



**BSc in Psychology**  
**Department of Psychology**

**“You are making a difference”: Effects of peer-to-peer  
education on self-esteem of peer-to-peer educators**

**June, 2021**

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## **Foreword**

Submitted in partial fulfillment of the requirements of the BSc Psychology degree, Reykjavik University, this thesis is presented in the style of an article for submission to a peer-reviewed journal.

This thesis was completed in the Spring of 2021 and may therefore have been significantly impacted by the COVID-19 pandemic. The thesis and its findings should be viewed in light of that.

## Abstract

Aim of this study was to examine effect of peer-to-peer education on self-esteem and on other characteristics of the young people that got a summer job as peer-to-peer educators. The study was both qualitative and quantitative. Participants in both the quantitative ( $N=16$ ) and qualitative ( $N=7$ ) were 16 to 19 years of age. Two research questions were put forward. The first was does peer-to-peer education affect self-esteem of peer-to-peer educators? And the second was what effect does the peer-to-peer education have on peer-to-peer educators? Qualitative and quantitative results showed that participants felt that the peer-to-peer education had positive effects on their self-esteem. Results from Rosenberg showed that self-esteem of the peer-to-peer educators grew from each of the four measurements, though not significant. When asked an additional self-esteem question results showed that most participants believed their self-esteem had strengthened a lot ( $n=10$ ). Most interviewees mentioned that they enjoyed doing work that had such a clear purpose, they felt like they were making a difference. The knowledge gained through the implementation of this study can be used both to improve the work of the peer-to-peer education as well as in other areas where there is a possibility to improve self-esteem of young people.

*Keywords:* self-esteem, peer-to-peer education, young people, mixed method study

## Útdráttur

Markmið rannsóknarinnar var að rannsaka áhrif jafningjafræðslu á sjálfsálit og á aðra eiginleika þeirra sem fá sumarstarf sem jafningjafræðarar. Rannsóknin var bæði meginleg og eigindleg. Þátttakendur í bæði meginlega ( $N=16$ ) og eigindlega ( $N=7$ ) voru á aldrinum 16 til 19 ára. Tvær rannsóknar spurningar voru settar fram. Fyrri rannsóknarspurningin var hefur jafningjafræðslan áhrif á sjálfsálit jafningjafræðara? Seinni var hvaða áhrif hefur jafningjafræðslan á jafningjafræðara? Einnig voru skoðuð áhrif jafningjafræðslunnar á aðra eiginleika jafningjafræðaranna eins og samskiptahæfni og leiðtogahæfni. Bæði meginlegu og eigindlegu niðurstöðurnar sýndu að þátttakendur upplifðu að jafningjafræðslan hefði ýmisleg jákvæð áhrif á sjálfsálit þeirra. Niðurstöður fyrir Rosenberg sýndu að sjálfsálit jafningjafræðaranna jókst á milli hverrar mælingar, aukningin var þó ekki marktæk. Niðurstöður spurningarinnar hvort að sjálfsálit hefði breyst vegna vinnunnar sem jafningjafræðari sýndi að meirihluti þátttakenda upplifði að sjálfsálit þeirra hefði styrkst mikið ( $n=10$ ). Í eigindlega hluta rannsóknarinnar upplifðu flestir þátttakendur ánægju af því að starfa í vinnu með svo skýrum tilgangi, þau upplifðu sig hafa áhrif. Þekkinguna má nýta til að bæta starf jafningjafræðslunnar og á öðrum sviðum þar sem möguleiki er á að bæta sjálfsmynd ungs fólks.

*Lykilorð:* sjálfsálit, jafningjafræðsla, ungt fólk, blandaðar rannsóknaraðferðir

## **“You are making a difference”: Effects of peer-to-peer education on self-esteem of peer-to-peer educators**

Self-esteem affects everything we do; how we feel and how we interact in our day to day lives (Robins et al., 2001). People’s self-esteem impacts life satisfaction and happiness among other important aspects in people’s life’s (Rosenberg et al., 1995). One study by Matthews and Odom (1989) showed that adolescents who had low levels of anxiety were more likely to have high levels of self-esteem. The association between anxiety and self-esteem was particularly high concerning state anxiety. That type of anxiety is situational, which means that the degree of anxiety a person feels depends on the cognitive assessment of a threat in a situation (Matthews & Odom, 1989). Anxiety is increasing among young people and especially among girls, one of the causes being the advent and popularity of social media (Guðmundsdóttir et al., 2020; Thorisdottir et al., 2019). Adolescents are an important part of any society; they are the future, so it is important that societies take good care of them. Adolescence is an important time in a person’s development, a transitional stage between childhood and adulthood (Chen, 2019). Studies have suggested that a more confirmed sense of identity in adolescence is associated with better mental health, better self-esteem, and increased well-being (Lillevoll et al., 2013; Marcia, 2002).

A study by Anderson, Sabatelli and Trachtenberg (2016) evaluated various youth leadership programs that were all based in Connecticut, USA. Although different in various ways, all programs included some form of learning by doing. Participants also got a chance to participate in the planning of their programs, be in contact with role models, and develop skills like goal setting and working with others. Most participants reported positive changes after these programs such as feeling more supported by their local communities.

Rushing et al. (2018) evaluated the Healthy & Empowered Youth Project which is a school- and community-based positive youth development program specially made to empower American Indian and Alaska Native high school students on a variety of sensitive health topics such as drug and alcohol use, suicide and reproductive health topics. Findings showed various improvements after the intervention, including increased self-esteem and becoming more involved in their community. Students reported in focus groups that they considered one teaching method to be a big part of the program's success. That method was having the participants make educational videos for their friends and family where they were supposed to present the knowledge they had acquired in a simple and clear way.

Hitt Húsið established their peer-to-peer education (Jafningjafræðsla Hins Hússins) in the year 1996 (Gísladóttir, 2020). For the past 25 years it has changed in many ways but the main setup has always been the same: young people discussing important issues with other young people on a peer-to-peer basis as a mean of prevention. Now the work of the peer-to-peer educators is structured in such a way that for the first three weeks of the work they attend eight-hour courses every working day of the week where they receive education on important issues and training in communication skills. For the next five weeks, the peer-to-peer educators are divided into smaller teams which rotate between different youth groups. One whole working day at a time is spent with each group, which vary in sizes but always consist of adolescents 14-16 years of age. The peer-to-peer educators try to build trust with the group and discuss important issues and critical thinking on a peer-to-peer basis. Great emphasis is placed on self-esteem; explaining what it is, its importance and how it can be improved (Gísladóttir, 2020).

Despite being a sought-after job among young people and considered by many to be a good experience for young people, the peer-to-peer education at Hitt Húsið has not been

researched. This study will aim to examine how the peer-to-peer educators experience the impact of the three-week course and the following work. No comparable work abroad is known of, but various foreign courses where work is being done to strengthen young people's self-esteem and leadership skills have been studied (Anderson et al., 2016; Rushing et al., 2018). It is important to examine whether the peer-to-peer education is achieving real results in the goals it sets, which include building the identity of the peer-to-peer educators. This is also important considering the yearly investment in the program by Hitt Húsið, the City of Reykjavík and The Icelandic Confederation of Labor. This study aimed to examine how peer-to-peer educators experienced the impact of a three-week course and the following work. Since peer-to-peer education has never been studied in Iceland and no comparable work abroad is known, the study greatly adds to the current state of knowledge. A good start is to look at a few aspects from the main goals of the peer-to-peer education, and that is what this study does.

The aim of the study was to examine the effect of the peer-to-peer education on self-esteem and other characteristics, such as leadership skills, of the young people that got the summer job of being peer-to-peer educators. The study was both quantitative and qualitative and aimed to answer two questions; the first was does the peer-to-peer education affect self-esteem of peer-to-peer educators? and the second was what effect does the peer-to-peer education have on peer-to-peer educators? The influence of the peer-to-peer education on other characteristics of the peer-to-peer educators, such as leadership skills and their ability to justify their own views, was also examined.

## **Method**

The study was both quantitative and qualitative. Each chapter in the method chapter is divided by the quantitative and qualitative methods except for the procedure chapter.

## **Participants**

A systematic sample was used since participants must have worked as peer-to-peer educators in the summer of 2020 at Hitt Húsið. Since the researcher worked with the participants in the peer-to-peer education and had been working for the peer-to-peer education for several years, neutrality had to be maintained. To let the researcher's position have the least possible influence on participants response and results of the study, participants were encouraged to respond honestly in both the quantitative and qualitative methods.

### ***Quantitative***

There were 16 peer-to-peer educators in the summer of 2020 and all of them accepted to take part in the quantitative study. There were 7 male participants (44%) and 9 female (56%) within the age range of 16 to 19 years. At baseline and follow-up 2 all participants took part in the study ( $n=16$ ) but in follow-up 1 there was 1 participant missing ( $n=15$ ) and in follow-up 3 there were 3 participants missing ( $n=13$ ).

### ***Qualitative***

Purposive sampling was used to select seven peer-to-peer educators to participate in the qualitative study. They were contacted via Facebook message and it was easy to access the participants because the researcher had worked with them the summer of 2020. Everyone who was contacted accepted to participate in this study. There were three male participants and four female and participants that were 16 to 19 years of age. All participants were given a pseudonym and care was taken to ensure that no personally identifiable factors were included. The names given to the participants were Erla, Anna, Stefán, Ingi, Harpa, Magnús and Sigrún. There was no need to verify the participants' answers as the researcher worked with them during the summer in the peer-to-peer education.

## Design

### *Quantitative*

All participants were asked to answer a questionnaire four times, a baseline measure and three follow-ups. The questionnaire started by asking about the background of the participants; their gender and if they saw themselves as role models on a five point Likert scale from very little to very much. Whether they found it easy or hard to meet new people on a five point Likert scale from very hard to very easy and then how their communications are with other people in general on a five point Likert scale from very hard to very easy. Then participants were asked about their leadership skills, using the Youth Leadership Life Skills Development Scale (Seevers et al., 1995). The scale has been shown to be reliable (Cronbach's  $\alpha > .90$ ) and valid to assess the leadership skills of people of age 17 years and older. Possible scores range from 0 to 90, where a higher score means better self-esteem.

The next part of the questionnaire had questions that relate to the participant's self-esteem using the Rosenberg Self-Esteem Scale (Rosenberg, 1965). Lowest possible score is 0 and the highest is 30. Studies have shown that the scale has good validity as a measure of self-esteem in different groups of people (Matthews & Odom, 1989). The Icelandic translation has been considered to show good reliability, or Cronbach's  $\alpha$  in the range of .83 to .87 (Gudjonsson et al., 2002; Gudjonsson & Sigurdsson, 2003; Gudjonsson & Sigurdsson, 2004).

The next questions assessed symptoms of generalized anxiety disorder and the scale that was used was Generalized Anxiety Disorder-7 or GAD-7 (Ingólfssdóttir, 2014). GAD-7 consist of 7 questions and the lowest possible score is 0 and the highest is 21, with higher numbers indicating more anxiety. Studies have supported the reliability of the scale (Cronbach's  $\alpha = .92$ ) and its validity for measuring the symptoms of generalized anxiety disorder (Spitzer et al., 2006).



The Icelandic version has also been studied and the results have indicated that its epistemological properties are similar to those in the original language (Ingólfssdóttir, 2014). Next, there were questions about experience of stress, using a scale that is called the Perceived Stress Scale or PSS (Cohen et al., 1983). Possible scores range from 0 to 40 where higher scores indicate more perceived stress. A study that compiled 19 experimental studies where the scale was used showed that the scale is reliable (Cronbach's  $\alpha > .70$ ) and valid to assess people's experience of their own stress (Lee, 2012). Validity and reliability of the Icelandic translation has not been studied.

The final part of the questionnaire varied from each time the questionnaire was submitted at various times during the research period. The concerning questions were made specifically for this study and related to participants' experiences of the peer-to-peer education. In the first follow-up participants were asked whether they felt that the peer-to-peer education preparation course had increased their critical thinking on a five point Likert scale. In the second and third follow-ups participants were asked four additional questions, all on a five point Likert scale. They were asked whether their self-esteem and leadership skills had changed because of their work in the peer-to-peer education on a scale from less to more. They were also asked whether they thought their experience as peer-to-peer educators would affect their chances of success in life on a scale from no effect at all to very much effect. Then the last question addressed whether they thought what they had learned in the peer-to-peer education would be useful in their daily life on a scale from very useless to very useful.

### *Qualitative*

Seven open-ended in-depth interviews were conducted. The same interview framework (appendix) was used in all interviews, which was approved by the National Bioethics Committee

(No. 20-090). The researcher recorded the interviews, and the recordings were deleted after processing. The process involved writing transcripts for each interview and then using them to analyze the data.

## Procedure

The National Bioethics Committee gave permission (No. 20-090) for the study and the questionnaire in May 2020, before the peer-to-peer education started, as presented in Table 1. The first part of the research was quantitative. The process involved participants answering a questionnaire four times over a period of 6 months. Before answering the questionnaire for the first time, participants had to sign an informed consent paper where it was clearly stated that they had the right to withdraw their consent at any time. Parents were asked to sign, on participants behalf, if the participant was younger than 18 years old.

**Table 1**

### *Data collection and processing process*

Time	What was done
May 2020	NBC gave permission for the quantitative study (No. 20-090)
May 2020	Baseline measure
June 2020	Follow-up 1
July 2020	Follow-up 2
October 2020	Follow-up 3
October 2020	NBC gave permission for the interview frame (No. 20-090)
October 2020	Interviews were taken
Spring 2021	Data processing

*Note.* NBC = The National Bioethics Committee

The first time the participants answered the questionnaire was on their first day of the three-week peer-to-peer education preparation course. The second time was after the three week

course. The third time was after the five-week working period on the field, and the fourth and final time was just over three months after they had finished their summer job as peer-to-peer educators. The final step of this part of the study was to analyze the data using descriptive statistics and repeated measures ANOVA to test if there was difference in means between measures of self-esteem, leadership skills, anxiety and perceived stress. If there was a difference in means then repeated measures ANOVA showed between what measurements the difference was. The statistical program SPSS Statistics was used for analyzing the data.

The National Bioethics Committee gave permission for the qualitative part of the study in early October 2020, and the interviews were taken shortly after. Semi-standardized individual interviews or so-called open-ended interviews were used, in which the individual uses his or her own words to answer the researcher's questions. The reason for choosing this method was that the goal was to dive deeper and to gain an understanding of how the peer-to-peer educators experienced the effects of the peer-to-peer education. Before the interviews were conducted the participants had to sign an informed consent paper where it was clearly stated that they had the right to withdraw consent at any time. Parents were asked to sign, on participants behalf, if the participant was younger than 18 years old.

Interviews were conducted with seven individuals between October 7th and November 30th, 2020. The interviews ranged from 26 minutes to 46 minutes. The interview framework (appendix) approved by the National Bioethics Committee (No. 20-090) was used in the interviews. However, the researcher asked follow-up questions where needed. The interview framework consisted of 20 questions (appendix).

Because of COVID-19 restrictions all interviews were conducted through teleconferencing equipment. The interviews were recorded and subsequently, transcripts were

written for each interview and then the recordings were deleted. During the initial analysis while writing the transcripts, the researcher wrote down possible themes using Grounded theory approach (Willig, 2013). Colors were used to divide by themes to make the analysis easier and to discover themes that represented the answers. The themes that emerged were making a difference and then self-esteem and communication. Finally, the quantitative and qualitative data were compared, to see whether they had given similar results.

## **Results**

### **Quantitative Results**

Of 16 participants there were 7 male participants (44%) and 9 female (56%) within the age range of 16 to 19 years. At baseline participants answered a few questions that describe the sample. Majority of the participants saw themselves either very much or rather much as role models (68,8%). Majority of the participants answered that they normally find it very easy or rather easy to meet new people (87,5%). Majority of the participants feel that their communications with other people generally are very or rather easy (87,5%).

Repeated-measures ANOVA was used to test the results from the questionnaire. As presented in Table 2 the mean scores in self-esteem grew between all measurements, although the increase did not reach statistical significance  $F(1.67, 17) = 1.00, p = .375$ . When answering an additional question on self-esteem, specifically related to their perception of change in their self-esteem during working as a peer-to-peer educator, most of the participants answered at follow-up-2 that their self-esteem had strengthened a lot ( $n=10$ ). At follow-up 3 the participants either said that the self-esteem had strengthened slightly ( $n=4$ ) or the majority said that it had strengthened a lot ( $n=9$ ).

**Table 2**

*Mean scores and standard deviations for self-esteem, leadership skills, anxiety and perceived stress*

Measure	N	Self-esteem		Leadership		Anxiety GAD-7		Perceived Stress	
		M	SD	M	SD	M	SD	M	SD
Baseline	16	24.27	1.84	72.60	3.60	7.17	1.49	13.75	1.62
Follow-up 1	15	25.18	1.97	79.40	2.47	3.50	0.76	9.92	2.02
Follow-up 2	16	25.55	1.36	81.00	2.35	4.75	1.05	12.42	1.61
Follow-up 3	13	26.09	1.19	82.20	1.85	6.83	1.51	17.50	2.01

*Note.* N = number of participants; M = mean; SD = Standard deviation; GAD-7 = The Generalized Anxiety Disorder 7-item Scale.

Leadership skills significantly grew between each measurement  $F(3, 27) = 7.45, p < .001$ . A Bonferroni post-hoc test revealed that leadership skills were significantly higher at follow-up 3 compared to the baseline ( $p = .017$ ). When asked an additional leadership question at follow-up 2, whether they were more or less of a leader after the peer-to-peer education, most participants answered that they were much more of a leader ( $n=11$ ) and all the other participants answered that they were more of a leader ( $n=5$ ). At follow-up 3 responses were slightly different; most answered that they were more of a leader ( $n=7$ ), and the others answered that they were much more of a leader ( $n=5$ ) or that their leadership skills had not changed ( $n=1$ ).

Mean scores in anxiety were considerably lower at follow-up 1 than at baseline but then it grew again, although it did not reach the baseline measurement again. The changes of mean scores in anxiety were statistically significant  $F(3, 33) = 3.52, p = .026$ . A Bonferroni post-hoc analysis revealed that anxiety was significantly lower at follow-up 1 compared to the baseline ( $p = .019$ ). Mean score in perceived stress was lower at follow up 1 compared to the baseline, but then grew again, and reached a score in follow-up 3 that was higher than at baseline. The difference in mean scores in perceived stress was statistically significant  $F(3, 33) = 6.77, p =$

.001. A Bonferroni post-hoc analysis revealed that perceived stress was significantly higher at follow-up 3 compared to follow-up 1 ( $p = .012$ ).

It was also examined whether the peer-to-peer education had influenced other characteristics of the peer-to-peer educators. At follow-up 1 participants were asked whether the peer-to-peer education had increased their critical thinking and out of five response options all participants either answered that it increased it rather much ( $n=2$ ) or very much ( $n=13$ ) and those were the two highest response options. When asked at follow-up 2 if participants thought that the peer-to-peer education would have an effect on their possibilities for success in life, most ( $n=13$ ) noted that the experience would have very much effect and others answered that the experience would have rather much effect ( $n=3$ ). At follow-up 3 most participant still noted that the experience would have very much effect ( $n=10$ ) and the others noted that the experience would have rather much effect ( $n=3$ ). Participants were also asked if they thought what they had learned in the peer-to-peer education would be useful in their daily life. At follow-up 2 most thought that it would be very useful ( $n=13$ ) and others thought that it would either be rather useful ( $n=2$ ) or rather useless ( $n=1$ ). When asked the same question at follow-up 3 most thought that it would be very useful ( $n=9$ ) or rather useful ( $n=4$ ).

## **Qualitative Results**

### ***Making a difference***

Most interviewees mentioned that they enjoyed doing work that had such a clear purpose. They felt like they were making a difference, or as Ingi put it "you are doing the right thing, you are making a difference". The peer-to-peer educators felt that they were being given the opportunity to see the world as it is, they got to see what is going on outside their own circle.

Magnús said that "you just had to deal with so many things that you did not really know were going on in Iceland". They understood that not everyone had come as far as people might want to think, for example in gender equality or the discourse about the queer community.

Most participants also talked about experiencing, after the summer as peer-to-peer educators, that they were more diligent in making themselves heard when they became aware of injustice. When Sigrún was asked what the peer-to-peer education had given her, she said "self-confidence, mentally I stand by myself. To answer when I hear something inequitable. I somehow never dared to do it, but now I'm just like what did you say? I have started to interfere more". They mentioned that the peer-to-peer preparation course and having to spend a whole day in challenging situations day after day had helped with making themselves heard. They talked about how they could not sit by anymore and tolerate bad things happening and also that they had become more understanding and more able to think from others standpoint.

Magnús mentioned how amazing it was "to get the all the education in the preparation course that changes your life". Most interviewees mentioned having experienced having more compassion after attending the preparation course and also after having met all the young people on the field. Those experiences made them realize that everyone was going through something. Interviewees talked about that it was good to know that they had the right views to back them up, because they had been taught them for three weeks in the preparation course, and that gave them security when they started to educate their peers and had to make arguments for their case. Many of the participants mentioned that the peer-to-peer education had a much greater effect on them than they thought at first.

The peer-to-peer educators seemed to have a good influence on each other. They found role models in their peers and felt that the preparation course was a positive environment and that

being with positive people had a good effect on them. Magnús spoke about the group's sincerity and said "we were all opening up and you could just see that the kids who seemed to be always happy, were not the same on the inside". More participants also spoke about how they had learned that everyone has their bad days and people do not always feel the way they look on the outside.

### *Self-esteem and communication*

Surprisingly, most interviewees mainly talked about self-esteem in terms of appearance. Most of the girls talked about having a rather strong self-esteem relating to themselves on the inside but rather insecure in relation with their appearance. They all mentioned that social media has a very negative effect on their self-esteem. Factors that many of them mentioned as also having an impact were, for example, family, friends and how people around them talked. Participants talked about experiencing more self-confidence and being better at making decisions, standing by their own opinions, and having faith in their own abilities after the peer-to-peer education. All interviewees felt that the peer-to-peer education had a positive effect on their self-esteem.

Participants felt that one reason that the peer-to-peer education was so demanding was because it was breaking the shell they were in, especially the preparation course. Stefán mentioned that he thought it was amazing how "uncomfortable and new situations can change a person completely" when talking about both the preparation course and the work period. Communications came easier to participants after the summer as peer-to-peer educators as well as they felt it was easier to meet new people. They also mentioned being better at reading the moods of groups and how to reach out to different groups with different methods. Ingi said that in everyday life "I am more confident with my decisions, I have no doubt about them". He also



mentioned that he was less afraid to take chances after the summer as a peer-to-peer educator and he believed it was because of how often he went outside of his comfort zone that subsequently expanded. Participants felt they got so much motivation out of the job. The peer-to-peer educators felt their job was important and that there was a great need for it. They talked about how important it was that this job existed and that it should be active all year round and go all over the country. Overall, the peer-to-peer preparation course had a positive effect on participants and they felt that more people should have the opportunity to take part in the program.

### **Discussion**

The aim of the study was to examine the effect of the peer-to-peer education on self-esteem and other characteristics of the young people that got a summer job as peer-to-peer educators. The first research question was does the peer-to-peer education affect self-esteem of peer-to-peer educators? Both methods, the quantitative and the qualitative, supported that the self-esteem of the participants grew due to their work as peer-to-peer educators. Even though the difference in the quantitative study was not significant, self-esteem always grew between the four measurements.

The second research question was what effect does the peer-to-peer education have on peer-to-peer educators? Results showed that the experience as peer-to-peer educators affected more characteristics than their self-esteem. Their leadership skills grew, which was one of the main goals of the peer-to-peer education program. Participants also turned out to better their ability to justify their own views according to the qualitative study. The quantitative study showed that anxiety and stress decreased after the preparation course. The drop in anxiety after the preparation course, between baseline and follow-up 1, is very interesting and those results are

promising, especially because anxiety is thought to be increasing among young people (Thorisdottir et al., 2019) and because adolescents who have low levels of anxiety are more likely to have higher levels of self-esteem (Matthews & Odom, 1989). Despite that participants were asked to answer GAD-7 based on their experience over the past 2 weeks, it could be that the fact that it was their first day at a new job with new people that might have increased anxiety at baseline. Participants' anxiety levels went up almost as high in follow-up 3 as it was at baseline, which might be in part caused by COVID-19 and the strict restrictions because of that. Research has shown that COVID-19 affected mental health of young people in Iceland in a bad way (Guðmundsdóttir et al., 2020). Given the substantial decrease in anxiety between baseline and follow-up 1, the methods of the preparation course could be useful in other places where work is done with young people, such as schools or community centers, to lower anxiety. Further studies could be done to see in more detail what contributed to the decrease in anxiety and look at possible ways to make that effect last longer.

Rushing et al. (2018) did a study on American Indian and Alaska Native high school students where the participants self-esteem increased. A big part in the program's success was the method to make participants teach others the knowledge they had gained, which is similar to the methods used in the peer-to-peer education at Hitt Húsið. The peer-to-peer educators receive a wealth of information, methods, and tools during the course in first three weeks of the job and then must present that knowledge in a clear and fun way for young people in groups over the next five weeks. It could be that this is one of the reasons that the peer-to-peer education had the positive effect on the self-esteem of the peer-to-peer educators. This is important work because there is much to gain by increasing the self-esteem of young people (Lillevoll et al., 2013; Marcia, 2002). Data, from the qualitative study, shows that the participants gained more self-

esteem in certain difficult situations and more self-esteem to take a stand in situations that they did not have the courage to take before. The job seems to have brought more responsible individuals into the community who dare to stand up for the less fortunate. Results also showed that the peer-to-peer educators felt their job was important and that there was a great need for it. Overall, the peer-to-peer preparation course had a positive effect on participants and they felt that more people should have the opportunity to take part in the program. In both the Anderson et al. (2016) study and in the peer-to-peer education, participants got to be in contact with role models, and develop skills like goal setting and working with others. This might be another factor in both these programs showing positive change.

Qualitative research methods are known for deepening our understanding of what is being researched (Willig, 2013). The aim was to capture the interviewees' experience as best as possible. The statistics from the quantitative part of the study give a certain idea, but it was very useful to know the participants' experience of the effects of the peer-to-peer education in their own words to avoid over-interpretations of the statistics. A qualitative method was deemed suitable to examine the general understanding of self-esteem, participants' experiences of the peer-to-peer education and how they viewed their own self-esteem. This was done to better understand the rationale for their general answers from the questionnaires.

Limitations of this study are for example that COVID-19 probably had some effect on the results (Guðmundsdóttir et al., 2020). During the first three measurements of the quantitative study, the situation in Iceland was rather good. However, in follow-up 3 in October the situation in Iceland was not so good, with strict restrictions, little social life possible and schools did most of their teaching online. Which might have affected the results that both anxiety levels and stress levels increased in follow-up 3. The low number of participants was also a limitation for the

quantitative part of the research, although the study had all possible participants which could be considered a strength of this study. Another strength of the study was that the results were verified by comparing quantitative and qualitative results. Another strength is that this study is the first of its kind in Iceland which is important especially considering that the peer-to-peer education deals with important issues that are of great importance to young people during formative years of their lives.

Future research could further examine what matters more to people when it comes to self-esteem, people's appearance or what is on the inside. It would also be interesting to do a similar study again on the peer-to-peer education when there is no global pandemic, which probably affected the results. It would also be interesting to see a long-term study of whether the effects of the peer-to-peer education last and possibly interview people who had the job of being a peer-to-peer educator a few years back. There is always need for solutions to build the self-esteem of young people, especially in a world filled with photoshopped images in the media. The peer-to-peer educators is a group of young people who are given the opportunity to open up and to see that everyone is dealing with some difficulty in their life no matter how perfect they look on the outside. This seems to be a good counterbalance to the negative effect of the false images and stereotypes that they see everywhere, from social media to advertising and entertainment. The knowledge gained through the implementation of this study can be used both to improve the work of the peer-to-peer education as well as in other areas where there is a possibility to improve the self-esteem of young people.

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## Appendix

### Interview frame for the qualitative part of the study:

“You are making a difference”: Effects of peer-to-peer education on self-esteem of peer-to-peer educators

I just want to ask you to tell me how you were when you were younger, did you take part in any organized leisure activities?

Why did you apply to become a peer-to-peer educator?

How did you experience the peer-to-peer education?

What comes to mind when I say the word self-image?

How would you describe your self-image?

Do you feel that peer-to-peer education affects your self-image?  
In what way?

During the preparation course, before you went out on the field to educate, what emotions did you experience when you thought about that you should go and educate other young people?

How do you feel when young people come to you with questions?

Do you feel pressured to have all the answers?

How did you experience standing in front of a group of your peers for the first time to educate them?

Did you feel that your experience and feelings changed as the number of the peer-to-peer educations increased?

Can you name something positive that the peer-to-peer education has given you?

Do you have for example gained any new skills?

But is there anything negative that the peer-to-peer education resulted in?

How do you feel when you have to argue your point of view?

Did you experience that it changed after the summer in peer-to-peer education?  
In what way?

What do you experience when making decisions under time pressure?



Has it changed after the summer in peer-to-peer education?  
In what way?

How do you experience your ability to face new challenges?

Has it changed after the summer in peer-to-peer education?  
In what way?

Anything else you would like to say about your experience of the peer-to-peer education?