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Paper

Creating a sense of belonging through co-creation during COVID-19

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1. Introduction

The COVID-19 pandemic took over the world in March 2020. After the implementation of lockdown measures, the level of acute loneliness increased around the world (Dahlberg, 2021). This emotional state was especially prevalent among students who experienced the dramatic shift of education from on-campus to remote teaching (Ferri, Grifoni & Guzzo, 2020). For Honours students, this widespread loneliness particularly affected their sense of belonging in the 'Honours community', which is one of the three pillars of Honours education programs. These are creating community, offering freedom, and enhancing academic competence (Wolfensberger, 2012). This paper presents the results of and reflection on an experience of "teaching in co-creation" aimed at fostering Sense of Belonging (SoB) developed in the interdisciplinary Honours Seminar of the Geosciences Honours College, Utrecht University, in The Netherlands.

During the academic year 2020-2021, an Honours Seminar – called Honours Seminar Tourism [HST] – was developed and offered through a practice of co-creation between two teachers and four Honours students (all six are authors of this paper). A total of 86 Honours students participated, coming from all disciplines in the Faculty of Geosciences[1] and all undergraduate years. Fourteen of them were international students from at least eight countries, several of whom stayed in their country of origin during the lockdown.

The HST was designed with two main objectives. First, to teach about a chosen theme in the field of human geography, in this case the topic of tourism. The students who co-authored this paper felt that human geography as a discipline was not represented sufficiently in the courses

offered by the interdisciplinary Geoscience Honours College. Therefore, the seminar was co-created with two teachers from human geography , who provided their experience in the field.

Co-creation was chosen because it emphasizes the collaboration between teachers and students, focusing on the students' needs and input as effective ways to keep them engaged (Bovill et al., 2016). In this case, co-creation is used in an educational setting. However, it originated in collaborations between enterprises and customers (Meister Broekema, Horlings & Bulder, 2022a). Meister Broekema, Horlings & Bulder (2022b) point out that this practice is now used in both fields.

The second objective was to provide a concrete response to the decline of Sense of Belonging (SoB) experienced by the Honours students during the pandemic. This was done by developing specific activities aiming to improve the SoB of students to the Honours community. During the pandemic, the usual ways of meeting each other on campus were no longer possible. The new on-line environment required new ways of creating SoB. To evaluate the second objective, three surveys were conducted in order to analyse students' SoB and their experiences in the HST.

In this paper, we first connect insights from the literature on co-creation in higher education and students' SoB with the team's co-creation process. Then, we share the motivation and incentives of the co-creation team. Next, we provide a description of the HST and discuss several elements of the HST. Then, after describing the methodology and results of the three surveys, we share our own insights on our co-learning process and the conclusions drawn from these surveys and the project.

2. Exploring co-creation in higher education and students' Sense of Belonging

To create a Sense of Belonging – or community – it is important to keep students' motivation up (Freeman, Anderman & Jensen, 2007). Enabling students to have a part in organizing their own education is considered to engage them more in their studies and motivate them to take on an active role. Engaging students can be done in different ways. Bovill et al. (2016) outline four different roles a student can take on:

1. Consultant: sharing and discussing valuable perspectives on learning and teaching.
2. Co-researcher: collaborating meaningfully on teaching and learning research or subject-based research with staff.
3. Pedagogical co-designer: sharing responsibility for designing, teaching and assessment.
4. Representative: contributing student voices to decisions in a range of university settings.

While organizing the HST, the students participating in the co-creation took on the roles of consultants, co-researchers and pedagogical co-designers. The students took on these roles in order to bring their experience of being part of the Honours community and their knowledge of the needs of this community to the process of co-designing. Furthermore, they also took on the role of co-researchers because they and the teachers co-designed the research project– the three surveys to measure improvements in the SoB of the Honours community – and co-wrote this paper.

Bovill, Cook-Sather and Felten (2011) state that there are three approaches to co-creation between staff and students:

1. Students as co-creators of teaching approaches.
2. Students as co-creators of course design.
3. Students as co-creators of curricula.

In co-creation, both students and teachers get a new role in education. Students are encouraged to take on a more active role. Teachers however, have to change their usual way of teaching by transferring control to students and operating more in the background.

In the HST context, the four students took on the role as co-creators of the course design, teaming up with staff on a voluntary basis. We used the 'backward method' to design the course: the co-creation team starts the process of course design by setting-up learning goals and developing the course from there.

The co-creation team invested an extensive amount of time preparing the seminar before its actual start. This is important, as investing enough time is what makes these co-creation teams successful and productive (Bovill et al., 2011). They created the course and kept the learning goals of the HST in mind and ensured that practicalities were taken care of as well. When the preparations were done the team could start the HST.

All meetings of the co-creation team were online via Microsoft Teams. Some team members never did not meet in person until the very end of the seminar period, because of the COVID-19 measures. This affected the community building between the co-creation team as well as between all participating students (Wolfensberger & Vroom, 2020).

During the HST, the co-creation team met every week. They kept two objectives in mind. First, a team reflection on the teaching strategies, content and process of the HST, with reflective and practical questions such as: is the co-creation team satisfied with the outcomes of the HST so far? How are all the participating students doing? The second objective was a reflection on ourselves as a co-creating team. The students needed to know their limitations and obligations in the co-creation process while designing the program, and the teachers became aware of the fact that students do not know the basic practicalities of teaching, such as creating a course manual or making learning goals. Through these weekly co-creation meetings, the team could talk about shared goals, make decisions and share experiences. Together they co-learned in response to feedback from the participating student body and the co-creation team itself. All of this asks for dedicated time.

Besides investing time, Bovill (2013) states that transparency is key to making co-creation successful. The teachers must make clear what they expect of their students and what their limitations are. As stated in the introduction, offering freedom is one of the three pillars of Honours education. Therefore, limitations in creating the HST for the students were minimal, providing various opportunities for them to challenge themselves and to take initiative during the process. The freedom that was offered in this case provides a good example of the possibilities of co-creation.

3. Team motivations in relation to co-creation

This co-creation project can be described as an intense (extra)curricular program, asking for extra time and energy from the participating students. The students received 7.5 ECTS (according to the European Credit System) for their participation in the organizing team. The credits were linked to a course called 'Creative Challenge', which is designed to let students design projects themselves. Learning and developing new skills such as teaching, writing, and organizing activities, were also crucial motivational aspects. As one of the team members, Casper, says:

"[…] I also learned how to take charge. This was one of the things I struggled with at the beginning of the process, but during the various meetings and seminars it became more natural. With my newfound confidence to take charge, I believe I also had a considerable role in the forming of the program."

Concerning the teachers, Wolfensberger has 25 years of experience in Honours teaching and learning, while for Pilo this seminar was her first experience in Honours teaching. They were both motivated by the conviction that in order to support HST students' experience of community and SoB, it was important to include the community's members in the development of the course (Nguyen & Wells 2018). Despite the process of co-creation generally requiring more time than when a course is designed only by the teachers, both teachers considered the co-creation to be a valuable collective learning process enabling them to understand better the students' perspectives, ideas, and ways of thinking about teaching. They believed that co-creation would allow meaningful learning experiences for students and a challenging and rewarding teaching practice.

In conclusion, every team member gained something from the project and collaborative learning took place.

4. Description of the seminar's activities

The Honours Seminar Tourism [HST] was scheduled every Tuesday afternoon from 6 February to 15 June 2021. The HST took place via Microsoft Teams, as Dutch universities shifted to remote teaching during the pandemic. However, the Dutch government's rules concerning COVID-19 changed regularly, which enabled us to organize a couple of on-campus seminars during the HST.

Four specific activities were developed in order to create experiences that fostered students' SoB to the Honours community.

First, the students participated in City as Text™ (CaT™). CaT™ has its origin in the National Collegiate Honors Council (Braid & Quay 2021) and is a fieldwork assignment in which students immerse themselves in a neighbourhood in order to identify and experience the story of the neighbourhood. In small groups, students connect and co-create with each other and connect with inhabitants from a specific area, in this case, within the City of Utrecht. The students abroad completed a 'digital' CaT™ assignment. In this digital version, students discovered a relatively unknown neighbourhood of their own city.

Second, two workshops were offered, providing the opportunity to obtain new skills, such as non-violent communication and reflection on feedback. Due to COVID-restrictions, students recognized that they had difficulties collaborating and creating the necessary depth, involvement, commitment, and clarity that are necessary for a successful project. The workshops contributed to creating a committed community, as online conversations are extra difficult and require new skills. The workshops were based on the 'Non-Violent Communication Method'. Concepts such as empathy and compassion were a pivotal part of the workshops (https://www.projectwijsheid.nl/).

Third, students had to create a tour in a place of their choice on a topic in the field of geoscience. They had to look through a 'touristic' lens and had to select places and features they considered important for a tourist to know about. Students were stimulated to be creative: the tour had to be both educational and appealing to reach their audience. To foster the students' SoB to the Honours community, they did this assignment in groups. They were encouraged to work effectively together with students from other disciplines within the Honours program, using the skills they had obtained in the workshops.

Finally, students had to participate in three tours created by their fellow students. This led to more real-life contact between students. We hoped to improve their SoB to the Honours community through a shared experience. Afterwards, students had to write a review of the tours they had participated in. They were encouraged to apply their newly obtained communication skills to their reviews by reflecting on the process with their fellow students and on their own contributions to the project.

5. Methodology
Instruments and data collection
To review the effect the HST had on the students of the Honours program, the students received three surveys during the HST. The goal of these surveys was to measure participants' Sense of Belonging. Some questions were repeated in each survey. All students were also asked to fill in an informed consent.

The first survey was distributed during the first seminar of the HST. Students were asked about their expectations of the seminar series as well as their SoB to the Honours community. The agreement with the statement "I have a sense of belonging to the Honours community" (on a Likert scale from 1 to 5) acted as the baseline for the second and the third survey to measure change.

The second survey was distributed after the students participated in the CaT^{TM} assignment. It included questions about CaT^{TM} assignment and students' SoB. The third survey was distributed during the last seminar of the HST and reflected on the whole HST and its activities. The survey measured students' perceived SoB to the Honours community as result of all of the activities. Besides asking for students' perceived SoB using the same statement as above, the second and third surveys also measured the level of connectedness between students, using the statement "I feel connected with my fellow students". The surveys also collected feedback on students' experiences with HST and on the pedagogical performance of the co-creation team.

Additionally, the second and third survey asked the following open questions:
- "How does the collaboration work out within your group, at the moment?"
- "Have you gained some new insights, as a result of City-as-Text?"
- "What part of this seminar series (lectures, groupwork, assignments, etc.) in your opinion, has been valuable in improving community-building?"

Data analysis
The quantitative data was analysed using SPSS, using descriptive statistics. The means of two different categories 'Level of connectedness between students' and 'Level of sense of belonging to the Honours community' were calculated.

6. Results and reflection
Sense of belonging to Honours community

Start of the HST: Survey 1
At the beginning of the HST, COVID-19 measures were strict. The Dutch government opted for a lockdown, as well as a curfew (Rijksoverheid, 23-01-2021). This meant universities were closed and the HST used Microsoft Teams. In Table 1, one can see the answers on the statement "I feel connected with the Honours community", which served as the baseline for the second and third survey. The level of sense of belonging to the Honours community did not differ very much between the different groups of students.

Table 1 "I have a sense of belonging within the Honours community"; N=72.

	X̄ (mean) / s (standard deviation)
Students living in the Netherlands	3.49/0.942
Students living abroad	3.55/0.934
First years students	3.54/0.822
Second year students	3.36/1.002
Third year (or more) students	3.64/1.206

Halfway point of the HST: Survey 2
Over time, the seminar series could move to a more physical environment due to changes in the COVID-19 measures. The CaT^TM experience marked the first opportunity to meet with one other student in real life while respecting the COVID-19 measures. This assignment appeared fundamental for creating a SoB, and it was well received by all students. However, the positive response to the experience was based on different aspects: students living in the Netherlands emphasized the opportunity to meet with other students, students abroad emphasized the content of the assignment. This led to a significantly different level of SoB to the Honours community (Table 2) and the level of connectedness between students (Table 3).

Students living in the Netherlands frequently indicated that the assignment was one of the first offline moments in their studies since the beginning of the pandemic. Despite these positive comments, the survey showed that SoB had only slightly been improved (Table 2). This might be because there was only one opportunity to meet in person.

Students living abroad on the other hand, struggled to feel like they belonged with the Honours community while participating in the 'digital' City-as-text assignment, as Survey 2 suggests. An explanation for this may be the physical distance from the other students. The online connection for students living abroad does not seem to add much value. They mainly emphasized the experience of the assignment itself as valuable, rather than meeting online with fellow students.

Students living abroad mentioned that their SoB to the Honours community had not improved after the 'digital' City as Text^{TM} assignment. As a consequence of the 'digital' experience, students living abroad felt significantly less connected with their fellow students compared to students living in the Netherlands (Table 3). This is in line with earlier research on international students, stating that they experience more distress and more loneliness with online learning (Plate & Barasa 2021).

Table 2 "I have sense of belonging within the Honours community"; N=40*.*

	X̄ (mean) / s (standard deviation)
Students living in the Netherlands	3.49/0.902
Students living abroad	3.55/0.577
First years students	3.71/0.859
Second year students	3.57/0.976
Third year (or more) students	3.56/1.130

Table 3 "I feel connected with my fellow students"; N=40*.*

	X̄ (mean) / s (standard deviation)
Students living in the Netherlands	3.24/0.936
Students living abroad	2.67/1.528
First years students	3.22/0.902
Second year students	2.83/0.983
Third year (or more) students	3.43/1.272

End point of the HST: Survey 3
In April 2021, COVID-19 measures had eased: the curfew was abolished, and the end of a harsh lockdown was in sight (Rijksoverheid, 20 April 2021). This led to opportunities to facilitate physical seminars. As a result, honours students felt significantly more connected with each other at the end of the HST compared to the halfway point, as can be seen in Tables 4 and 5. The explanation for this may be twofold.

First, students argue that participating in three different tours led to an improved SoB to the community. It gave them enough time to get to know each other better. Furthermore, creating a tour and participating in other tours had – in general – a positive impact on the collaboration between students. However, there are mixed feelings about communication in the 'digital' environment.

On the one hand, the online system enabled collaboration between students living in different time zones. On the other hand, it is relatively easy to ignore groupmates online, leading to a

decrease of commitment. This is in line with previous research by Wiltse et al. (2020), stating that effective communication is important to increasing the chance of success. Furthermore, students indicated that a lack of leadership caused difficulties. In an online environment one can easily blend into the background without taking initiative. The co-creation team noticed that this does not only affect the SoB of those students, but the whole group: one unmotivated student can easily lead to an unmotivated group.

"Collaboration works out fine in general. However, due to the online system it is relatively easy to ignore groupmates, leading to a decrease of collaboration in some groups." – student

"There is awareness and collaboration, but no leadership at some moments." – student

Finally, students argued that the workshops were important for improving communication in groups and, therefore, for creating a deeper connection with each other. They provided opportunities for deep conversations: to get to know each other on a more profound level. Students argue that the workshops provided tools for giving constructive feedback and for communicating more clearly, concluding that clear and adequate communication is the key to working online in a group. Therefore, the workshop series can be seen as fundamental to the HST enhancing the SoB of students within the Honours community.

Table 4 "I have a sense of belonging within the Honours community"; N=48.

	X̄ (mean) / s (standard deviation)
Students living in the Netherlands	3.51/0.944
Students living abroad	3.67/1.528*
First years students	3.57/0.898
Second year students	3.42/1.240
Third year (or more) students	3.50/0.837

*filled in by three students, so this number is acknowledged not to be a representative result

Table 5 "I feel connected with my fellow students"; N=48.

	X̄ (mean) / s (standard deviation)
Students living in the Netherlands	4.04/0.903
Students living abroad	4.00/1.732*
First years students	4.10/0.845
Second year students	4.00/1.128
Third year (or more) students	3.83/1.169

*filled in by three students, so this number is acknowledged not to be a representative result

Co-creation as a way to co-learn and develop

In this section, the co-creation team shares how teachers and students developed insights and skills as a result of this co-creation project. This is based on their personal experiences and minutes of the meetings they organized for writing the manual and preparing the seminar series, as well as the reflective talks they had within the team.

The process was particularly rewarding for the teachers as they saw the students progressively develop new skills in terms of confidence, creativity, and autonomy. The co-creation process also contributed to the teachers' professional identity through a teaching practice that is much less hierarchical. This contributed to making them more aware of their roles and attitudes, sharing responsibilities in a balanced way, and to reflect on the co-creation process.

Furthermore, the whole team dealt with the complexity of the COVID-19 pandemic circumstances. They had to learn to be flexible – with respect to preconceived plans – because of the constantly changing situation. They had to think collectively of solutions relatively quickly. At the start, they were not sure if the seminars or assignments could be in person or if the entire program had to take place online. The uncertainty resulted in writing out different scenarios. The flexibility meant that when on-campus education was allowed again the team could quickly make the choice to facilitate an extra on-campus seminar.

The students on the co-creation team also developed more advanced communicative skills, divided into three categories: speaking in front of a bigger audience, communication in the co-creation team and formulating clear written text. At the beginning of each seminar, one or two of the students of the co-creation team welcomed everyone and presented the program. This was a bit challenging at first, but as they presented more seminars, they got more comfortable with speaking (online) in front of a large audience.

Communicative skills within the co-creation team itself were also developed. The students' expectations were not always the same as those of the teachers. For example, at first, they had a different view of the structure and content of the course manual. These diverging expectations resulted in both parties working against each other. However, after a deep conversation, they figured out that a lack of communication caused the problems. After that, their communication opened up and their expectations were more aligned.

The final communication skill was formulating clear written texts. The team had to write a course manual for the other students. Formulating each assignment clearly and aligning them with broader learning objectives proved to be difficult. Since they designed each assignment themselves, the objectives and execution were clear to them. However, feedback from the participating students uncovered that this was not always the case for all students. Clarifying the course manual proved to be an iterative process: the manual (Wolfensberger et al., 2021) was rewritten several times. However, the team got better at formulating their expectations and assignments, which resulted in fewer questions from students.

For the co-creation team, the process deepened and extended their knowledge, and enhanced their personal and professional development. All team members developed new skills and reflected on their shared experiences and feedback.

7. Conclusions

Co-creating is a method of creation with many possibilities. Combining the creative abilities of the students and the expertise and experience of the teachers, the team created a program that offered in-depth knowledge about tourism and that enhanced community building in a mostly 'digital' environment. Co-creating seems to be an effective way of organizing an honours program during a pandemic, not only for the 86 participating students, but also for

the co-creation team. Even though the communication happened online, it kept improving between the teachers and students. The direct results of the HST are the tours and the City as Text™ assignments, which were also presented to a broader audience. The surveys also show the results of the HST on the community.

We can conclude that most of the students developed a deeper connection with the Honours program and the Honours community over the course of the HST. The analyses show that the assignments performed in real-life stimulated community building. Also, the online deep conversation workshops, offering interactive and emotional assignments, proved to be a good way to stimulate community building among the students. The HST can be considered successful in the objective of increasing the sense of belonging among the students in the Honours program. However, we do realize that the international students abroad had different experiences than the students in the Netherlands, international or Dutch. Still, this new form of blended learning looks promising.

In terms of co-creation, we can conclude that the active role that the students took on has effectively given them the feeling that they were more engaged with the Honours community, by focusing on their needs and preferred input to the Honours program. The team reflected regularly and gave each other honest feedback. The team, therefore, co-created and co-learned. However, in terms of efficiency, it could have helped to first set shared values for the project, as Masterson (2022) noticed that shared values are fundamental for co-creating. Still, all members expressed their joy during the process. Furthermore, co-creation gave the students a chance to improve several skills, from leadership and team building to communicative and organizational skills, which will be useful during our entire lifespan.

Statement
Questions about the paper or the data used in this paper can be directed to Casper van Beveren, at c.c.vanbeveren@students.uu.nl.

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Notes

[1] The faculty of Geosciences embodies four departments: Earth Science, Human geography & Spatial planning, Global Sustainability Science and Science & Innovation.