## Insiders Researching the Constraints (Rigidities) and Flexibilities of their Academic Culture. The University of Barcelona Case

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**Abstract.** This paper discusses how the search for more meaningful ways of teaching and learning in higher education has led us to considering contemporary notions of knowledge and learning related to youth values, such as DIY culture (Spencer 2005). In the European project DIYLab, we have studied what happens when a group of insiders explore their own academic culture and the connections this approach has with the current reflexion on the limits and possibilities of ethnographic research in education. The analyzed evidence shows the rigidity of institutional times and spaces, the fragmented notion of knowledge and some institutional fissures through which a refreshing, demanding and challenging culture of teaching and learning could be inoculated.

*Keywords*: DIY philosophy, knowledge society, authentic learning, ethnographic gaze, academic culture, youth culture.

### **Connecting Conflicting Cultures**

As noted by ethnographer Viveiros de Castro (2010, p. 33), "the world is composed of a multiplicity of viewpoints: all existing ones are centres of intentionality, which apprehend the others existing in accordance with their respective characteristics and capabilities." For this author, one of the possible outcomes of this positionality is the transformation of researchers' views and experience of their culture as a consequence of approaching another culture. In our case, we saw this author's idea as a way of exploring the constraints (rigidities) and flexibilities of our university culture when trying to implement the features of a learning and sharing culture born and developed outside the institutional constraints.

The unprecedented development of the digital technology is promoting deep social, cultural and economic change and is permeating all areas of life and society. From here arises the urgent need of understanding and fostering of the required knowledge and skills to make education and training bet-

ter suited to meet the challenges of the information society (Berleur 1990), to better equip citizens with key competencies and to develop a 21st century life-long, life-wide and life-deep learning policy and practice (Banks, Au, Ball, Bell et al. 2007). Many of such knowledge and skills are transversal cutting across different subjects and educational levels - and increasingly related to digital technology. So, even in maintaining a cautionary and critical view about digital technology (Sancho 2010; Selwyn 2016; Selwyn & Husen 2010; Sancho-Gil & Padilla-Petry 2016), we must necessarily take it into account and explore its role in people's life and in education. Fostering such knowledge and competencies requires novel strategies and teaching approaches based on active modes of learning, such as collaborative learning, peer learning communities, creative problem solving, learning by doing, experiential learning, or the development of critical thinking and creativity. Digital competence is a core skill for life and employability. Today, the question is not whether technology should be used, but rather how, where and for what educational goals.

What students and educational institutions need is authentic learning experiences to foster learners' critical capacity (Laur 2013; McFarlane 2015; Pahomov 2014). This is not a goal that can be achieved by using only one platform or digital tool. Instead, authentic and critical digital competence means using available devices with sound pedagogies and transdisciplinary, inquiry-based projects (Hernández-Hernández 2015) that guide young people to move from digital consumers to digital producers, becoming active and thoughtful learners. However, as recent research in educational change tells us (Hargreaves & Shirley 2009; Sancho & Alonso 2012), meaningful transformations can be only achieved by involving teachers and students in the decision-making process and anchoring new practices in the most promising aspects of institutional cultures and teachers' professional knowledge.

In this context, in the implementation of the European project *DIYLab – Do It Yourself in Education: Expanding Digital Competence to Foster Student Agency and Collaborative Learning*, we put into motion two complementary processes: (a) exploring the main components of DIY culture and (b) promoting a participative action research (Reason & Bradbury 2001) with an ethnographic gaze (Tacchi, Slater & Hearn 2003). This paper reports on the implementation of this project at the University of Barcelona and explores the constraints (rigidities) and flexibilities of our academic culture.

### The European DIYLab Project

The main aim of the DIYLab project, developed in three primary and secondary schools of Spain (Escola Virolai), Finland (Oulu University Teacher Training School) and Czech Republic (y ZŠ Korunovační) and two universities (University of Barcelona in Spain and Charles University in the Czech Republic), was to promote lifelong and life-wide learning by expanding the students' digital competence, agency, and creativity; this was done by putting DIY culture into practice. It also intended to foster the engagement of primary, secondary and higher education students by proposing collaborative, meaningful and authentic learning experiences that could be sustainable and expandable after the end of the project.

Its specific objectives were:

- To analyze how digital competence can be better integrated in curricula and connected to learning outcomes, not only at all levels of formal education but also in informal and nonformal learning. This would be done drawing on previous knowledge of all participants and the teaching and learning expertise of school administrators and teaching staff, students and, in the case of the primary and secondary education, parents;
- To build a conceptual and technical approach through a collaborative formation process with researchers, teaching staff and administrators. It would allow participants to move from being information consumers to knowledge producers by fostering digital competence;

To design and use a digital hub (http:// hub.diylab.eu/) to support the growth of an open, cross-cultural learning community in order to develop transversal competencies, such as learning to learn, entrepreneurship, collaboration, multiculturality and autonomy;

To draw on DIY culture to create DI-YLabs, understood as flexible spaces for developing transversal curriculum projects, where participants develop inquirybased projects connecting different subjects and reflecting student interests;

• Through a participative action research, to assess the design and implementation of the project – done with researchers, teaching staff, administrators, students and families – In order to make sustainable improvements in each institutional context;

- To undertake a socioeconomic evaluation in assessing the social impact, the cost and implied savings of the DIYLab project in primary, secondary and higher education;
- To disseminate and exploit the process and results of the project among all relevant stakeholders and the general public.

In order to deeply and sustainably transform teaching and learning practices, we carefully explored the set of the involved dimensions by implementing a participatory action research process with an ethnographic gaze.

# **Exploring the Main Components of DIY Philosophy**

In the last decade, young people's relationship with digital technologies has significantly evolved. In this context, our understanding of digital competencies has shifted from considering youth's critical understanding of new media as one key aspect of digital literacy (Buckingham 2007; Gilster 1997) to seeing young people not only as information consumers but as content producers as well, contributing to blogs, designing animations, graphics and video productions (García & Valdivia 2014; Ito et al. 2010). This move has generated alternative approaches to digital competence to develop "creative designs, ethical considerations, and technical skills to capture youths' expressive and intellectual engagement with new media" (Kafai & Peppler 2011, p. 89). From this perspective, the DIYLab project took into account the change (and its educational effects) occurring in our society regarding digital competencies, especially the emergence of a culture of collaboration connected to youth learning environments, technology and DIY philosophy.

Young people's efforts to create and disseminate digital media have been associated with the growing do-it-yourself (DIY) movement (Spencer 2005). Starting in the '90s (Halfacree 2004; McKay 1998) with arts, crafts and new technologies (Eisenberg & Buechley 2008; Kafai & Peppler 2011; Knobel & Lankshear 2010), it is now being considered in curriculum contents (Guzzetti, Elliott, & Welsch 2010), even in higher education (Kamenetz 2010), giving educators and students the opportunity to create, share and learn in collaboration (Williams & Černochová 2012).

After those authors, initiatives, the observation of a DIY festival in Barcelona (http://www.handmadefestivalbcn.com/) and our own experience, we characterized DIY culture as a maker-emphasizing, selfrun, not school-centered, not regulated by institutions, anarchic, going beyond the simple fact of sharing hobbies, coming from youth cultures, based on learner interest and having the desire to share knowledge and experiences beyond institutional limits (Hernández-Hernández & Sancho-Gil 2016).

## Promoting a Collaborative Action Research Process with an Ethnographic Gaze

Considering that the hardest limits of institutional change, including those promoted by technology, seem to be in the "grammar" of schooling (Tyack & Tobin 1994), we carefully considered the different elements that shape institutions, universities in this case, as a powerful *dispositif*:

[It is] composed of discourses, institutions, architectural arrangements, regulatory decisions, laws, administrative measures, scientific, philosophical propositions, moral, philanthropic statements. In short, between the said and the unsaid, here are the elements of the dispositif. [...] The dispositif is always inscribed in a power game, but also linked to a limit or to the limits of knowledge, which give birth, but, above all, condition it (Foucault 1994, p. 229).

So, in order to develop a systematic and sustainable way to explore potentially *conflicting cultures* and involve all those concerned in the transformation and improvement of teaching and learning, as mentioned above, we developed the project following the principles of a participative action research (PAR), understood as:

A participatory, democratic process, concerned with developing practical knowing in the pursuit of worthwhile human purposes, grounded in a participatory worldview which we believe is emerging at this historical moment. It seeks to bring together action and reflection, theory and practice, in participation with other, in the pursuit of practical solutions to issues of pressing concern to people, and more generally the flourishing of the individual persons and their communities (Reason and Bradbury 2001, p. 1).

The PAR process has been implemented through a set of steps, all of them carefully and systematically documented. This documentation process draws on informa-

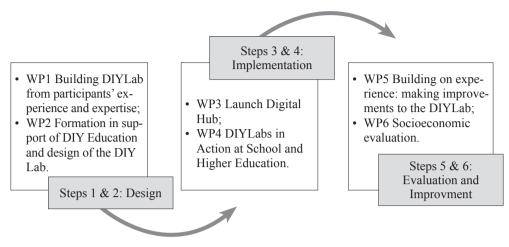


Figure No. 1. The steps followed during the DIYLab project development.

tion gathered by different means but with an ethnographic gaze, meaning that we used ethnographic methods, such as participatory observation, field notes, visual documents and interviews, to unveil the social life of these conflicting institutional cultures. The steps we followed during the development of the project are represented in Figure No. 1.

Step No. 1 consisted of:

- The analyses of the official documents that prescribed the curricula and the teaching plans of the five degrees of the University of Barcelona involved in the project: Pedagogy, Teacher of Primary Education, Teacher of Early Childhood Education, Social Education and Fine Arts;
- Two focus groups (Kamberelis & Dimitriadis 2013), with 6 students and 6 teaching staff of these five degrees in the case of the University of Barcelona.

Step No. 2 implied the implementation of a professional development workshop

for 18 university teachers, understood as an ongoing dialogical process of analysis and practice. The main aim of this workshop was to design key aspects for implementing DIYLabs, in this case, at the University of Barcelona level.

Step No. 3 involved the design, implementation and training of the participants of the DIYLabHub (http://hub.diylab.eu/), where DIY digital visual objects (DVO), produced in the development of DIYLabs at schools and the university, were going to be publicly shared.

Step No. 4 consisted of the implementation of DIYLabs designed in the professional development workshop, following the DIY teaching and learning philosophy, based on inquiry-based projects, collaborative learning, creative problem solving, learning by doing, experiential learning, the development of critical thinking, creativity and the extensive use of digital technologies (Barkley, Cross & Major 2004; Collins & Halverson 2009; Lau 2011; Maaß & Artigue 2013). The DI-YLabs, implemented at the University of Barcelona in 10 different subjects of the aforementioned degrees, were understood as flexible spaces for developing crosscurriculum projects, where participants developed inquiry-based projects based on their interests, connecting as much as the fragmented curricula allowed, different subjects and topics, and by using different kinds of educational resources, digital tools in particular.

Step No. 5, continuing the PAR cycle started in Step No. 1, entailed the organization once again of two focus groups with students (9) and teachers (6) in order to evaluate the implementation of the DI-YLabs from the participants' point of view.

Step No. 6 was concerned to the socioeconomic evaluation drawn on the analyses of the data collected through all the project's steps.

In addition to data collected for the internal and public reports related to each research phase, through all the project's stages, we have kept textual, visual and audiovisual field notes (Banks 2001; Pink 2011).

### What We Have Learned on this Journey

This journey allowed us to travel from a naturalistic, ethnographic approach to a flatter, realistic ethnography, which recognizes each object's singularity and is interested in its relations, and an opaquer ethnographic model as well, which does not aspire to transparency and recognizes texts and cultural objects as mediation (Marrero-Guillamón 2008).

It allowed us to explore the possibilities and limitations of introducing the DIY philosophy in an academic culture. The analyzed information showed the rigidity of institutional times, spaces and the discipline-based curricula. Yet it also demonstrated some institutional fissures through which a refreshing, demanding and challenging teaching and learning culture could be inoculated.

## The Hard Limits of Institutional Knowledge

The analysis of the prescribed curricula of the five aforementioned degrees of the University of Barcelona revealed the fragmented and compartmentalized nature of a highly regulated notion of knowledge (see Table No. 1 as an example) and, in consequence, times and spaces.

In this context, the possibility of developing transdisciplinary, inquiry-based projects had to deal with the hard limits of the subjects. However, as reflected by the experiences of students and teaching staff and the voices collected through the process, we were able to find some room for exploring the educational benefits of DIY culture.

## The Timid Change of Academic Culture

This section reflects the views of the students and the academic staff, collected during different moments and with different methods – but especially during the focus groups. The selected topics related the strengths, challenges and weaknesses of the implementation of DIYLabs, the changing attitudes and roles of teaching staff and learners, the technological aspects and the sustainability of the project.

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Specializations:					<b>Basic training</b>		
Physical Education · Musical Education;	Ausical Education;				Compulsory		
Visual Art Education	Visual Art Education · Curricular Deepening;				Optional Subjects (OS)	(OS)	
• School Library Attention to Diversity;	tion to Diversity;				End of Degree Project (FDE)	oject (FDE)	
<ul> <li>reconnologies for Learn</li> <li>Foreign Language.</li> </ul>	technologies for Learning, Communication and Expression; Foreign Language.	Expression;			240 ECTS per term	gree	
1 <sup>st</sup> year		2 <sup>nd</sup> year		3rd year		4 <sup>th</sup> year	
1 <sup>st</sup> term	2 <sup>nd</sup> term	1 <sup>st</sup> term	2 <sup>nd</sup> term	1 <sup>st</sup> term	2 <sup>nd</sup> term	1 <sup>st</sup> term	2 <sup>nd</sup> term
<b>Psychology of Education</b>	ū	Educational	Theory and	Teaching		Teaching	
in Primary Education		chool	Practice of	Mathematics I		Mathematics II	Teaching
12 ECT		Organisation 6 ECT	6 ECT	6 ECT		6 ECT	Fracticum III
Educational Processes Planning, J	Planning, Design	Learning and	Teaching of	Teaching of		Planning	9 ECT
aching Practice nary Education	and Assessment of <i>leaching</i> Learning and Teaching <i>Sciences</i>	Natural	Communication Skills	Children and Youth Literature		Teaching in the Area of Language	
6 ECT	6 ECT	6 ECT		6 ECT		6 ECT	
			6 ECT				OS
Castilian Language for Teaching	Tutorial Action: Relationships between	Physical Education Reasoning and in Primary Mathematical		Didactics of History	Teaching Practicum II	Research and Innovation in	6 ECT
)	School, Family and		Activity in Primary	<u> </u>	<i>30 ECT</i>	the Educational	
6 ECT	6 ECT	6 ECT	6 ECT	6 ECT	-	6 ECT	SO
	English Language for	Visual Art Education Didactics of	Didactics of	Musical			2
Education: Social,	Teaching	in Primary	Geography	Expression in		SO	9 ECT
Educational Change and Multiculturalism				Frimary			
6 ECT	6 ECT	6 ECT	6 ECT	$\delta ECT$		6 ECT	
Catalan Language for Introduction to the	Introduction to the	Teaching Practicum Didactics of	Didactics of	Introduction to the			
Teaching	Teaching of Language	Ι	rgy and	Teaching of English		OS	EDP
	and Literature		ion	Language			
6 ECT		6 ECT	6 ECT	6 ECT		6 ECT	6 ECT

Table No. 1. Teacher of Primary Education curriculum at the University of Barcelona.

\* European Credit Transfer and Accumulation System (ECTS).

### Students

For students, the strengths/challenges of implementing DIYLabs were related to the possibility of establishing connections and transfers between different disciplines and fields of thought. Of integrating learning processes, reflecting on them, representing and sharing them. Of developing a method, a way of doing.

For me, it was a double challenge, because I opened many possibilities, many more than if the teacher had told me "do so." All these possibilities simultaneously become responsibility, because you have to bring them into play or connect different knowledge, different strategies, and you realize that a very large, a very large range of possibilities opens (Student 3, focus group, March 2016).

They also pointed out to the possibility of combining different competencies: analytical, observational, planning and being able to feel integrated, recognized and motivated. Of raising self-awareness, not feeling constrained by something imposed. Of increasing the autonomy of autonomous people. Of enhancing participation and meaningful learning, encouraging creativity and making people aware of their potential. They referred to the feeling of openness, freedom, responsibility and self-regulation of learning. While being aware, as we also observed, of the need for the teaching faculty of supporting more intensively the less autonomous students.

The weaknesses/difficulties were in (1) the willingness and initial attitude of students: "Here is one of the weaknesses I see in this kind of project, that people are ready or not for this type of intrinsic thinking and for doing it the way it is ex-

pected" (Student 5, focus group, March 2016). In (2) the difficulty of accompanying the process of change: "We are used to a given way of doing things, and change suddenly creates so much discomfort, and that is a problem for the group as it affects the whole group" (Student 6, focus group, March 2016\_. Also, in (3) the stiff times: "There is a problem of adapting with the times imposed by the faculty, as this completely breaks the learning space for me in a very decisive a way" (Student 6, focus group, March 2016).

strengths/challenges The students pointed out in relation to attitudes and roles were related to the struggle for transforming teaching staff and students' positions. Teaching staff seemed to find difficult moving from being an information transmitter to supporting and encouraging students' learning processes. For the students, it was also hard to move from being information receivers to meaning creators and being responsible for their learning processes. This situation had upset the cognitive and emotional dimensions of the students and the teaching staff by increasing the need of transforming the passive role of students into an active and participatory one. "I was struck as classmates lived with anxiety, disorientation; namely, they did not have a guide, had no tools, they were living with anguish" (Student 6, focus group, March 2016). But it allowed students to question the limits of learning: "We start from the notion that creativity is innate and actually is an ability we have to develop" (Student 63, focus group, March 2016). And, at the same time, it represented a huge challenge for assessment: "Everyone sets their own goal, the starting point and the point you

want to get. I do not know to what extent the proposed assessments with a common objective will promote student learning, as everyone goes at their own pace" (Student 6, focus group, March 2016).

In relation to technology, for students, the strengths/challenges had to do with the possibility of improving and developing information handling and digital competence; also, it had to do with using, exploring and discovering different digital applications: "I used a different program, Scrap Video. For me, it was new program, but I made the decision to leave Moviemaker and learn to use this program for myself" (Student 6, focus group, March 2016). It was also related with certain inevitable weaknesses/difficulties, such as the lack of time: "Time is important [...] new goals arise during the process [...] it is what caused me more motivation, but also [it] makes that something can get out of hand" (Student 1, focus group, March 2016).

The sustainability of the projects, once the aid is finished, is fundamental, taking into account that one of its main aims was to transform institutional cultures. In this regard, students felt we were at a promising moment to guarantee the consolidation of DIY culture at the University of Barcelona: "We are in a propitious time to introduce innovative student-centered perspectives. I think, we are in a very favourable moment [...] [it is] very sweet to incorporate such philosophies. We are in a very much maker culture [...] [to] do your things, personalize yourself" (Student 1, focus group, March 2016). Nevertheless, the students recognized that DIY culture needs an accurate methodological and technological preparation for the teaching staff and possible overwork or extra dedication to teaching should be taken into account:

There's a problem, the problem of where the boundary is. From the idea of "do-ityourself" so that the teacher does not have to teach, to the idea of "do-it-yourself" with twice the workload for the teacher. Because it is not a common goal for all but, as it was in our case, were fifty videos of people who have learned at a different rate, which has been involved in very different ways. For me it means a much bigger workload and it requires more perseverance on the part of the teacher (Student 6, focus group, March 2016).

For them, the greatest difficulty laid in the need of implementing DIY culture in the maximum number of subjects: "You take the risk of falling into meaninglessness, if only it is implanted in a subject and does not have continuity" (Student 5, focus group, March 2016).

In relation to the possible conflicts between the institutional culture of the University of Barcelona and the learning culture embedded in the DIYLabs, students pointed out as strengths/challenges the proposal of assessing the processes, not just the results of learning. The selfassessment practices: "Ours was more a process of self-evaluation from concepts discussed in class and on which we work [...] from philosophical references and you could even relate to video, literature or whatever" (Student 5, focus group, March 2016). The possibility of setting their own learning goals was mentioned as well. They also referred to the challenge and the difficulty of turning a personal learning process into a numerical grade: "I think the problem of DIYLabs is the assessment, how [one] is evaluated, since you cannot do it with a number, it is a personal process. No one can be compared to a number within a marked scale, because it has no sense" (Student 5, focus group, March 2016). The expressed opinions were also linked to the difficulty of changing beliefs about the role of evaluation: "In the rating system, the most important thing is the learning process, but the current education systems emphasize success [...] and success involves numerical grades – to get a *ten* – and this makes [it] a series of values that hurt the same learning process (Student 1, focus group, March 2016).

Students were also concerned with the risk that the university loses its role of intellectual reference. For them, the challenge was to consolidate and make explicit new forms of legitimizing knowledge in the digital age.

A person in front a video camera can get up to 6 000 Euros per month. You have found the key to the prestige [...] for me, one of the dangers is to make sure that everything is valid and that there is nothing set [...] The university is a place of mental content, theoretical content that we need to learn (Student 1, focus group, March 2016).

They also referred to the positive influences of their experience regarding the offered opportunity of sharing the process outside the University, and not only in the DIYLabHub: "We share it because we went to a conference in Valencia in June and will go to a conference in Helsinki" (Student 6, focus group, March 2016). Expressed was the possibility of questioning themselves as future teachers and creating interest groups that would continue working:

My research group has continued meeting out of the class. Once a week or once every two weeks we meet just to discuss about the project, about something that has emerged, sometimes that has happened to us... that is, it has created a kind of link that to me does help me to continue (Student 1, focus group, March 2016).

As a final thought, we collect the contribution of a Teacher of Primary Education degree student, who set out, thinking of his own professional future, that the key question, the fundamental challenge lies in the need for teachers to rethink their teaching identity, their understanding of their role in teaching and learning. He considered the importance of moving from the position of knowing everything to the position of somebody ready to learn while teaching:

The teacher has to have his pride, but he can swallow it at any given time. For example, if you know more about this program [...] video editing, and I know less, I can make you explain it to the rest of the class [...] and there is nothing wrong with that, because you learn from all [...] The only thing is that sometimes swallowing this pride it is not easy, especially for people who are deeply rooted to higher education (Student 1, focus group, March 2016).

## **Teaching Staff**

For the teaching staff, the strengths/challenges of implementing DIYLabs were related to the possibility of connecting activities between subjects, generating topics from subjects but being guided by personal interest, focusing more on learning experiences as processes than on outcomes, promoting authorship and collaborative work, ensuring consistency with the approach of the subject, sharing the processes beyond the classroom, promoting maker and shar-

ing cultures. They enjoyed the feeling of having implemented successful teaching and learning experiences and the creation of DIY digital visual objects of acceptably quality, reflecting what students have learnt by themselves in their courses. They found that the students were more motivated, and, in some occasions, the language of DIY digital visual objects connected more with other students than teaching staff explanations. The implementation of the DIYLabs allowed them to promote other ways of learning, approaching students to theoretical issues and reaffirming, deepening and developing various skills, including digital competence. It also facilitated the teacherstudent relationship, promoted student autonomy and increased the motivation of the students and the teaching staff.

However, thev experienced and glimpsed at weaknesses and difficulties, such as the difficulty for students and themselves to understand the DIY culture, not having (themselves and students) a clear notion of where we were headed. As mentioned by students, the assessment faced teaching staff woth hard situations and decisions, for instance, regarding the voluntariness or non-voluntariness of some processes and results (especially regarding the decision to share the DIY digital visual objects in the DIYLabHub or not). As discussed earlier, the rigidity of the curricula and the teaching plans made it difficult to fit the proposed features of the DIY culture in some subjects and it was practically impossible to develop transcurricular projects. It was also difficult for some students to connect inside and outside the university learning experiences.

Regarding the needed attitudes and roles, the teaching staff referred to certain

strengths/challenges, such as the feeling of being lost, by the prominence given to the student. Nevertheless, at the end, it was not a weakness, as all students achieved the proposed academic goals. The way to represent knowledge had changed and DIYLab digital visual objects connected more with student interests. The different forms of production were complementary. The initial doubts and resistance evolved into the ultimate satisfaction and positive experiences throughout the project. The teaching staff saw reinforced their role as permanent learners.

In relation to technological aspects, they also spoke about strengths/challenges in these terms. Innovation must be permanent. The use of digital technologies was revealed as fundamental. A digital platform helped to organize the processes, facilitating the implementation of DIYLabs. Being able to choose the technological tools, students knew or wanted to learn - it was a big success and new features in applications were discovered. Students had great potential in the digital competence; some of them had it more developed than the teaching staff as they knew digital applications more. However, the current trend was that the digital divide did not increase, and mutual and continued learning occurred between teaching staff and students. Finally, ethical questions about the use of resources were raised.

In the case of teaching staff, the strengths/ challenges, the weaknesses and difficulties, in relation to the sustainability of DIY culture at the university, were quite entangled. DIYLabs could be applied in other subjects once the project was completed. However, this means being ready to face significant challenges, such as the need to strengthen teaching teams, the components of which should be ready for addressing such challenges as deeply reconsidering the meaning and purpose of the assessment as well as dealing with the cognitive and emotional change. Another big challenge is related to the (im)possibility of going beyond the classroom. DIYLab is connected to the notion of a competence-based university curriculum and this requires transversality - it is important for it not to be an isolated experience. There also are pending topics in need of further analysis, such as how to assess student learning processes and the results of such processes, how to explore non-visual variants of DIY objects, how to broaden and complement perspectives and increase the theoretical development

All the teaching staff involved in the project very positively evalued their participation and its contribution to the improvement of higher education. However, the working conditions (many of them with part-time contracts), the traditional teaching culture (based on teacher isolation) and the curricula (with factual, declarative and fragmented notions of knowledge, times and spaces), made it extremely difficult to promote such teaching and learning cultures as DIY.

### Conclusion

We tried to bring DIY culture to an institution, a university that has a long-standing institutional culture of teaching and learning. And the ethnographic gaze of a participatory action study (Tacchi, Slater, Hearn 2003) allowed us to highlight not only the inevitable clashes between these two cultures but the possibilities of transformation as well. In a culture characterized by a prevalent disciplinary-based vision of knowledge resulting into fragmented and compartmentalized curricula, time and spaces and a balkanized teaching culture (Hargreaves 1994), DIYLabs had to be mostly implemented inside subjects. On the other hand, considering that some subjects had several groups with teachers who can work quite isolated from each other, we had very little room to deal with organizational aspects. The detected needs to improve the organizational dimensions of the project were: (a) working in smaller groups (it is difficult to implement DIY philosophy with 60 or more students); (b) inviting more teachers to join in the adventure, making possible more transversal implementations: (c) including these issues in all institutional instances that deal with curriculum matters (coordination meetings, boards of studies etc.).

Finally, the University of Barcelona, as much all universities in regards to teaching, seems more concerned with preserving academics' status quo and transmitting a factual and declarative notion of knowledge anchored in the past (Debray 2001) than with inventing and creating the present and the future. So, we had to deal with not only the compartmentalized and fragmented notions of knowledge, time and space but also with precarious working conditions. For this reason, we note, once again, the enormous challenge and excitement involved when trying to implement DIY culture, a self-managed, self-pace approach that is focused on the interests of the people in such a traditional structure.

From this multifaceted journey through the different actions of the DIYLab project, a fundamental question emerges: will DIYLab culture be able to change The University or will The University be the one that shall change DIY culture?

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#### REFERENCES

Banks, M. (2001). Visual Methods in Social Research. London: SAGE Publications.

Banks, J. A., Au, K. H., Ball, A. F., Bell, P., Gordon, E. W., Gutiérrez, K. et al. (2007). *Learning in and out of school in diverse environments. life long, life-wide, life-deep.* The LIFE Center for Multicultural Education. Retrieved May 5, 2008, from: http:// www.ibparticipation. org/pdf/LearningInDiverseEnvironments.pdf.

Barkley, E. F., Cross, K. P., Major C.H. (2004). Collaborative learning techniques: a handbook for college faculty. San Francisco: Jossey-Bass.

Berleur, J. (Ed.) (1990). *The Information society: evolving landscapes*. New York: Springer-Verlag.

Buckingham, D. (2007). *Beyond Technology: Children's Learning in the Age of Digital Culture.* Cambridge: Polity Press.

Collins, A., Halverson, R. (2009). *Rethinking Education in the Age of Technology. The Digital Revolution of Schooling in America*. New York: Teachers' College Press.

Debray, R. (2001). *Introducción a la mediología*. Barcelona: Paidós.

Eisenberg, M., Buechley, L. (2008). Pervasive Fabrication: Making Construction Ubiquitous in Education. *Journal of Software*, Vol. 3(4), p. 62 – 68.

Foucault, M. (1994). *Dits et ecrits. Tomo III*. París: Gallimard.

García, C., Valdivia, A. (2014). Media Prosumers. Participatory Culture of Audiences and Media Responsibility. *Comunicar*, Vol. 43, p. 10–13. Retrieved from: http://dx.doi.org/10.3916/C43-2014-a2 Visual and Culture Executive Agency – 543177-LLP-1-2013-1-ES-KA3MP.

ESBRINA – Contemporary Subjectivities, Visualities and Educational Environments (2014SGR 0632) http://esbrina.eu

REUNI+D – University Network for Educational Research and Innovation. Social Changes and Challenges to Education the Digital Age. (MINECO. EDU2015-68718-REDT): http://reunid.eu

Gilster, P. (1997). *Digital literacy*. New York: Wiley.

Guzzetti, B. J., Elliott, K. and Welsch, D. (2010). DIY Media in the Classroom: New Literacies Across Content Areas. New York: Teachers' College Press.

Halfacree, K. (2004). 'I Could Only do Wrong'. Academic Research and DIY Culture. In D. Fuller; D. Kitchin (Eds.), *Radical Theory/critical Praxis: Making a Difference Beyond the Academy* (pp. 68– 78). Victoria, British Columbia: Praxis Press.

Hargreaves, A. (1994). Changing Teachers, Changing Times: Teachers' Work and Culture in the Postmodern Age. New York: Teachers College Press.

Hargreaves, A., Shirley, D. (2009). *The fourth way*. *The Inspiring Future for Educational Change*. Thousand Oaks, CA: Corwin. doi: 10.4135/9781452219523

Hernández-Hernández, F. (2015). Promoting Visual Culture Art Education Learning Experiences as a Pedagogical Event. In M. Kallio-Tavin and J. Pullinen (Eds), *Conversations on Finish Art Education* (pp. 188-201). Helsinki: Aalto University.

Hernández-Hernández, F. and Sancho-Gil, J. M. (Eds.) (2016). La perspectiva DIY en la universidad: *jhazlo tú mismo y en colaboración!* Barcelona: Octaedro.

Ito, M., Baumer, S., Bittanti, M., Boyd, D. Cody, R., Herr-Stephenson, B., Horst, H. A., Lange, P. G., Mahendran, D., Martínez, K. Z., Pascoe, C. J., Perkel, D., Robinson, L., Sims, C., Tripp, L. (2010). *Hanging Out, Messing Around, and Geeking Out: Kids Living and Learning with New Media.* Cambridge, MA: MIT Press. Kafai, Y. and Peppler, K. (2011). Youth, Technology, and DIY: Developing Participatory Competencies in Creative Media Production. *Review of Research in Education*, Vol. 35, p. 89–119. DOI: 10.3102/0091732X10383211

Kamberelis, G., Dimitriadis, G. (2013). Focus Groups: from Structured Interviews to Collective Conversations. Abingdon, Oxon; New York: Routledge.

Kamenetz, A. (2010). *DIY U: Edupunks, edupreneurs, and the coming transformation of higher education.* White River Junction, VT: Chelsea Green Pub.

Knobel, M. and Lankshear, C. (eds.) (2010). *DIY Media: Creating, Sharing and Learning with New Technologies.* New York: Peter Lang Publishing.

Lau, J. Y. F. (2011). An introduction to critical thinking and creativity: think more, think better. Hoboken, N.J.: Wiley.

Laur, D. (2013). Authentic Learning Experiences: A Real-World Approach to Project-Based Learning. New York: Routledge.

Maaß, K., Artigue, M. (2013), Implementation of inquiry-based learning in day-to-day teaching: a synthesis. ZDM. Vol. 45(6), p. 779–795.

Marrero-Guillamón, I. (2008). Luces y sombras. El compromiso en la etnografía. *Revista Colombiana de Antropología*, Vol. 44(1), p. 95–122.

McFarlane. A. (2015). Authentic Learning for the Digital Generation: Realising the Potential of Technology in the Classroom. Milton Park, Abingdon, Oxon; New York, NY: Routledge.

McKay, G. (1998). DIY Culture: Notes Towards an Intro. In G. McKay (Ed.), *DIY Culture: Party and Protest in Nineties Britain* (1–53). London: Verso.

Pahomov, L. (2014). *Authentic learning in the digital age: engaging students through inquiry*. Alexandria, Virginia: ASCD.

Pink, S. (2011). *Doing Visual Ethnography*; SAGE Publications.

Reason, P. and Bradbury, H. (2001). *Handbook* of action research. Participative inquiry and practice. London: Sage.

Sancho, J. M. (2010). Digital Technologies and

Educational Change. In A. Hargreaves, A. Lieberman, M. Fullan and D. Hopkins (Eds.), *Second International Handbook of Educational Change* (pp. 433–444). Springer International Handbooks of Education.

Sancho, J. M., Alonso, C. (Eds.). (2012). La fugacidad de las políticas, la inercia de las practicas. La educación y las tecnologías de la información y la comunicación. Barcelona: Ediciones Octaedro.

Sancho-Gil, J. M. and Padilla-Petry, P. (2016). Promoting digital competence in secondary education: are schools there? Insights from a case study. *Journal of New Approaches in Educational Research*, Vol. 5(1), p. 57–63. DOI: 10.7821/ naer.2016.1.157.

Selwyn, N.; Husen, O. (2010). The Educational Benefits of Technological Competence: an Investigation of Students' Perceptions. *Evaluation & Research in Education,* Vo. 23(2), p. 137–141. DOI: 10.1080/09500790.2010.483515.

Selwyn, N. (2016). *Is Technology Good for Education?* Cambridge, UK: Polity Press.

Spencer, A. (2005). *DIY: The Rise of Lo-fi Culture*. London, England: Marion Boyars.

Tacchi, J. A., Slater, D., Hearn, G. (2003). *Ethnographic Action Research: A User's Handbook*. New Delhi, India: UNESCO.

Thomas, T., Brown, J. S. (2011). A New Culture of Learning: Cultivating the Imagination for a World of Constant Change. Lexington, Ky.: CreateSpace?

Tyack, D. y Tobin, W. (1994). The 'Grammar' of schooling: Why has it been so hard to change? *American Educational Research Journal*, Vol. 31(3), p. 453–480.

Viveiros de Castro, E. (2010). *Metafísicas caníbales: Líneas de antropología postestructural*. Buenos Aires-Madrid: Katz.

Williams, L., Cernochova, M. (2013, july). Literacy from Scratch. Paper presented at WCCE 2013. 10th World Congress of Computers in Education. Torun, Poland. Retrieved June 12<sup>th</sup>, 2014, from: http://www.di.unito.it/~bono/Didattica/aa1314/ InformaticaSciEduc/Lezioni/WCCE\_2013\_Lawrence\_paper.pdf.

#### INSAIDERIŲ TIRIAMAS SAVO AKADEMINĖS KULTŪROS SUSIKAUSTYMAS (SĄSTINGIS) IR LANKSTUMAS: BARSELONOS UNIVERSITETO ATVEJIS

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#### Santrauka

Straipsnyie aptariama, kaip siekis rasti prasmingesniu dėstymo ir mokymosi būdų aukštajame moksle paskatino atsižvelgti į šiuolaikines žinių ir mokymosi sampratas, susijusias su jaunimo vertybėmis, pvz., DIY kultūra (Spencer, 2005). Vykdant Europos projekta "DIYLab - Do It Yourself in Education: Expanding Digital Competence to Foster Student Agency and Collaborative Learning" (...Pasidarvk pats edukacijoje: skaitmeninių kompetencijų plėtojimas skatinant studentų agentiškumą ir mokymasi bendradarbiaujant"; http://diylab.eu tirta, kas nutinka, kai insaiderių grupė analizuoja savo pačių akademinę kultūrą, ir kaip tai susiję su etnografinio tyrimo ribomis ir galimybemis edukologijoje. Remdamiesi Viveiros de Castro (2010), nagrinėjome savo universitetinės kultūros susikaustyma (sąstingi) ir lankstumą, kurie pasireiškė, stengiantis įdiegti už institucijos ribu atsiradusią ir išsivysčiusią mokymosi bei dalijimosi kultūrą.

Precedento neturinti skaitmeninių technologijų plėtra skatina gilius socialinius, kultūrinius ir ekonominius pokyčius bei apima visas gyvenimo ir visuomenės sritis. Šiandien turėtų būti klausiama ne

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apie skaitmeniniu technologiju naudojimo tikslinguma, bet labiau apie tai, kaip, kur ir kokiais edukaciniais tikslais jos turėtų būti naudojamos. Tačiau, kaip matyti iš pastarujų edukacinių pokyčių tyrimų (Hargreaves, Shirley, 2009; Sancho, Alonso, 2012), reikšmingų permainų galima pasiekti tik įtraukiant mokytojus ir mokinius į sprendimų priėmimo procesus bei itvirtinant naujas praktikas perspektyviausiais institucinės kultūros aspektais ir siejant su mokytojų profesinėmis žiniomis. Turėdami mintyje šį konteksta, į Europos projekta "DIYlab" įtraukėme: (a) pagrindinių DIY kultūros elementų nagrinėjima ir (b) etnografinės pakraipos (Tacchi, Slater ir Hearn, 2003) dalyvaujančiojo veiklos tyrimo (Reason, Bradbury, 2001) atlikimą. Šiame straipsnyje pristatoma, kaip šis projektas įgyvendinamas Barselonos universitete, nagrinėjamas mūsų akademinės kultūros susikaustymas (sąstingis) ir lankstumas. Išanalizuoti duomenys rodo institucinių laikų ir erdvių nelankstumą, žinių sampratos fragmentiškumą, taip pat institucinius "plyšius", per kuriuos skverbiasi atsinaujinanti, reikli mokymo ir mokymosi kultūra.