

CONTEXTUALISING LEARNING: CHANGING AND MAKING PLACE

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The purpose of this review is to consider ways in which student participation in sustainability learning can be enhanced by developing contexts for learning. The aim is to critically analyse three examples of contextualizing learning within our own classes in sustainability education (SE).

In these examples we apply the design framework introduced in another case – in the traditional model this is concept-read-discuss-write and in the ActSHEN approach this is concept-experience-reflect-discuss-produce. In this study we consider three cases: in two the students moved to a new venue for the class and in the third we tried to bring some aspects of the venue to the students. Students visited an art exhibition curated by a former member of the class on the theme of sustainability, and they visited a fisheries research institute where the two international groups of students were combined into 3-4 person groups and the focus was on wicked problems: where students might find them and their role in working with them on returning home in the case of the fisheries students. In the third setting which focused on the refugee situation then raging in Europe, we used visual and non-academic material to prepare and set the scene and participants included several guests with experience of working with refugees and with human rights.

PLACE-BASED LEARNING

Several disciplines in many universities have expanded their activities to include situating the problem in a relevant but often unfamiliar context. For example, the University of Colorado says on its web-site:

A place-based education validates different ways of knowing the world, and recognizes that the subjectivities associated with sense of place are a source of strength rather than a hindrance to student learning. A culturally responsive pedagogy requires educators to engage in place-based education, where place becomes the context for inclusive curriculum and instruction.

Here in Iceland the precursor of ‘place-based learning’ as being important for children is to be found in the subject *átthagafræði* which refers to understanding your local environment and was introduced in the late 1920s by Ísak Jónsson. However it is not until the late 20th century that it starts to have an influence on courses offered in higher education. Examples of the importance of place can be found in the languages and arts, in early childhood education and in mathematics and the sciences.

THE VALUE OF THE CONTEXT

Contextual learning opportunities, what Deurden and Witt described in findings for their own study as the direct experiences that appear “...to have acted as a catalyst, converting pre-existing knowledge into action” (2010) allow students to learn about complex and abstract ideas within the context of the issue. These experiences may be off site, and are usually based on high student participation and engagement. In this way, contextual learning fits very well into the Four Phase system (see table). Stages 3 and 4, Cooperation and integration, and overt partnership, call for students to make sure their own learning needs are being met, learn about the ongoing research and practices within the community, and enables students to initiate and lead in full partnership with instructors.

In practice, the Sustainability and Education classes tried three different contextual learning days in 2015 and 2016. The first field day in March 2015 was a visit to an art exhibition called Challenge, curated by a former member of the class on the theme of sustainability. Students went to the gallery and met the curator, then were left alone for an hour to look at the art education work room, which consisted of film, photographs, sculptures and diagrams, textile work, art projects, and quotes.

Table The Four Phases

Curriculum-based lessons	Students are introduced to concepts, and solicited for input on course topics and methodology. Instruction is based on best practices in sustainability education.
Instructor-based lessons	The expectations placed on students change from patient participants to independent practitioners. Students design their own projects, and suggest changes to curriculum and assessment in response to what is happening in class.
Cooperation and integration	Responsibility is placed on students to integrate their own academic needs into the program. Students get to know research and projects in the department and other organisations, and critically reflect on their own projects on teaching and research.
Overt partnership	A focus shift changes the dynamic between students and teachers to overt partnership. Students directly impact class content, methodology, assessment and their learning environment, increasing their evolving ability to initiate and/or lead research and projects.



Students and the curator met again at the end of the afternoon to reflect on the exhibit and participate in a community art project about the nature of Iceland. Student impressions on this experience focussed on the community involvement inherent in the project, and a desire to learn about other projects and efforts involving sustainability education in the community. One student thought the art exhibit was an excellent idea to use at the school where she works, as students would be much more interested in thinking about and participating in sustainability practices if they could have the same sort of experience she had had in the art exhibit.

The second contextual learning day in February 2016 was a visit to a fisheries research institute where student groups from both the International Studies in Education, and United Nations University Fisheries Training Programme came together to think about and discuss wicked problems in fisheries. The first part of the afternoon was a presentation on wicked problems, and examples facing fisherman, policy makers, and the globe. Students then broke into discussion groups and spent the rest of the afternoon reflecting, problem solving, and sharing experiences. The students were interviewed about the format and experience of this day, and feedback was overwhelming and positive. Students found the small group discussions to have a personal value “It was good to hear about the how of problems in different societies. We all had the same problems, but a little different. You hear the same problem over and over from everyone.” Halfway through the afternoon pizzas were delivered.

The third contextual learning day in April 2016 focussed on current events, specifically the global refugee situation. Visual and non-academic material was

prepared and set the scene, and participants included several guests with experience working with refugees and with human rights. The local Red Cross branch presented on what is being done in Iceland to support refugees, and the limits of their reach and resources. This was followed by a community discussion on personal experiences, and planning to address the needs of Iceland and refugees that come to Iceland. This event was a cooperative discussion open to anyone, and there were around 25 participants.

ISSUES

There are several issues inherent in teaching sustainability concepts in the context of contextual learning days. Three issues that arose during the implementation of contextual days were 1) Sharing teaching responsibility with someone outside the course, 2) Appealing to a broader range of students, and 3) Students in multiple phases. These are ongoing issues that have contributed to both positive outcomes, and complexity in planning and implementation in Sustainability and Education courses.

One of the foundations of our Sustainability and Education courses is alternative methods of instruction, and this makes contextual learning days especially relevant. Formal lectures are seldom used, and contextual can mean anything from guest presenters to a community location or event. This also means that the responsibility of teaching and instruction becomes shared with community members, professionals, and instructors from a variety of fields. In many ways this is positive; students experience diverse methods, are taught by innovative and researching instructors, and have a chance to make new connections and think about topics in a way the classroom could not provide. Alternatively, this shared responsibility means that instructors have less control over content and instruction methods, assessment methods are difficult to design and their value must be carefully estimated, and the lesson or experience may not connect strongly to what is currently happening in class.

Contextual days seem to appeal to a larger number of students than a lesson might, either in terms of understanding a concept, or as a personal connection. Community events and cooperative projects allow students new ways to participate, invest, and engage that the classroom cannot. Students who were interviewed found that contextual days increased their understanding and/or interest in sustainability topics. Alternatively, some students, especially depending on their level of preparation and current knowledge on a topic, can find contextual learning days very abstract. Several have been frustrated with a lack of instruction or goals going into the day, and without engagement much of the connection and learning is lost. Again this is a question of where it is best to locate control, with the instructor or with the students, and when.

Students also come into our program and the Sustainability in Education classes at a variety of levels, and specifically within the Four phases outlined above (see attachment). We often outline the phases in terms of class assignments and instructor

planning, but students also come into the course with different participation levels and expectations that fall within this framework. A student who is not at all familiar with sustainability concepts may rely heavily on Phase 1 and 2 for curriculum and instructor based practices that introduce these topics and require minimal participation. Other students come in with a strong background and interest in these topics, and are ready to discuss, critically analyze, and begin their own projects, practices utilized in Phases 3 and 4. Contextual learning days can bridge this gap between student levels by including new ways of investment and engagement. Additionally, students have more participation options, everything from preparation and listening, to debate and cooperative projects. A successful learning day lets students get the most out of the experience, but ‘most’ is very individual. This also makes planning these days, and designing preparation and follow up, complex. We are constantly seeking, designing, and adapting a range of materials for our students.

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One way in which we work to mitigate the negative issues of contextual days and promote student engagement, is incorporating *action competence* into the curriculum and practices of our classes. Action competence (AC), a person’s ability, willingness, and opportunity to engage, analyze, and take action, has strong links to environmental and sustainability education. Mogensen and Schnack (2010) call action competence an educational ideal that leads to problem-solving action. In the context of our contextual learning days, AC means students are able and willing to participate and explore their interests, and we provide the opportunity for them to learn, broaden and develop their own interest in the subject. Furthermore, this engagement and interest should lead to students designing and carrying out their own research and projects on these topics. A student with strong action competence will get more out of contextual learning days, and through the Four phase system, we are trying to help students develop their own AC.

CONCLUSIONS

Overall, we have found that contextual learning days are a effective way to work with students about sustainability in education issues. Students are more engaged, and these days could help to develop student’s action competence. We are in something of a quandary however about the extent to which such days are better being instructor-led or student-led or a mix.

Feedback from these days has been critical, and overwhelmingly positive.

In the future, we need more cooperation between departments, more integration for these days and discussions, and more community engagement and cooperation.

It is too early to tell whether the ActSHEN work has led to an improvement in addressing student needs and increasing the value of their investment. Some of our former students are in influential positions but they were pre-ActSHEN and were already active when they spent time with us. SE classes and the instructors have

incorporated more varied learning opportunities, and in the course and in individual sessions and students have a choice in many of their assignments. The authors, with others, have discussed developments in student engagement, and it seems that a Four phase system could be designed for both teachers and students. This could help in planning the resources needed for more varied learning contexts.

THE ACTSHEN STUDIES IN ICELAND

The first course in Sustainability and Education classes (then called Education for sustainable development) within the School of Education at the University of Iceland was a short reading course in 2008 offered in the wake of receiving research funds. With time we have dealt with more complex and current issues, but this has not always been so. Our participation in the ActSHEN project gave us the confidence to broaden our courses with more diversity both in content and pedagogy. It was only later that we paid a bit more attention to assessment. We realise that over time we have tried to move parts of the programme into phase 3 and 4 and offer students a wider variety of learning experiences.

The goal of the project has been to reframe the discussion around sustainability in higher education and learn how we and/or students can take action and exhibit action competence (Jensen & Schnuck, 1997). By contrast, current educational methods seldom translate into student empowerment that leads to investment and action (Frisk and Larson, 2011) as discussed in the study on the design framework. Coverage of issues such as sustainability, education, and human rights is important but these cannot be satisfactorily addressed in a traditional question and answer fashion as many of them are wicked problems (Rittel & Webber, 1974) which we first introduced for discussion in NordForsk funded doctoral course in 2011 which ran concurrently with our own course. It is worth mentioning in passing that Wolff-Michael Roth was the main lecturer at the course.

Even universities that specifically deal with issues of environmentalism and sustainability “have largely failed at creating change among students” (Frisk & Larson, 2011). This probably includes many of our own courses, despite the focus on action competence, and moving students from a role of student to partner in learning does not always succeed. If students are not engaged and invested, they are unlikely to take action to further their own learning and bring about change. In interviews with students in the programme, in classes which focused on participation rather than partnership, students reported “I did not like how we were learning about things like “participatory virtues” and “education through activism” but did not take the time to practice them.”

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