

A Multiple Case Study of Implementing Community Service-Learning in Large-Scale Higher Education Courses

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Abstract

Community service-learning (CSL) is implemented mainly in small-scale classes. To date, little is known about how large-scale CSL courses could best be designed. This study seeks to identify benefits and potential strategies for designing large-scale CSL courses. A qualitative multiple case study was performed of three large-scale university courses (> 100 students) at Vrije Universiteit Amsterdam. Based on three core concepts of CSL, *reflection*, *reciprocal learning*, and *transformational learning experiences* were used as sensitizing topics in the thematic analysis. Implementing CSL in large-scale courses showed multiple benefits, such as the amount of work that could be completed and the potential to reduce students' individual workload. At the same time, realizing CSL in large-scale courses offered some challenges. This article presents nine hands-on strategies to implement CSL in large-scale courses.

Keywords: community service-learning, college/university courses, class size, large classes, higher education



Community service-learning (CSL) is increasingly widespread in higher education. Bringle and Hatcher (1995) defined CSL as

a course-based, credit-bearing educational experience in which students (a) participate in mutually identified and organized service activities that benefit the community, and (b) reflect on the service activity in such a way as to gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of personal values and civic responsibility. (p. 112)

CSL provides various benefits to students and faculty as well as the community (Salam et al., 2019). For instance, CSL can improve academic outcomes for students (Warren, 2012), and the experiential learning environment offers students the opportunity to

develop valuable skills and competencies such as communication and listening skills, leadership skills, and social responsibility (Salam et al., 2019; Steinberg et al., 2011). For academic staff, CSL provides a way to increase collaboration with social partners (Salam et al., 2017), which can be beneficial for both teaching and research activities. By implementing CSL, teachers can strengthen the practical relevance of the academic curriculum and improve general teaching practices (Lasen et al., 2015; Phillips et al., 2013). An additional advantage of CSL for society is that students and academic staff can use their expertise to address complex social challenges and work in close collaboration with social partners toward sustainable solutions (Rutti et al., 2016). It has also been argued that CSL could be an effective means for developing, maintaining, or enhancing the ties between higher educational institutions and the local community (Roman, 2015).

In Europe, exponential growth of CSL has appeared in recent years (Sotelino-Losada et al., 2021). Due to cost efficiency and an increase in the number of students in higher education, courses in higher education have been designed to accommodate large numbers of students (Mulryan-Kyne, 2010). For higher education, lectures remain a dominant form of teaching, as any given course may include several hundred students (Lund Dean & Wright, 2017). As the success of CSL is largely dependent on direct (face-to-face) interaction between students and community partners and members (Lloyd et al., 2017; Pillard Reynolds, 2014), as well as reflective learning, CSL is often implemented in small-scale courses. Consequently, most of the current literature on service-learning is primarily based on small class sizes (Copeland, 2017). According to Volkema (2010), it might be difficult to meet the conditions for CSL and maintain project oversight in large-scale courses.

Two recent studies provide some insight into the effects of implementing CSL in large-scale university courses. Copeland's (2017) study showed that CSL in larger classes significantly contributes to a more positive attitude of students toward the community and that students regarded their own roles in the community more positively. Another study, focusing on a large-scale environmental science course, reported that, notwithstanding the large group size, CSL has significant positive impacts on students' worldview, environmentally responsible behavior, and learning outcomes (Cawthorn et al., 2011). Incorporating CSL into large classes was, according to these studies, well worth the effort, although the literature includes little mention of the design elements of these courses. As no studies have focused on the underlying mechanisms and strategies for implementing large-scale CSL courses, how such courses can best be designed and implemented is as yet under-reported.

The growing body of literature internationally available on experiential learning in large-scale courses reports on several challenges and barriers for implementing CSL in large-scale courses: increased preparation time (Agogué & Robinson, 2021; Mantai & Huber, 2021), planning and coordination difficulties (Agogué & Robinson, 2021; Mantai & Huber, 2021; Trinh et al., 2021), free-riding behavior among students (Lyons & Buckley, 2021), difficulty in forming rela-

tionships with students (Trinh et al., 2021), lack of connection between the teacher and students and between the community partner and students (Mantai & Huber, 2021), diminished informal exchange among students in large classes (Trinh et al., 2021), and a clear distinction between good and poor-functioning students (Mantai & Huber, 2021). At the same time, the advantages and potential are also evident: In large-scale courses more students are able to work on a service-learning activity simultaneously (Agogué & Robinson, 2021), a greater diversity of student ideas and experiences is provided (Hilliard, 2021), and opportunities for teamwork among students and learning from each other are increased (Mantai & Huber, 2021; Hilliard, 2021). The unanswered question remains, then: What strategies and design elements can be used to effectively tackle these challenges and realize the best quality and education experience of students?

This article aims to present insight into the benefits and potential strategies for the successful implementation of CSL in large-scale university courses in order to ultimately maximize positive outcomes for course coordinators and teachers, students, and the community. In addition, our study seeks to contribute to conceptualizations of CSL within the context of large class settings. To this end, we conducted a qualitative multiple case study by analyzing and evaluating three large-scale university courses at the Vrije Universiteit Amsterdam (VU Amsterdam) in the Netherlands. The study is expected to contribute to knowledge about higher education that aims to have a social impact, while simultaneously yielding tangible strategies for teachers who wish to apply CSL in their large-scale courses.

Theoretical Background

Based on learning theories relevant to the field of CSL (Dewey, 1938; Kolb, 1984; Mezirow, 1991, 2000; Schön, 1987; Sigmon, 1979), three core concepts can be identified as important characteristics of CSL (Collopy et al., 2020): *reflection* (Kolb, 1984), *reciprocal learning* (Sigmon, 1979), and *transformational learning* (Mezirow 1991, 2000).

The main learning process in CSL uses *reflection to learn through experience*, which has foundations in Dewey's (1938) philosophy on experience and education and Kolb's experiential learning theory (1984). Dewey

explained that experiences can be educational when they occur in interaction with the social environment and are building upon previous experiences in a way that promotes growth and development. Dewey also stated that the learning process can be enhanced through inquiry and reflective thinking, which are considered relevant areas to the CSL context (Dewey, 1938; Giles & Eyler, 1994; Saltmarsh, 1996). Building on Dewey’s work, Kolb (1984) defined experiential learning as a four–stage learning cycle: starting with a concrete experience, after which observation and reflection on this experience take place, followed by the formation and conceptualization of new or revised ideas, and lastly, active experimentation with these new concepts resulting in new experiences. So challenging, continuous, context–appropriate reflection turns experience into a learning experience (Eyler, 2009). Despite the popularity of this framework (also in the context of CSL), Kolb’s work has also been criticized for omitting or simplifying the influence of social and contextual aspects on the learning process, as well as overlooking nonreflective forms of learning (Fenwick, 2000; Yorks & Kasl, 2002). Reflection is broadly defined as a key process of CSL and is, in either written or verbal form, included in courses, in individual or group assignments, and on diverse levels of depth (Tijmsma et al., 2020).

According to Sigmon (1979), CSL is premised on *reciprocal learning*, which is achieved when there is a healthy balance between service (for the community) and learning (of the students). This balance can be reflected both in the goals of the activity and in determining the primary beneficiary. Sigmon developed a typology to describe this balance, which is helpful to define what CSL is and what it is not. For instance, when the primary focus is on a service benefiting the community, the activity can be considered *volunteering*, but when the primary goal is student learning, the activity can be defined as an *internship*. Within CSL, the primary purpose is to establish a win–win situation, in which both the community partner and the student benefit and learn. Mutual identification and organization of service activities help to achieve reciprocal learning (Sigmon, 1979). Reciprocal learning experiences begin with common or complementary goals that require intergroup contact, cooperation, and mutual interdependence. Each group perceives that they need the other to be successful (Collopy et al., 2020).

Lloyd et al. (2017) added that understanding the specific benefits of reciprocal learning depends on a range of factors, including the precise context, the timeframe, the scale, and the viewer’s interpretive stance.

In addition to these two learning models, a third development that is associated with CSL is the *transformational learning theory* (Mezirow, 1991, 2000). This theory details how “critical learning experiences” might lead to learning and behavioral change. A critical learning experience or disorienting dilemma causes dissonance, which prompts the reevaluation or even adjustment of assumptions and habits previously taken for granted. This theory suggests that CSL activities should aim to trigger a certain level of dissonance in order to maximize the learning process (Kiely, 2005). Both Mezirow and Dewey emphasized that the nature of the activity is of paramount importance, and that learning does not just happen with any activity. The activity needs to be an opportunity to apply academic knowledge and provide a critical learning experience in which students can learn. By situating students beyond their comfort zones, transformational learning experiences lead students to question their identities and knowledge as they are confronted with alternative ideas and perspectives (Jakubowski & McIntosh, 2018).

In the analysis of this multiple case study, these three main concepts of CSL were used as sensitizing concepts. In a normative sense, when these three concepts overlap, successful CSL emerges.

Methods

Design

In order to identify benefits and strategies for the implementation of successful CSL in large–scale university courses, we employed a qualitative multiple case study. Data for this study consisted of face–to–face semistructured interviews (individual and group) with students, course coordinators, teachers, and community partners and relevant course documentation (e.g., course guides, assignments, course schedules, and online learning environments). Data were collected at the VU Amsterdam during the academic year 2018–2019.

Definition of Large–Scale Courses

The size of large–scale courses is defined differently in the literature, from 100 stu–

dents (Lyons & Buckley, 2021) to 80 to 100 specifically for tutorials (Mantai & Huber, 2021), toward more than 50 (Agogué & Robinson, 2021). A distinction is made between tutorials and lectures (Mantai & Huber, 2021) and between undergraduate and graduate courses (Lyons & Buckley, 2021). As described in Lund Dean and Wright (2017): “There is no agreement in the literature about the point at which a class becomes ‘large’” (p. 653), and the definition of “large” appears to be often contextual—for example, characterized by the difficulty of using some teaching techniques or sustaining one-to-one contact with all students (Hilliard, 2021). Number alone is often not the deciding factor in defining large-scale classes; rather, it is the combination of learning activities and the facilities and resources available (Mantai & Huber, 2021). A large-scale course might be any class where the number of students poses challenges in the delivery of quality and equal learning opportunities to all students (Lyons & Buckley, 2021). Based on these scientific considerations as well as on the average group sizes at our faculty/university, a demarcation was chosen of large-scale courses in higher education of 100 students or more.

Study Participants and Case Description

Three university courses in which more than 100 students participated were purposefully selected: a first-year Bachelor of Science course (BSc1 course; $n = 233$, 6 ECTS, duration: 4 weeks), a second-year Bachelor of Science course (BSc2 course; $n = 107$, 6 ECTS, duration: 8 weeks), and a Master of Science course (MSc Course; $n = 137$, 6 ECTS, duration: 8 weeks). The two BSc courses included in this study were (re) designed to include a CSL component in the academic year 2018–2019 as part of A Broader Mind, a university-wide program at the VU Amsterdam to stimulate the reciprocal interaction between students and the community. The MSc course had already existed for more than 10 years. Course descriptions are provided in Appendix A and course details in Table 1. The data comprised 10 focus groups (FG) and nine interviews with community partners, teachers and course coordinators, and students. In total, 52 students, 16 teachers and course coordinators, and 11 community partners were interviewed. The participants did not have any prior experience with CSL. An overview of the data is given in Table 2.

Research Procedures and Instruments

Toward the end of the courses, the course coordinators and teachers, students, and community partners from all large-group courses were approached via email for a focus group or face-to-face interview on the CSL-related experiences with the course. Questions focused on the design of the course, the teaching process, the CSL products, the interaction with and satisfaction of community partners, and the “broader” context. The focus of the different elements differed depending on the stakeholder groups. For instance, the interviews with community partners focused more on the CSL products and the interaction with the university and the students and less on the design of the course and the teaching process. Subsequently, individual interviews were conducted with the course coordinators to gain in-depth insight and information on the CSL design and implementation lessons, specifically related to the large number of students involved. An additional topic list was drafted for these interviews. The first part of this topic list for course coordinators focused on the design of the course, and the second part included questions about the realization of the course (see Appendix B).

Data Analysis

The interviews were audio recorded and transcribed verbatim. Thematic analysis was used to identify, analyze, and report patterns (themes) within our qualitative data (Boyatzis, 1998; Braun & Clarke, 2006). In our coding procedures, a stepwise analytic process was followed as suggested by Braun and Clarke, starting from familiarizing coders with the data, to generalizing preliminary codes, sorting these into themes and reviewing these, labeling themes and describing them. Although the analysis was primarily data-driven, the researchers also used the three core concepts for successful CSL (reflection, transformational learning, and reciprocal learning) as sensitizing topics.

At the start of the data analysis, three researchers (AS, NL, CP) read two transcripts to familiarize themselves with the data and to identify preliminary codes. Thereafter, one researcher (AS) coded the remaining interviews using the software program Atlas. New codes were created when new themes emerged from the data. To increase interresearcher reliability, five additional

Table 1. Course Characteristics of the Three Courses

Characteristic	BSc1 course	BSc2 course	MSc course
Total number of students	233	107	137
Total number of subgroups	12	4	11
Workgroup size	35–40	25–30	12–13
Course duration	4 weeks full time	8 weeks part time	8 weeks part time
Project team size	4–5	4	12–13
Number of community partners	3	2	10
Number of (sub)themes	7	5	11
Number of teachers	5	2	10
Study year	BSc1: compulsory	BSc2: compulsory	MSc: compulsory
Number of ECTs	6	6	6
Weight of CSL aspect in total grade and components	60% of total grade: 40% report 20% knowledge clip	50% of total grade: 40% report 5% presentation 5% peer assessment	60% of total grade: 40% report 10% presentation 10% individual performance
Number of years with a CSL element	First year	First year	More than 10 years
Number of face-to-face contact moments with community partner	2	2	2
CSL activity	Literature analysis and development of knowledge clip on a specific topic that is a current social health problem (e.g., drug use in the workplace).	Collecting data via a structured interview and writing an advisory report for community partner on health-related needs of community members.	Writing an advisory report on how to address a complex social problem, via analysis of the complex problems and integration of knowledge of diverse stakeholders with different views and perspectives on addressing this complex social problem.

Table 2. Overview of the Data Collected

Data collected	BSc1 course	BSc2 course	MSc course
Focus groups (<i>n</i>)	3 students (1) 6 teachers (1)	4 students (1) 3 community partners and 3 teachers (1)	37 students (4) 2 teachers and 3 community partners (1) 8 students and 1 community partner (1)
Interviews	1 community partner 1 course coordinator	2 teachers 1 course coordinator	3 community partners 1 course coordinator
Other materials	Reflection assignment Course documents	Summary report of observations Course documents	Summary report of observations Course documents
Total	52 students 16 teachers/coordinators 11 community partners		

transcripts were coded by at least three researchers (AS, NB, NL, CP) and discussed in face-to-face meetings at different points. The main findings and results were discussed and, when there were different interpretations of the data, consensus was reached through discussion. Two researchers (NB and MZ) had a dual role in this project, acting as a sounding board for the teachers of the BSc1 and BSc2 courses who had concerns and questions before, during, and after the course, as well as conducting the evaluation. The other authors were not involved in the design of the three courses studied.

Ethics

The study complied with the national Code of Ethics for Research in the Social and Behavioural Sciences Involving Human Participants (Vaste Commissie Wetenschap en Ethiek, 2016). All participants were informed verbally about the study before the start of the interview, including the purpose and procedures, confidentiality of the interviews, the voluntary nature of participation, and the opportunity to withdraw at any time. Participants gave both written and verbal informed consent.

Results

First, the general benefits and some challenges of CSL in large courses are described from the perspective of students, teachers,

and community partners. Second, based on our data, hands-on strategies are described to realize each of the three predefined core concepts for CSL (see overview in Table 3).

Benefits and Challenges of CSL in Large Courses

Three benefits of implementing CSL in large-scale courses were identified. The first main benefit is that more students are exposed to practice-based learning in large-scale CSL courses. More specifically, the BSc1 and BSc2 courses enabled students to become acquainted with CSL. For most students this was their first encounter with CSL. Respondents assumed that students who are exposed to this type of education early in their academic experience may opt for a community-oriented focus throughout their further academic career.

Students show so much curiosity, they are going to discover and find out what is already known. . . . They are also willing to invest a lot to find an answer. (Community partner, MSc course)

The second benefit, which came up in the interviews with community partners, is related to the volume of data that could be generated, the large number of actions that could be executed, and the breadth of the topic, because of the large group capacity. For instance, having multiple groups of stu-

dents working on the same topic resulted in a broad analysis of the topic and various subquestions addressed.

A third (related) benefit was that the greater capacity could reduce the individual workload, which could be divided among a large number of students. For instance, the students in the BSc2 course conducted one or two interviews in pairs; together, each workgroup of 25 students conducted between 12 and 15 interviews, which allowed students to obtain a more in-depth focus on a single interview. Together, the students were able to interview a range of persons, benefiting the community partner.

Realizing CSL in large-scale courses also presented some challenges. A first challenge concerns the logistical complexity. A second challenge relates to the need to arrange adequate supervisory support by teachers to achieve transformational learning and support reflection. A third challenge that arose from the data concerned the ideal that personalized learning requires every student to have an equal opportunity to experience transformational learning. For large classes, it was more difficult to guarantee the same exposure, support, and learning opportunities for each student.

In the three courses, these challenges were tackled by several strategies. A total of nine strategies identified (summarized in Table 3) show multiple ways in which teachers effectively dealt with these challenges. All strategies are described in depth in the remaining part of this section.

Reciprocal Learning in Large CSL Courses

One of the core concepts of CSL is to aim for a win-win outcome by facilitating social interactions and knowledge exchange between a community and students. To ensure that both parties receive optimal gain from the collaboration in a large class setting, three strategies were identified: (1) the alignment prior to the start of CSL projects, (2) the student-partner ratio, and (3) the number of contact moments.

Strategy 1: Alignment Prior to the Start of CSL Projects

All course coordinators stressed the relevance of agreeing and aligning the CSL projects with the community partners prior to the start of the course. Doing so enabled community partners and coordinators to codesign project ideas together, and to discuss the division of roles, which creates the necessary conditions for reciprocity in a large group setting.

[Course coordinator] explained to me what they expect from us in terms of time investment, and how often we would meet, and what kind of products we could expect from students, and in what ways we would provide feedback. . . . We discussed this nicely on time in advance, what contact moments there would be and what the students would get out of it and what the expected time investment would be of us, and; if it was more than expected we should indicate that. So, the expectations were clear like time investment and product

Table 3. Overview of Community Service-Learning Elements and Strategies

CSL element	Strategy
Reciprocal learning	<ol style="list-style-type: none"> 1. Alignment prior to the start of the CSL project 2. Student-community partner ratio 3. Number of contact moments
Transformational learning experiences	<ol style="list-style-type: none"> 4. Availability and support of a teacher 5. Reduced variation within CSL student groups 6. Reduced variation between CSL student groups
Reflection	<ol style="list-style-type: none"> 7. Facilitating peer feedback 8. Fixed reflection moments with the community partner 9. Facilitating individual reflection

to deliver, that was really nice.
(Community partner, BSc1 course)

Especially with a large number of students involved in a relatively short timeframe (4–8 weeks), it was important to align the assignments beforehand to prepare the CSL projects well. This preparation was focused on managing expectations surrounding the final product for all parties involved, adjusting the level of difficulty of the assignments to overall course learning objectives, and taking account of the students' level of prior knowledge and experiences. All three courses included learning objectives explicitly referring to the CSL project and in line with the level of the students, including “the execution of a societally relevant group project based on a problem shared by the community partner” (BSc1), “the presentation of results to an external community partner” (BSc2), and “applying scientific knowledge to formulate solutions to societal problems and making recommendations specific for the target group” (MSc).

The amount of preparation needed with community partners differed depending on the course. In the MSc course, there was a less structured and frequent preparation with the community partners and the coordinator. Students, in the role of consultants, undertook a qualitative study for the community partners, and the alignment was mainly the task and responsibility of the students themselves. This task was also one of the learning objectives of the course. Furthermore, the course coordinator had been running the course for several years, which also helped reduce preparation time, as there was already a well-defined course design in place. Conversely, the CSL projects within the BSc1 and BSc2 courses were being run for the first time, and thus more meetings were necessary to define the initial scope of the project. The course coordinator of the BSc2 course mentioned that they started 3 months in advance and had regular meetings with the community partner. The BSc1 course started planning and meeting with the community partner 1 month in advance. Both BSc1 and BSc2 provided specific guidelines to the students for the assignment (also in line with their prior knowledge and experience), which they agreed beforehand with the community partners.

Strategy 2: Student–Community Partner Ratio

For reciprocity, the findings show that achieving a balanced ratio between students, community partners, field sites, and sub-projects was deemed important. The ratio between students and community partners varied substantially across the different courses. In the evaluation interviews and focus groups of the BSc1 course, students, teachers, and community partners reported dissatisfaction with the student–community partner ratio, as the large number of students for each community partner reduced the possibility of more personal interaction. The teachers of the BSc1 course concluded that more community partners were needed for this large group of students next year.

The BSc2 course had “only” two community partners, yet the students could visit multiple field sites (eight in total), so students had opportunities for individual contact with residents, and therefore they did not experience the need for more community partners, as occurred in the BSc1 course. The evaluation of the BSc2 course also showed the advantage of including enough different sites to reduce the chance of overburdening potential respondents.

Working with more community partners or field sites was seen as a way to increase possibilities for individual contact between students and the community partner. At the same time, working with multiple community partners could increase the logistical arrangements for the coordinators and teachers to initiate and align the CSL projects.

Strategy 3: Number of Contact Moments

Besides achieving a balanced ratio between students and community partners, scheduling enough contact moments between community (partner) and students came up as a strategy for realizing reciprocity. For all students, face-to-face contact with the community partner and community members enhanced the sense that this was a “real” case assignment rather than a fictional assignment. For community partners, personal contact with the students helped to clarify the focus of the CSL assignment and better align the project with the community needs. This arrangement was beneficial for both the students—they have a better understanding of the context of the community and their needs—and for the community partner, as the product will be

better aligned to their needs and preferences. Therefore, scheduling sufficient personal contact moments between the community partner and students helped in realizing reciprocal learning as the mutual benefit was established through these personal contacts. In large groups, such personal contact could be achieved in a plenary setting in the classroom, for instance by the community partner visiting during a lecture or working group. In general, personal contact between students and a community partner could take place at three points: at the start of the CSL project, during the CSL project, and at the end of the CSL project.

At the start of each of the CSL projects, a first meeting was planned between the students and the community partner to introduce the organization and scope of the assignment. This first contact allowed students to build rapport with the community partner, ask specific questions, and introduce themselves to the community partner and vice versa. First meetings were facilitated in various ways. In general, we saw that meetings between community partners and larger groups of students benefited from a more structured approach. In the BSc1 course, two out of three community partners had a very structured initial meeting in a lecture hall with a large group of students in which every group of students ($n = 79$ and $n = 118$) was allowed to ask two questions. This way, all groups of students were actively involved and had an equal opportunity to pose a question. The third community partner had the opportunity to meet a smaller group of students ($n = 36$) in an interactive workshop. The setup of this interactive small-scale meeting was experienced as more personal and allowed the students to develop a rapport and gain more insight into the needs of the community partner.

During the CSL project, across the three courses, there appeared to be minimal direct contact between students and the community partners. Students in the MSc course and the BSc2 course had more frequent contact with community members representing diverse stakeholders during the interviews they conducted, which allowed the students to gain further insight into the community context and needs (and thus contribute to reciprocity). However, course coordinators believed it could be beneficial for reciprocity if additional intermediate contact with the partner were to occur in the future, by stu-

dents themselves or by the teacher on behalf of the students. During this moment, students have the opportunity to ask additional questions and to check whether the direction they are heading is still in line with the community partner's needs (and vice versa). Moreover, extra contact reinforced for the students that they are contributing to a real case rather than just working on an assignment. Depending on the content and time available, the interaction could occur in face-to-face meetings, by phone, or by email.

All three courses included a presentation of the findings to the community partners at the end of the CSL projects. Personal contact between the community partner and the students was experienced as being essential for the completion of CSL projects, as it was perceived as a means for reciprocal and transformational learning.

Transformational Learning Experiences

As transformational learning experiences are supposed to be key for the development of students' skills and competencies in CSL, it is relevant to distinguish what facilitates these experiences in large groups. To achieve transformational learning, it is important that every student have an equal chance to experience it. We found that for large classes, it was more difficult to guarantee the same exposure, support, and learning opportunities for each student due to team size and class size. Besides reflection (see the Reflection section), this outcome is related to the roles of the students *within* a group: As students might divide certain roles within their team, some might not be able to practice and enhance certain skills that are formulated as course objectives. It is also related to managing the differences *between* groups: When different groups work with different community partners, it is more difficult to regulate the type and amount of exposure the students have in various community sites. Three strategies were identified to help enhance transformational learning experiences in CSL courses provided to large groups of students: (1) the availability and support of a teacher; (2) reducing variation within groups; and (3) reducing variation between CSL project teams.

Strategy 4: Availability and Support of a Teacher

To give enough support and guidance to

students, the role of teachers was seen as essential to enable students to benefit from the potential of CSL activities. For large-scale CSL courses, planning intermediate support in class was likely to take considerable time and effort on the part of the teacher. To optimize communication and facilitate the interaction between students and teachers, large groups of students were divided into subgroups and project teams. In all three courses, the students were divided into smaller subgroups (BSc1 $n = 40$, BSc2 $n = 30$, MSc $n = 13$) and then into project teams (BSc1 $n = 5$, BSc2 $n = 4$, MSc $n = 13$; see also Table 1). For both teachers and community partners, it was more manageable to work with a smaller group of students and thus generate transformational learning experiences.

Moreover, students in all three courses initially found it difficult to deal with the lack of clearly defined boundaries in the assignments, and the (relatively high) level of responsibility that was required of them compared to fictional-based assignments. This happened both at BSc and MSc level, as for most students working in a CSL context was new. The BSc2 course teacher explained that a number of students had the tendency to ask a lot of questions at first and to seek clarity.

I did notice that students responded differently. Some students liked that and took a leading role and showed initiative, but I think there are also students who indicated that they were a little surprised that it wasn't all worked out in detail, and that it was not completely written step by step on paper. (Teacher, BSc2 course)

For BSc students (BSc1 and BSc2 course), teachers were primarily encouraging and supportive, without directly giving away any answers. For example, in the BSc1 course students seemed to believe that when they could not find a lot of relevant studies, their findings would not be really useful for the community partner. In reality, the converse was the case, as the lack of literature was also a valuable finding for the partners. Teachers played an important role in changing the students' views by underscoring the relevance of the findings of the literature search regardless of how much literature was available. In this way the teachers facilitated learning by doing,

to enhance the transformational learning experiences. In the MSc course, the teacher "coached" the students in drafting the advisory report, and encouraged students to discuss the collaboration process in the teams by themselves. The MSc students were in charge of planning and undertaking the research activities, and the teacher offered support only when students explicitly asked. The greater level of responsibility expected of the MSc students relates to the scaffolding phase in the master's program, of which this is the second course in the scaffolding process.

Strategy 5: Reducing Variation Within Groups

A well-known pitfall of teamwork in general is an unequal distribution of the work among all group members, resulting in some students having a more substantial learning experience than others, and more passive students benefiting from others' doing the bulk of the work. As a student from the BSc1 course indicated:

I found it difficult to work together in a fairly large group. In the end you always have one or two people who do a lot more than the rest, which unfortunately was also the case this time. (Student, BSc1 course)

A strategy for dealing with these differences within a group was to make the group take shared responsibility for the project. In the BSc2 course this meant that the final presentations by the large subgroups of students ($n = 30$) were replaced by poster presentations by the small project teams of students ($n = 4$; see Table 1). The course coordinator expected to increase the possibilities for transformational learning experiences for individual students in their presentations.

Even in the smaller subgroups, it was hard for teachers to monitor the progress made by individual students. Teachers and coordinators of the BSc2 course recommended establishing certain control mechanisms during data collection for individual students to ascertain that all students are involved as required, such as using a list of attendance at community sites, handing in each interview transcript individually, and letting students record and hand in audio files of structured interviews conducted. Furthermore, the input of students and

discussion among them on role division was essential. The coordinators of the MSc and BSc2 courses underlined the role of the teachers in facilitating the discussion about the role division among students. The teachers should create an open atmosphere within the project team, to enable the students to provide feedback on each other's role in the project and prevent students from taking advantage of others' work or, conversely, not being aware in the course of the collaboration that they are not performing well. As a last resort, teachers could intervene when required. In this way, team collaboration as part of the scaffolding process became an increasingly shared responsibility of the students themselves.

Strategy 6: Reducing Variation Between Groups

Besides the division of roles within a group of students, there might also be differences between groups—due, for instance, to different community partners or different topics—posing a barrier to students' learning opportunities when they are assigned to a certain group. In CSL, the ultimate goal is to allow every student to experience transformational learning regardless of the specific group to which they are assigned. One solution to reducing differences between student teams is to standardize the number of contact moments between the students and the community partners and community members in a CSL course. Another solution concerns the use of uniform interactive methods throughout the number of teachers involved in the course; furthermore, alignment across different lecturers is likely to encourage similarities in the exercises and the way of teaching. Alignment between the different teachers is likely to reduce variation in transformational learning opportunities.

The working groups were very similar. And the teachers themselves have always had mutual consultations about how things went and how they should deal with issues. (Coordinator, BSc2 course)

Reflection

Students reflected on the CSL project both in class and in their small team with peers. Making use of reflection in meetings of smaller subgroups created opportunities for teachers to support students in their

learning process. The role of the teacher in all three courses was primarily to stimulate reflection on individual progress, methods used, and group collaboration. All three courses had in-class discussion of these questions, among others: Why did you do what you did? Was this the right approach? What affected you or what made a significant impression? How is the project going? What activities need to be done next? What did you learn during CSL? Some students felt pressure in performing CSL, as it had to result in "real" products for practice. Since the CSL project increased in difficulty from the BSc1 to the MSc course, this pressure increased and was therefore more or less similar in all three courses. Dealing with this pressure was also a topic for reflection, as were the ethical issues related to undertaking "real" empirical research for a community partner.

To enable reflection at a more individual level despite the large group size, course coordinators looked for ways to let students reflect on their individual performance and experiences in the interaction with other actors in their direct environment. Three strategies were identified to facilitate reflection in CSL courses: (1) facilitating peer feedback, (2) fixed reflection moments with community partners, and (3) facilitating individual reflection.

Strategy 7: Facilitating Peer Feedback

Working in groups during CSL projects can be an added advantage in the learning process, because as students learn to collaborate, they can experiment with different roles in a team and give each other feedback on their progress. Peer feedback was a central strategy for all three courses to stimulate reflection among students about each other's role. In providing and receiving feedback, students also gained insight into their own strengths and areas for improvement related, for instance, to group collaboration. The usefulness and the need for peer feedback was exemplified by one coordinator:

As a teacher you cannot be everywhere. You are only there during that one hour, during the meeting. But that does not mean that you know how the person worked in the collaboration process. I think only the peers can judge about that. (Coordinator, MSc course)

In the MSc and BSc2 courses, peers graded the individual performance of their team members. For the MSc course, it was expected that students were able to reflect on the group collaboration and give each other honest feedback for the peer assessment. However, to guarantee that students would get a fair grade with regard to their performance, the teacher was finally responsible for the grade. This prevented students from being insufficiently or excessively critical when grading each other. Students of the BSc1 course provided feedback digitally on the assignment of their peers, and according to the BSc1 students in the focus group, they found this instructive, as they learned to read the document critically and also reflected on their own assignment in this way. However, the same students also stressed that they did not always know whether the feedback they received from their peers was accurate.

If peers give feedback on needed adjustments, then you have to look at it self-critically to see if you really agree. In my peer feedback they advised leaving something out of the report and it really made me doubt whether it should be in the report. (Student, BSc1 course)

In line with this difficulty, the course coordinator of the BSc1 course also stressed that besides peer feedback, help and feedback from teachers remained essential in this respect.

Strategy 8: Fixed Reflection Moments With Community Partners

Besides reflection among students, reflection could also take place with the community partner. In the three courses, explicit face-to-face reflection with community partners was included at the end of the course in the final presentations. External community partners were invited to the final presentations and invited to respond to the project findings: How do they recognize the findings? What is surprising? What are they aiming to do with the findings? The community partners also provided feedback in their interactions with students to enable them to become more aware in relation to sensitive or stigmatizing phrases and formulations for the communities involved, including how to achieve a more nuanced view. This feedback was expected to increase a reflective attitude among stu-

dents. For instance, in the BSc2 course, the coordinator observed that students learned a lot from the insights of the community partners during the presentations. In the MSc course, some subgroups also had intermediate contact with the community partner. By means of email or phone calls they were able to ask additional questions, and the community partner more informally could reflect on the process and preliminary findings. For the two BSc courses, no intermediate reflection took place. For large-scale CSL courses, planning intermediate reflection moments between students and the community partner is likely to entail considerably more time and effort, but might help with the alignment of the project with the needs of the community partner. This pragmatic challenge might be the main reason that intermediate reflection moments were not (yet) implemented. According to the course coordinators, the manner and frequency of community partners' structural and explicit involvement in face-to-face reflection during project implementation could be improved for all three courses. The coordinator of the BSc2 course therefore indicated that, for the following year, she had decided to include an additional planned reflection moment with the community partner on the interpretation of the collected data directly after the data collection. For the MSc course, a more interactive and in-depth reflection on the process was suggested to facilitate reflection from a more integrated perspective.

Ideally, I think that they should just sit down together after that presentation; community partner, the team and the teacher. That is the easiest. To simply put them all together and discuss everything: how did it [the CSL project] go? (Coordinator, MSc course)

Strategy 9: Facilitating Individual Reflection

Besides in-class reflection and reflection with community partners, reflection also took place individually. The BSc1 course included individual reflection forms that students completed online, which the teachers and coordinators evaluated positively, including an "incomplete sentences" format about expectations, what they liked and had difficulties with, what surprised them and what they had wanted to handle differently in the future. The aim of the online reflection was to stimulate students

to think about the learning elements of the course: what students experienced during the course. Online reflection was easily feasible in a large group setting, and it fits well with the personal nature of reflection on CSL experiences.

We did not want to discuss it plenary in class, as it is really individual. . . . You can easily use it for a few hundred students, the online form is available. (Coordinator, BSc course)

Discussion

The purpose of the current study was to gain insight into the benefits and potential strategies for successful implementation of CSL in large-scale ($n > 100$) courses in higher education, in order to ultimately maximize positive outcomes for course coordinators and teachers, students, and the community. Building on the scant literature on CSL in large groups of students demonstrating positive outcomes for students (Cawthorn et al., 2011; Copeland, 2017), the current study identified ways in which three large-scale courses specifically supported reciprocal learning, reflection, and transformational learning experiences. Reflecting on these findings, important insights will be discussed concerning the theoretical concepts used in this study and the benefits versus costs of working in large groups.

Reciprocal Learning, Reflection, and Transformational Learning Experiences

One common overall strategy appeared from the data: managing the large group size by dividing large numbers into subgroups, and including enough community partners to allow for personal interactions between students and community partners and as guidance for students. Although the first strategy is a more general approach to teaching large groups (Lund Dean & Wright, 2017; Mulryan-Kyne, 2010), the second strategy is unique to CSL education and seems particularly relevant for facilitating reciprocal learning and transformational learning experiences. Of the three main elements of CSL, reciprocal learning seems to be theoretically the most distinctive element for engaged learning in general, and CSL specifically. Reciprocal learning could therefore also be interpreted as the most vital element to guarantee in CSL courses for large groups of students. The three strate-

gies in this study provide direct suggestions to ensure reciprocal learning for large-scale CSL courses. Since all nine identified strategies are interrelated, the other strategies will also contribute in a more indirect way to reciprocal learning.

As transformational learning experiences could be best achieved when students take on more responsibilities and learn by doing, a larger group size is not necessarily incompatible with creating fruitful learning conditions. At the same time, large groups often have a negative impact on the quantity and quality of contact between students and teachers, which limits opportunities for addressing specific student needs in the learning process (Lund Dean & Wright, 2017). The facilitating role of teachers in working group discussions is a key aspect for reaching in-depth reflection and increasing the active involvement of all students in the learning process. Therefore, combining lectures for the large total group and splitting the total group of students into separate classes seems a workable way to balance both quantity and quality in CSL (Lynch & Pappas, 2017). With smaller class sizes, teachers can relate to students as individuals and understand their individual needs and questions (Mulryan-Kyne, 2010), leading to more personal reflection and possibilities to achieve transformational learning experiences for a large group.

In the three courses included in this multiple case study, several distinctions can be observed in relation to the students' prior experiences, year of study, and course objectives. In the MSc course, students were expected to be more capable of independently developing and aligning their CSL project with a community partner, compared to students in the first- and second-year BSc courses (Zweekhorst et al., 2015). Depending on the students' prior experiences and year of study, the CSL assignment can best be designed around the students' level of competence and the course objectives and thereby contribute to scaffolding. Students with no prior CSL experience need more assistance to get started; experienced students can engage, align, and perform their CSL project with community partners more independently. The amount of support provided by the teacher, the degree of structure in the CSL assignment, and the advance preparations by the teacher and community partner are likely to differ substantially between study years (Tijmsma et al., 2020).

Based on Kolb's (1984) four-stage learning cycle, reflection or experiential learning starts with a concrete experience and is strongly related to the construct of transformational learning experiences. In the interactions with students and community partners, reflection on concrete experiences is expected to occur (as described by the two strategies), leading to the formation of new or revised ideas. In a large class, it can be cumbersome to provide learning opportunities that enable students to explore the complex relationship between knowledge, thinking, reflection, and action. Stimulating reflection in class between students and teachers who provide support for guided learning has been recognized as a promising strategy to facilitate experiential learning in large groups of students (Cooner, 2010). Previous studies also indicate the promise of online tools and blended learning (Cooner, 2010; Oliver, 2007), which might enable more contact during teamwork and reflection with community partners. The need to take the level of scaffolding into account and specifically design the level of complexity of the reflection assignment and the amount of guidance by lecturers seems to be relevant in this regard.

Costs and Benefits of Large Groups

A relevant final question with regard to implementing CSL in courses for large groups of students is whether the benefits outweigh the costs. A number of studies suggest that CSL is time-consuming and increases teacher workload, which is considered a significant barrier to implementing CSL (Agogué & Robinson, 2021; Banerjee & Hausafus, 2007; Mantai & Huber, 2021; Trinh et al., 2021; Vogel et al., 2010). The current study showed that large groups pose additional logistical challenges for the course coordinators—and community partners—resulting in extra time commitments. However, the respondents also illustrated a variety of advantages and outcomes of CSL in large groups, which they believed were worth their effort. For a more structural implementation of CSL, working together with community partners for a period spanning several years reduced the annual effort required for course coordinators. In addition, the proposed strategies can help coordinators to make CSL in courses for large groups most effective and thus cost-efficient. The current study shows that CSL in courses with large group sizes is possible, and when key elements of CSL—reflection,

reciprocal learning, and transformational learning experiences—are taken into account in the design, a good balance in the learning environment is warranted.

Strengths and Limitations

One strength of the article is that the data comprised the perspectives of students, coordinators and teachers, and community partners. Individual interviews with the course coordinators were conducted to gain in-depth information on the design and implementation lessons related to the large number of students involved. What makes the findings of the study unique for CSL is the combination of the three elements: reflection, reciprocal learning, and transformational learning experiences.

The three courses varied to a large extent, including the number of years in which CSL was implemented in the course, the level of experience with CSL among the teachers and coordinators involved, and the students' study year. One common characteristic of all three courses was the research-oriented focus of the CSL projects. The impact of the variation on the credibility of the findings is deemed limited, as the aim of this study was not to describe the courses as blueprints, but rather to derive useful lessons and strategies from the different courses. One limitation concerns the selection of the cases, as all three courses selected were taught at the same Dutch university and therefore in the same context. Compared to other settings in which CSL is already widely implemented, such as the United States, there might be differences in the level of institutionalization of CSL, as the approach is quite new in the Netherlands. It might be therefore useful to further explore this topic in a different context to establish whether the same strategies and benefits emerge.

Another direction for future research is to study group didactics for large groups within the CSL context. The current study was primarily focused on the benefits and strategies related to the number of students involved in the courses. Specific teaching methods and pedagogic approaches are needed to fit the group size (Mulryan-Kyne, 2010). Future research might study in greater depth what group didactics are specifically suitable for large groups of students in CSL courses.

Conclusions

To create basic conditions for CSL, this study

reports on nine strategies that could be used to tackle challenges related to courses with large group sizes (defined here as > 100 students). The findings show that successful realization of CSL in large-scale courses can be facilitated by taking account of the relevant conditions required for reflection, reciprocal learning, and transformational learning experiences. The combination of strategies and reciprocal learning especially are unique to CSL courses. This study contributes to the knowledge gap identified in the literature and practice on how to deal with a large class size. The strategies are deemed useful for course coordinators who are willing to develop and implement CSL for large-scale courses.



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Appendix A. Case Description of the Three Courses

BSc1 course

The 4-week BSc1 course is a compulsory course for first-year Health and Life Sciences students at the VU Amsterdam.

Course content: The aim of the course is to familiarize students with health behavior (theories), determinants, and indicators of (public) health, as well as health disparities among different target populations, and for students to translate academic findings in knowledge to the target group. This course combines theoretical lectures with a CSL assignment.

Type of community partner: Three community partners are involved, namely municipality, municipal, and national health service organization.

CSL assignment: In a team of four to five students, students conduct a structured analysis on the basis of literature on a complex social problem related to health and behavior and produce a knowledge clip on indicators of the specific health problem for the community partner. Each group addresses a different (sub) question posed by one of three commissioning community partners focused on topics covering a current social health problem (e.g., substance use at work, obesity). At the start of the CSL project, a meeting is scheduled between the community partner and the students, in which the students are allowed to ask questions. The course has a total of 233 students. One community partner was linked with 118 students, another with 79 students, and the third with 36 students.

BSc2 course

The 8-week BSc2 course is compulsory for second-year Health Sciences students at the VU Amsterdam.

Course content: The aim of the course is to offer students insights into the process of aging and the issues that arise from this, such as independence issues in care. On completing the course, students are able to identify different age-related diseases and (health) issues as well as the complex interplay between them.

Type of community partner: Two community partners are involved, namely foundation and housing corporations.

CSL assignment: For each work group a quantitative study is conducted for one of the two community partners, with the goal of identifying an older adult's needs for health and residential support. The study is performed by administering structured interviews at two residences for older adults. The interview questionnaire is designed by teachers and the community partners before the course and covers the following themes: quality of life, social aging, cognitive or emotional aging, physical or functional aging, and care use. At the start of the course, the community partners are invited into the class to explain the assignment and to answer questions. The students work together in a team of four to analyze one of the subthemes of the questionnaire and write a report for the community partner. On completion, the projects are presented at a symposium to community partners and other students. In total, 107 students are participating in the course.

MSc course

The 8-week MSc course is compulsory for first-year Management Policy Analysis and Entrepreneurship in the Health and Life Sciences MSc students at the VU Amsterdam. The MSc program aims to prepare students for conducting interdisciplinary research and applies a scaffolding process toward inquiry-based learning (Zweekhorst et al., 2015). This course, the second course in the scaffolding process, is a structured inquiry course, which means that students are provided with the research question, the methodology, and the context, but have to conduct the project themselves.

Course content: The course aims to train students in providing policy advice for a complex social issue on the basis of interdisciplinary research, and comprises a theoretical and a practical component. In the theoretical part, students are acquainted with theoretical concepts and models about policy. During the practical part, students deepen their analytical skills with respect to the critical assessment of a complex social question, develop their data-collection skills, learn to integrate scientific and nonscientific knowledge, to translate research findings into policy recommendations, and to write a policy advisory report. Throughout the course, attention is paid to group work and collaboration.

Type of community partner: 10 community partners are involved, including civil society organizations and municipalities.

CSL assignment: The practical part of the course forms the CSL assignment. Student teams write a policy advisory report for an external community partner. The projects focus on addressing complex social issues and concern topics such as loneliness, alcohol-related issues, and e-health inequality. At the start of the study, students interview a community partner to set out the questions, and then interview approximately 12 stakeholders with different views. At the end of the course, students present their main results and recommendations to the community partner and write a policy advisory report. In total the course has 137 students. Every group of 12 students is linked to one commissioning party.

Appendix B. Topic Lists

Topic List Tailored to Course Coordinators
1. What is a large group according to you? How do you define a large group (number, sub-groups, etc.)?
Design
2. What issues did you take into account in the design of the course with regard to community service-learning in a large group?
3. In what ways did you adjust your course including the community service-learning to the large group size?
4. Did you have any other considerations with regard to the large group size related to: <ul style="list-style-type: none"> • Assignment • Class size (specific didactics/methods etc.) • Team size • Reflection • Support provided during classes for collaboration/reflection • Communication with commissioner/community partner • Reciprocity principle • Achieving critical learning experiences • Level of experience of students • Output
5. Was the group size a consideration in your decision whether or not to implement CSL in the course?
Realization
6. What issues arose during the course due to the large group size? Think of: <ul style="list-style-type: none"> • Assignment • Class size (specific didactics/methods etc.) • Team size • Reflection • Support provided during classes for collaboration/reflection • Communication with commissioner/community partner • Reciprocity principle • Achieving critical learning experiences • Level of experience of students • Output
7. What strategies/solutions did you come up with?
8. Were there advantages related to the large group size?
9. What lessons did arise for future CSL courses for larger groups of students?
10. Do you have a good practice you want to describe?

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Appendix B. Continued

Topic List Tailored to Students
<ul style="list-style-type: none"> • Did you engage in a CSL activity before? (experience) • What were your personal learning goals? • What were the learning goals of the class? • Did you know about the learning goals/needs of the community partner? • Did you know about the needs of the community members? • What did you expect from the CSL course?
<p>INPUT—How should it be done?</p> <ul style="list-style-type: none"> • What motivated you to join this project? • How was this CSL activity expected to contribute to problem at hand? • What is your role in this? • Did you feel prepared to perform the work required of you? If not, what would have made you feel more prepared? • What problems do you think might arise when conducting a community focused project? Were you prepared to handle ethical problems? • Was there enough time, support? • Support from teachers? Supervisors? Peers?
<p>PROCESS—Is it being done?</p> <ul style="list-style-type: none"> • What did you find the most rewarding in this experience? What factors contributed to this success? • What did you find the most challenging? How did you overcome these obstacles? If you couldn't, why? • Describe your interactions with the community partner. How did you experience the collaboration? Describe your interactions with the community members. How did you experience the collaboration? <ul style="list-style-type: none"> • Were they accessible? • How often and how did you meet? • Did you reflect during the project/course? How did it take place (Probe: with coach, group, individually, journal)? How often? Was it structured? What was the purpose? Was this sufficient? Was it helpful? Why? • How did it feel to work with the group's size? Why? • Which ethical dilemmas did you encounter during the activities?
<p>PRODUCT—Did the project succeed?</p> <ul style="list-style-type: none"> • What did you learn about the community through this experience? • What did you learn in the community that connected to the content of the course? How was that connection made? • What did you learn about yourself as a result of your experiences with the project? Did you become aware of biases or fears? What did this teach you about your interaction with people different than yourself? • How did this project contribute to the societal problem at hand? • How was the project returned to the community (partner)? • How did knowledge transference/valorization occur?

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Appendix B. Continued

Topic List Tailored to Community Partners
CONTEXT—What needs to be done?
<ul style="list-style-type: none"> • What community do you represent? • What was your motivation to start to collaborate on this project? • What were your expectations?
INPUT—How should it be done?
<ul style="list-style-type: none"> • How were you involved? Design/advise/consultation/interviewee/collaboration/co-creation • How did you experience the support for your participation organized by your organization and the university? • To what extent was the set-up of the project aligned with your needs? • What was your investment in this project?
PROCESS—Is it being done?
<ul style="list-style-type: none"> • How did you experience your involvement in this project? At what moments were you involved? Was this satisfactory? • How was the project organized? What went well, what could be better? • How did you experience the project? • What obstacles or barriers did you encounter during the CSL activity? How were they managed? • When were you or any other community members involved in the project? (agenda setting/design/consultation/end product/presentation etc.) • Do you feel that your suggestions/needs are taken into account in the project? • Can you describe the relationship and/or contact between you and the community members?
PRODUCT—Did the project succeed?
<ul style="list-style-type: none"> • How would you describe the benefits/interesting outcomes/insights for you/your community of this project? • How did this project contribute to the social problem in question? • All in all, do you feel that the outcomes of the project outweigh your investment? • What would you do differently next time? What should the university/community partner do differently next time? • Were your needs/the needs of the community represented in the project? • Were your expectations met? If not: why? • What is interesting in terms of follow-up project? What are follow-up questions? What should we do next? • How to make more impact on the community next time? • How were the results given back to you? Was this sufficient? • What will we see remaining of this project in six months?