

UNIVERSITY TUTORSHIP, STUDENT INCLUSION AND TRAINING STRATEGIES

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Abstract

Education democracy gains depth when knowledge distribution honors the diversity of the individuals involved, who have a right to receive their formation in the public sphere. Education is a human right non-transferrable by the State, which is responsible for guaranteeing its full application to all citizens.

The public university, committed to this unavoidable right, must deploy strategies and policies that generate the right conditions and encourage the construction of inclusive institutions where social individuals become integrated and involved and transform their world.

The sense of change is given by the dynamics of social networks. In a diverse geography, in the cultural framework of augmented reality, they must be re-thought.

In order to address these changes and the ways in which they are presented, it is evident that the process of construction of an inclusive university must identify cultural, pedagogical and institutional practices that contribute to the construction of education organizations that are committed to a more inclusive and fairer society.

"... the need to deepen the processes of democratic transformation many Latin American countries are undergoing at the moment places the public debate on the social function of our universities in the political agenda, contrasting with educational models which are diametrically opposite to them and where the discussion about the nature of the right to education is more complex and, at times, diffuse."[1]

The role of the Other opens the pores of university through "new" recognitions and contributions where extension is a fundamental channel for recognizing otherness and integrate it into the university[2].

This paper deals with institutional strategies, that integrate individuals into university through concrete actions that favor inclusion and welcome them [3] with their particular problematic to interpellate the institution as a whole.

The Computer Science school of the UNLP (National University of La Plata) works with a tutorship program for students with disabilities, integrating collaborative work among teachers, students and tutors which plants the seed of an experience that includes and forces us to rethink the sense of formation and the passage through public university.

Keywords: Higher education, Inclusion, Disability, Public Policy

1 INTRODUCTION

Although in other occasions we have presented deeper reflections with a wider scope than the ones that serve the purpose of this presentation, it is important to point out that contextualization is constitutive and provides the conceptual framework for our thought.

In general terms and as a way to introduce the topic of this paper, we see Latin America, and specifically Argentina, as traversing multiple transformations that affect society and evidence the recovery of public education, where educational inclusion is an inescapable right [4].

This process of democratic recovery can be seen in public education policies and strategies where education is considered a personal and social right, i.e., as a human right.

For higher education, the challenge is to regain its status as public and egalitarian, to recover its link with the processes of social mobility as well as its capability to channel collective imagination and social integration, strengthening the bridges to knowledge for all citizens beyond their physical, socio-economical and cultural conditions, thus integrating otherwise excluded individuals. In Argentina, a

different scenario is configured in the university community, where the spirit of these norms and acts begins to be implemented in a series of state policies and inclusive strategies¹.

We cannot leave these concepts aside when defining and projecting action strategies within the schools of the University, mainly due to the fact that they give meaning to everyday tasks and the implementation of programs and projects.

This paper attempts to show the institutional inclusion strategies that allow for the integration of new individuals to university life through concrete actions that favor inclusion and equal opportunities to all students [3] with their particular problematics that interpellate the institution as a whole.

2 FIRST CONSIDERATIONS

2.1 On theoretical and conceptual aspects

Thinking transformations in university takes us to a complex task, as there are multiple dimensions to be considered and transformation processes put practices, institutions and conceptualizations into play and under tension [2].

Processes of transformation in university are not linear, and for the purpose of this paper we are interested in focusing on individuals and transformations.

Considering instituting and instituted practices as well as change and innovation processes undergone by the individuals involved allows us to understand but also project and fundamentally construct anew. Understanding institutional processes allows us to understand what is happening and project what is going to happen, to understand institutional porosity, finds its cracks and work on the transformation of social institutions.

Castoridis helps us think about university in terms of instituted and instituting processes and practices. In summary, understanding, on the one hand, what is working and we can see clearly in an institution, its objectivity, what is "instituted", and, on the other hand, its subjective potentiality, what is creative, the possibilities of being, of inventing meaning, a historical and subjective form that did not exist so far, what is "instituting" [5].

Thinking about which pedagogical strategies are established and what individuals materialize them, as well as what spaces are relevant for the emergence of innovative practices that transform reality, that are materialized by "new subjects".

Putting these concepts into action in an educational institution such as the University forces us to think of a pedagogical intervention that does not stay within the classroom, but transcends it, conceiving of a training process given in the ways in which institutions are inhabited by individuals, how they participate in them and actively intervene.

Considering the contributions of E. Remedi ... when we speak of interventions or intervention practices in an educational system we must keep in mind that these are prescriptive social practices, i.e., education operates on prescriptive practices, it operates from prescription and interventions therefore also have a prescriptive nature [6].

Working on practices means working on a complex process, it means working on a double movement, it means understanding that we are operating on instituted and instituting situations.

All interventions or intervention processes, be they in the classroom, at a curricular level, at a school management level, will always work on these two tendencies, on a process that is and a process that remains invisible still. In the center is the intervention. What is instituted responds to the logic of the institution or of the practices themselves, and this logic is recorded in the history of the institution and constructed by the meanings provided by the institution which in turn give identity to the institution.

What is instituting refers to processes in development that will eventually result in new practices which contrapose what is there and what is to come; intervention places itself between them and carves crevices in them by way of forward and backward movements, thus effecting the process of transformation and construction of the instituting.

The gaps, the vacancies, the interstices are the spaces one occupies to work in helping instituting processes take place. These processes that contrapose what is and what can be have as a constituting element the bonds and power relations between individuals, negotiated within educational institutions and through their practices [7].

The individuals involved in them, which give them material status, change. *...not only what is real changes but the ways of changing change, the ways of thinking about change, change, the ways of*

¹ Laws and tutorship and scholarship programs, Ley Nacional de Educación 26.206/06 Ley de Educación Superior 25.573, Programa Nacional de Becas

inhabiting change and the ways in which we place ourselves in what we are traversing, which is unprecedented, change... What changes, changes in the way of thinking, in the way of organizing thinking and in social logics [8].

We wish to address the process of work with tutors and students from the viewpoint of these theoretical considerations, and use a series of interview and reports to present reflections and contributions to training processes of both students and tutors, broadening the scope of institutional transformation processes that account for the construction of inclusive university spaces.

2.2 On accessibility tutorship

As of 2010, the Computer Science School has been working on a special program for Accessibility Tutorship, a branch of the general tutorship program of the Computer Science School². The main goal of this project was to “promote that national universities strengthen institutional, curricular and pedagogical conditions for the improvement of the insertion, promotion and academic performance of first-year students of the Exact and Natural Sciences, Economy and Computer Science.” This framework encouraged the development of tutorship systems, teacher training and activities, equipment, software and bibliography to improve practical training. The school continues to offer the program with funding of its own [9].

The initial concern consisted of early detection of issues among students with disabilities or special needs, tracking, orientation and containment during the first stages of the training process in the first and second year of the Computer Science courses.

This strategy aims at a complex approach where tutors, students and the coordination team work in a fully articulated manner to address issues presented and construct possible pedagogical approaches collaboratively.

Tutors are advanced students of the Computer Science programs and keep records of classes, interviews with the students, observations and reports on situations detected during the classes, be they administrative, pedagogical or infrastructural. Information gathered is sent to the multiple areas involved for analysis and treatment. This is a task of the coordination team, in charge of interviewing students and holding regular meetings with tutors and teachers.

As a way of estimating the amount of the work involved in the project, we can say that a survey done in 2014 showed there were 586 first-year students in the program. Tutors kept 87 records of theoretical and practical classes. For the second year, the tutors worked with 5 subjects and addressed the cases of 389 students with a total of 111 records on 99 practical classes.

Focusing on inclusion and institutional accessibility for individuals that for diverse reasons find it difficult to study in university, 2012 saw the implementation of a pedagogical space to work with specific accessibility tutors that treat students with some form of disability or special need individually. This meant a redefinition of the coordination strategy and the distribution of the 40 general tutors, making 18 dedicated to first year, 16 to second year and 7 to accessibility work, oriented to the attention of over ten students with disabilities in the Computer Science School.

The work of the tutors was adapted for these special situations, where logging, observations and support and monitoring made each individual more specific.

Accessibility tutorships began to have a particular character given that the tutors began to develop academic work. This is due to the fact that in all cases of students with disabilities, traditional classes were not enough to assimilate all the concepts. They needed more time to understand concepts specific to the discipline with the different types of reasoning and logical structures necessary to face mathematical, engineering and programming problem solving.

This resulted in the development of a profile for the accessibility tutor, in this sense we worked in a special way with the tutors training and guiding them to fulfill the role of “academic tutor”, according to the discipline and the type of disability.

In this way, the tutorship gave specialized academic support that brought the students with disabilities closer to the concepts and disciplinary contents in the right pace for them to learn and understand the contents.

It is fundamental in these cases and for each individual to establish the means, strategies and methods necessary to make disciplinary contents available for these individuals.

This paper focuses on showing the process of work with the tutors and the students through a series of interviews and reports that show the reflections and contributions to training processes and make us

² The tutorship program originated from the PACENI program, launched by the Ministry of Education of the Nation, which took place between 2009 and 2011.

reflect on the processes of institutional transformation that aid in the construction of inclusive university spaces.

3 ACCESSIBILITY TUTORS

3.1 Tutors, “new individuals” and new practices

The tutors are young Computer Science students traversing their course of studies and who participate voluntarily in the Accessibility Tutorship Program.

This group of students works daily with students with disabilities, performing academic tutorship activities as well as providing emotional support, producing materials and researching computing tools that may be valuable in facilitating access to knowledge and training.

Along the process, they have become great articulators between the coordinating team and the students involved in the program. From this role, they provide information of pedagogical interest that allows monitoring students and designing materials and contributing suggestions for pedagogical adjustment to undergraduate teaching.

Through reports and records in the form of logs, tutors communicate their reflections and balances regarding the tasks of 2014. This section will focus on their perspectives and make an attempt at imagining the impact of the tutoring activity on their own training processes and their subjectivities:

Francisco: ... it was a really nice experience, most of all a challenge, since I had to learn to explain topics I knew in a very different way so the students could understand them. At first it was difficult because I had to discover the way in which every one of them studied, how they navigated the school, what they found hard and what they found easy, what concepts they had acquired in previous years and other factors that influence how you develop a task like this.

... they saw me as a teacher, or at least that was what I felt, as the year went by, the relationship grew closer, we were more like classmates than students and teacher.

The work... explaining the practical applications to be solved and providing the theoretical tools that justified this solution. At first the idea was to do it the other way around, teaching the theory and then applying it, but the time we had was not enough, the subjects were moving too fast and we kept falling behind. As the year progressed I also realized they understood better if they saw the exercises solved from the start. All this demanded that I revised all the topics first to think of the best ways to explain them for them to understand easily.

One problem I had to deal with was that some of the students were not constant in their attendance, and sometimes forgot topics we had already covered, which is normal in any student but made it difficult for us to move on with topics. Another smaller problem was that sometimes we had many students and Fermin and I had problems keeping up with explaining everything to everyone. In these cases we took turns to explain to everyone and indicated exercises to solve while we helped another student. Despite these inconvenients, the task was manageable and pleasant.

The development of this activity was nourishing to me, as I had never had the chance to work like this, with people with limitations or disadvantages. I think it is a very important task since it allows them to feel included in a society that mostly excludes them. I think it is important that this project continues and aspects that have yet to be covered are addressed so we can seek inclusion and equality for all the people.

The words of Francisco, an accessibility tutor, bring up multiple relevant aspects. On the one hand, the tension between instituted and instituting practices visualized when he states that the speed of the courses made him switch the order of the explanations and seek alternative ways of explaining.

We would also like to point out the way in which a new subjectivity is constructed in the passage from student-teacher to classmate-tutor, this process of change.

On the other hand, the process of didactical-methodological construction evidenced in the search for an improved method for teaching and explaining topics to classmates, as well as the unfolding implied in conceptualizing a topic in order to explaining it.

Fermin:....a beautiful experience in my life that I hope will continue. From the outside, you always imagine this type of people with disabilities must receive help and support to be included in university life and fulfill their goals, but when you are inside and you are a part of the helping group, you realise just how hard these guys work and that they want to learn just as hard or harder than those without a disability.

About communication, I am surprised how easy it was, mostly because of Vanesa, the interpreter, always with the best disposition and willingness, and the commitment of the guys. In moments in which we were divided and Vanesa was with one of the groups, I managed to communicate perfectly with the guys, through signs I learned over time, and with written language, so I do not think that communication was a problem.

To finish, I would like to say that it was a beautiful experience for me, in which I hope to go on participating and contributing a grain of sand for these people with these disabilities to not feel alone and excluded, but see that with effort, willingness commitment anything is possible.

These reflections articulated with the theoretical framework, on the one hand evidence the tension between instituting and instituted practices, and the processes of construction of the new, of the sense of changes of the ways in which individuals involved, in this case tutors, deploy new methods to establish and construct links that allow for a pedagogical process that is different from the established one but that contributes with the process of formal training proposed by the institution and the horizon of these individuals [10].

It also allows us to reflect on the processes of transformation undergone by individuals, and on what happens to a student-tutor that goes through the experience of tutoring a classmate. It shows that a student that dares go through this experience and the search for solutions to the challenges it presents, does not go through it alone but together with the interpreter and their own tutor in coordination. The interview shows the change and transformation processes of people in their individuality, we would dare say in their collective potential.

In other writings we have presented the difficulties and the barriers that appear as clear obstacles for the modification of the practices, it is really interesting to point out from the interview how Fermin was surprised about the topic of communication, with his perspective from before and from after the experience. Recognizing how his subjectivity is opened and transforms the way in which he speaks and thinks.

These passages interpellate us and make us wonder: where is the barrier? What kind of barrier is there? On the other hand, are processes interpellating institutions such that they are transformed? Following the analysis of the interviews and taking into account the relevance of the processes of tutor training we are reminded of the importance of training that contributes tools to know the other and recognise the possibilities of these individuals in this educational space.

....I had two encounters, in one the assistant explained to me the specifics of the disorder and gave me some advice as to how I should approach him. In the first encounter I helped him solve some math problems and we agreed to meet the next day in the library to close some unfinished topics.

Accessibility tutorship approached the work by acknowledging its complexity, which is why the training and awareness instances are tools for the construction and definition of possible action strategies. After working for two years, a tutor says:

...I can now understand a bit better the pace of the life they lead. At first it was a challenge to understand that it was a different experience, until I had my first contact with

them. It is very difficult to keep all of them up to the speed of the courses... it is mainly about understanding them and seeing how they move in other environments... understanding their environment makes it possible for me to go on and fight for all the opportunities they are provided.

Recognising the other, committing with the process of training that is carried out, locates the tutor in its teaching potential, in the complex look of a pedagogical process of thinking about the content, the context and the diversity of the individuals with the goal of making training a disciplinary knowledge.

This narration, like the ones before, shows the process of transformation that is possible in the framework of inclusive institutional projects that conceive of public higher education as a right.

The work with the tutors consists of approaching pedagogical training aspects, reflecting on the practices and the articulated work between the tutors and the coordination generates conditions to construct a space to create awareness and project the task as well as finding a space of support for the tutors themselves, acknowledging their possibilities and limitations.

3.2 Awareness, training and collective construction

Pedagogical practices are no simple business. From the pedagogical field, training processes imply continuous revisions of teaching and this requires theoretical frameworks that allow it, as well as the pedagogical reflection spaces necessary to think about teaching a specific discipline.

The teaching methodology at the Computer Science school consists of in-person classes, organized into theoretical and practical classes, which shows an instituted pedagogical didactic structure based on a traditional teaching organization model.

In the accessibility tutorships, thinking teaching and pedagogical devices that attend to diversity and empower training processes is a challenge we are facing. Acknowledging heterogeneity and the dynamic of transformations affecting individuals and institutions is the first step to think about university education as a space for the formation of subjectivities that are recognized, empowered, constructed collectively within the public university committed to the society it is in.

From this perspective and in this non linear process, the proposal of teaching computer science in the UNLP combines formal and non formal aspects and sets an innovative proposal that works with the circumstances, in the crevices of possibility, i.e., tries to open and broaden the porosity of the experiences of academic training.

The proposal of the accessibility tutorships is based on a formal curriculum in which students attend regular classes and from an innovative scaffolding structure formed by work with peer tutors, teachers and strategic monitoring by the accessibility management, accompany the process of academic formation.

To give structure to this scaffold, we train the tutors through the pedagogical methodology of a reflection workshop.

Group encounters deal with contents related with:

- Theoretical aspects around didactic and communicational pedagogical content, to orient tutorial work, analysis of the activities performed and identification of conflict and vulnerability situations.
- Attendance and class logging in practical applications commissions, our own unified logging model was created to structure the systematization and information gathering.
- Analysis of student attendance, class participation and questions, to talk with the teachers and articulate strategies of improvement of practical classes with the Department of Pedagogy.
- Adaptation and production of adequate didactic materials such as:

Didactic material in Estructure, Data and Algorithm course foam and tracing paper to create relief, videos accessible in audio, text and image with specific explanations and development of exercises including tactics, reasonings, solution alternatives (in the case of Maximiliano, a blind student).

Tutors helped Maximiliano use the versions of the Visual DaVinci programming language, used as an educational resource for introduction to programming, as it presented accessibility problems and the

screen reader was unable to access all its features [11]. The same happened with similaros used as educational material in the Engineering courses.

Regarding the Mathematics courses, the teaching body provides the students with a digital booklet that includes all the topics treated in the course, but graphics and formulas were consistently skipped by the screen reader. To solve this problem, teachers and tutors added verbal intervention, explaining in text and audio all graphs, formulas and drawings illustrating fundamental concepts of the discipline. The teachers sought audiovisual material and educational games to help explain complex concepts seen in class. They also worked on social integration for students with Pervasive Developmental Disorder (PDP) [12].

, helping students become involved in extracurricular activities, such as extension work, computer repair courses and robot programming, among others.

In the case of deaf students, tutors collaborated with interpreters in defining certain concepts that lack specific signs in the Argentine Sign Language [13].

Another one of its tasks was elaborating HTML pages with mathematics content that allow for content relation, with links to definitions, theorems, formulas, resolutions and other contents necessary for the understanding of the topic in question.

These examples show the concrete possibility of thinking of training processes for individuals with disabilities but also impact in the construction of subjectivities and draw lines that allow, like Lewkowicz says, thinking of change and transformations from different viewpoints, that also build future pedagogical practices [8].

Once transformation processes in university are implemented, they begin to show signs of improvement but, at the same time, create new issues that evidence a complex fabric, where we find resistance to dynamic and the sense of change, both in pedagogical practices and in the reactions of the intervening individuals.

Individuals who integrate the academic space and their perspectives traverse the training scene and challenge them by posing their diversity. These changes and the ways in which they are presented are at the very core of the process of construction of a more inclusive university, and show the need to identify cultural, pedagogical and institutional practices that contribute to the construction of educational organizations that are committed to contributing to a fairer, inclusive and participative society.

Maxi (blind) closed his interview as follows....He entered university in 2012. His mother helped him study but his main concern is being independent.

He tells with pride that between the ages of 21 and 23 he began to use the bus by himself.

Regarding his studies he admits that mathematics is the hardest for him, he stops and tells me with pride: - I have a friend in the University of Quilmes who is developing a mathematics software in LaTeX for real time solution and I downloaded a demo, which makes it easier for me to solve the exercises.

...He chose this School because it is the one that works the most on accessibility and he is interested in that, he considers computer science as a discipline has the potential to allow him to become independent, it is an area in which lots of things can be developed for people with disabilities to be more independent.

...In relation to accessibility, he considers that more awareness is necessary, and points out that it is accessibility that allows the idea that all of us have the same rights to be real.

Dardo (deaf) ...He admits that studying is difficult to him but his situation changed a lot when he came to the School and had tutors and interpreters who helped him. From that moment on, he felt that he was going somewhere instead of being stuck in the same place. The main difficulty is that he does not know a lot of the words that are said by the teachers, and in general they talk very fast and he does not always get to lip read.

Luckily, the interpreter is always there to help. He is thankful for his tutor Nataly's patience.

...What he learns at the School is applicable to his work and allows him to keep a job at the Computing division of the Vital Records Office.

He thinks being in the School is beneficial for him and that he would someday like to teach computing in schools for children with disabilities, so that one day they may also reach higher education.

It is important to reflect on the words and thoughts of these students, on how they approached the School – simply for the reason that it is inclusive or tries to be.

4 CONCLUSIONS

As in the beginning, Castoridis's radical imagination...What is radical imagination? In some ways it is a hard core, very difficult to understand (and to accept, as all of Castoridis's thought in general). Castoridis asserts that the human psique, what is human (not only what is human, what lives) has the capacity to imagine. What is imagining? Imagining is developing a representation that does not have a correlation with the rational or with the existing. The most intuitive way of understanding it is to think of imagination as being able to represent unreal, non-existent things that cannot be construed by mathematical procedures. That is imagining!

Imagining is also present in a higher education context. The imagination of an inclusive Computer Science school, shared by more and more people, disabled students, accessibility tutors, some teachers that are sympathetic to these special cases and some encouraging directors.

This paper presents the training and awareness activities done in the framework of the inclusion of disabled students in the UNLP during 2014, taking the perspectives of the different individuals that take part in them. These actions that materialize what is imagined bring with them strengths and tensions that generate resistance but that reconfigure themselves in new ways, and regain strength with other forms of intervention.

The fact that higher education is free and open to all in Argentina must be shown in concrete actions that install in all crevices of the minds of all individuals composing this educational community the notions of inclusion and integration. If not, it will be forgotten, trapped in the imagination of these individuals, superficially settled in mere words.

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