built.

3.6 Ethics

When conducting this survey, five general principles, which are established by the American Sociological Association, were followed. The first principle is "Professional Competence" which focuses on the educational ability and the limitations or qualifications of the research that come with this ability. The second principle, "Integrity", shows that the research is conducted respectfully, fairly, and honestly. The third principle is "Professional and Scientific Responsibility", which indicates that the researcher takes responsibility for their work and remains respectful towards other researchers with potentially different results. The fourth principle states the importance of "Respect for People's Rights, Dignity, and Diversity". This principle states that respondents, no matter the difference in opinions, culture, values, or attitudes, should be treated equally, with no room for discrimination. The last principle notes about the "Social Responsibility", which means that the knowledge obtained from the research should contribute to the public good (American Sociological Association, 1999, p.6). These principles were applied to the best of the researcher's knowledge during the collection of survey data and the analysis of this data. Upholding these principles means that, for example, respondents were not pressured into filling in a survey, that the research has no intent to harm others, that the results are analyzed fairly and honestly, and that there is no prejudice towards differing opinions.

4. Results

4.1 Influence of the Covid-19 Pandemic

The results of the survey with regards to the influence of the Covid-19 pandemic itself on international students at the University of Groningen are listed below. Even though it was hypothesized that the Covid-19 pandemic would have a negative impact on both the educational progress and mental health of the international students, this was not entirely the case in the sample which can be seen in Figure 3 and 4.

How has the Covid-19 pandemic affected your educational progress?

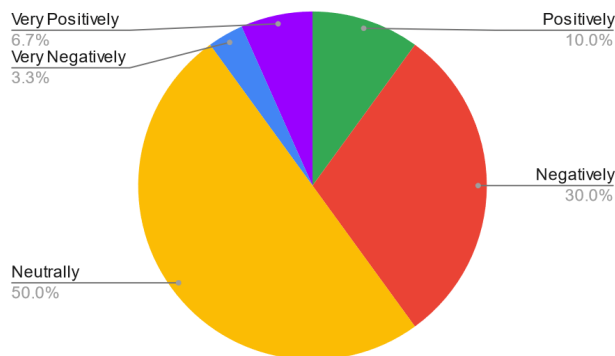


Figure 3: Covid-19 Educational Progress Influence

How has the Covid-19 pandemic affected your mental health?

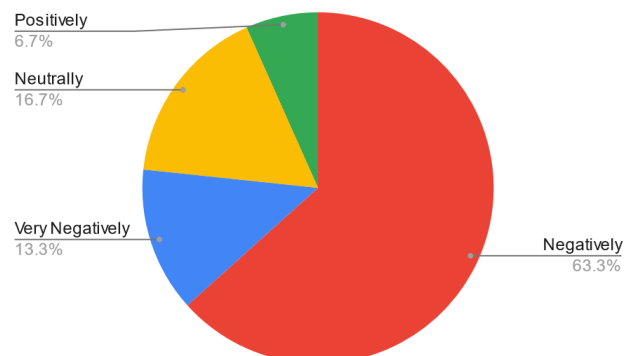


Figure 4: Covid-19 Mental Health Influence

According to Figure 3, the effect on international student educational progress was mixed, with the majority stating that the effect of the Covid-19 pandemic was neutral. The respondents who stated that the effect was negative noted several reasons for this negative impact of the Covid-19 pandemic. These reasons include a lack of access to on-campus study space, a lack of physical contact with professors and other students, an inability or inconvenience to ask questions, and a lack of motivation. Other respondents also said that online teaching just isn't effective for them, and that the (social) isolation that was caused by the pandemic led to depression and demotivation. These reasons then led to the decline in academic progress of these students.

On the other hand, there were also respondents that experienced the impact of the Covid-19 pandemic on their educational progress positively or very positively. The stated reasons for these results were that there was no Binding Study Advice*, online lectures can easily be paused and analyzed at any time, and students had a lot more time to study because everything was online. Another reason was that "it was a lot easier to cheat on exams", which can be argued to not necessarily be positive for international student academic achievement. The statistical analysis of these results is insignificant (p -value = 0.423), meaning that according to the international students, there is no significant effect of the Covid-19 pandemic on international student educational progress.

*Binding Study Advice refers to the requirement for first year students to achieve a certain number of credits to pass on to the next year. When this rule was lifted, it made it easier for some students to pass their studies.

The results of the effect of the Covid-19 pandemic on international student mental health are clearer (Figure 4), as a majority of international students stated that the pandemic had a negative or very negative impact on their mental health. The given reasons for this were a lack of social contact with friends and family, and a lack of activities to partake in outside of home, which caused anxiety, depression, and stress. The inability to play sports was also noted as a negative impact. Of the few international students that did report a positive effect from the Covid-19 pandemic and its measures, one respondent stated that they got more time for him- or herself. The statistical analysis of these results is very significant (p -value = 0.000001), meaning that according to the international students, there is a negative to very negative effect of the Covid-19 pandemic on international student mental health.

These questions were control questions, to see if international students in the University of Groningen were affected by the Covid-19 pandemic in the hypothesized way. The results show that support methods for mental health are quite necessary, as international students were negatively impacted in this regard. This result coincides with the theory of Son et al. (2020) and Kulyar et al. (2020). On the other hand, support methods for educational progress are less necessary, as the impact of the Covid-19 pandemic was quite neutral. This is surprising as it contradicts the results of Aristeidou & Cross (2021). The situation regarding educational progress can and should, however, still be improved, as many international students were still affected negatively.

4.2 Received Mental Support Methods

The results of the survey when it comes to the availability of mental support methods for international students at the University of Groningen are listed in the figures below. Each chart represents 30 cases.

Did the University of Groningen provide you with opportunities to stimulate positive thinking and resilience during the Covid-19 pandemic?

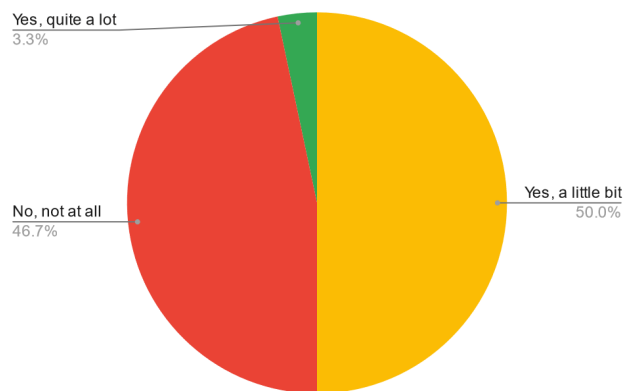


Figure 5: Availability of Positive Thinking & Resilience

Did the University of Groningen provide you with opportunities to exercise / play sports during the Covid-19 pandemic?

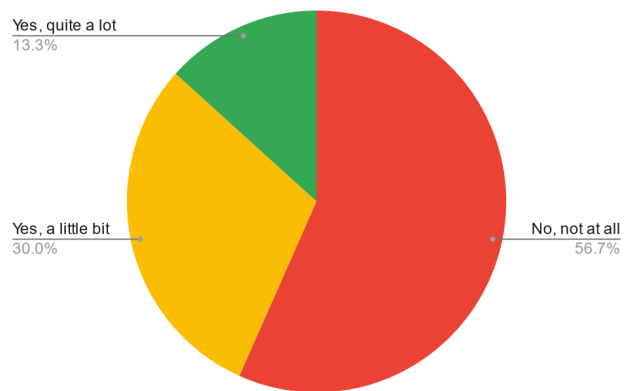


Figure 6: Availability of Exercise & Sports

Did the University of Groningen provide you with reliable information during the Covid-19 pandemic?

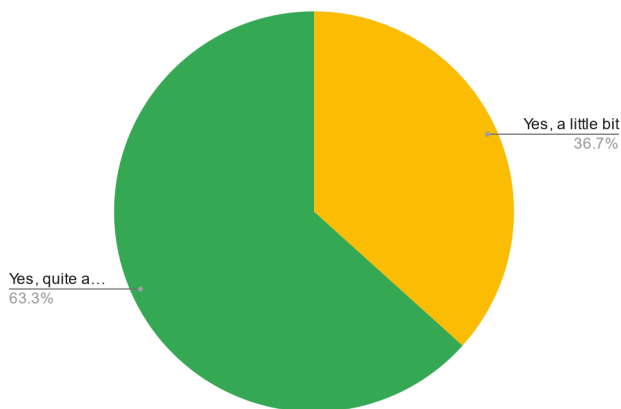


Figure 7: Availability of Reliable Information

Did the University of Groningen provide you with social support during the Covid-19 pandemic?

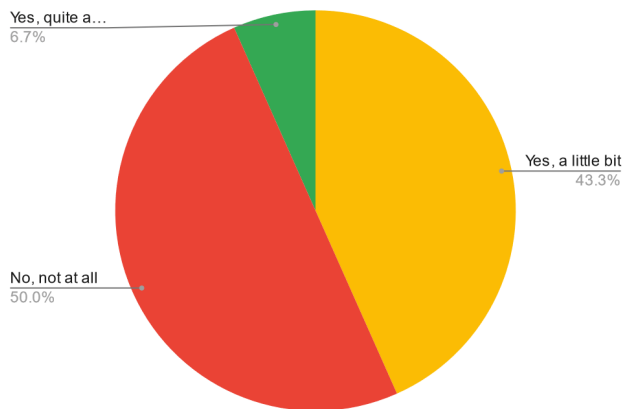


Figure 8: Availability of Social Support

These results that relate to research sub-question one show that the mental support methods that were hypothesized to be the most effective were not received by all international students. For example, the opportunities to play sports or exercise (Figure 6), opportunities to stimulate positive thinking and resilience (Figure 5), and opportunities to receive social support (Figure 8) were only received by approximately half of the international students. This is a negative sign that indicates that the University of Groningen has room to improve their student support methods. However, the availability of reliable information (Figure 7) was received by each international student.

4.3 Impact of Mental Support Methods

Not every international student received every mental support method, so only international students that received the aforementioned support methods were asked how these support methods influenced their mental health. As not all the international students received this question, most sample sizes per question differ from the 30 cases from previous questions. This amount can be seen in the graphs. This is important because it bears relevance to the significance of the results of these questions.

How did the opportunities to stimulate positive thinking and resilience during the Covid-19 pandemic affect your mental health?

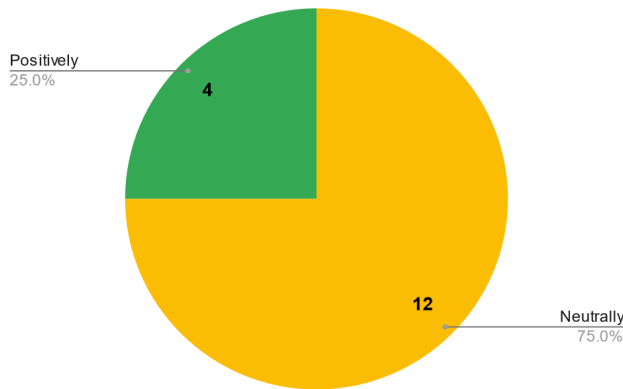


Figure 9: Influence of Positive Thinking & Resilience

How did the opportunities to exercise / play sports during the Covid-19 pandemic affect your mental health?

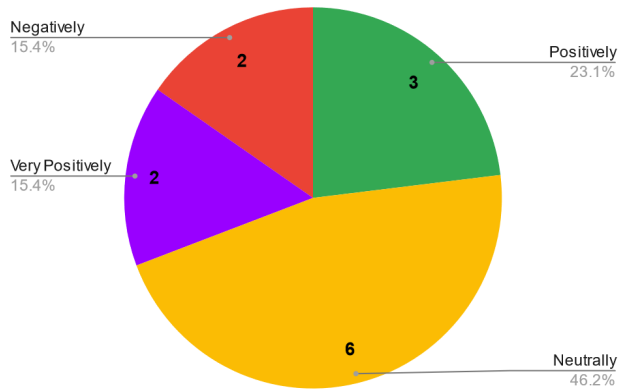


Figure 10: Influence of Exercise & Sports

How did the availability of reliable information by the University of Groningen during the Covid-19 pandemic affect your mental health?

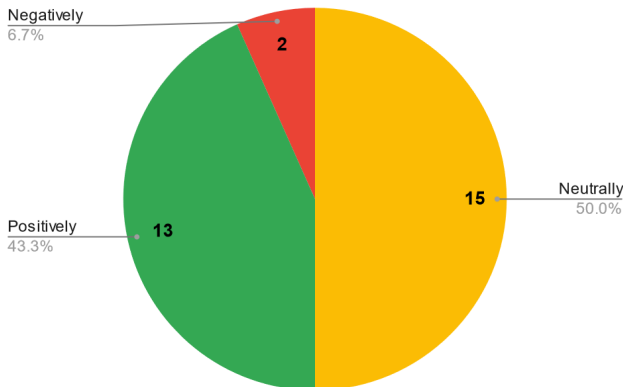


Figure 11: Influence of Reliable Information

How did the opportunities to receive social support during the Covid-19 pandemic affect your mental health?

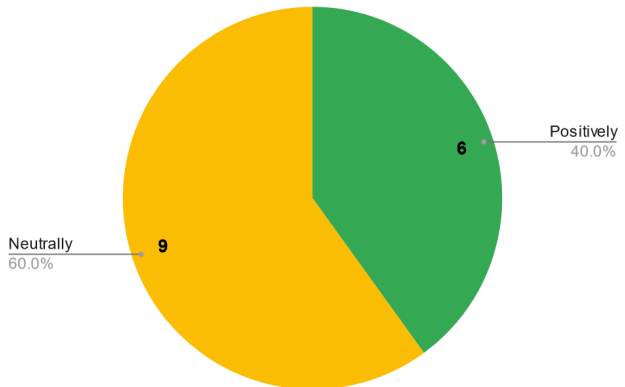


Figure 12: Influence of Social Support

When it comes to the received opportunities of positive thinking and resilience (Figure 9), the respondents that were neutrally affected reported they didn't find these activities very helpful because the lessons were not useful, or they were too depressed to apply the lessons learned. They also said that they did not take part in these activities because they had too little time to participate. An international student that was positively influenced noted that it showed him or her that other students were also struggling with the same isolation, which helped. The statistical analysis of these results generates a p-value of 0.041,

meaning that according to the international students, the positive effect of the positive thinking and resilience support methods on international student mental health is statistically significant. However, as the sample size is only 16 in this question, and the p-value is very close to 0.05, this result should be seen as an indicator.

Responses regarding the received opportunities to exercise or play sports (Figure 10) were divided. The respondents that were neutrally influenced noted that they did not use the opportunities to exercise or play sports that were provided to them, because the workload was too heavy, and they did not have time. It is interesting to note that two respondents were negatively influenced by their received opportunities to play sports or exercise. The statistical analysis of these results is not significant (p-value = 0.175), meaning that according to the international students in this question, there is no significant effect of the received opportunities for exercising and playing sports on international student mental health. The sample size is very low here (13), so the high p-value doesn't signify a significant test.

In Figure 11, all 30 respondents did receive reliable information. 28 of them experienced this neutrally or positively. 13 respondents were quite pleased with this information, calling the translation of the press conferences "absolutely invaluable". Others stated that reliable information did not influence their mental health as it was far less important than other support methods. Some feedback was also given, as a respondent stated that there was missing information about restrictions upon returning to campus. For example, it was unclear what the restrictions on computer use or catering were, which was "disruptive to studying and an annoyance". The statistical analysis of these results generates a p-value of 0.003, meaning that according to the international students, the positive effect of the availability of reliable information on international student mental health is statistically significant. These results along with their international student feedback confirm the report of Orygen (2020), which states that this type of information is crucial for international students due to language barriers and other limiting factors.

Lastly, when it comes to the opportunities to receive social support (Figure 11), the results were split between positive and neutral. One international student noted that some teachers went out of their way to offer support, while another international student wrote that due to the heavy workload, he or she was unable to meet other students. The statistical analysis of these results generated a p-value of 0.009, meaning that the positive effect of received social support on international student mental health is statistically significant. However, the sample size is only 15, which significantly diminishes the accuracy of this test.

Less than half of these support methods were effective on the majority of international students that reached them. Although it does do more good than harm. This means that the support methods themselves are ineffective, there were not enough support methods, or that the execution of the support methods was relatively poor, as mentioned by the international students themselves. Furthermore, as most of these results are insignificant

due to the low sample sizes (except Figure 11), they do not contribute that much towards the theory or answering the second research sub-question.

After these questions, all of the international students, including the students that did not receive some, if not all, of the aforementioned mental support methods, were asked how more of the listed support methods would affect their mental health. Each chart represents 30 cases.

How do you think more opportunities to stimulate positive thinking and resilience during the Covid-19 pandemic would affect your mental health?

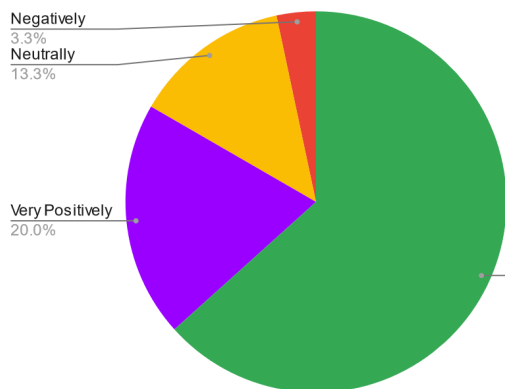


Figure 13: Influence of more Positive Thinking & Resilience

How do you think more opportunities to exercise / play sports during the Covid-19 pandemic would affect your mental health?

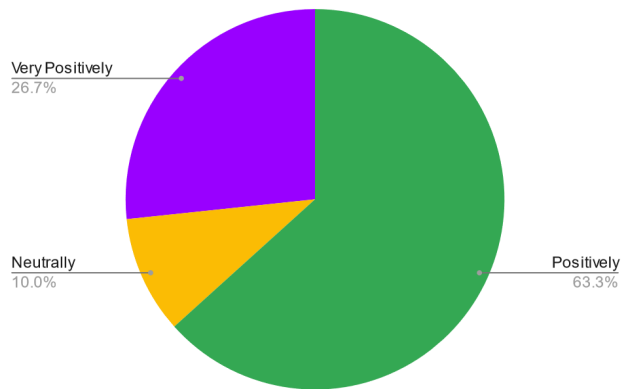


Figure 14: Influence of more Exercise & Sports

How do you think more availability of reliable Information during the Covid-19 pandemic would affect your mental health?

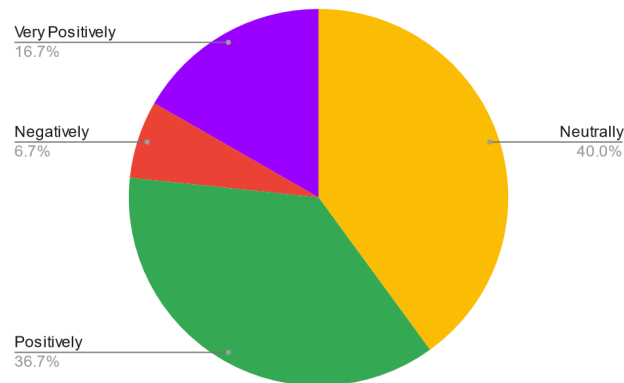


Figure 15: Influence of more Reliable Information

How do you think more opportunities to receive social support during the Covid-19 pandemic would affect your mental health?

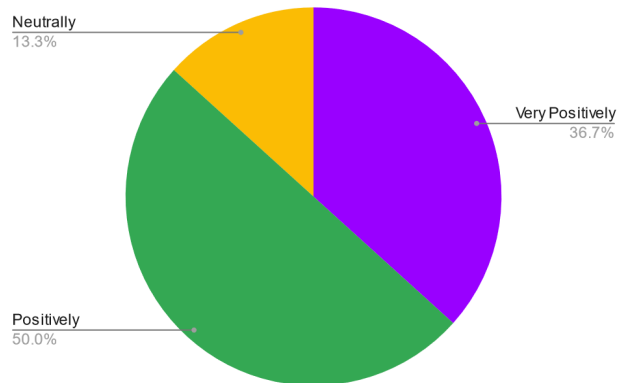


Figure 16: Influence of more Social Support

The results listed above show positive results for all of the mental support methods. So, despite the neutral impact of the support measures from the previous question, the international students do want more support methods within these four categories. It shows that there is room for improvement for the support systems of the University of Groningen. All of the results are also highly significant (p-values below 0.0001) for these 4 questions, meaning that the majority of international students think that having more

mental support methods will give a positive to very positive mental health effect in all instances. It seems that the predictors for positive mental health influence of Lai et al. (2020) are accurate within the context of the University of Groningen. These results therefore also bear great relevance to answering research sub-question 2.

As Drane et al. (2021) theorized, the majority of international students think more opportunities to stimulate their positive thinking and resilience (Figure 13) would benefit them in a (very) positive way. These international students stated that addressing their negative feelings is very helpful, and that emotional resilience is “hugely important”.

When it comes to having more opportunities to play sports or exercise (Figure 14), 27 international students claimed that this would (very) positively influence their mental health. The international students stated that the opportunity for partaking in sports would have gotten them out of the house more, helped with interacting with people, and that it would help with developing a daily routine. It would also lead to a decrease in depression as physical activity is experienced as a positive indicator for mental health by the international students. This is unsurprising, as Herbert et al. (2020) notes that the positive influence of exercise on students' mental health is apparent in almost each study.

Furthermore, when it comes to the availability of reliable information (Figure 15), the answers are more split. A majority of students experienced more reliable information as a positive impact. International students noted however that information problems are mostly minor annoyances, and that they don't depend on practical information to maintain a stable mental health. Despite this, other international students have great use from this practical information, as was also noted in the previous question on availability of reliable information.

Finally, more opportunities to receive social support (Figure 16) are also important, as a total of 26 international students see great value in meeting other people. International students stated that the biggest problem during the pandemic was the lack of socialization. This, along with the results of the question, is in line with the research of Son et al. (2020). As only half of the international students received (a little) social support during the Covid-19 pandemic, the University of Groningen could do better to increase opportunities to meet others as well. However, it also appeared that at least one international student was confused by this question, which will be expanded upon in the discussion section below. This should be considered when analyzing these results.

These results all show that there is a need for international students to receive more support methods. This is because their mental health is generally negatively impacted, while they report that most of the support methods would positively affect their mental health. Based on these results, it can be stated that the University of Groningen provides too little support methods for international students.

4.4 Received Educational Support Methods

Each chart represents 30 cases.

Did the University of Groningen provide you with (safe) ways of in-person teaching during the Covid-19 pandemic?

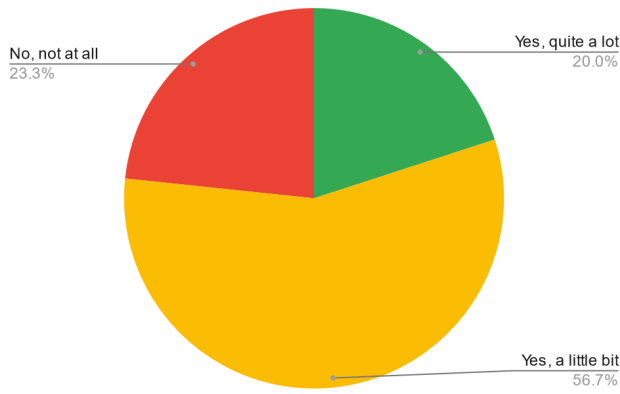


Figure 17: Availability of In-person Teaching

Did the University of Groningen facilitate easily accessible learning communities during the Covid-19 pandemic?

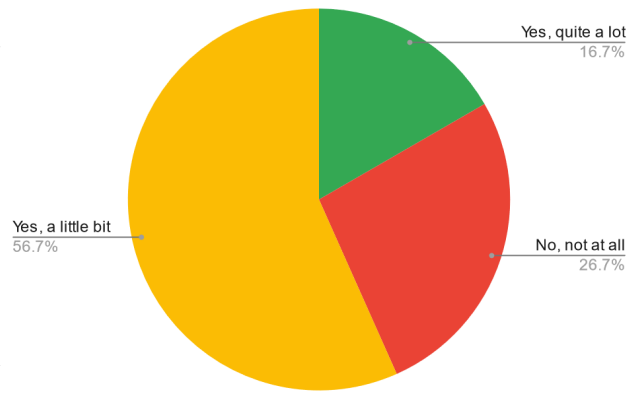


Figure 18: Availability of Learning Communities

Did the University of Groningen appropriately use accessible technology during the Covid-19 pandemic?

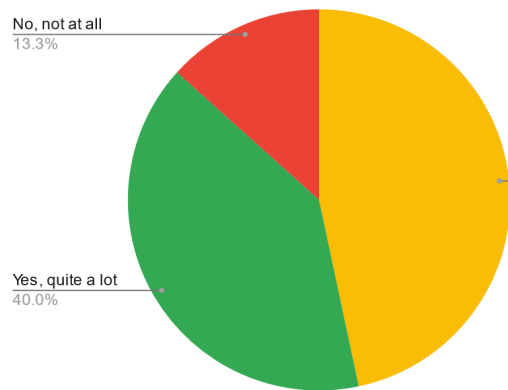


Figure 19: Availability of Appropriate Technology

Did the University of Groningen also provide your teachers and family adequate support during the Covid-19 pandemic?

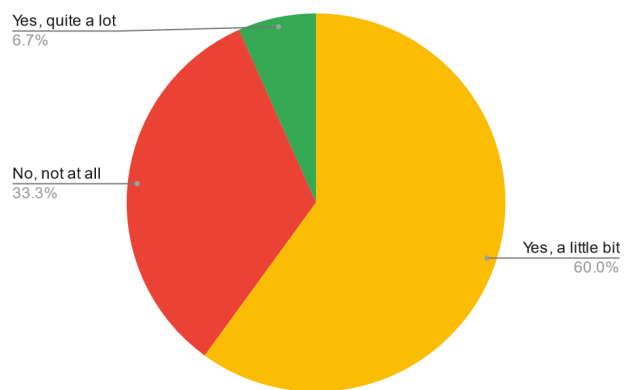


Figure 20: Availability of Teacher & Family Support

In the figures above, which relate to research sub-question one, about one third of the educational support methods that are hypothesized to be most effective were not received by the international students. This is better than the received mental support measures, which is to be expected, as the University's main goal is education, and not mental health.

4.5 Impact of Educational Support Methods

As mentioned at the mental health support method section, not every international student received every educational support method. Only international students that received the aforementioned support methods were asked how these support methods influenced their educational progress. This amount can be seen in the graphs and the results of these questions are listed below.

How did in-person teaching during the Covid-19 pandemic affect your educational progress?

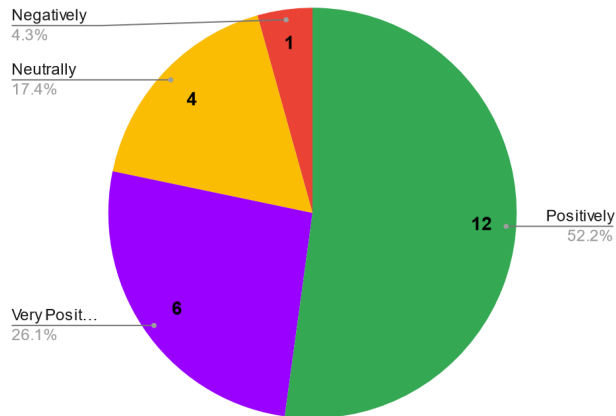


Figure 21: Influence of In-person Teaching

How did the facilitation of easily accessible learning communities during the Covid-19 pandemic affect your educational progress?

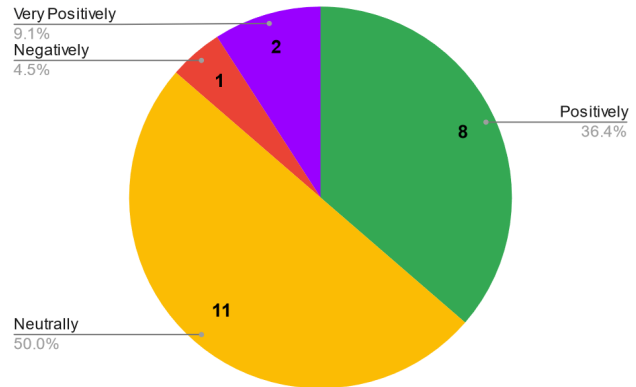


Figure 22: Influence of Learning Communities

How did the (increased) use of technology during the Covid-19 pandemic affect your educational progress?

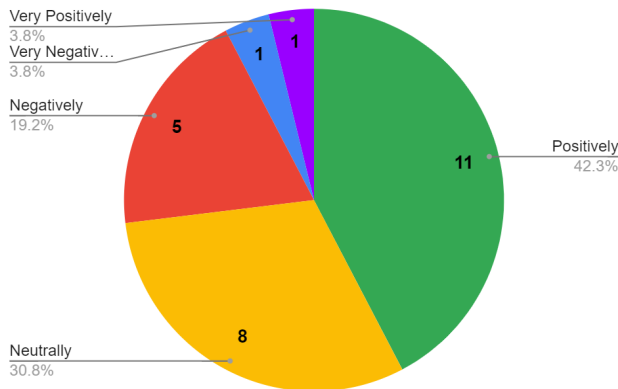


Figure 23: Influence of Appropriate Technology

How did the support that your teachers and family received during the Covid-19 pandemic affect your educational progress?

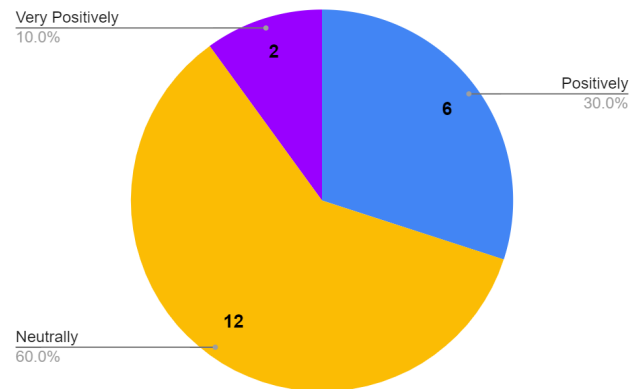


Figure 24: Influence of Teacher & Family Support

The majority of international students found that in-person teaching (Figure 21) has a positive to very positive influence on their mental health. They stated that it was easier to focus in-person and that it created a structure in their lives. Furthermore, it was also nice to see other people and communicate with other students about potentially difficult subject material. Some students also noted that online lectures were a chore in comparison to in-person lectures, and that it's important to have human contact. The statistical analysis of

these results generates a p-value below 0.000. This means that according to the international students, the positive effect of in-person teaching on international student educational progress is significant. However, the sample is only 23, which diminishes this significance.

When it comes to the influence of learning communities during the pandemic (Figure 22), the results are split between positive and neutral. International students that experienced this support method as positive noted that they felt that learning communities helped with keeping them motivated, and that it gave them a sense of fulfillment. Another student noted that it was the best part of his/her week to meet with other students and discuss a project in-person. Half of the sampled international students experienced these learning communities in neither a positive nor negative way. The statistical analysis of these results generated a p-value below 0.005, meaning that according to the international students, the positive effect of facilitating learning communities on international student educational progress is significant. However, the sample is only 22.

The impact of the usage of technology during the Covid-19 pandemic (Figure 23) also received split results. International students both liked the increased usage of technology and disliked it. International students noted that studying is “way harder online”, while others felt more connected through learning online. Another international student also said that the technology often failed to work properly, even though he or she had experience using such technology. The statistical analysis of these results is not significant (p-value = 0.228), meaning that according to the international students in this question, there is no significant effect of increased usage of technology on international educational progress.

Lastly, when it came to support for family and teachers (Figure 24), some international students recognized and appreciated this, although 12 international students did not value this support as much. One international student noted that he or she knew teachers were complaining through the University newspaper but did not notice the effects him- or herself. The statistical analysis of these results does generate a significant p-value of 0.004, meaning that support for teachers and family does positively influence the educational progress of international students. However, the sample size is only 20.

These support methods are more effective on the majority of international students than the mental health support methods. There is still room for improvement though, as international students mention cases of the support methods themselves being ineffective, or that the execution of the support methods was relatively poor. Furthermore, as these results are rather insignificant due to the low sample sizes, they do not contribute much towards answering the second research sub-question or the theory.

After these questions, all of the international students, including the students that did not receive some, if not all, of the aforementioned mental support methods, were asked how more of the listed support methods would affect their educational progress. The results of these questions are listed below. These results are also highly significant (p-values below

0.000) at these 4 questions. This means that international students think that having more mental support methods will give a positive to very positive mental health effect. Each chart represents 30 cases.

How do you think (more) in-person teaching during the Covid-19 pandemic would affect your educational progress?

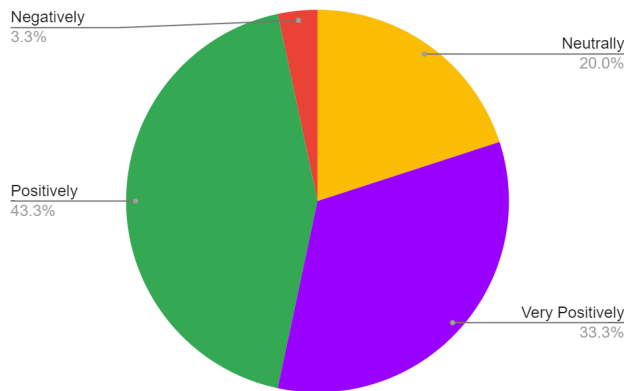


Figure 25: Influence of more In-person Teaching

How do you think the facilitation of (more) learning communities during the Covid-19 pandemic would affect your educational progress?

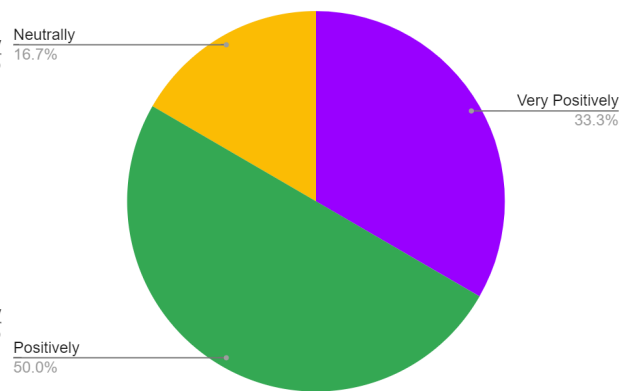


Figure 26: Influence of more Learning Communities

How do you think a better and more varying usage of technology during the Covid-19 pandemic would affect your educational progress?

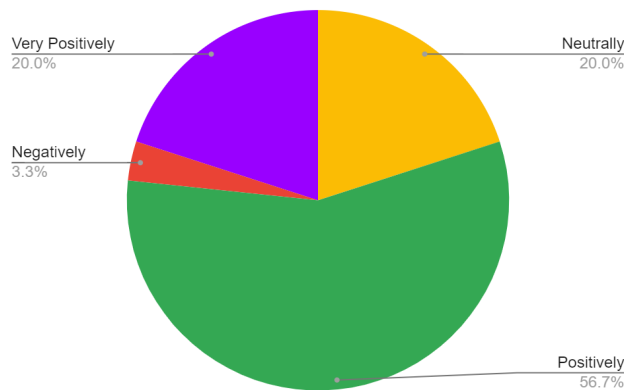


Figure 27: Influence of more Usage of Technology

How do you think (more) support for your teachers and family during the Covid-19 pandemic would affect your educational progress?

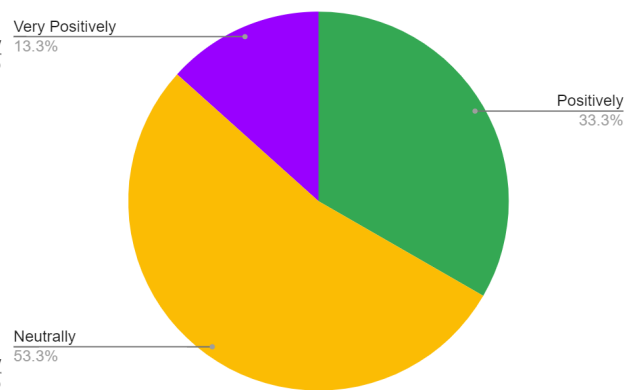


Figure 28: Influence of more Learning Communities

The results from these questions show the same pattern as with the mental support methods, meaning that international students prefer to have more support methods than they are currently receiving.

With in-person teaching (Figure 25), the international students stated that more in-person teaching leads to more opportunities to meet fellow students, which they really value. This is because studying together decreases the workload by reducing the amount of time to figure assignments or exams out on your own. Another international student noted that the hybrid format of education offers the best of both worlds, by combining a chance to socialize with the benefits of online education. As hypothesized by the U.S. Department of

Education (2021), in-person teaching is greatly appreciated by international students. This was also the most significant result out of all of the educational support methods.

The same goes for the facilitation of more learning communities (Figure 26). International students noted that forming groups for group projects led to positive performance impacts and gave people better chances to integrate. Raaper (2020) confirms this result, especially with regards to the benefits of social resilience, which international students agree with.

Furthermore, most international students agreed that better and more varied use of technology (Figure 27) would lead to better educational performance. This matches the conclusions of the research of Lazar (2021), as international students noted that teachers needed to learn how to use computers and technology better, and that technology could help group formation. One international student noted however that too many technological options would get overwhelming for them, especially when you must learn how to use them.

In the last question, 14 international students stated that they were unaffected by teacher and family support (Figure 28). The students reported that they were not aware of challenges faced by teachers and families. This is further discussed in the discussion section. Although there were a significant number of international students that were positively influenced by their received support in this area, it was the lowest amount of positive influence compared to the other educational support methods when looking at the confidence interval. Still, this does not contrast the report by Parker (2021) on the positive effects of teacher and family support.

There is a need for international students to receive more educational progress support methods, according to the results. This is because they report that most of the support methods would positively affect their educational progress. Along with these results, the stated reasons for why these support methods help also greatly assist in answering the second research sub-question.

4.6 Other Support Methods

The international students were also asked if they had any other suggestions or criticisms for support methods. The most mentioned criticism of the current student support method at the University of Groningen was the lack of student therapists/psychologists provided for students. They noted that moving to another country during a pandemic can be hard and having therapists that are easily available would be helpful, as it could take up to two months to get an appointment with a therapist during the pandemic. Another international student recommended to have facilitated group meetings using GatherTown and to create a webpage with all the different student support services available in one place, as currently the info is rather scattered. These answers are used to answer the third and final research sub-question. Which will be visible in the conclusion.

5. Conclusions

5.1 Discussion

There are many kinds of support methods, as apparent by the extensive literature available on these support methods. Not every faculty and study use the same ones, so this research groups together several different support methods into categories. Even though this increases the scope of the research, it does diminish the accuracy of the results. Certain questions have some connotations that must be kept in mind when analyzing their results.

At the question about whether an international student wanted more social support (Figure 16), one international student noted that they didn't know whether this pertained to financial support or not, even though it was explained in a previous question. Next to this, the question about family & teacher support (Figure 28) was arguably inappropriate to ask to international students, as many of them noted that they are unaware of challenges faced by their teachers & families.

Another area of improvement with regards to the survey is that the questions could have been formulated in a better way to be more suitable for statistical analysis, as it was difficult to find the appropriate statistical test for some of the results. Lastly, more responses were expected when designing this survey, which resulted in the questions regarding the received support methods being statistically insignificant in almost each case. Therefore, this research should be used as more of an indication for what type of support methods international students at the University of Groningen want most, instead of how specific support methods can be implemented in the best possible way.

A future research idea that could benefit international students can be done on how the specific support measures from this research can best be executed to maximize international student satisfaction. The suggested methods, such as creating a webpage with all the available support measures, should also be researched further.

5.2 Ways to Improve

As has been more elaborately explained in the results section, the efficacy of the support methods as mentioned by the theory have been confirmed by this research. Along with this, the results show that the University of Groningen can improve their student support methods, as the majority of support methods were still only received a little bit or not at all. Furthermore, the main criticisms of the support methods were that international students did not find the execution of some of these methods that effective, and that there weren't enough of them.

According to the results, international student mental health suffered the most during the Covid-19 pandemic, which shows that mental health support measures should draw a greater focus from the University of Groningen. Based on the international student experiences, the main aspects that decreased their mental health were a lack of social

contact with friends and family, a lack of activities to partake in outside of home, and an inability to play sports.

International student educational progress on the other hand did not suffer as much during the Covid-19 pandemic due to a combination of positive and negative effects. These negative effects included a lack of access to on-campus study space, a lack of physical contact with professors and other students, an inconvenience to ask questions, and a lack of motivation. While the positive effects were that there was no Binding Study Advice (for some students), online lectures had several advantages, they had more time to study because everything was online, and it was easier to cheat on exams.

To combat the negative effects during a pandemic, the University of Groningen should further expand upon their support measures, which Saho (2020) confirms. The support methods from this research were always received by at least some international students. However, there are still a large number of international students that did not receive these support methods, which answers the first research sub-question.

International students stated that the mental support methods had a positive influence on them. Therefore, increasing the supply of these support methods and addressing the specific criticisms from the international students should improve the international student satisfaction. The focus should lie on support methods that provide sports and exercise, social support, and positive thinking and resilience, which is underpinned by the theory. Although research can also be done on the efficacy of other support methods that did not fully fall under these categories. Improvements can still be made to the educational support methods as well. Attention should mainly be paid to maximizing the usage of learning communities and in-person teaching, as these have the biggest positive impact on international students, which the theory also confirms. This still must be done within the limits of the pandemic, with safety being kept in mind. Online education should still be made available, but it should not be the only form of education. Ideally, a hybrid education setting should be created to maximize educational progress for all international students. Furthermore, the usage of technology by teachers and for international students could also be improved, by not overcomplicating online tools and technology. This relates to answering research sub-question two.

With the last research sub-question in mind, other suggestions from the international students should also be investigated and potentially implemented. Developing a webpage with all of the available support methods for students would create clarity because the information on these support methods is scattered and highly depends on the faculty and study. Increasing the capacity of therapists at the University of Groningen during a pandemic is also a high priority, as waiting two months for a university therapist is considered too long by respondents.

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7. Appendix

7.1 Survey Guide

The survey was conducted using Google Forms, the following questions were asked:

Introduction

- 1 What is your age?
- 2 What is your home country?
- 3 Which study are you currently attending?
- 4 In what year of your study are you?

Covid-19 Influence

- 5 How has the Covid-19 pandemic affected your educational progress? (and why?)
- 6 How has the Covid-19 pandemic affected your mental health? (and why?)

Mental Support Methods

- 7 Did the University of Groningen provide you with opportunities to stimulate positive thinking and resilience during the Covid-19 pandemic? (Think of workshops, seminars or guest lecturers that cover how to deal with isolation during the Covid-19 pandemic or how to be more prepared for disasters such as Covid-19.)
- 8 Did the University of Groningen provide you with opportunities to exercise / play sports during the Covid-19 pandemic?
- 9 Did the University of Groningen provide you with reliable information during the Covid-19 pandemic? (Think of information regarding the Covid-19 pandemic and the measures that come along with this, or the adjusted university timetables, deadlines, and rosters.)
- 10 Did the University of Groningen provide you with social support during the Covid-19 pandemic? (Think of opportunities to meet other students or teachers.)

- If yes to 7-10, the corresponding follow up questions were also asked.

7.1 How did the opportunities to stimulate positive thinking and resilience during the Covid-19 pandemic affect your mental health? (and why?)

8.1 How did the opportunities to exercise / play sports during the Covid-19 pandemic affect your mental health? (and why?)

9.1 How did the availability of reliable Information during the Covid-19 pandemic affect your mental health? (and why?)

10.1 How did the opportunities to receive social support during the Covid-19 pandemic affect your mental health? (and why?)

- If no to 7-10, the corresponding questions were asked:

7.2 Do you think (more) opportunities to stimulate positive thinking and resilience during the Covid-19 pandemic would improve your mental health? (and why?)

8.2 Do you think (more) opportunities to exercise / play sports during the Covid-19 pandemic would improve your mental health? (and why?)

9.2 Do you think (more) availability of reliable Information during the Covid-19 pandemic would improve your mental health? (and why?)

10.2 Do you think (more) opportunities to receive social support during the Covid-19 pandemic would improve your mental health? (and why?)

Learning Support Methods

11 Did the University of Groningen provide you with (safe) ways of in-person teaching during the Covid-19 pandemic?

12 Did the University of Groningen facilitate easily accessible learning communities? (Think of the creation of inclusive groups with fellow students where you can work on for example a project or an assignment together.)

13 Did the University of Groningen appropriately use accessible technology during the Covid-19 pandemic? (Think of technology barriers for international students and teachers that are making exams / assignments, or lectures.)

14 Did the University of Groningen also provide your teachers and family adequate support during the Covid-19 pandemic? (Think of aspects like technology, safety, and information.)

- If yes to 7-10, the corresponding follow up questions were also asked.

11.1 How did in-person teaching during the Covid-19 pandemic affect your educational progress? (and why?)

12.1 How did the facilitation of easily accessible learning communities during the Covid-19 pandemic affect your educational progress? (and why?)

13.1 How did the use of technology during the Covid-19 pandemic affect your educational progress? (and why?)

14.1 How did the support that your teachers and family received during the Covid-19 pandemic affect your educational progress? (and why?)

- If no to 7-10, the corresponding questions were asked:

11.2 Do you think (more) in-person teaching during the Covid-19 pandemic would improve your educational progress? (and why?)

12.2 Do you think the facilitation of (more) learning communities during the Covid-19 pandemic would improve your educational progress? (and why?)

13.2 Do you think a better usage of technology during the Covid-19 pandemic would improve your educational progress? (and why?)

14.2 Do you think (more) support for your teachers and family during the Covid-19 pandemic would improve your educational progress? (and why?)

Conclusion

15 Are there any other support methods that you would like to see the University of Groningen implement? (and why?)

16 Is there anything you would like to say about the survey itself?

7.2 Survey Characteristics

Age of Respondents:

		Frequency
Valid	19	4
	20	3
	21	2
	22	5
	24	6
	25	4
	26	4
	29	1
	38	1
	Total	30

Home countries of Respondents:

		Frequency	Percent
Valid	Austria	2	6,7
	Canada	1	3,3
	Estonia	1	3,3
	France	2	6,7
	Germany	12	40,0
	Greece	1	3,3
	India	4	13,3
	Indonesia	1	3,3
	Luxembourg	1	3,3
	Norway	1	3,3
	Portugal	2	6,7
	United Kingdom	1	3,3
	United States	1	3,3
	Total	30	100,0

The age mean is 23,43

Study of the Respondents:

		Frequency	Percent
Valid	Biomedical Engineering	1	3,3
	European Languages & Cultures	2	6,7
	Human Geography & Planning	4	13,3
	Industrial Engineering & Management	2	6,7
	Master Economics	1	3,3
	Master International Business & Management	2	6,7
	Masters Artificial Intelligence	1	3,3
	Masters Chemical Engineering	1	3,3
	Masters Economic Development & Globalization	4	13,3
	Masters Technology & Operations Management	1	3,3
	Medicine	2	6,7
	Phd Chemistry	1	3,3
	Pre-Masters Change Management	1	3,3
	Pre-Masters Technology & Operations Management	1	3,3
	Spatial Planning & Design	6	20,0
	Total	30	100,0

Study Year of Respondents:

		Frequency	Percent
Valid	1	9	30,0
	2	5	16,7
	3	12	40,0
	4	2	6,7
	5	2	6,7
	Total	30	100,0

7.3 SPSS Test Results

One-Sample Test

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
How did the opportunities to stimulate positive thinking and resilience during the Covid-19 pandemic affect your mental health?	2,236	15	,041	,250	,01	,49
How did the opportunities to exercise / play sports during the Covid-19 pandemic affect your mental health?	1,443	12	,175	,385	-,20	,97
How did the availability of reliable Information by the University of Groningen during the Covid-19 pandemic affect your mental health?	3,266	29	,003	,367	,14	,60
How did the opportunities to receive social support during the Covid-19 pandemic affect your mental health?	3,055	14	,009	,400	,12	,68
How do you think (more) opportunities to stimulate positive thinking and resilience during the Covid-19 pandemic would affect your mental health?	7,883	29	,000	1,000	,74	1,26
How do you think (more) opportunities to exercise / play sports during the Covid-19 pandemic would affect your mental health?	10,792	29	,000	1,167	,95	1,39
How do you think (more) availability of reliable Information during the Covid-19 pandemic would affect your mental health?	4,080	29	,000	,633	,32	,95
How do you think (more) opportunities to receive social support during the Covid-19 pandemic would affect your mental health?	9,950	29	,000	1,233	,98	1,49

How did in-person teaching during the Covid-19 pandemic affect your educational progress?	6,012	22	,000	1,000	,66	1,34
How did the facilitation of easily accessible learning communities during the Covid-19 pandemic affect your educational progress?	3,169	21	,005	,500	,17	,83
How did the (increased) use of technology during the Covid-19 pandemic affect your educational progress?	1,237	25	,228	,231	-,15	,61
How did the support that your teachers and family received during the Covid-19 pandemic affect your educational progress?	3,249	19	,004	,500	,18	,82
How do you think the facilitation of (more) learning communities during the Covid-19 pandemic would affect your educational progress?	9,143	29	,000	1,167	,91	1,43
How do you think (more) in-person teaching during the Covid-19 pandemic would affect your educational progress?	7,059	29	,000	1,067	,76	1,38
How do you think a better and more varying usage of technology during the Covid-19 pandemic would affect your educational progress?	6,911	29	,000	,933	,66	1,21
How do you think (more) support for your teachers and family during the Covid-19 pandemic would affect your educational progress?	4,539	29	,000	,600	,33	,87
How has the Covid-19 pandemic affected your educational progress?	-,812	29	,423	-,133	-,47	,20
How has the Covid-19 pandemic affected your mental health?	-6,113	29	,000	-,833	-1,11	-,55