IS TRANSFORMATIVE LEARNING THE ONE THAT PROVIDES TRANSFORMATIVE CAPABILITIES?

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Abstract: *The article intents to present, to some extent, if the transformative learning, which has a powerful influence on promoting critical reflection on assumptions and interpretations to engage not just the intellect but affect, identity, worldview, beliefs and values (Mezirow, 2000; Sterling 2011), has certain contributions to students' transformative capabilities. Transformative capability, related to transformative learning, implies the capacity to learn, innovate and bring about appropriate change and it is connected with the „learning outcomes", seeded by the Universities in order to be similar with the „competences" required by the labour market.*

Keywords: *transformative learning; transformative capabilities;*

1. Introduction

One of the six „new pedagogical ideas" found after a study published by Ryan and Tilbury (2013) for the future of an increasingly „flexible" Higher Education which offer new pathways for graduate attributes or capabilities is transformative capabilities.

Amartya Sen identifies basic capabilities as a subset of all capabilities. Basic capabilities, in his approach, are „a relatively small number" of centrally important beings and doings that are crucial to well-being (Sen 1992, p. 44). The capabilities to be well-nourished and well-sheltered, to escape avoidable morbidity and premature mortality, to be educated and in good health, and to be able to participate in social interactions without shame, are all examples of basic capabilities. The capability to be educated is included among these fundamental capabilities.

The capability approach requires focusing on the contribution that the capability to be educated makes to the formation and expansion of human capabilities, and hence to the contribution it makes to people's opportunities for leading flourishing lives.

Transformative capability implies the capacity to learn, innovate and bring about appropriate change in social or economic environment. This notion of capabilities connects with the concept of flexibility in its focus on type of adaptive abilities required to apply knowledge and skills, plus the refinement and development of those abilities based on experience and learning from unintended consequences. The transformative capabilities have an educational focus beyond an emphasis on knowledge and understanding, taking the concept of capabilities as an amount of competences, resources and oportunities to apply it, in both familiar and unfamiliar circumstances. Transformative capability involves creating an educational focus, beyond an emphasis solely on knowledge and understanding, towards competence, using methodologies that engage the „whole-person" and transformative approaches to learning.

Several streams of thinking and practice contribute to this idea, with both longstanding and recent origins:

- traditions of experimentation and thought in progressive and alternative education, for example in Dewey, Montessori and Steiner, focused on „whole-person", experiential and situated learning;

- thinking and practice in the area of „transformative learning" and higher order capabilities, building on the work of Bateson (1972) and Mezirow (2000);
- aspects of the idea of „competence" relating to the ability to contextualise and adapt knowledge and skills to situations, foregrounded in discourses such as the „capability movement" in education (eg in the UK through the Higher Education for Capability Movement in 1988);
- capability frameworks for human wellbeing that serve as tools to promote equitable forms of development but have uses in rethinking education (Nussbaum 2011; Walker & Unterhalter 2007).

Education practice in this area also draws upon holistic models of human capability (including not just cognitive abilities but affective and spiritual dimensions) to equip learners with higher order capabilities to respond effectively to complexity, uncertainty and change.

Transformative capability is related to transformative learning which has a powerful influence on promoting critical reflection on assumptions and interpretations to engage not just the intellect but affect, identity, worldview, beliefs and values (Mezirow, 2000; Sterling 2011). So, transformative learning approaches in education prioritise the use of critical reflection, challenge existing assumptions and lead to the creation of alternative meaning schemes. It embraces „lifelong learning" – that takes place throughout the lifecycle –, and, in recent thinking „life-wide learning" – that takes place across different spaces and settings – which in HE includes both on and off campus –, in benefit of the learners (Jackson 2011).

It is desirable that by transformative learning to reach out the „learning outcomes", seeded by the Universities in order to be similar with the „competences" requiered by the labor market and more, to gather capabilities.

Transformative learning is a form of „third order learning", implying a paradigm change triggered by the experience of liminality (an in-between state of ambiguity or disorientation, Land et al. 2014) with a disruptive or restorative element (Lange 2004). This leads to "the experience of seeing our worldview rather than seeing with our worldview so that we can be more open to and draw upon other views and possibilities" (Sterling 2011, p. 23). By contrast, „first order learning" refers to reproduction of knowledge and "doing things better" and „second order learning" to critical reflection and "doing better things", mirroring Sterling's (2011) differentiation between conformative, reformative, and transformative levels of learning.

Some of the critical discourse around transformative learning argues that the potential for embedding "transformative capabilities" is very limited at Higher Education level, citing the obstacles presented by conventional academic structures and systems (Sterling 2011). In many ways, the issues have resonance with those around inter-disciplinary learning, in that the promotion of innovative approaches in this area is often limited by the constraints of the learning environment. The pedagogical need is therefore for adaptable tools that articulate these kinds of transformative capabilities and which can be put to work in various ways both within and outside the conventions of HE. Perhaps most importantly, the transformative capabilities theme puts the spotlight on the capabilities of the educator (as the "example") as critical to the effective development of these capabilities in the learner.

From this perspective there can be no transformative learning without transformative teaching, which should include among other elements an emphasis on personal experience; inter- and trans-disciplinarity; service-learning arrangements; self-organized engagement with knowledge, values and emotions; and living labs (Balsiger 2015). An educator's role shift is also necessary. Educators take on the role of coaches, guides, facilitating learning and co-learning among students but also between students and educators. In this paradigm, the educators need for teaching a holistic approach, envisioning change, and achieving transformation.

To generate a more applied and holistic framework of those requirements for the educators we can take into consideration the four principles of the „International Commission on Education for the 21st Century" Report to UNESCO (Delors et al 1996) „Learning: The Treasure Within" such as:

- Learning to know – refers to understanding the challenges facing society both locally and globally and the potential role of educators and learners (*The educator understands...*)
- Learning to do – refers to developing practical skills and action competence in relation to education for sustainable development (*The educator is able to...*)
- Learning to live together – contributes to the development of partnerships and an appreciation of interdependence, pluralism, mutual understanding and peace (*The educator works with others in ways that...*)
- Learning to be – addresses the development of one's personal attributes and ability to act with greater autonomy, judgement and personal responsibility in relation to sustainable development (*The educator is someone who...*)

These four principles are then elaborated, by the good educators, into three key elements or characteristics, viewed as critical to effective learning experiences, for providing transformative learning to learners and ensuring forming their transformative capabilities:

- ➢ holistic approach – which seeks integrative thinking and practice;
- ➢ envisioning change – which explores alternative futures, learns from the past and inspires engagement in the present;
- ➢ achieving transformation – which serves to change the way people learn and the systems that support learning.

In our study, we noticed that our students, if we use modalities to engage the whole-person of them in the way of transformative learning, gain transformative capabilities that reveal the educational facet of their development beyond an emphasis solely on knowledge and understanding. They have emotions that can be managed and focused into applications of their knowledge in different kind of learning situations with the reason of building transformative capabilities.

2. Objective

The main objective of this study is to pursue if the transformative learning has certain contributions to students' transformative capabilities.

3. Methodology

In our study, the research system's methods used for data collection were the following: observation, self-observation (my mirror), method of analysing students' activity products and students' portfolios analysis. For data collection and measurement we used, as tools: exams results, observation sheets, questionnaires and training portfolios.

4. Results and discussion

The sample of subjects taken into consideration for our study were the students from bachelor level: 128 from Pedagogy of Primary and Preschool Education (PPPE) study program, first year, and 40 from Special Psychopedagogy/Special Education(SP/SE) study program, first year; the students from master level: 27 from Policies and Strategies of Competences Training for Teaching Career (PSCTTC), first year and 33 from the second year,

41 from Interactive Pedagogy (IP), and the students from the postgraduate Psycho-Pedagogic Module (PPPM), 51 from the first level and 37 from the second level, totally 357 students.

They were guided and observed, during the last academic year, in subjects such as: the theory and methodology of curriculum, intercultural education, intercultural learning, e-learning in teacher training, information and communication technology and computer assisted instruction.

If we look at the effort made by the students during the semester (assiduity, contributions to their progress, quality of the training portfolio) and at the results of the exam (the written one) to "the theory and methodology of curriculum", for PPPE and SP students of the first year, it was found that the failure rate was 2.8%, the median 37.4%, good results 36% and very good 23.8%.

Table 1. The results at Theory and Methodology of Curriculum

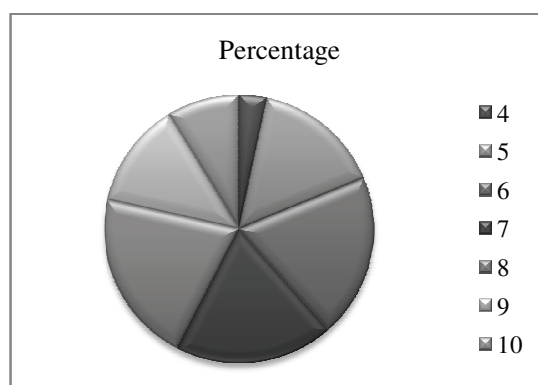| mark	number	percentage
4	4	2.8
5	25	17.7
6	28	19.7
7	26	18.3
8	25	17.7
9	21	14.7
10	13	9.1

Chart 1. The percentage of marks of the students at Theory and Methodology of Curriculum

The percentage of good and very good results – 59.8% - is relevant enough for the efforts of educators and students to engage their intellect, affect and values for creating an alternative meaning schemes of curriculum concepts, that means differentiation between conformative, reformative and transformative level of learning. We think that the students who failed (specially) and with mediocre results have had a conformative attitude towards learning, trying to reproduce the notions and not to reflect on them, understand, apply, analyse, synthetize and evaluate them. That proves that for the student in the first academic year, the fingerprint of our secondary school system is their inside, being more transmissive, theoretical than applicative and transformative.

The items of the worksheet for the final evaluation (exam) were designed to reveal the capacity of students to learn, to innovate, to apply knowledge for gathering abilities based on experience and learning from intended situations, with the further intention to improve these abilities for applying them in unintended situations.

For this reason, during the semester, we tried to use interactive learning methods that induce transformative learning which put students in the position of communicating with themselves (through the self-observation files in what we call "my mirror") and with others (by observation sheets), reflecting, finding solutions to our questions and applying them. On the other hand, at our meetings (the courses as well the seminars) we gave them work tasks that revaluate their capacity of remembering, understanding, applying, analysing, evaluating and creating (Bloom's revised taxonomy) notions related with curriculum. All these facts we gathered by questionnaires.

The same characteristics have had the requests for the training portfolios with the intention of growing up our students from reproductivity to creativity, by using critical reflection on assumptions and interpretation. Through the observations sheets we gathered data concerning the affect, beliefs, worldview and identity of the students.

All these are elements of transformative capabilities, knowing that transformative capability involves creating an educational focus, beyond an emphasis solely on knowledge and understanding, towards competence, using methodologies that engage the „whole-person" and transformative approaches to learning.

Considering that for the students in the first year of academic study it is a beginning of taking part in their process of training by transformative learning into a fundamental topic such as "theory and methodology of curriculum", the same sample of students were more flexibles, opened and innovative for bringing appropriate change in socio-economic environment following "the intercultural education" subject.

Table 2. The results at Intercultural education

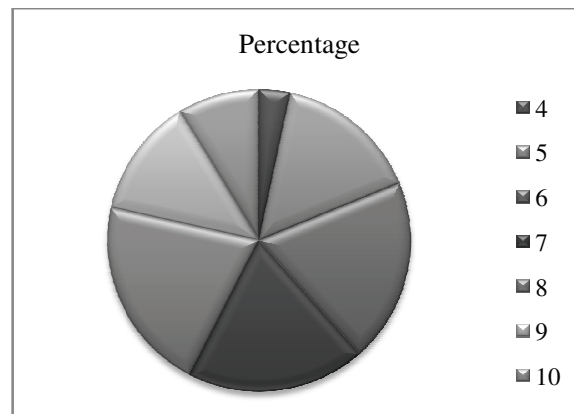| mark	number	percentage
4	5	3.3
5	23	15.5
6	29	19.7
7	28	19.0
8	31	21.0
9	19	12.8
10	13	8.7

Chart 2. The percentage of marks of the students at Intercultural education

Looking at the results of the exam (including assiduity, quality of the training portfolio and the result of the written exam) to "the intercultural education", for the same students from

PPPE and SP of the first year, it was found that the failure rate was 3.3%, the median 35.2%, good results 40% and very good 21.5%.

For this topic, the percentage of good and very good results – 61.5% - was +1,7% more than for the first subject, students being more accustomed to the teaching methods used for implementing the transformative learning and, at the same time, more adaptable to reflect, to develop assumptions and to apply them in the learning situations, directly related with the real world. It's true that we have used complex methods for learning like World Café, Role Play, Project Based Learning, Gallery's Tour and so on... very attractive and challenging for our students.

In fact, the exam have consisted in designing, in groups of two, an intercultural project with the title: "Let us know our culture and the culture of others", for a target group at their choice, applying the notions learned during the semester, having some compulsory points: the target group, the objectives, the activities (with methods, resources and forms of organization of the target group, time of deployment, responsibilities and evaluation) to accomplish the objectives and the expected effect. At the end of the project, on a separate paper, each of the member of the group have had the task to fill in the lacunar text: I discovered that ...; The most important aspects learned were ...; I liked ... for observing and individualizing how they think and feel and thus, customizing them. It was a great challenge for our students but they were trained for this.

Table 3. The results at Intercultural learning

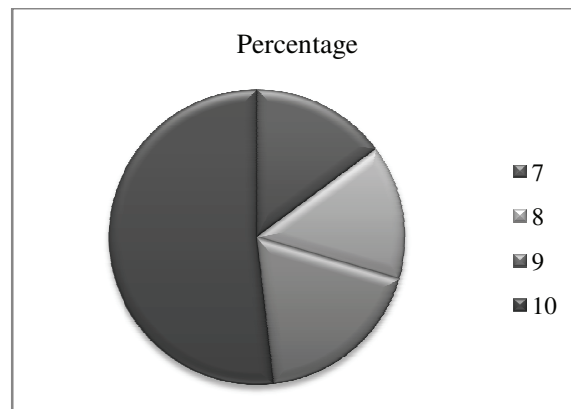| mark	number	percentage
7	4	14.8
8	4	14.8
9	5	18.6
10	14	51.8

Chart 3. The percentage of marks of the students at Intercultural learning

As it can be deduced, it was a huge effort for us but also for our students, to lay the foundations of formation of students' independence of mind and the ability to make sense of information, rather than reproduce them, which is what Mezirow wants for any educable: "becoming critically aware of one's own tacit assumptions and expectations and those of

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others and assessing their relevance for making an interpretation" in idea of real transforming it by learning, and in this way, gaining transformative capabilities.

Now we can move on to another level, namely the master degree students from first year of study who, at a similar subject – "intercultural learning" – but with more difficult tasks both during the semester and the final test, have achieved good and very good results, without failure.

From the beginning, we can see that this group of students, having had already three years of initial training, the quality of the grades obtained was higher. On the other hand, based on student observation sheets, it can be noticed another dimension of the impact of transformative learning, which confirms that it can build pillars of transformative capabilities (the capacity to learn, innovate and bring changes).

These were highlighted by the „In our Block" role play, in which each participant had to choose a role of a neighbour from a different culture, to create and then perform it, to solve the conflict caused by a foreign neighbour who bothers the whole block, every night. Thus, through this test, we traced out the intellect, affection, identity, the overall view of the world, the faith and the values of each participant. How? First of all, by our observation sheets and secondly through inter-observation sheets, completed by each participant for another one!

Therefore, transformative learning draws on the experience of learners and creates opportunities for participation and for the development of creativity, innovation and the capacity to imagine alternative ways of living. It encourages learners to reflect on the impact of their everyday choices in terms of sustainable development and transform theirselves.

Another example that we can take regarding the influence of transformative learning on the transformative capabilities of students from the master (PSCTTC, IP) and postgraduate (PPPM) study programs is the one offered in the subjects related to the use of IT (e-learning in teacher training, information and communication technology and computer assisted instruction). In these subjects, students were asked to undertake projects in electronic form under the title "Let your passion shine", which were presented in front of colleagues for peer to peer evaluation and for our evaluation.

At "E-learning in teacher training", second year students from PSCTTC, got the grades:

Table 4. The results at E-learning in teacher training

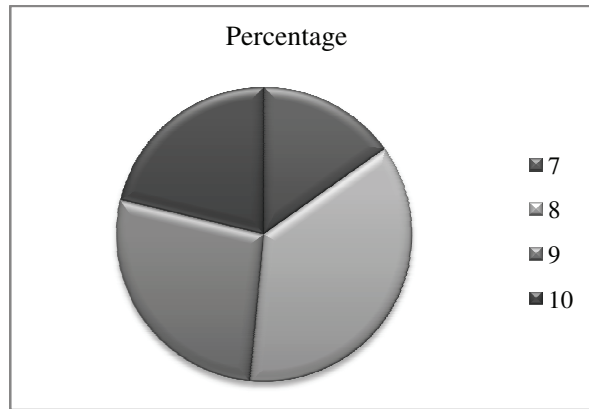| mark	number	percentage
7	5	15.15
8	12	36.36
9	9	27.27
10	7	21.22

Chart 4. The percentage of marks of the students at E-learning in teacher training

At "Information and communication technology", second year students from IP, got the grades:

Table 5. The results at Information and communication technology

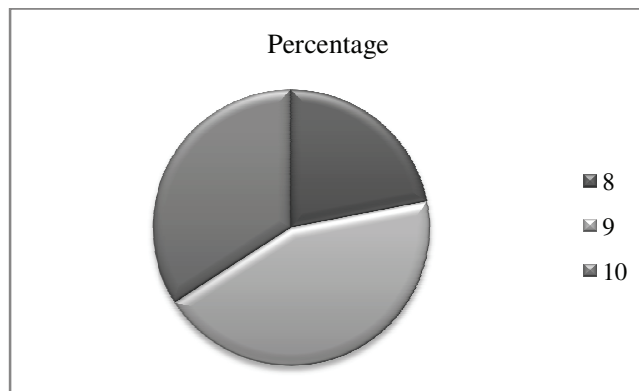| mark	number	percentage
8	9	21.95
9	18	43.90
10	14	34.15

Chart 5. The percentage of marks of the students at Information and communication technology

At "Computer assisted instruction", level I students from PPPM, got the grades:

Table 6. The results at Computer assisted instruction

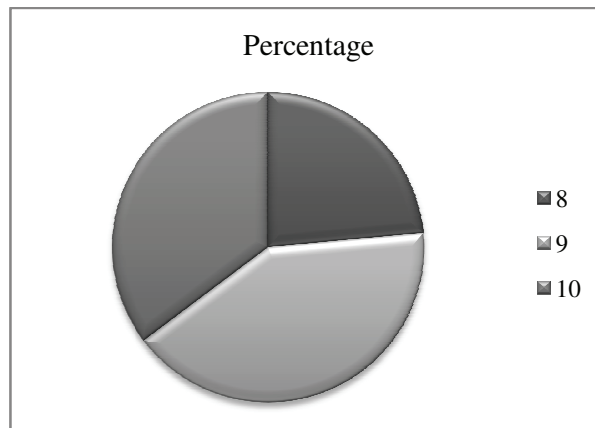| mark	number	percentage
8	12	23.53
9	21	41.17
10	18	35.30

Percentage

Chart 6. The percentage of marks of the students at Computer assisted instruction

Having these quantitative results and taken into consideration our qualitative evaluation (by observation sheets), we are in the position to say that the students have proved the capacity to innovate, to be flexible, to apply knowledge, to appeal skills, to have a positive attitude concerning the task and plus, the refinement of presenting their projects in front of the peers.

All these lead to the idea that transformative learning (which means all those features mentioned above, and more) have had an important impact for forming transformative capabilities that involve, as already mentioned in this article, creating an educational focus, beyond an emphasis solely on knowledge and understanding, towards competence, using methodologies that engage the „whole-person" and transformative approaches to learning.

Remarks and conclusions

The institutions of higher education play a crucial role in preparing future leaders and specialists in a variety of fields, including education. Initial teacher education institutions, as is our Faculty, have a crucial role in a democratic educational system for considering the competencies required by the employers as an important goal and trying to fulfill it by „seeding" learning outcomes into the students, in fact, learning outcomes equals with the competences.

Educators, from these initial teacher education institutions, are important agents for change within education systems. Effective educational transformation is dependent upon educators being motivated to bring about change, as well as being capable of and supported in doing so. We, as practicing educators, need to develop our competences in achievement and sustaining transformative learning if we want to transform the system, for the benefice of the students and for the benefice of the society.

From our paper we belief that is obviously seen that the building of positive relationships between us, as educators, and the students is essential and we believe that we must present ourselves as fallible human beings rather than people with all the answers. It is also relevant for us to have the ability to empathize with the views and situations of our students for growing up and developing together.

It can be also seen, from our paper, that we have turned to some of the universal learning ventures for fulfilling that desideratum – building in our students the transformative capabilities. What kind of universal learning ventures? Challenge something, make an observation, draw a conclusion, question something, revise a question based on observation & data, identify a cause and effect, explain the significance, transfer a notion or a concept from

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one situation to another, adapt something for a new need or circumstance, examine an idea from multiple perspectives, etc. All these kinds of universal learning ventures help transformative learning to create opportunities for participation of the students into the learning process and for the development of creativity, innovation and the capacity to imagine alternative ways of living. It encourages learners to reflect on the impact of their everyday choices in terms of real life and this is from our point of view evidences of transformative capabilities.

We suppose that our paper has shown that the transformative capabilities are connected with the concept of transformative learning which is a form of „third order learning", implying a paradigm change triggered by the experience of liminality an in-between state of ambiguity or disorientation with a disruptive or restorative element, and makes the individuals as real thinkers of the digital age.

In the situation of the transformative learning approach and forming the transformation capability, we can say that there were between 21.5 and 23.8% of students of the first year from the bachelor level, 48.49% of first year students from the master's degree and between 70.4 and 78.05% of second year master students. At the opposite pole, in the „first order learning" - to reproduction of knowledge and "doing things better" - were between 38.5 and 40.2% of our students from bachelor level, the first year and no one from master level. In the middle, to the „second order learning" - to critical reflection and "doing better things" - we can post between 36 - 40% of the students from bachelor level, first year, 51.51% of the students from the master study programs, first year and between 21.95% and 29.6% from the second year.

In conclusion, a part of our students from bachelor study program and most of the students from master studies programs, guided and persuaded by the educators to follow the way of reflection for learning, applying the knowledge in diverse educational situations with positive emotions, and using their abilities with a proper attitude, have developed their transformative capabilities based on transformative learning approach. However, we will have more work to do with the rookie students to inoculate them the new way of learning to win capabilities.

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