"A Little Less Conversation, a Little More Action Please": Examining Students' Voices on Education, Transgression, and Societal Change

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Abstract: Education for sustainability is urgent but also challenging when aiming for transformation, transgression, and action-oriented societal change. It is important to take into consideration students' voices in order to enhance education, and this study used semi-structured interviews to explore students' voices on the role of contemporary education, in society, in relation to urgent issues related to sustainability. Thematic content analysis was applied, as a first step, to analyse the students' answers. Then a T-learning model was applied on the themes to further analyse the results in relation to transformative, transgressive, and action-oriented learning. The students reflected on a diversity of important issues in society and the possibilities of action for change, many of them related to their personal life and experiences. They also talked about diverse educational experiences, but our analysis indicated that their current education did not always meet the needs of a more transgressive and change-oriented learning. Finally, we have found that the T-learning model has the potential to be used for educational reflection and for developing new understandings of teaching and learning.

Keywords: sustainability education; transformative and transgressive learning; societal change; student voices

1. Introduction

In this article we present and discuss some findings from a case study with upper secondary students, in Sweden, regarding their views on the role of education in relation to changes for sustainability. All around the world, people are discussing and debating how we can make the urgent changes needed for a more sustainable society. The role of education is not excluded from this on-going debate; on the contrary, school strikes for climate justice have put teaching and learning in the middle of the debate, together with the importance and power of young people's voices.

As Swedish educational researchers focusing on environmental and sustainability issues, we have followed the worldwide movement #FridaysForFuture that the Swedish teen Greta Thunberg started through her school strikes outside the Swedish parliament building. For us, she has raised important questions regarding what role education should (and can) take in times of climate crisis, the importance of listening to young people's voices, and what it takes educationally to really contribute to transformation and change.

We all know that our world is changing and facing large challenges such as climate change, migration, and insecurity at all levels. The need for rethinking is inevitable in all parts of society, as well as in teaching and learning. As educational researchers, we are interested in investigating the current situation in our schools, and we have turned to our students in this matter to explore

what societal issues concern our students today and to what extent they are willing to act for more sustainable changes.

In relation to the questions above, we consider that change-oriented learning theories, in particular the T-learning theories [1] presented in a didactic model focusing on transformation and transgression, can help to analyse and understand students' answers in a broader sense. On the basis of our readings, this model has not been previously used in empirical analysis, and thus its use here should be seen as novel and exploratory.

The aim of the current study was twofold:

1. To explore students' voices on the role of contemporary education in relation to urgent issues in society related to sustainability.
2. To try-out a didactic model representing the T-learning theories for use as an analytical tool to reflect on and understand societal and sustainability education.

1.1. Background:The History and Purpose of Environmental and Sustainability Education

The question about the role of education is not new. In the history of education, we find a variety of aspects such as keeping traditional skills alive through practical learning, cultivating people, and developing societies. John Dewey argued, 100 years ago, that education is crucial for developing a democratic society, in particular the kind of education available for all those that strive for citizenship and critical thinking, not just fostering a labour market [2]. Developing these ideas, also in opposition to current neoliberal influences, Gert Biesta calls on us in the current post-postmodern times to rethink the role of education in times of increasing measurement [3]. In a Swedish anthology from 2004, 27 researchers highlighted the important role of environmental and sustainability education in changing our world [4]. History, however, tells us that the structure and organisation of schools is rigid and slow in adapting changes. Traditional structures such as subject-specific teaching is hard to change even though the challenges of today's society are characterised as transdisciplinary, and even as "wicked" [5,6]. Educational aims and structures have, thus, changed through history, from Dewey's more collective ideas about the role of education to neoliberal tendencies flourishing in the 1980s and 1990s focusing on the individual, and we now again hear voices calling for more co-operative aims of education in relation to contemporary needs for sustainability [7,8]. The call to rethink the role of education for the common good has also been made by UNESCO as part of scaling up of education for sustainable development (ESD) [9].

The history and development of environmental and sustainability education (ESE), in a broader sense, has also changed over the years. In Sweden, Sandell, Öhman, and Östman's [10] model, from 2005, of selective traditions is well known as describing a development from a fact-based tradition, via a normative mode of instruction, to a more pluralistic ESD approach. The pluralistic approach invites an understanding and critical examination of different perspectives, also from a democratic point of view. Their overview captures both the tradition of nature studies as a base for learning about ecological issues and the need for environmentally friendly (normative) actions, as well as a democratic and pluralistic perspective. The Swedish and Danish development of ESE, up to 2010, has been described as progressive and democratic [11,12], and the action competence approach [13] is considered to be crucial for ESE. The educational ideas of action competence emphasise critical thinking, participation, and social learning [7], rather than individual (neoliberal) competence, when discussing the need for action-oriented education for sustainability. Ever since 1994, when Jickling [14] debated whether the word *for* in ESD was considered to be normative and undemocratic and in direct contradiction to a pluralistic ESD approach, the question about the purposes of ESE has been on-going. Kopnina [15], among others, argued that a relativistic and pluralistic ESD approach (in worst cases) could cause a turn away from environmental care, while others [16] have argued that critical thinking about ecological and social sustainability was an inevitable aspect of ESE. In the historical debates about the differences between education "about/for/as" sustainable development, a shift from "about" and "for" to more emphasis on "as", has been seen not only in research [17] but also in policy [9]. For example,

Van Poeck and Vandenabeele [18] critically examined the on-going ESD debates and suggested that we should learn "from" sustainable development rather than "for" sustainable development. This argument stems from the idea that democracy should be taught as citizenship-as-practice rather than citizenship-as-achievement. Citizenship-as-practice is, in our understanding, also a participatory and action-oriented approach.

The ethical tendency of ESE that has been put forward in recent years is important to consider [19–21]. In a more globalised world, it has become more obvious that environmental and sustainability issues are not only technical or political, but also ethical and moral [22–24], and thus the task for the teacher has become even more delicate and complicated to handle. It is no longer enough just to gain new facts, norms, perspectives, or to change behaviour, one might even question what is taken for granted or just unconsciously carry on as "business-as-usual", i.e., following a transformative and transgressive way of teaching and learning [1].

Social and human aspects of ESE are not to be forgotten, and there are many who argue that this is the core of an educational approach to reaching sustainability [7,25,26], especially in times when technical and digital approaches could risk de-humanizing education and learning. O'Donohughe [27] discussed how ESD was framed as a "process of learning to transform society through participation in collaborative social learning" (p. 12) and presented a model of an expanding process of learning-to-change in which knowledge, ethics, values, and action are the foundational parts of ESD. From this short background description, we see that the need for environmental and sustainability education has never been greater, while, at the same time, it is perhaps more demanding and complex than ever. In addition to transdisciplinary knowledge, social, ethical, and transgressive aspects are today argued as inevitable educational approaches.

The current formal purposes and aims, described in the Swedish curriculum for upper secondary school, support many of the abovementioned purposes of ESE. For example, the curriculum states that a school shall not only teach students about, for example, democracy, environmental issues, and cultural diversity, but also shall establish respect for democratic values and the environment and shall represent and impart, for example, the equal value of all people and equality between women and men [28]. Furthermore, the curriculum stresses the importance of encouraging "all students to discover their own uniqueness as individuals and thereby actively participate in the life of society by giving of their best in responsible freedom" (p. 4).

1.2. Student Voices on Environmental, Transformative, and Transgressive Learning for Sustainability

Twenty years ago, Gardner and Stern [29] pointed out the importance of environmental education having knowledge of the students' perspectives, in particular their perspectives on real barriers for taking action. In addition, a recent review of ESD pointed out the need for more studies concerning students' experiences of ESD [30].

Previous research on students' opinions on educational purposes and practice within ESD/ESE showed that when working with transdisciplinary and "real" issues in thematic projects, the value and motivation increased among the students, and that traditional teaching did not always address what students found important and necessary for their future skills [31,32]. Another example where students witness transformative change and learning that is different from previous learning they had experienced, is participation in international sojourns [33]. After engaging in unfamiliar everyday activities, in intercultural contexts, the students talked about a transformation of views of others and themselves, increased self-confidence, and empowerment (ibid).

Questions related to ESE awake emotions and values of different kinds [20,34,35], showing us that these issues are of importance for young people, and therefore need to be addressed in school as well. A number of studies have contributed with more detailed knowledge about the reasons for sustainable actions, for example, Almer's [36] phenomenological study about young people's choices and action competence for sustainability. The results showed the following six common factors promote action competence: emotions that create a desire to change, core values, feelings of confidence and competence,

trust from and in adults, action permeation, and outsidership and belongingness. These factors are traditionally not associated with educational prerequisites but show what is additionally needed when teaching and learning for sustainability.

1.3. Theoretical Perspectives on Transformative and Transgressive Learning

Educational and epistemological theories focusing on change and transformation can, for example, be found in the work of Mezirow [37] and Cranton [38]. Transformative learning includes new understandings, behaviours, or values, not just repeating old knowledge. Within ESE, Peters and Wals [39] described how transformative learning is crucial because it "opens up new lenses of perception and strengthens our capacities for understanding and navigating complex challenges" (p. 184). Furthermore, learning that takes place when people meet and explore dissonance in social contexts is crucial for transformation and transgression.

Transgressive learning is argued to be an inevitable aspect of questioning norms, and it challenges the status quo in relation to the global environmental and societal problems of today (ibid). Even the aims to create sustainable development as a common good can be problematised if they are too general and do not pay attention to cultural and contextual differences, in other words, it is not sustainability in general that is questioned, but how this can be done in a respectful way. When teaching in the spirit of transformative learning as a critical and open-minded way of teaching and challenging students, one might say that one, as Biesta [40] argued, approaches the "beautiful risk of education", i.e., the unknown possibilities and outcomes of teaching and learning. Haraway [41] continued this critical, uncertain, and relational learning approach by metaphorically calling it "to stay in the trouble". The theories by Biesta and Haraway caught our interest because, in relation to the idea of transgression, they opened the door for questioning norms and discussing the educational aspect of patience when being in the unknown.

In relation to the urgent calls for sustainable actions in practice, a change-oriented aspect of learning has also been brought forward [1]. From a holistic epistemological point of view, embodied learning in practice is vital for meaning-making and deeper learning [42,43]. Change-oriented learning is closely related to the action competence approach [13]. The (almost twenty-year-old) action competence approach emphasised critical thinking when facing different perspectives and conflicting interests, and it focused on finding solutions beyond the established and the known. A recent article attempted to redefine action competence as a multifaceted concept and used psychological subconcepts to focus individuals' or groups' knowledge, skills, willingness, and confidence in order to act and solve sustainability problems [44]. To our understanding the change-oriented aspect of learning differs from action competence since it is not just about thinking about actions, but also about doing.

Within the concept of "T-learning" (http://transgressivelearning.org/resources/) Lotz-Sisitka, Wals, Kronlid, and McGarry [1], O'Donoghue [27], and Bengtsson [45] have communicated these educational ideas in various ways. For example, in an online presentation, Lotz-Sisitka presented a triangular model of how to understand and to think about learning as socially transformative and transgressive ("Transformative, Transgressive Learning in the Antrophocene" online presentation by Heila Lotz-Sisitka https://www.youtube.com/watch?v=23xdhNehFe4), see Figure 1. We found this didactic and theoretical model relevant in different ways, and therefore have chosen to use it in our study. First, we found that it captured the essence of change-oriented learning for sustainability in a theoretical way, and second we were curious to investigate how it would work as an analytical tool for our empirical data. When we further describe and discuss the model in the article, we simply call it "the T-learning model".

The model describes the following three interrelated parts of T-learning, with a centre where these aspects meet in an "optimal" space of learning:

Transformative learning Indicates that new knowledge, behaviours, or values are gained. Described as a contrast to repetitive learning of facts without reflection;

Transgressive learning Indicates an explicit and critical questioning of norms, challenging the status quo, and crossing borders;

Change-oriented learning Indicates practical work or changes in practice, preferably through democratic and participatory methods.
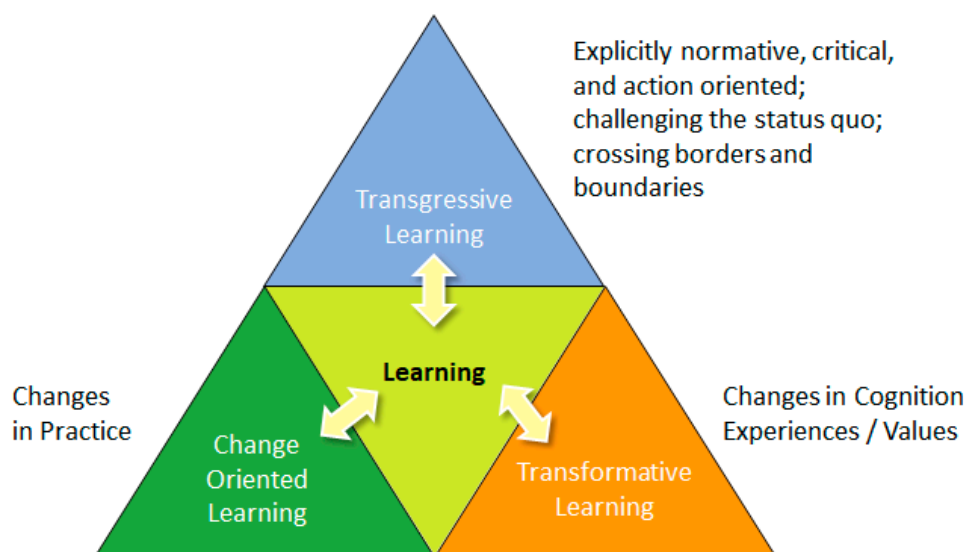

Figure 1. Illustration of the T-learning model adapted from a presentation made by Lotz-Sisitka [1].

While not explicitly mentioned in the model, we find that these epistemological theories include a holistic view on the learner and the learning process, i.e., learning is not merely a cognitive process but is also interrelated with embodied and emotional processes [46]. In empirical studies on school children's experiences, understandings, and values of ESD, the traditional separation of cognition, embodiment, and emotion was abandoned in favour of a holistic perspective to learning [20,47,48]. Comparing traditional theories on holistic learning with the more recent concept of T-learning puts a new focus on the concept of transgression as the affective aspect dealing with values and norms. When looking for similarities, the T-learning ideas can, thus, be understood and communicated as a holistic approach that engages the head, hands, and heart [43] when teaching for sustainability.

Because the aim of this study was two-fold, i.e., to examine student views and to examine the use of the model as an analytical tool, we have simplified some theoretical concepts in order to apply them in practice. Educational practices, and experiences of the same, thus, can (to our understanding) be analysed in terms of the extent to which they consist of any aspects of T-learning, where the transgressive aspect, i.e., questioning norms, is seen as a crucial aspect for social and sustainable changes. The practical methodological use of the model is described in the Methods section.

2. Materials and Methods

In this study, we used semi-structured interviews to explore students' perceptions of the role of contemporary education in relation to urgent sustainability issues in society. Semi-structured interviews are a useful method for gaining insights in and knowledge about other people's experiences and thoughts on a certain issue [49]. Through the questions posed by the researchers, reflection was initiated and created in the interview situation with the participants. The role of the researchers is important in the way the conversation is created and follow-up questions are asked. Therefore, the researchers' own experiences are vital for understanding the specific context and for developing the interview in a fruitful way. Both researchers, in this study, are former teachers with experience from school practice, and thus our own pre-understanding helped us to conduct and analyse the qualitative interviews with the students [50]. Because our aim with the study was to gain a deeper knowledge about students' experiences, we wanted to visualise what kind of experiences and thoughts young people could have through in-depth examples from the interviews.

2.1. Participants

The participants of this study were 12 Swedish upper secondary students, six boys and six girls, aged 17–18 years and represented both theoretical and vocational school profiles from two different schools, in two municipalities. They were from both urban and rural areas, and thus we assumed that they had both common and diverse contextual experiences that might be reflected in the interviews. The students were recruited through their teachers. Some teachers asked specific students if they would like to participate, whereas other teachers asked the whole class for voluntary participants. Access to the schools were retrieved through previous contacts with one of the teachers at each school.

2.2. Data Sampling: Interviews

During the spring of 2018, semi-structured interviews were conducted with the participating students. Each interview was tape-recorded and lasted between 15 and 40 min. The interviews focused on what issues in society the students found important and their experiences of education they had participated in connected to these issues. First, the students were encouraged to talk relatively freely about issues in society they found to be important, and then special focus was put on a number of areas the research group had identified as interesting, namely citizenship, inclusive education, cultural diversity, and environmental issues. At the end of the interviews the students were asked if they wanted to make an impact in society towards a more sustainable society and if so, how and if they perceived themselves as having the knowledge and skills to do so (see the interview guide in Appendix A).

2.3. Analysis

The analysis of the empirical material was conducted in two steps. First, a thematic content analysis was carried out for the questions in each area, and in the second step we used the T-learning model [1] for a more theory-driven analysis. The choice of analytical procedure was due to our aim of gaining both a deeper and broader knowledge of educational experiences, and to try out the T-learning model in practice.

2.3.1. Step One: Thematic Content Analysis

The interview data were analysed using thematic analysis, a method for identifying and interpreting underlying patterns in the data [51,52]. First, each interview was coded deductively based on three main areas in the interview guide as follows: (1) issues in society the students found important, (2) agency for social change, and (3) experiences of education. Then, within the three areas, an inductive approach was used where the codes and themes were developed empirically from the data.

2.3.2. Step Two: Meta-Analysis with the T-Learning Model

For the second step of analysis, students' statements were related to the T-learning model and its three aspects. We understood the three parts of the triangle (Figure 1), i.e., transformative learning, transgressive learning, and change oriented learning, as interrelated, but also as approached or experienced in practice one at a time. In this second step, we used the emerging themes of educational experiences, identified gaps in education, and limitations for action from step one and placed them in the model according to their characteristics. By doing so, we were able to study transformative and transgressive learning in practice, but also what was not there or what was placed elsewhere.

2.4. Ethical Considerations

The ethical guidelines regarding interview studies [53] were considered and followed. All participants taking part in this study were informed in writing and verbally. Letters of consent were sent out and signed by those who chose to take part voluntarily. At the time of the interview, they were

informed again that they could withdraw at any time. All interview data were made anonymous and given a number in our analytical work. The data were stored and registered according to GDPR routines at our university in order to fulfil the requirements of confidentiality and anonymity.

3. Results

The results are presented in two steps as described above. First, in themes related to the areas of the research questions on a more descriptive level, then, more analytically in relation to the T-learning model.

3.1. Step One: Descriptive Results from the Thematic Analysis

3.1.1. Important Issues in Society

The first question asked in the interviews had an open character and concerned what issues, in society, the students found to be important. The students mentioned a wide range of issues, including fairness, the environment, one's own lived experiences, health, and school (see Table 1 for definitions of the themes and quotations). The most common were issues primarily related to fairness or equal rights for all in society. In some cases, they talked on a more general level about fairness. Other students mentioned a more specific issue such as immigration, equal rights for men and women, or unfair taxes on fuels. Some mentioned environmental issues as the most important issues in society, while others said that environmental issues were important but not the most important issue. A few students mentioned their own health or to help others with poor psychological health as important and, finally, some students said that school was important.

A reflection from the analytical work is that for many of the students the issues they mentioned as important in society were closely connected to their own lived experiences in one way or another, rather than being just a general important issue in society.

3.1.2. Agency for Change

The students were positive towards acting for change in society. Some students very explicitly expressed that they wanted to work for change, "It's like very unfair, it is very, very unfair, and it makes me very committed to talk about it and highlight that it is a problem" (11), while others answered positively when asked. For most students, the issues for which they want to act for change were the same as the issues mentioned as important in the beginning of the interview (i.e., issues connected to injustice, the environment, health, or school).

One main theme found was descriptions about limitations for taking action in society (Table 2). These limitations could be divided into seven subthemes which included a general description of uncertainty, complex societal structures, complex issues, finding pathways for communication, lack of others' perspectives, stereotyped norms, and resistance to political engagement.

Another main theme found regarding agency for change was students' descriptions about activities they already actively engaged in, in order to make society better. These activities could be divided into four subthemes, namely individual daily choices, sharing views, civil courage, and organised participation.

3.1.3. Educational Experiences

The students gave numerous examples of educational experiences relating to the issues they found important in society or the issues we explicitly asked about. The examples could be divided into six different main themes, namely factual knowledge, school structure, communication, action-oriented learning, norms and values, and gaining perspective (Table 3). Most commonly, students gave examples of educational experiences that had a focus on factual knowledge, i.e., to come to understand how things are in society or in nature. Students talked about value-laden issues (such as gender equality or racism) and briefly mentioned values and norms, but they usually did not mention any deeper reflections on

different perspectives or ethical perspectives related to the actual content. The subthemes found for factual knowledge were clearly related to the specific contents that our interview guide focused on (e.g., democracy, gender equality, cultural diversity, and the environment). Climate change was the most common subtheme regarding factual knowledge. A few students talked about having deeper and more nuanced discussion about values and norms related to gender, equal rights, or climate change, and these were categorised as the separate main theme "norms and values" (Table 3). The second most common main theme included students' remarks about the school structure. This theme did not concern any specific individual educational experience, but rather remarks regarding their everyday life in school and how eco-friendly or inclusive the school was. Still, everyday life in school is also a part of the students' education. Another common main theme that more than half of the students talked about was educational experiences related to practising communication skills, for example, to practise how the state your own opinion or to write a debate article or top practice argumentation skills. Some students mentioned action-oriented learning experiences, most commonly connected to learning about individual eco-friendly actions. Finally, a few students talked about experiences at school aiming at giving them the opportunity to look at a phenomenon from a different perspective or to understand different people's prerequisites.

We noticed some contextual differences in the answers, the students who were in a vocational programme had more experiences of discussing gender issues as an aspect of inclusion, while those from the school with a more international profile discussed cultural diversity more as an aspect of inclusion than just gender.

3.1.4. Identified Gaps in Education

During the interviews, the students also talked about aspects relating to the issues they found important in society or the issues we explicitly asked about that they wished they had gotten more education in. A few students said, "School might not be able to teach about everything" (3), but the majority described aspects they wanted more of in class. These aspects were divided into six main themes, namely action, citizenship, concrete examples close to the student, meeting people with different opinions and experiences, advanced knowledge about causes, and norms and values. Thus, the answers described both educational contents and methods (Table 4). Most commonly students asked about more action-oriented learning.

A general reflection on the results is that the answers are dominated by social aspects, and give a deeper insight into students' thoughts, valuable not only for research, but also for practice.

3.2. Step 2: Meta-Analysis with the T-Learning Model

The results from the thematic analysis, in the second step, are presented here in relation to the T-learning model, or how the students' views on these issues can be understood through the lens of the T-learning model. The analysis is made on a thematic level, i.e., the results from the thematic analysis in step one, and not individual statements, are used as the basis for the analysis. However, individual citations are occasionally used to illustrate the results. Because the first interview question did not explicitly ask about learning but rather asked their opinion on important societal questions, we did not analyse those results here. Instead, we analysed our results concerning the following: (1) educational experiences, (2) identified gaps in education, and (3) limitations for action using the T-learning model. Each main theme was represented by a circle, with the size of the circles representing how common the theme was in the thematic analysis. The colour and the placement of the circle were chosen to illustrate the character of the theme in relation to the three interrelated parts, with the centre representing an "optimal" space of learning.

Table 1. Identified themes relating to important issues in society. Themes more frequently found in the interviews are listed first, while themes that were less frequent are listed later.

Themes	Definition	Quotations, the Number in Parenthesis Represents a Specific Student.
Fairness	Important issues in society mentioned by the students that related to fairness on a general level or at more specific level such as gender equality, immigration, or unfair tax levels.	Yeah, well, it is like it should be fair for everyone and that those being a bit better off, that they should start helping those who are worse off. (6) It has always been a thing for me that everyone should be treated equally. (10) It is the migration issues . . . how everything is not very good right now . . . that you bring, you bring people here, but then later you send them back. (9) It is like no democracy if girls are not allowed to express their opinions. (1)
Environmental issues	Important issues in society mentioned by the students that related to environmental sustainability.	Mostly the environment. I am very concerned about the environment. (12)
Own lived experiences	Important issues in society mentioned by the students that related to their own lived experiences.	I think they [taxes on fuels] are far too high right now, that is what I think, when living in the countryside and having a tractor and everything and need to shovel snow it gets very very expensive to live, and it is easy if you live in the city and you can take the bus or subway. But that is not possible everywhere. (1)
Health	Important issues in society mentioned by the students that related to their own health or to helping others with poor psychological heath.	As long as I am happy. (3) I want that those being as old as I am now when I get older, they shall know that there are other people that care, because I think there has been a great lack of that. (4)
School	Important issues in society mentioned by the students that related to the school.	I think that we should improve the school, maybe make more professions more attractive, like the teaching profession. (2)

Table 2. Identified themes relating to agency for change. Themes more frequently found in the interviews are listed first, while themes less frequently found are listed later.

Main Themes Subthemes	Definition	Quotations, the Number in Parenthesis Represents a Specific Student.
Limitations for practice	Statements describing limitations for taking action in society.	
General description of uncertainty	Statements describing uncertainty in how to act and to make an impact.	Yes we have, that was the day when we discuss everything, then we talk about it, and that you have to change, otherwise it will not work out well. [Interviewer: Mm, did you have any good suggestions then on how to change or?] Well, not directly. (1)
Complex societal structures	Students find it difficult to act due to complex structures in society such as difficulties in reaching out to other people, difficulties to change things at a higher societal level.	Because I understand this helplessness, if you only think about the big societal perspective. This is probably why I also feel "what can I do", like hopelessness, I am a small person in [city], what can I do? If you only have that focus, then it will be difficult. . . . but if you turn it into, what you can do yourself in your everyday life . . . I think it will be easier . . . and then hopefully you can also show others that it is not that difficult, we may also be able to help or do something. (12)
Complex issues	Students find the issue they want to act on to be too complex to truly know how to act in a good way.	I think it can be quite difficult, there are many facets, many different perspectives, but still there is . . . we have still learned a little bit about what is good and what is bad. (2) So it is difficult to be an expert in all areas...if you choose a subject that you are extra interested in and then, like, try to read as much as possible about that. (9)
Finding pathways for communication	Statements regarding difficulties in finding other like-minded people to work with or difficulties in knowing how to communicate their views to the wider community.	But then I find it difficult to reach out to the community and to the country. (9) Like this next step, going from just sitting and talking among people, that you should be able to . . . well, some people are able to start campaigns . . . and do, like, super nice gatherings of people and such things and for me it is a bit difficult to see how to take that step. (10) . . . then I feel that I do not know with whom I should do it. That's it. I can't do everything myself, I want to be together with someone to be able to pursue it together and do something good. Like starting a club, I don't know, anything where you can talk about things. (11)
Lack of others' perspective	Students want to have the perspectives from people with real experiences with the specific issue in question in order to act.	I guess I would like to hear from people who have been involved in such things and hear how, what it really is like. (6)
Stereotype norms	Other peoples' stereotypical norms or prejudices make student afraid to express their opinions.	It is probably people's prejudice, and that is also really where you have to start working, I think. I mean you have to dare to take up a position and talk about things. I can imagine that some are a little afraid to talk about certain things because there are some prejudices and a lot of talk. (11)
Resistance to political engagement	Students describing resistance to engaging in a traditional political process.	So I, I don't really know . . . I want to understand more politically. ... but I'm so afraid that if I talk a lot about it then people will start to hate me. (4) No, I don't like politics. Politics are complicated...working with that feels like a hard job. (12)

Table 2. *Cont.*

Main Themes	Definition	Quotations, the Number in Parenthesis Represents a Specific Student.
Action in practice	Statements describing things students actually do to make society better.	
Individual daily choices	Statements describing active individual choices made in everyday life in order to make society better.	Well I, but I love the meat, but I'd rather eat some meat that you have, for example, shot yourself or so. (5) I usually walk or I do not travel very much . . . I buy second hand. . . . I sort out household wastes. (12)
Sharing views	Students mentioning that they actively talk, write, or in other ways actively share their views on issues in society that they find important.	. . . you might post on Instagram or Facebook or share things . . . . (10) Yes, I usually write a lot, I love to write, so I usually write a letter to the editor and, like, articles, but I feel that is not enough. (11)
Civil courage	Statements describing how they clearly take a stand when they see something they think is wrong or actively make sure that everyone gets their voice heard.	Yes, I have my association...and there I make sure that everyone is included and that everyone gets to speak without getting interrupted. (8) If I notice something and I do not agree or want to say something, then I do so. (10)
Organized participation	Students mentioning that they work actively in NGOs in society.	I work on an advisory board, where we get issues we could have an influence on and also that young people's voices should be heard, so that is one thing. (9)

Table 3. Identified themes relating to educational experiences. Themes more frequently found in the interviews are listed first, while themes less frequently found are listed later.

Main Themes Subthemes	Definition	Quotations, the Number in ParenthesisRepresents a Specific Student.
Factual knowledge	Talking about educational experiences where the emphasis is on getting to know how things are.	
Climate change	Students describing learning facts about climate change.	Ah, there's a lot of such things we've read about...and we're very aware of the world's, eh, climate impact. (8)
Gender equality	Students describing learning facts about gender equality.	Mm, because even if you are a girl you should be allowed to do something, you should not only be allowed do something because you are a boy. (1)
Cultural diversity	Students describing learning facts relating to cultural diversity.	And then we have talked about the wave of refugees and such things. That is in general in society, it is difficult for them to take a position. (9)
Environmental problems in general	Students describing learning facts about environmental problems.	We have had to look at different models for sustainable development, and then we have tried to find the best solution. (2)
Democracy	Students describing learning facts about democratic structures, for example, how to vote or one's rights and one's responsibilities.	… to know what you can and can't do and such things, for example, if you know something about a crime, you are obliged to call it in. (1)
Biological diversity	Students describing learning facts relating to biological diversity.	… you should have a diversity of tree species so that you get biological diversity, because every tree does different things and such. … it's pretty big and important. (4)
Fossil fuels	Students describing learning facts specifically about fossil fuels.	Well, then it was this about fossil fuels, since [the student describes their program and future profession] we will use a lot of fossil fuels and how will that be in the future and as well as the emissions today.
School structure	Examples of school structures in practice.	
Inclusion	Students describing an open climate at school where everyone is included.	Opinions are always welcome, and we have open discussions during breaks. (8) They might not talk as much about cultural diversity, but they clearly show that it is important. (10)
Environmental work	Students describing how their school takes action to decrease their environmental impact.	There are different things for like paper and for plastic and such, so I think they work with the environment. (1)
Communication	Examples of practicing skills related to written and oral communication, such as argumentation, stating one's own opinion, or writing a debate article.	I guess there are some tasks where we are supposed to take a stand for something specific. (6)

Table 3. *Cont.*

Main Themes	Definition	Quotations, the Number in ParenthesisRepresents a Specific Student.
Action-oriented learning		
Decrease environmental impact	Students describing learning about individual eco-friendly actions.	...about meat and that one should replace it with beans and stuff . . . there was quite a lot of discussion about that. (5)
Democratic actions	Students describing experiences of democracy in practice, for example, participation in student councils.	We got to see how it works and we got the opportunity to practice how to vote. (9)
Norms and values	Deeper reflection about existing norms	
Gender equality	Students describing discussing values and norms related to gender.	...for example, how men are expected to be and women are expected to be and how gay people are perceived and such, we have pretty much gone into this. (2)
Democracy and equal rights	Students describing discussing democratic values or norms.	We talk about democracy and how important it is . . . and want to, like, promote it you might say. (10)
Ethical aspect of climate change	Students describing discussing ethical aspects of climate change	...it is the rich countries, it is they who contribute the most to global warming, but it is the poor who suffer . . . So we talk about that a lot too. (9)
Gaining perspectives	Explicit examples of education focusing on gaining new perspectives.	Yes, everything is about the perspectives, thus widen the perspectives . . . ."(12) Once we had this kind of inclusive sports. Great fun; they mix all the classes in grade one as well as the language-introduction classes. When they mixed the classes and then you got teams and then you had different sports. It was great and people got to know each other and there are many I know of who still talk to each other and say hello to each other. (11)

Table 4. Identified themes relating to gaps in education. Themes more frequently mentioned in the interviews are listed first, while themes less frequently mentioned are listed later.

Main Themes	Definition	Quotations, the Number in Parenthesis Represents a Specific Student.
Action	Students want to learn how to act and to actually get the opportunity to act.	Then I would like that teachers should show how one can change practically, that is, for example, what to do if you want to have a small demonstration in the town square. (9) Yes, I would rather have more "show how to do" instead of just sitting there and listening. (7)
Citizenship	Students want to have more knowledge about rights and responsibilities connected to citizenship.	I think one ought to highlight one's responsibilities more. (9)
Concrete examples close to the student	Students want to have examples closely connected to themselves, as well as the opportunity for real life experiences.	You could start with going on excursions and seeing what really happens and get the opportunity to engage. Because it is like we only talk about it, and then it is done. (6)
Meet people with different opinion and experiences	Students asks for more opportunities to talk with people with different opinions and experiences than themselves.	I think it is important to learn to talk to others who have different opinions. Because then I think it becomes easier when you come across differences later on in life, that you can handle yourself, but also the situation itself better. (11) No, I guess I would like to hear from people who have been involved in such things and hear how, what it really is like and such things. (6)
Advanced knowledge about causes	Students not only want to know how things are but also to get more in depth knowledge and to know why things are in a certain way.	They talk a lot about gender equality, but it is very basic, salary should be equal. But you never get to know the causes. (8)
Norms and values	Students want to talk about values and norms to a greater degree.	Yes, and so I still think it's good if everyone is aware of things and that everyone is different, but still everyone still deserves to get support. (4) How do you meet your own prejudices and how can you break them down and try to see the person behind it, because we all have prejudices, that's a fact. (11)

In Figure 2, the results from the thematic analysis regarding educational experiences are placed into the T-learning triangle. From the figure, we notice that the most common themes related to educational experiences belong to the transformative aspects, and few experiences related to aspects of transgressive learning. The theme "gaining perspectives" lies between transformative and transgressive, but the statements do not indicate transgression deep enough to be fully placed in that aspect. "Communication skills" is of another kind than the areas in the T-learning model, but if there is the opportunity to practice communication skills then this can be seen as change-oriented learning. Depending on the type and richness of the content used in these educational situations, they could also represent transgressive and transformative learning, and thus fit closer to the centre of the triangle. Finally, the theme "school structure" is placed outside of the triangle because it is not really a part of the teaching and learning but is more of a contextual structure showing environmental awareness in practice.
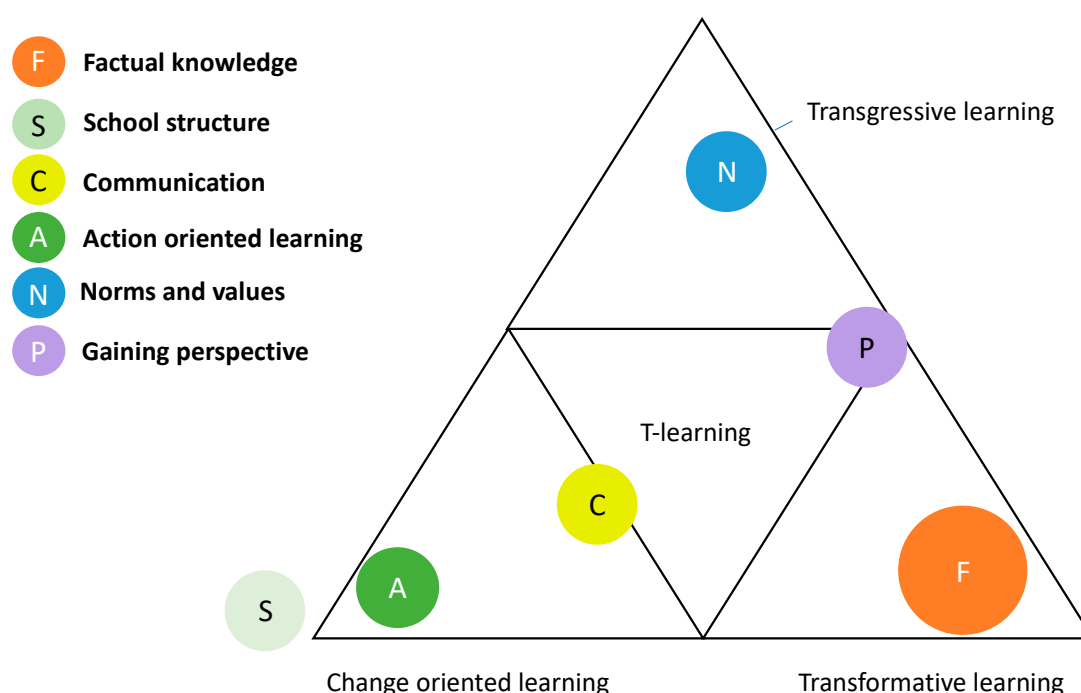
Figure 2. Illustration of how themes relating to educational experiences can be understood through the lens of the T-learning model.

The kind of education the students wanted most was related to change-oriented learning (Figure 3). The second most wanted kind of education was more knowledge about citizenship. This theme was somewhat difficult to relate to the triangle. Many students agreed that they wanted to know more about rights and responsibilities connected to citizenship, but they did not go into detail regarding what to do or how to do it. The aspects of "meet people with different opinions and experiences" and "advanced knowledge about a cause" are of a transformative character but include transgressive "characteristics". The request for more education with concrete examples familiar to the students was considered to be in-between transformative and action-oriented learning, and as a request for hands on or action-oriented learning.

In general, most examples given related to gaps in education were close to their real-life experiences or situation and expressed an urge for hands-on or action-oriented learning related to their daily lives.

The analysis of students' statements related to limitations for action showed that many students were positive for contributing to change but were, at the same time, unsure of how it could be done. This is shown in the figure where the major theme is "general insecurity" (Figure 4). Other limitations for agency and change are shown in almost all areas of the T-learning model, most rather close to the

centre of the triangle. Some of the limitations are clearly within the educational practice, while others are find to be borderline between educational practice and societal structures and discourses (such as stereotype norms, resistance to political engagement, and finding pathways for communication). These results indicate the intertwined relation, but also the gap, between school and society in this case.
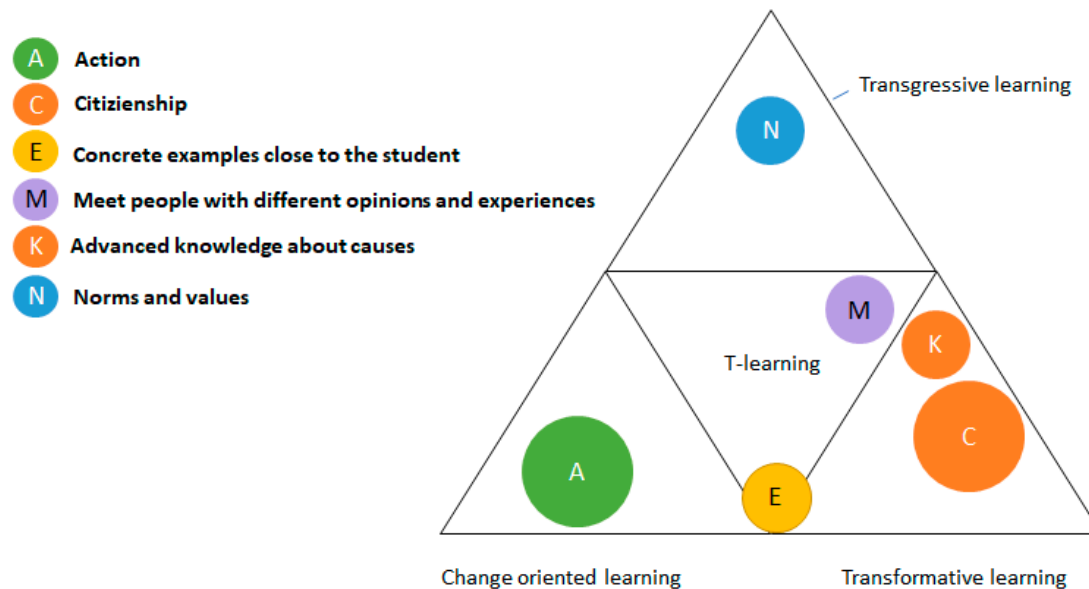

Figure 3. Illustration of how themes relating to gaps in education can be understood through the lens of the T-learning model.
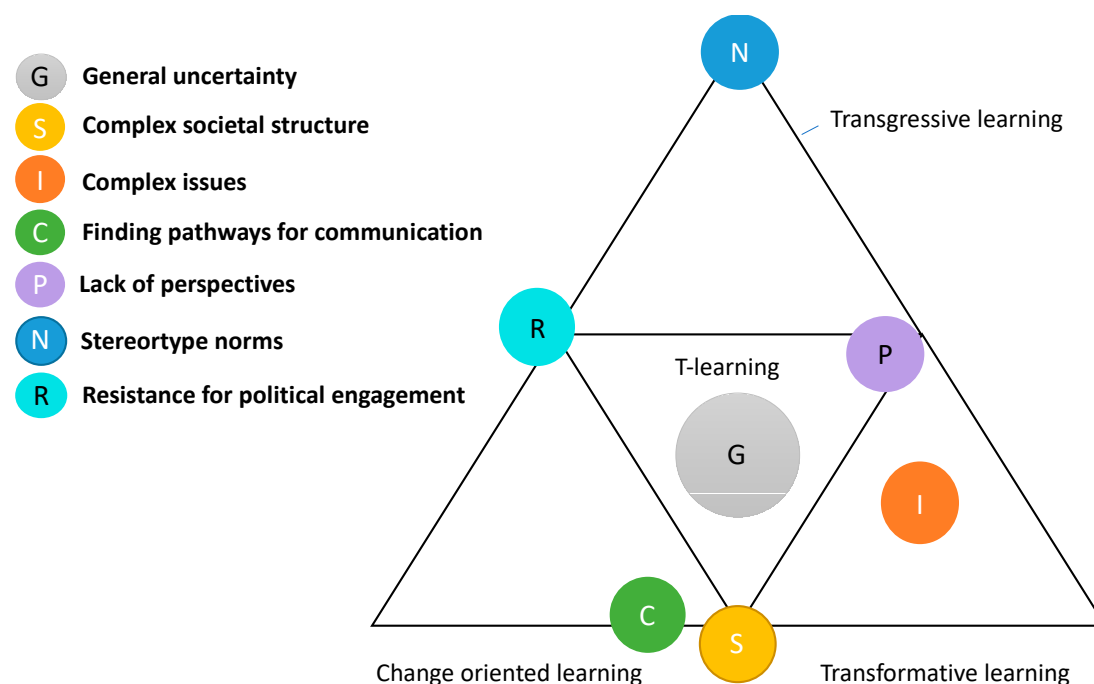
Figure 4. Illustration of how themes relating to limitations for action can be understood through the lens of the T-learning model.

3.3. Summing Up

The students talked about many different issues they found to be important in society, many of which were related to their personal lives and experiences, and thereby were more contextual than of a general kind. The students were, in general, positive towards acting for change in society.

Four different types of actions were mentioned, whereof three of them were related to individual actions, namely daily choices, sharing views, and civil courage. The fourth and less common theme concerned action together with others. Furthermore, the students mentioned several limitations for action, many of which were situated closer to the centre of the T-learning triangle as compared with educational experiences. Most of the educational experiences the students talked about could be related to transformative learning. However, there were also examples of change-oriented learning and a few examples regarding transgressive learning. The themes relating to education that the students would like to have more of were often related to change-oriented learning and were, similarly to limitations for change, situated closer to the centre of the T-learning triangle.

4. Discussion

This study aimed to explore students' voices on the role of contemporary education in relation to urgent issues in society related to sustainability. We further aimed to try-out a didactic model representing the T-learning theories for use as an analytical tool to reflect on and understand societal and sustainability education. Therefore, first, we discuss the results regarding student experiences, and then the use of the T-learning model. Finally, we end the discussion with overall conclusions from the study.

4.1. Students' Experiences of Societal Issues and Transformative and Transgressive Learning

Sustainable development is a complex issue, although sometimes it is simplified and generalised. The students, in our study, have through their stories shown that it might be important to keep the sustainability discourse nuanced and inclusive. This became visible, on the one hand, through the discrepancy between the educational experiences that talked about, and on the other hand, the limitations for action and the education they wanted more of. The latter was more often of a more complex nature with all three aspects of T-learning being more interrelated and connected. Furthermore, putting too much emphasis on a few issues might risk losing a lot of people who are engaged in other issues. Lotz-Sisitka [54] wrote about the common good as important, but also as problematic. The common good is often defined by stereotyped urbanized western people, which can result in a more polarised society where some people feel excluded [23]. As mentioned above, some of the students mentioned high taxes on fuel as an important issue in society. These high taxes and the strong focus on transportation, in the general environmental debate, felt unfair to people who, in one way or another, were dependent on transportation, for example, by working in the transportation sector or living in the countryside with large distances to, for example, schools and with little or no public transportation. If transportation is emphasised as the greatest environmental problem, people in the countryside could feel unfairly excluded from the environmental movement.

Relevance is commonly mentioned as one important aspect for motivating students and facilitating learning [2,55]. Several stories from our students support that making meaningful connections to the students is important. Many of the important issues mentioned, including the action the students wanted to take, as well as the education they asked for more of, were connected to their own experiences. Again, keeping the education for change too general could risk losing a lot of potential engagement.

A common observation in the analysis was that mentioning of transgressive learning was relatively absent when talking about educational experiences, as well as when talking about limitations for action and education they would like to have more of. It seems, from our results, to be a delicate (but crucial) issue to continue engaging in troublesome discussions [41], while balancing the teaching of factual knowledge with challenging ethical and moral discussions in a local context.

The students, in this study, seem to have met experienced and sensitive teachers, because they described how they have been given many opportunities to discuss important issues in class. In relation to the change-oriented aspect of T-learning [1], this study indicates that some critical discussions have taken place and new perspectives have been gained, but action and change in practice was largely absent, and if there was some action it was within the pre-decided structures of environmental care

in general. The students expressed a lack of opportunities for real action, and in the interviews they stated that this is what they want more of, i.e., more action in practice and less talk, "Yes, you would rather have more 'show how to do' instead of just sitting here and listening". This statement is the reason behind our title (A Little Less Conversation, a Little More Action Please) because we find this to be a vital result and in line with Wickenberg et al.'s [4] interest in increasing knowledge about how we can learn to change our world. The results could also be discussed in relation to the action competence approach which in recent research focused students' opinions "on" action but not practical experiences of hands-on action and change [40]. By including practical experiences through the change-oriented aspects, we found that the T-learning model was useful when analysing didactical aspects regarding transformative learning and change, whereas the new action competence model presented in the article by Sass et al. instead brought more detailed knowledge on aspects on individuals' or groups' knowledge, willingness, and confidence to act [44].

Some of the students specifically asked to meet other people with different experiences and/or opinions than themselves. Meeting other groups of people has repeatedly been shown to diminish prejudices [56], and as little as 10 min of conversation can markedly reduce prejudices for a least three months [57]. In an educational context, research on students' experiences of international sojourns has shown that meetings with other people and getting experiences of new and unfamiliar everyday activities in new contexts can provide extensive learning rooted in social and subjective transformation [33]. Although all students might not have the possibility to participate in an international sojourn, most if not all schools have the possibility to allow students to meet other groups of people. We saw at least two examples of that in our interviews, namely the day all grade one students had sports activities together (see citation in Table 3), and a collaboration between students at a national program and newly arrived students in a language-introduction programme.

This study included twelve students, and thus provided illustrative examples of students' voices concerning the role of contemporary education in relation to urgent issues in society related to sustainability. We cannot make any general conclusion on how students, in general, think about these issues. Future studies, including larger samples of students from different context, are recommended to gain further insight into the students' perspective.

4.2. The T-Learning Model

The first tentative and novel use of the T-learning model as an analytical approach for understanding empirical material showed promising results. Through the use of the model, we gained both a deeper understanding of the participating students' thoughts and experiences in relation to societal and sustainability education and an overview that the thematic analysis alone could not provide. We consider that the model can be used as a tool for putting the pieces together to get an overall picture of transgressive and transformative learning on an applied level. Previous attempts to visualise different approaches to ESD have, for example, used more polarised pictures as either one or the other [18]. Some of our statements were not easily placed in a definite part of the triangle, but instead fit between or in more than one part of the triangle. We do not consider this a limitation of this theoretical model, but instead a strength. By trying to place themes or individual statements in boxes, or opposites, an awareness is raised regarding the limits of a strict model, but also an awareness of the interrelational approach of this model and the intertwined character of experiences. The model opens up for educational transgression in itself because it offers a new way to analyse and understand learning experiences. It does not work as a traditional educational evaluation of predetermined curriculum goals, where students' knowledge and statements are placed in outcome "boxes". Instead, it visualises vital aspects of learning as crossing borders or even being outside the predetermined box. It reveals what Biesta [40] described as "the beautiful risk of education", i.e., what more there could be if you step out of traditional outcome boxes or if you consider that education should aim for societal change. For example, through the use of the model, an absence of transgressive statements both within educational experiences and in desired additional education is shown. Furthermore, through the use

of the model, the character of students' experienced limitations for contributing to societal change were shown in another way than in the first step of thematic analysis. The limitations and desired education are placed more in the centre of the triangle than their experienced education, indicating that current educational approaches are more divided than integrated.

This shows, according to our understanding, the different character of new knowledge that could be gained through such an analytical tool as compared with other educational evaluations and analyses. In addition to the results contributing to educational research, we find that the T-learning model could be used as a new basis for planning, evaluating, and reflecting on teaching practices and the role of education for producing change in society. To enhance the reliability of the model, future studies should consider further clarifying the meaning of each part of the triangle and developing more established criteria for the placement of the themes in relation to the three corners and the centre of the triangle.

5. Conclusions

In times when young people are calling for action for a sustainable future, we investigated experiences of education and agency for societal change. Through the use of the T-learning model, new knowledge was gained showing us that current educational practices do not always meet the needs of more transgressive and change-oriented education. At the same time, the analytical use of the model showed how reflection and improvement can be reached in educational research and practice, in a shift towards "a little less conversation, a little more action please".

Appendix A

Interview Guide

Introduction

Introduce the project briefly
Repeat that participating is voluntary and ask permission to record

Background questions

Age
Gender
Grade in school
 Program

Opening questions

- What issues in society are important to **you**?
- What issues do you consider as important for a sustainable society in general?

Bridge to next set of questions:

School is a part of society that can highlight and contribute to environmental as well as societal changes. Now we would like to ask you a bit more about the latter.

Citizenship education and democracy

- Have you talked in school about what it means to participate in society as an individual? (rights and duties)

    If yes:

- In what way, can you give an example?

    If no:

- Do you think that it should be discussed (why or why not)?

    Possible follow ups:

- Do you think it is important to participate in discussions and to argue for your opinion? Can you give examples? Have you ever practiced this in school?
- How important do you think it is to listen to others who think differently to yourself even if you don't agree with what they say? Explain.
- Do you think it is important that people participate in society?
- Is it important for you personally to participate in society?

    ○ Why/why not? Give examples.

Inclusive education and cultural diversity

- Is inclusive education discussed at your school?

    If yes:

- In what way, can you give an example?

    If no:

- Do you think that it should be discussed (why or why not)?

We were thinking that we should start with a first open discussion about inclusive education. Letting the respondent give their view of inclusive education (do they focus on cultural diversity, gender, disabilities, etc). Depending on their thoughts we would like to suggest that we probe the students to talk about more aspects of inclusive education.

- Is cultural diversity/gender equality/students with disabilities discussed at your school?
- Do you think your school invites and allows everyone to participate in teaching and learning? If yes, give examples of this, and if no why not?
- Do you think diversity is acknowledge and treated as an asset in your school?
- Is inclusive education important to you and/ or the society in general? Why/why not? Give examples.

Environmental problems as urgent questions in society

- Is environmental problems discussed at your school?
- If yes, give examples of what kind.
- If no, do you think it should be discussed?
- At your school, is there any practical environmental work/arrangements as you know of? Describe.

- Do you think environmental problems is an important issues for you and the society?

Summing up.

Agency for social change

In the start of this interview I asked you about what issues in society that are important to **you**.

- Do you want to make impact in order to improve/make change with regard to those issues or some of the other issues we have talked about?

  ○ If so, how?
  ○ If not, why?
  ○ Do you think you have the knowledge and prerequisites to do so?

  If yes,

○ Can you give examples of knowledge and or prerequisites that you find necessary?
○ Where have you learnt that?

  If no,

○ What then is needed for you to be able to improve / make change with regard to those issues?

  Is there anything else you would like to share in regard to this interview?
  Thanks for participating in this interview!

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