

## Learners Learning to Become

Exploring Experiences with Developing Educators ESD-Competencies Across Sectors at a University of Applied Science / Higher Education

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*ABSTRACT: This article describes an entrepreneurial, transdisciplinary and transformative ESD competencies-course for educators at VIA University College, Denmark, the "Circular Economy and Sustainable Development in the Education" course (CESDE) from 2018-2021, involving more than 100 educators from a wide variety of faculties. It analyses to what extent the effects on transformative changes towards a sustainable university have been and how these experiences with "learning the learners to become" can be implemented at other Higher Educations. (HE's). The presentation analyses three levels of impact of the competencies course; (1) impacts on the individual educator's approach to teaching practices; (2) impacts on the values in managerial and organizational levels; (3) impacts on the personal and institutional interaction with surrounding communities, business and society. The results of this case study demonstrate the potential of initiating ESD competencies-courses and confirms the notion that the competence development of academic staff is an essential prerequisite for a sustainability paradigm shift in higher education. In this way, the program started out with an ambition to enhance curriculum redesign (creating Circular and Sustainable Educations for Sustainable Development ESD) but ended up making organizational alterations and creating an iterative loop of learning and interventions between educators, external specialists, the institutional organization (management), the collaborating companies and the students.*

*KEYWORDS: Cross-Sectoral Educations; Education for Sustainable Development; Competencies for social and sustainable development (CSD's); Sustainability Education; Cross-Sectoral ESD's.*

### Introduction

A huge variety of Higher Educations (HE's) have been working on the implementation of Educations for Sustainable Development (ESD's). Research often shows case studies of faculty or university-specific transformation processes in changing curricula and the efforts being made to enhance the students' competencies for Sustainable Development. But lately, research strongly indicates promising opportunities when building and focusing on developing

transdisciplinary ESD competencies among academic staff in HE's to provide a change in curricula. In this way, facilitating "lifelong learning processes" amongst educators can improve the overall ESD learning, interacting with the surroundings and teaching competencies, as well as this could even provide a new power of reason /meaning for management, educators, collaborating companies and in the end; the students.

The first part of this chapter is an introduction to the CESDE course. The next part is a framing of the course into a United Nations (U.N.) Sustainable Development Goals (SDG's) and UNESCO setting, describing the roles of Educations for Sustainable Development (ESD's) and the importance of providing the educator with the necessary competencies and facilitating "commoning" for handling the complex transition. The following part elaborates on how action learning and research approaches can encourage the educators into transformative processes and thereby change current teaching and professional practice towards ESD's. Following this, an analysis of the three levels of impact of the competencies course is presented; (1) impacts on the individual educators approaches to teaching practices; (2) impacts on the values in managerial and organizational levels; (3) impacts on the personal and institutional interaction with surrounding communities, businesses and society are presented, followed by a resumé of the key findings of the four years of experience from the CESDE course. Finally, all this is put into perspective with given reflections and recommendations for future work on developing a whole-institutional approach ESD's in the future.

## Background and development of the course

VIA University College is located in the Central Region of Denmark and has 18.463 B.A. students, some 20.000 life-long learning students, 40+ degree programs; 8 campuses across the Region, and has 1800+ educators covering a wide variety of programs offered: Lifelong learning, Health, Design, Business, Teaching & Learning, Architectural Technology & Construction Management, Civil Engineering. VIA University College is on its way towards reorienting its entire educational mission towards ESD. But the process has not been "easy" - nor has it been a top-down decision, but more of a bottom-up movement. And as such, the development can be described by three major characteristics:

The first characteristic is a "bottom-up movement", deriving from the practices of educators initiated in 2017 by a (still leading) group of four associate professors from four different sectors; Health, Design, Continuing Education – Social Education and Architectural Technology & Construction Management. They met in a project developing a specific sustainable business model - "Grow a Business", collaborating with external partners.<sup>1</sup> In this group, the need for re-educating the educators was discovered and developed in 2017.

The second characteristic is the close alignment and collaboration with the board of directors in developing VIA's SDG visions and strategy from 2017-2022. This was due to a close relation and collaboration with the Dean of the Faculty of Health Sciences, responsible for the organization's overall social and sustainable ambitions in this period. In 2018 the Dean succeeded in getting strategic pool funds for the development of the CESDE course to provide the facilitation of collaboration, reflection and developing disciplinary and interdisciplinary projects and actions on Circular Economy and ESD's. In this way, the project has opened for a "whole-institution" approach, including top-level strategies, communication, educators and

<sup>1</sup> "Grow a Business" collaborated with WorldPerfect, Kulbroen, Klimasekretariatet, Aarhus Municipality, Lifestyle & Design Cluster and received funding from the National Hub for Circular Economy and Region Midt.

students, procurement, operations and close collaboration with external partners. UNESCO defines the whole institution approach as;

"An institution-wide process that enables all stakeholders – leadership, teachers, learners, administration – to jointly develop a vision and plan to implement ESD in the whole institution. Technical and financial support to the institution to support its reorientation, including for instance the provision of relevant good practice examples, training for leadership and administration, the development of guidelines and associated research. Inter-institutional networks that facilitate mutual support such as peer-to-peer learning on a whole-institution approach and increase the visibility of the approach to promote it as a model for adaptation". Source: UNESCO (2014b).

The third characteristic is a pragmatic and explorative approach to the development of a "teach the teachers program", in which a continuous improvement has been made on methodology, partnerships, theory and practice. The impact of the program has generated C.E. and ESD competences amongst the educators as well as it has initiated a "movement of generic change" across the whole organization and new collaborations with the outside world. In accordance with the research by Barth et al. (2019), the effects of starting to implement a "whole institution" adoption of sustainable development have shown four levels of impact on the development of the course and strategies for sustainable development for VIA University College. This study investigates if the ESD process and the potential of initiating ESD competencies-courses can confirm the notion that the competence development of academic staff is an "essential prerequisite for a sustainability paradigm shift in higher education" (Barth et al. 2019). In this way, the CESDE began with an ambition to enhance curriculum redesign (creating ESD's) but ended up making organizational impacts and creating a loop of iterative learning and interventions between educators, external specialists, the institutional organization (management), collaborating companies and the students. But, the change of the organization is still far from its objective and many more initiatives are needed in order to make the whole-institution approach succeed. These elements and challenges will be accordingly highlighted and discussed in the following sections.

## Course description; Circular Economy and Sustainable Development in Education (CESDE)

The CESDE course for HE teachers consists of five sessions over five and a half days and covers thematically circular economy (C.E.) and sustainable development in education. The series of sessions of the course is characterized by an explicit variation of workshop setups. Shifts between internal and external lectures are furthermore combined with a variety of internal and external locations for the sessions, including real-life, hands-on experiences + impressions in the field. The maximum group size of the course is about 30 HE teachers.

1. The sequence of sessions starts out with a: Kick-off:  
online meeting to gather transdisciplinary the teachers from the various campuses and educations. A presentation of participants and the core team is followed by an introduction to circular economy and the sustainable development goals. This first session addresses the expectations and goals for the participants and presents a literature overview.
2. Workshop 1a/b:

The first workshop, over two days, physically moves out to a location where the participants can experience 'radical' sustainable development in action and the people behind with their motivation and drivers for the transition. External and internal presentations follow both days.

3. Workshop 2a/b:  
The second workshop day takes place at a public resource and waste centre, demonstrating the systemic complexity and boundaries of sustainable development. The session combined presentations from authorities and specialists and a guided tour at the site. Presentations continued at one of the VIA campuses regarding the topic of 'sustainable edification' (in Danish 'bæredygtig dannelse') with external experts and the core group.
4. Workshop 3:  
The third workshop day gathers external partners and experts from municipalities, regions and companies as well as students presenting their perspectives on tensions and opportunities in organizations on one of our own campuses.
5. Workshop 4:  
At the fourth workshop, the CESDE course participants present their developed teaching module in a pitch format to a panel of external experts, students and deans of VIAs education, receiving direct feedback on their presentation. This concept and setup intend to secure the visibility of the course's outcome, and the panel members potentially act as ambassadors for the course concept and the promotion of sustainable development in HE.

From workshop 1 and throughout the course, the participants work individually or in groups of two on the development of their own teaching modules. The course layout and schedule create with this explicitly space for group work, discussions and time on reflection into account.

### Variations of workshops

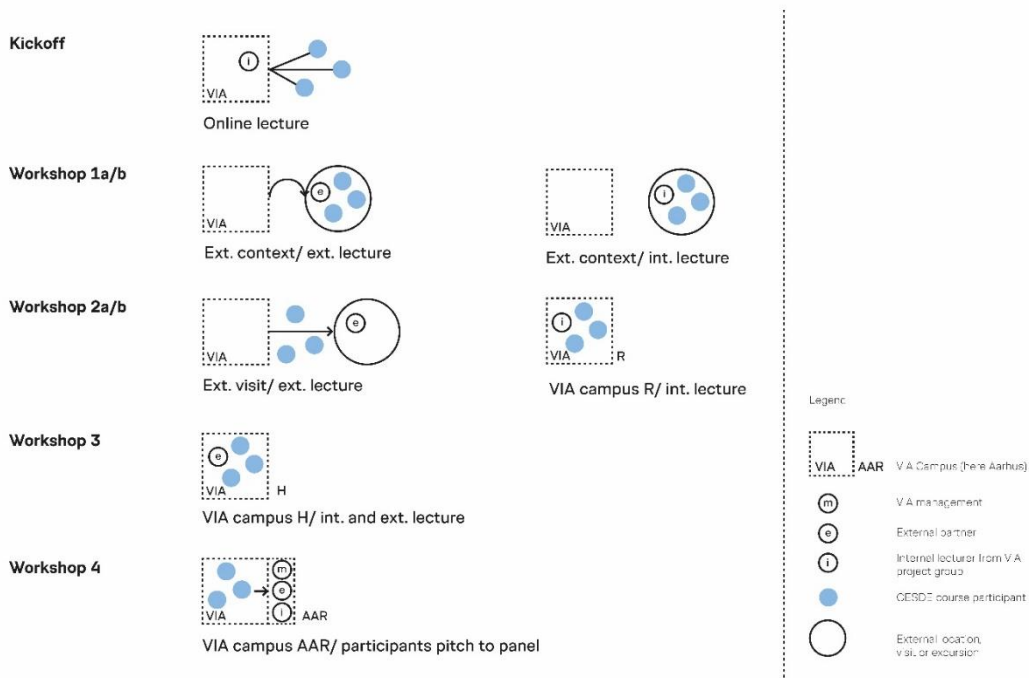


Figure 1

## SDG Competences and the Educator

According to UNESCO (2021), education has the utmost regenerative potential of sustainable change. But, in the present challenges, "we have reached the end of a historical cycle and new educational patterns have begun to form". (UNESCO, 2021, p. 14) In this context, the development of the CESDE course has carried new learnings for all the initial co-developers of the course, as it has challenged the personal and professional beliefs of how we approach the development of ESD's, but the UNESCO quote carries a dramatic perspective of the need for reframing all educations. The forming of the CESDE course and has so far been characterized by an experimental and multi-disciplinary pragmatic acquisition of knowledge about transforming experiences and competencies into the development of the CESDE framework. The "curricula" of the course has been altered every year as new models, reports, research emerges. The course has moved from having a knowledge-based approach to knowing Circular Economy and SDG's principles into working with eight UNESCO competencies, later adding two more, into adapting twelve competencies from the Rounder Sense of Purpose model. And, only now, the understanding of the impact of the course and the need for reframing is emerging, whereas the seriousness of the UNESCO quote may stress the need for a radical educational reorientation from a managerial level.

Models and frameworks for enhancing the educators ESD competencies have been developed over the past two decades. In 2008, the CSCT model was introduced (Sleurs, 2008), the KOM-BiNE model (Rauch and Steiner, 2013), 2015, the UNECE model and, latest, the project Rounder Sense of Purpose (RSP, 2018). Some of the principles of the RSP are very applicable to the methodology used in the CESDE-course and are recommended for others when they develop new competencies courses for Learners Learning to Become. The RSP has been deliberately designed to help educators find ways of using new didactic methods on the one hand and at the same time make new contributions by researchers to developing new methods. As the RSP stresses the development of 12 competencies with several (three) learning outcomes, it encourages educators to develop "action-oriented, transformative pedagogy that engages learners in participative, systemic, creative and critical thinking and acting processes". (Vare et al. 2019).

Education for Sustainable Development (ESD) should empower learners to make informed decisions and responsible actions for environmental integrity, economic viability and just society for present and future generations while respecting cultural diversity. So, ESD is about lifelong learning and is an integral part of quality education. In this way, ESD is holistic and transformational education that addresses learning content and outcomes, didactics, pedagogy and the learning environment. It achieves its purpose by transforming society. Finally, ESD is about building the capacity to think critically about and beyond sustainable development concepts. (UNESCO, 2019; Vare & Scott, 2007). Maybe the ESD's will have wide consequences for the educational organizations, changing curricula, enhancing new didactic and pedagogical practices and competencies, and creating new collaborations with the surrounding world.

When UNESCO (2021) asks if the present educational system of mirroring the industries and structures of power, linear extract-driven and unequal growth actually stems from the way we educate today and if the difficulties of today lie in the way we have organized the educations, it is an indication of how radically the changes for the educational system may be. UNESCO recommends widening the perspective on the organization, accessibility and present and future education practices into a new "commoning". The notion "commoning" is a reference to developing together by building, supporting, sharing, and cooperating communities

between academia, business, NGOs, and thereby interacting more actively as a whole institution with the surrounding and global world. UNESCO (2021) expresses it as; (ibid, p. 18)

"In education, commoning can be thought of in terms of the co-construction of knowledge and pedagogical modes that foreground the relational and collective aspects of teaching and learning. What is achieved through commoning is provisional, fragile and contains disagreement and difference. But we achieve more together than we can apart".

In 2011, Wiek developed a framework for developing sustainable competencies, in which the student (or educator) is confronted with "what if; you don't act - and; what if you intervene". The strong emphasis on creating possibilities for letting the participating educator act and understand what competencies are needed for what step in the sustainable process also provides an understanding of the need for collaboration and co-work with others in transdisciplinary teams. Using Wiek's framework in the CESDE course, a methodology of enhancing 10 competencies has been developed. (Wiek, 2011, Barth et al., 2019, Vare & Scott, 2012) Below is an illustration of some of the methods developed and used in the CESDE course and how it is adapted from Wiek's framework.

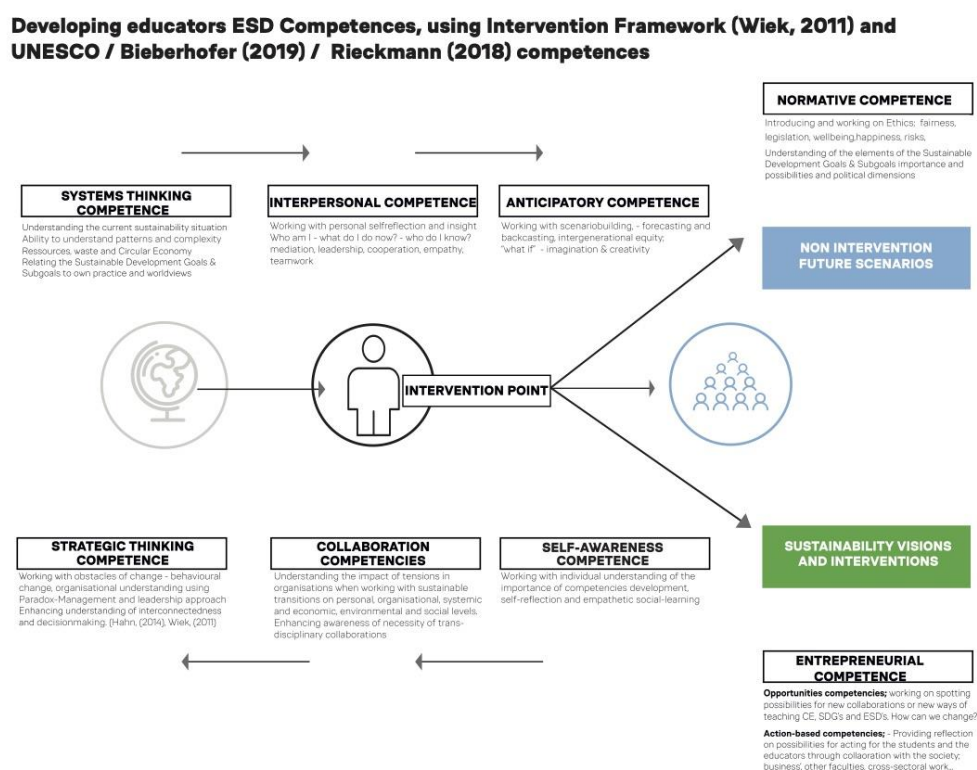


Figure 2

Teaching is shaped by disciplinary structures and silos as well as professional (personal) perceptions of competences related to specific specialist work-areas (Østergaard, 2019). As the development of the CESDE course initially in 2017 was based on developing a trans-disciplinary Circular Economy-knowledge (C.E.) and cooperation across silos in VIA related to the U.N. 17 Sustainable Development Goals (SDG's) one of the first tasks was to explore and widen the professional "mindsets" of the participants. And this was done by the use of visits at external partners, trying to establish common professional work-fields and the introduction of the first eight "canonized" UNESCO competences. In this regard, the UNESCO discourse (2018) has

been useful in order to create a comprehensive framework for understanding the present urge to act and highlight how different professional competences are developed through participation enabling a full-picture, systemic approach to understanding Sustainable Development. The educator is by doing so requested to think out of their own profession or background into an emancipatory and transdisciplinary, systemic understanding of how professions can contribute and collaborate. As such, the high level of complexity involved in trying to make the educators use and understand the values inherent in sustainable development has been based on bringing the participators into new fields (commons) of collaborations both internally and externally but also making them adapt and use frameworks for preparing their teaching and development of their own educations.

So, most importantly is the effective combination of bringing theory and vocabulary to the educators about C.E. and ESD's and practice has encouraged breaking down professional silos. Bringing the educators into real-life collaborations and partnerships, reflecting on the use of methodology in their own practice - out of the campus has been efficacious. The illustration below abstractly shows the variation of constellations of involvement of external, internal and specialists is generated and responds to the action-based research and development approach of the course.

### Sequence of workshops

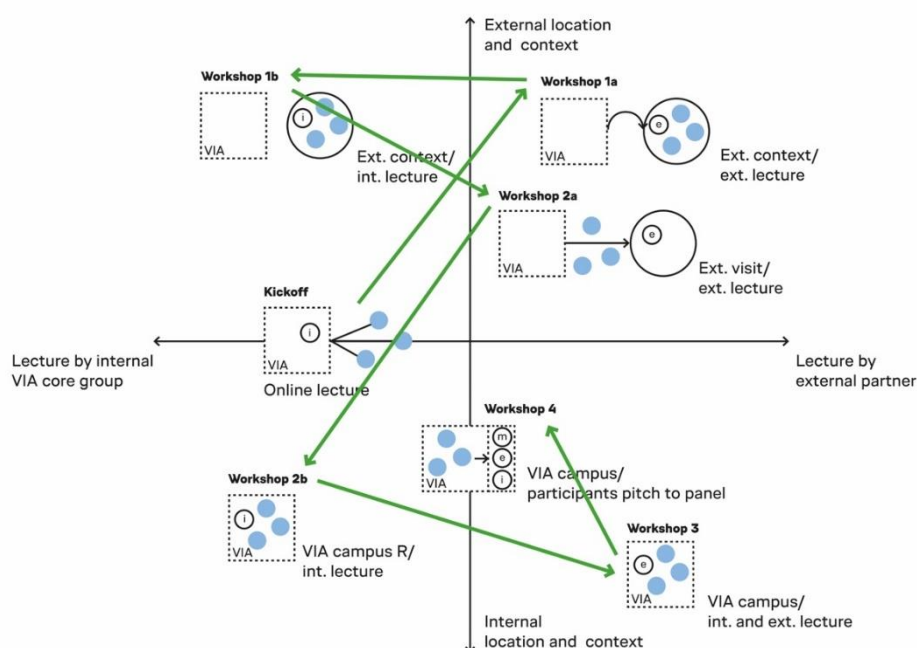


Figure 3

## Adapting learning approaches to the CESDE-course

According to Cebrián et al., educators have a significant role to play in moving forward the agenda of sustainability, and by having an action research approach, it is possible to engage the educators in a learning-by-doing transformative process and by that change current teaching and professional practice towards ESD (Cebrián et al. 2012). Eight action research principles are highlighted: (1) integrate research and action, (2) partnership of participants and

researchers, (3) development of knowledge and understanding, (4) social transformation and by that justice, (5) reflexivity, (6) challenge existing knowledge, (7) engender powerful learning and (8) connect the inquiry in the historical, political and ideological context (Somekh, 2006: 8). All of these eight actions can inflict on each other and should be carefully planned. And as such the CESDE has worked as an experimental "commoning" which can hopefully inspire to new ways of interacting internally and externally.

Through the CESDE course at VIA some of the principles above have been applied. (1) At each course, the educators have developed new teaching C.E. and ESD-competences, which are analyzed and used to adapt into the next program. (2) In the development of the educator's own ESD-courses there is feedback from the facilitators, students, and external partners. (3) Both the educators and the facilitators develop knowledge and understanding, because most of the contents are changed for each program, as the knowledge about ESD is constantly evolving. (4) The 17 SDGs work as a framework for the educators CE and ESD-courses and by that there is also a focus on social justice. (5-7) Through real-time visits at places with a "lived" sustainability", - by visiting private companies and collaborating with external experts the group of learners is challenged, and reflection and powerful learning is promoted.

But, even if there is room for reflections and discussions, it would strengthen the CESDE-course further by enhancing the connection to "real-world issues". By doing so, it could inspire the educators to have more focus on system thinking, critical thinking and problem-solving. Despite a need for improvement, it makes sense to view the participants in the course as co-researchers or co-learners (educators, external experts, and researchers), all contributing and all learning through the program, working with curriculum development through the educators CE and ESD-courses in HE. As the latest example, due to time-challenges and a focus on revisioning and developing the course continuously, the team behind the course has not, until the writing of this article, had the chance to process and disseminate the "learnings of the learners" into a wider ESD-perspective. By doing so, the "Learning the Learners to Become" course (CESDE) has added new potential Research and Development activities to the results. By disseminating the experiences of the course, the team has created a 'didactic rationality'. This notion was developed by the Norwegian educationalist Dale who argued that 'didactic rationality' is the foundation for professional pedagogical and didactic practice. Operating with three levels of teacher's professional competence: K1- to perform teaching, K2- to plan teaching and learning processes and K3- to communicate based on theory and independent development of didactical theory. K3 is an analytical, critical and reflective level that opens the possibility of further development. Didactic rationality is created when a close relation between the three levels of competence exists within the educator (Dale, 1998).

During the four years in which course has been repeated the level of didactic rationality has increased. From the very first explorative approaches the course has been planned and performed with a close look at different theoretical, technical and practical perspectives of the phenomena "Circular Economy" and "Sustainable Development". Perspectives which have been colored by the different professions and backgrounds of the team behind CESDE. Over the years the team behind the course has gained insight from the scientific field of ESD as well as from the "learners learning to become" and visiting lectures at the course and from our general surroundings. Furthermore, the group behind the course has succeeded to develop a tight and productive collaboration. By curious listening and careful consideration from each of us about how to understand sustainability and the SDGs in our different professions, we have managed to make our cross-professional differences a huge force. And we have an untested hypothesis saying that we think our cross-professional team holds the potential to create



fruitful didactic rationality within the field of ESD. Fruitful to our specific context VIA University College and maybe to other H.I. institutions.

### CESDE's 3 levels of impact

#### *Impacts on the individual educators' approaches to teaching practices*

If all educators are expected to relate their teaching to a Sustainable Development, the what and how of the teaching and learning becomes central. The educator is at the very core of the transition; the educator is responsible for providing both didactics, knowledge and will obviously be the facilitator of collaborating alliances. And the educator is highly dependent on the mandate and financial back-up and strategic support from the managerial level too. Until recent most of the research performed on ESD's has been made on how to develop the students' competences. So, an extensive amount of research shows many case studies of faculty or university specific transformation processes in changing curricula and the efforts being made to enhance the student's competencies for S.D. But lately, research indicates promising opportunities when building and focusing on developing transdisciplinary ESD competencies among academic staff in Higher Education Institutions (HEI) to provide change in curricula. (Barth et al., 2019). In this way, facilitating "lifelong learning processes" amongst the academic staff can improve the overall ESD learning, interacting with the surroundings and teaching competencies, as well as this could even provide a new power of "meaningful reason" for management, educators, collaborating companies and in the end; the students. (Barth et al., 2019)

During the course, the participants have developed different teaching modules to be implemented in their education or as an interdisciplinary element. The expectation is that the participants have based parts of their projects on experiences from the program and addressed the sustainable key competencies in their outcome.

In order to systematically analyze the ways in which the participants used the acquired competences in the development of their own teaching modules, the participants were asked to hand in a written description of their results. Together with the oral pitches of the participants, this formed the empiric foundation for the assignment, categorization and analysis of the applied competences. In this investigation, we have analyzed 17 descriptions of teaching modules for their focus on and use of the eight competences defined by UNESCO (UNESCO 2017).

But developing the competences does not secure action behind the intention (Rauch R. & Steiner R. (2013). Inspired by Bieberhofer, we have added two more competences – the opportunity competency and the action-based competency (Bieberhofer 2013), to ensure entrepreneurial methods to promote the action aspect (Bieberhofer, Lintner, Bernhardt, Rieckmann 2019).

## Mapping of sustainable competences

Competences	Systems thinking	Anticipatory competence	Normative competence	Strategic competence	Collaborative competence	Critical competence	Self-awareness competence	Integrated problemsolving	Opportunities competence	Action-based competence
Use of competences in the developed teaching-modules*	16	3	4	3	13	2	2	1	5	6

UNESCO's eight sustainable key competences (UNESCO 2017)

+2 additional competences (Bieberhofer 2013)

\*The evaluation and assignment is based on 17 evaluated teaching modules (2020)

Figure 4

When analyzing the way the participants used the acquired competences in the development of their own ESD courses, some patterns have been recognized.

The research shows that some competencies are more used than others, for instance collaboration. Then others as the normative, opportunities and action-based are also used quite often, whereas the anticipatory, strategic, critical, self-awareness, integrated problem-solving competencies is more rarely used.

To some educators participating in the course is a welcomed opportunity in order to implement new and innovative didactics and learning-methods, and to others, it is a disrupting nuisance. To the first, the offered course is considered as an attractive opportunity to participate and improve common, transdisciplinary ESD-competences - (especially for those already interested in sustainability), but also for those who want to enhance personal internal and external professional relations or, on a managerial level, wishes to address staff development, introducing experiential learning (Kolb and Kolb, 2005) or interdisciplinary teaching.

Nearly all the participants have worked with system thinking, but this is rather misleading because the participants are introduced to relationships, complex systems and uncertainty through the teacher's translation and her or his presentation and not by letting the participants do the analysis themselves. The normative competence is used to reflect on the participants' own actions based on their underlying norms and values, but rarely by reflecting on the context of conflicts of interests and trade-offs, uncertain knowledge and contradictions. It is positive that many of the teaching elements involve working with spotting opportunities and acting upon them, as "competencies cannot be taught, but have to be developed by the learners themselves" (UNESCO 2017:10). It is also positive that the outside world is involved in many of the projects based on the need for new partnerships (SDG 19 – Partnership).

By reviewing the outcomes of development of the participants UNESCO competencies during the CESD course it becomes clear that many of the referred and by UNESCO highlighted competencies have not been "stimulated" sufficiently. This could derive from the design of the course, institutional reasons, personal, motivational factors or time-issues, etc. But just from 2021 a research unit, consisting of three observing and interviewing associate professors from the IT-Research Unit at VIA has been following and evaluating the course plan and competences development of the participants. This has been implemented in order to enhance the outcomes and improve the design of the course, but data from this analysis is not available for the present. As the original initiators have not had the sufficient time or support to apply a suitable consistent data-collection research design for developing the course, the recommendations would be to establish a research-design for evaluating a future course. Already in 2021 and later in 2022 an evaluation and research-camp for developing a revised CESD-course

with the three external researchers has been established in the hope of enhancing the outcomes of the course.

And this requires a review of the design of the future CESDE courses, trying to extract more exact knowledge (data) on the didactic process'.

### *Impacts on the values in managerial and organizational levels*

Today, faculties at Higher Education Institutions (HEI's) are often created from traditional disciplines connected to a specific expected "employable" status of the future graduates, - and many Educators practice "knowledge teaching" believing this will encourage change-action from the students. But recent research in Education for Sustainable Development (ESD's) has shown this has only little effort and this article shows new interesting possibilities of reframing the future of ESD's into new transdisciplinary settings and methods. And by doing so, these efforts require new competences from the educators. (Barth et al., 2019, Vare & Scott, 2012, UNECE, 2012, UNESCO, 2018.) In 2013, Cebrián et al. presented a model for "Organizational learning towards sustainability". Cebrián et al.'s works are of special interest to the authors of this article, as it joins the outsets of theoretical bases of the authors in a unique transdisciplinary way, and thus has been used as an inspirational framework for developing a whole institution approach to sustainable development in VIA.

According to Argyris (2006, p. 392) there is a profound need "to help individuals transform their espoused theories into theories-in-use by learning a 'new' set of skills and a 'new' set of governing values". If the transformation of the HE organization is to take place and new learning is to be developed it is important to challenge the present "theories in use" in the organization and thereby reveal patterns or values within the organization which are obstructing the internal capacity to learn. In this relation, the SDG's and developing ESD's are powerful value-based frameworks for both identifying "obstacles for sustainable organizational changes" in the "theories in use" as well as strong frameworks for handling and understanding practices amongst the educators attending the course.

The notions and theories of single and double-loop learnings in the organization from Argyris and Schön (2013) resembles some of the outcomes found on different levels of learning from the effects of the course. On one hand, single-loop learning could be described as a "change of behaviors in actions to meet certain desired outcomes" amongst the participating educators. In other words; some of the educators did "what they were asked to do". But overall, the course has generated both a double, triple and maybe quadro-loop learning. This requires a process of "reflecting on the principles and assumptions and governing individual and organizational rules" - as seen in the history of making internal reflections institutions and even new R&D centers with the SDG focus and takes place if both the individuals, teams and organizations are "capable of adapting and transforming these assumptions and rules". The triple-loop in this connection happened when acting with our external partners, thereby creating new learning and common values and practices. The Quadro-loop learning happened when the new trans-disciplinary learning and new curricula were assessed and implemented with, by and for the students and the educators. Organizational Learning may provide a theoretical approach that enables us to construe the process of transformation towards sustainability of HE institutions, but both OLT and SDG implementation are complex and varies accordingly to what sectors they are implemented, and they are both still under development. So, adapting and tolerating pragmatic, practice and action-based approaches to organizational learning in the process of transforming VIA into a sustainable whole-HE-institution has become our path. When management and staff from all areas of the HEI is involved in the development of a whole institution approach, these initiatives naturally increase teaching competencies,

while it also brings management into a more profound understanding of the impact of education and practices. Finally, it has shown to be the first ever method to bring faculties together across all disciplines at VIA. When mapping the outcomes; the Involvement and impacts of the ESD course at different levels of the implications of the course we get a complex picture;

### Involvement and impact of the CESDE course

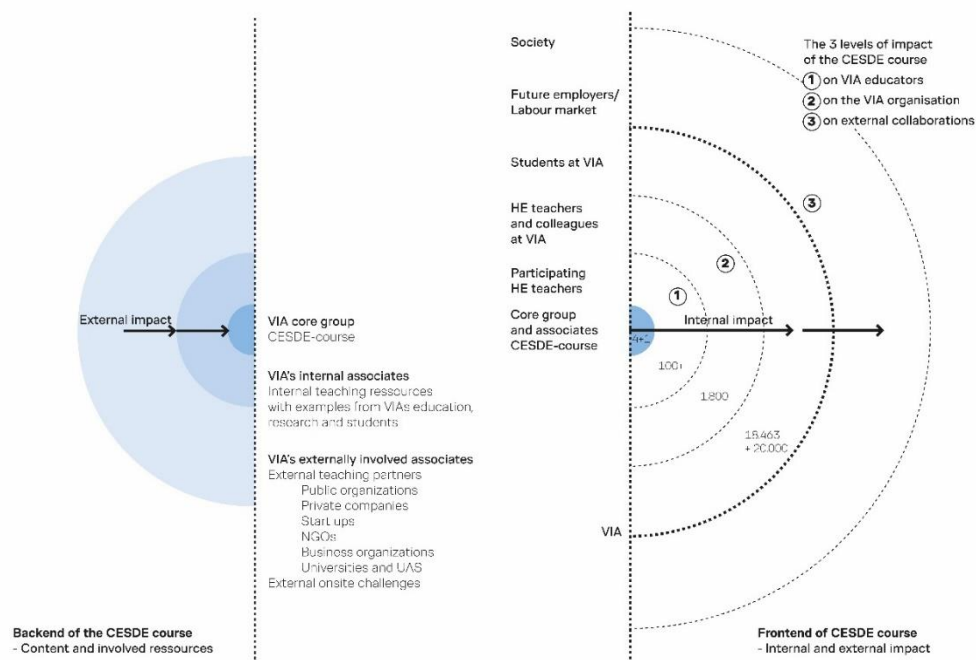


Figure 5

### Impacts on the personal and institutional interaction with surrounding communities, businesses and society

In 2020 VIA has become a UNESCO School, implying new ways of both educational development thinking practices, operations, and research. The perspectives of the UNESCO School bring a complete revision of both strategy, practice, and ways of collaboration across all sectors. This will affect not only the students but the way of collaborating, internally and externally. The most important lessons learned so far have undoubtedly been the evident power of the implementation of the whole-institutional approach, demonstrating that sustainable development can enforce organizational trans-disciplinary, and radical, value-based change across sectors. But more work must be done if the transition towards a whole institution approach is adapted throughout the whole organization. Learning from the feedback from the participants at the course, there is a need for consistency in leadership at local levels of the organization with the overall aims of the board of directors in relation to a whole institution approach. As a result, one of the ambitions of the team behind the course is to develop and provide courses for the managerial level 3 managers to strengthen the development of a common language and vocabulary for ESD's, C.E. and the SDG-progression. As sustainable development has shown to have the power to connect some of the sectors and educational silos and has been a catalysator of change, it remains a challenging task to try to embed the principles of sustainable development in a whole-institutional or holistic approach- there is still a long way to go.

**Mapping of present activities related to Sustainable Development deriving from the CESD course.**  
The model is applied in the 2021-2025 VIA UC Strategy, VIA's Future of Educations.



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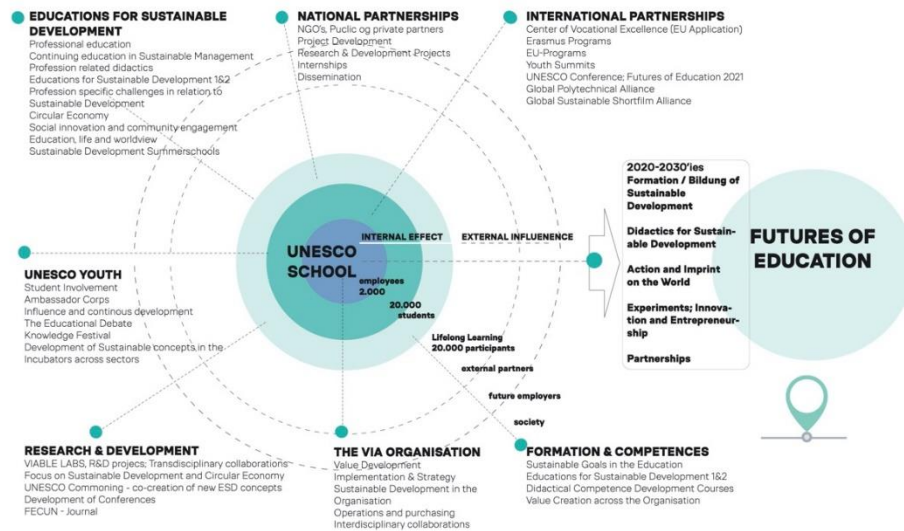


Figure 6

## Findings

Some of the key findings of the transitional progression at VIA are:

1. Transitions towards a whole-institution approach are difficult to plan. The initial steps were initiated by a bottom-up movement, which was hardly controllable, but on the other hand generated enthusiasm and new collaborations. If transitions are to become real, directors, managers and formal internal steering committees must be applied as the movement goes, ensuring some kind of consistency and continuity in the progress.
2. Competence and vocabulary building across operational sectors, educators, managers and students must be developed in order to ensure accordance with strategies and aims of the transition. The experience is still a very vague and fluid perception of "sustainability" rather than Sustainable Development, as well as a lack of understanding of how the urgency of action and how specific sectors are actually part of the systems which need to change, both amongst educators as well as managers. Cross-sectoral competences-building has shown to be effectful, generating common languages and understanding of the SDG's.
3. Freedom of choice related to the development of the various professional sectors in education can enhance the sense of belonging and participation for the people involved in the process. By letting the local campus', managers and educators develop their own strategies, curricula and projects the sense of contribution, action and urgency is enhanced.
4. Communication is key to success. Communicating the strategies, efforts, projects, collaborations and disseminating R&D initiatives has shown to be very effective in all

internal and external media and communication platforms. This requires a full acceptance and financial support from the board of directors and managerial level.

5. Establishing formal and informal coordinating steering groups; coordination committees, alumnis and labs. By continuously developing new formats for a whole-institutional transformation inspiration and projects can develop across sectors and educations.

If a whole-institutional approach should succeed, the organization needs to acknowledge the overall complexity of the system and the manifold of interrelated actors. This requires committees that are able to scale ideas and help handle the fact that too often the solutions are part of the problem. Making transitions is about finding important institutional interventions that play into existing dynamics of change, which can lead to a new phase on the transition curve and breaking down the old traditions while building up new ones. The experience from VIA has been a combination of interventions: most importantly developing internal languages, perceptions, understanding, actions and competences; from scaling innovations to phasing out current practices. The movement towards a whole-institution approach is emerging, but there is a need to build alignment and focus on interventions with the greatest potential. But foremost, the transition calls for a bold and courageous management, which is willing to take an active part in breaking down silos and structures and create incentives and institutions that helps the transition. And, sometimes, the administration and planning are effective partners in the process towards sustainable development, as it implies phase-out and actual destruction of old traditions and habits, as much as it requires innovation. Finally, working with the "commoning" of VIA requires a consistent and conscious awareness of the cooperation within internal as well as multiple, diverse, external stakeholders. It requires an active and involving form of developing both sustainable development and ESD's curricula with the surrounding world in research and development projects like the CESDE course in the future.

## Perspectives and recommendations.

The next step for VIA is to work on and with the managerial level as well, to give both the educators and managers a common vocabulary and basic knowledge about and understanding of relations between environmental and social systems (SDG's) and encourage the managers to see connections between components and patterns across temporal and spatial domains. One of the obstacles for a whole-institution success is the lack of managerial participation to help the educator reflect on the sustainable challenges of the world and how actions contribute to desirable or undesirable futures by sharing knowledge and disseminating the experiences from the CESDE course with the colleagues. This also requires a commitment from both educators and managers to provide the facilitation and finances to generate connections to people, communities, companies, collectives working in the field of SDG's and thereby enhance the motivation to learn about complex systems through personal and community development. In these efforts it is the experiences from the CESDE-course that educators can and will find new meaning and commitment to work in trans-disciplinary teams across sectors with real-life stakeholders, enforcing an innovative and action- based approach to their teaching.

In the four years of practising the CESDE-course many new real-life collaborations and cross-sectoral collaborations have emerged, as well as the establishment of the Alumni-network has generated a sharing and caring approach between new and former participants from the course. (Enhancing responsible and critical competences). By comparing the CESDE-course structure and methodology with the RSP framework, the course maybe should have had a

stronger focus on the normative and ethical dilemmas forming the whole-institution approach to developing ESD's. Again, this would require a wider involvement of the managerial level into the course structure, but the recommendation here would be to use the RSP-framework as an inspirational toolkit for developing new ESD's - remembering to take into account how the managerial level is incorporated from the beginning.

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