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CHANGES IN THE TEACHING METHODOLOGY AND THE STUDY OF THE ADAPTATION OF STUDENTS TO THE NEW TECHNOLOGY: FROM THE CANVAS METHODOLOGY TO THE ACCENTUATION OF THE FLIPPED METHODOLOGY

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ABSTRACT

The purpose of this article is to highlight two educational notions implemented in CANVAS, an Enriched Electronic Book used in the study of the subject of "Civil Law III: Real Estate and Registration Rights" of the Law Degree, CANVAS, Enriched Electronic Book. (EEB). Firstly, CANVAS makes use of two learning and teaching methodologies: the "Neuronal System", understood as a set of several OARS strategically connected in a "neuronal-like" structure detailed by the teaching staff; and the "Scenario System", which portrays the topics on the subject in a solar system representation. The intended outcome of this first axis is to promote autonomous and multipurpose teaching, study, and self-evaluation. Secondly, these methodologies revalue others such as Flipped Class-Room (FCR) or "flipped class". This methodology, in the current teaching of law subjects, tends to be based mainly on providing videos to students for the preparation of their flipped activities.

CANVAS, through its FCR approach and the Neuronal and Scenario systems, provides a set of connected teaching materials that mitigate feelings such as limited time-wasting or unnecessary effort, found in both teaching staff and students. Indeed, teachers benefit since, by using CANVAS' materials, they only have to guide students in the flipped activities. Thus, they will not always be required to give master classes guided by a single basic book and in a unidirectional way. As far as the students, CANVAS promotes the "flipped class", and establishes and enhances "peer to peer" feedback as well as a "content creator-content receptor" relationship in the creation of electronic educational didactic materials.

KEYWORDS

CANVAS Methodology, Neuronal System, Scenario Methodology, "Flipped-Class-Room" Methodology, Tutorial Methodology, OARs

1. INTRODUCTION

It is essential at current the development of new learning and teaching methodologies in the subject the Professor is responsible for. Two reasons lead to this affirmation: First, the shortage of time granted institutionally for the full explanation of the Program; and second, distance's students' profile: an adult working student who frequently does not have much time to study and/or attend to Associated Centers where face-to-face teaching is used by professors called Tutors.

We start with CANVAS, a pilot developed at the Nacional of Distance Education University (UNED) in 2018 to explore and coordinate the production of an EEB in a law subject "Derechos reales e inmobiliario registral" (Real State and Registry law), which combines the educational resources needed, thus providing a comprehensive, versatile, customized, easy to update and all in one learning and teaching method; thus, the target group is the UNED-students undergoing the Degree of Law.

CANVAS, still under development in other UNED-platform title e-Online[1], has allowed the use of the Flipped methodology in classrooms of distance university's Associated Centers. Currently, the development of new technologies makes the appearance of a more flexible (or blended and/or hybrid methodology) teaching method no longer a desideratum. The unidirectional teaching approach used in Universities does not always

seem to favor student learning. Thus, giving the chance to reverse the usual teaching roles is, at least, worth the shot. CANVAS, along with all of its telematic materials, makes it possible. This is a new experience that supposes a revolution to, at least, Distance University, where tutors do not share the notion that the alumni can collaborate at some point in the teaching of their subjects.

Thus, let's appreciate the insight into this new teaching method that CANVAS gives us with its original structure and methodologies. Let's comprehend the "Flipped" methodology and its byproducts, as well as its influence on CANVAS. And let's open our mind to a new project that posits its faith in the more efficient transmission of concepts and law institutions, which tend to be hard to comprehend.

2. FROM CANVAS METHODOLOY AND SCENARIO METHODOLOGY TO FLIPPED METHODOLOGY

Due to different OARS, the project (CANVAS) uses two methodologies: CANVAS (or neuronal) ethodology and Scenario methodology. These two, permit the experimentation with other methodologies, such as the Flipped Methodology.

Professors need a tool that combines the educational resources needed to provide a comprehensive, versatile, tailored, easy to update, and all-in-one learning and teaching method. The tool for this is CANVAS. Two basic notions inspired this pilot project. Firstly, the need for methodologies that permit a holistic overview of the subject in a short time. And secondly, the current development of EEBs. EEBs, contrarily to those resources that simply allow browsing, note-taking, and consultation, permits the integration of OAR disjointed multimedia resources (such as videos, radio conferences, links).

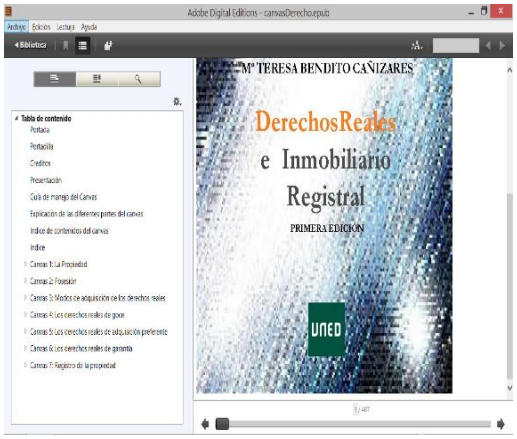

Figure 1. CANVAS e-pub frontpage

Two different, but complementary, methodologies are brought together under the heading "CANVAS": CANVAS (or Neuronal) methodology, and Scenario methodology. CANVAS' structure might seem obvious, but the use of both Neuronal and Scenario systems makes it a revolutionary and cohesive tool in the teaching of law subjects.

2.1 CANVAS Methodology: Neuronal System

CANVAS' structure, apparently common, is a didactic learning experience that tries to resemble the brain structure. By this, it is meant that the EEB provides students with "neuronal connections" all over the book itself and external "stimuli" (OARS such as websites, external documents, class video-room, questions…). As in the brain, students start from one "stimuli" or topic. To gain knowledge of this topic, students are able to choose which pathways to follow. For example, student A may go from the summary table to an article, which will lead to a certain case, and student B might start in another section of the topic and explore its own pathway. These two students can reach different degrees of knowledge of the subject of study according to their starting

point (previous experiences, studies, cognitive skills ...), but both will reach the minimum amount of study required to achieve a fruitful evaluation of their knowledge.

The book is made up of seven "Canvasses" (chapters), each divided into four parts. The core of each Canvas is the lecture content itself, displayed in tables. Above this summary table, we find a "tab-like" structure with three tabs. The first one is the Frequently Asked Questions tab (FAQ). This section includes questions and answers concerning the matter developed in the specific Canvas. The FAQ section aims to answer common concerns and issues that students have repeatedly asked professors in forums. The second section is the "¿Qué hemos aprendido?"(What have we learned?) tab (QHA). This module evaluates the newly learned knowledge acquired using didactic, entertaining, and active exercises (v.gr., serious legal games). It's also used as a strategy to facilitate information retainment. Finally, the Various tab (VV) is used as an annex that includes all the articles, jurisprudence, and comments mentioned in the summary section. Likewise, it includes extra information that the student can consult at any time for further understanding.

2.2 Scenario Methodology

"Real State and Registry law" is a complex matter that needs to be taught in an especially short period of time (only one semester). In order to provide students with a comprehensive and graphical overview of the subject, the Scenario methodology was developed. This method represents the Real State and Registry law matters as a Solar system (Figure 2). In this universe, the Sun, or Property (the main right in rem), is surrounded by three planets, the other derived rights in rem. Likewise, the Possession is represented by the moon, which bathes the rest of the planets with its light. Finally, observing most of these elements, is the telescope, the land register, or property registration. This "Solar System of Real State and Registry law" displays a concise and interconnected representation of the subject.

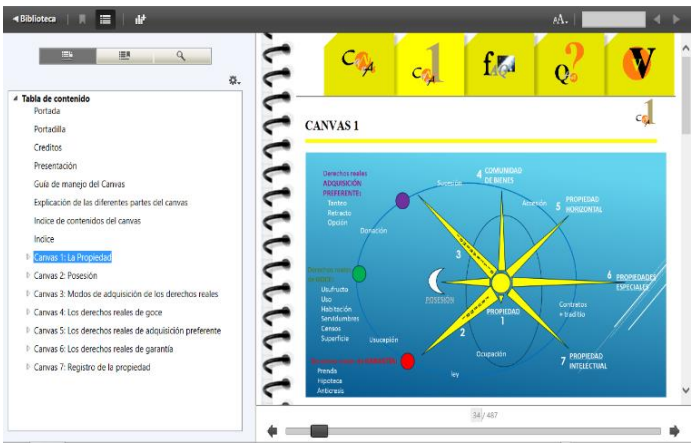

Figure 2. CANVAS chapter starting page showing methodological components

2.3 Benefits of the Methodologies

The merging of both methodologies provides considerable benefits to the learning and teaching experience. We can highlight the following:

1) Individualized or personalized study. The main benefit of CANVAS. Many pathways are built into the Neuronal system by the author. Using these, students decide their **own pathways** way to study, producing a more tailored and autonomous form of study.
2) All-in-one system. Students don't need to use other tools to prepare the subject, apart from the civil code. All information cited (mortgage act, horizontal property law, jurisprudences and other documents) are available at a click. Thus, students save time and money. Importantly, teachers are not perceived as owners of the subject, but facilitators or mediators who make knowledge acquisition plausible for students.

3) Update of the subject. EEBs allow to keep the knowledge fresh and up to date through the update of the book from time to time.
4) Personalized assessment. Like students, professors are able evaluate students in a more personalize way. Instead of using a rigid form of evaluation, the table format allows students to answer questions in exams from different perspectives. The teacher then can understand where these interpretations are coming from.
5) Elaboration of material. Provides the necessary materials to be used by both the student and the teacher or tutor responsible for the subject. This set of materials will be the key to promoting the use of the Flipped methodology.

2.4 Conclusions

An in-depth analysis of our personal experience during the production process of CANVAS leads us to several conclusions. In February 2019, a final report, collecting a list of conclusions, was presented in the form of 5 Guidelines and condense these needs:

- The content must be analysed by a multidisciplinary commission to check the feasibility of the project.
- This multidisciplinary team should be an integrated and interconnected group of heterogeneous professionals: computer developers, designers, accessibility advisors, publishers, etc. These should work together when necessary, and not in a phase-like manner (as usual).
- In our case, ADE is not a suitable or convenient software for producing epubs3. Therefore, institutions should test or research new operative systems to produce this type of didactic materials more efficiently. Currently, UNED has adapted CANVAS into a new platform named e-Online.
- Research over the accessibility of these materials for people with disabilities should be performed.
- There is a need for the development of guidelines and behaviour patterns.
- The urge of determining a balance of cost-benefits of the project and the prices of the EEBs.
- The update schedule is still pending. The tool for professors to independently (without relying on the technical team) update the EEB has not been developed yet.

3. FLIPPED METHODOLOGY ALONGSIDE CANVAS: IT IS THE MOMENT

To allow the constant update of the ebook and the recurring income of material-production, a Research Project "Proyecto de Investigación Docente" (PID) called "*Un discente a otro discente para la transmisión del conocimiento del Derecho o metodología "Flipped" (Flipped Teaching Metodology-FTM)"* has been initiated.

The purpose of the project is the development of telematic materials (audiovisual and / or auditory) for the course, found in CANVAS. In general, online teaching denotes a change from a teacher-centered approach to a student-centered approach. To do so, the project proposes the "Flipped Teaching Methodology" (hereinafter, Flipped learning or FTM) which includes the "Flipping the Class-Room" (FCR) method.

Although the Flipped methodology will be explained more thoroughly in the following chapter, a general view is described below.

1- All the information to be taught is found in CANVAS.
2- As some parts of the subject are difficult, the teacher proposes the "Flipped Teaching".
3- The teacher asks a student to explain to the rest of their classmates, in their own words, a difficult topic. In the distance learning field, the formula must be accompanied by telematic means of communication, such as mini-videos or podcasts.
4- The teacher provides that student with the instructional material necessary. This includes localization of the difficult matter in the CANVAS, determination of articles, jurisprudence, and other resources that the student needs to use in their teaching day. All this information is found on CANVAS. The availability of materials permits agility in adopting the FCR methodology. Thus, professors, who

usually run short on time, do not have to spend time collecting the materials to guide the student, since that material is already found inside CANVAS.

5- The day in which the student has to present the topic, the student undertakes over the role of teacher, and transmits the knowledge by using the telematic means at their disposal (mainly videos and radio broadcasts).
6- The experience is evaluated by collaborators in the Flipped Project, by the author of CANVAS and by the rest of students.
7- If the teaching experience provided by the student is suitable, their audiovisual material would be cited and included in CANVAS. It's important to note that this is a voluntary action and the pupil can decide whether or not the team can use their material in CANVAS.

This provokes that, now, students are teaching students. Besides, the teachers, move away from their usual role and give the opportunity to their students to do so. Thus, each part of the teaching process (educators and students) adopt atypical roles. By "flipping", a suitable learning of the subject is achieved, under the support of the teacher and the design of new didactic materials. This method is about learning from the other side of the "teaching omelet", by putting students in the spotlight and giving them the active role in the teaching process. Indeed, the utility has already been investigated. Several meta-analyses reveal that students in flipped classrooms achieve higher learning outcomes compared to non-flipped classrooms, or when quizzes were added in the flipped classrooms (Van Alten, D., Phielix, C., Janssen, J.& Kester, L., 2019). Nevertheless, the "Flipped" strategy seems to find its limitations over the professors themselves, who see their original methodology break down. Likewise, students suffer from this role-change, which again, poses a limitation to the implementation of FCR.

3.1 Objectives of Flipped Classroom

The general objective of the PID is the approach of knowledge of the subject "Real estate and Registry Law" that is studied in 3rd of the Degree in Law to the students through other students who, playing the role of educators, take the load of the understanding of the concepts, cases and particular problems of each of the lessons that are combined in the program of the subject to other students, to a telematic format (video or audio) in which they are the protagonists.

Including these student-produced didactic materials into CANVAS permits overcoming three main issues: 1) Overcoming the unidirectional, conventional manner of teaching; 2) Reduce teachers' overload, allowing them to save time in the orientation phase of the FCR; and 3) Progress through the program more quickly. The digital revolution here mentioned can offer law educators the opportunity to return to the Langdellian Model and the implementation of the Socratic Method (Schaffin, K.T.).

Professors' concerns about negative evaluations from alumni, which ultimately can affect professors' job promotion, will not be due to their performance as "flipping teachers" per se, but rather based on their inability to evoke feelings of satisfaction towards the new methodology. Academic rewards (extra points for example) are a way to do so.

The set of mini-videos and mini-audios (MVM and MAM, respectively), will serve for the learning of a subject loaded with technicalities that is also under constant review by our legislator. Its use in the virtual course on the platform and outside of it in the Associated Centers by the Tutors is beyond doubt because they will have material that will help them transmit learning with the FTM. Thus, students can make possible the conversion of unidirectional education (from the tutor to the student), in two-way (from the student to the educator and vice versa).

The production of videos and or audios on definitions, basic concepts to remember or review, norm extracts or capital rules in the learning unit, or theories and practical cases, pursues the following objectives:

Facing the student:

1) Understanding those parts of the program that are more difficult due to their technicality or because of their not obvious relationship with other parts of the program or other civil law subjects.

2) The arrival of those students with some degree of visual or hearing disability. For example, MVMs can be done with subtitles.

On the teacher's side, the student's feedback will enable:

1) The discovery of new formulas, methods, etc. to explain the subject proposed by the student-teacher
2) The deepening of those parts of the program that always remained residual due to lack of time
The ideal structuring of scientific knowledge.

3.2 Why have we chosen Mini-Videos Modulares (MVM and MAM)? Because of Analyse of Backgroud and State of the Art

The 10-minute modular videos and audios designed by the teachers for the students are the basis of the Flipped Material used in many educational systems (Schaffin, K.T.) and this is a model of teaching and learning so common practical in EEUU and in particular, in Law field (Upchurch, A. 2013).

"Flipped" Lectures do not have to follow a determined structure, it is not only about the videos. The use of MVMs has been discussed and developed by our teacher-groups, who thought about what format was the appropriate to implement the "Flipped" paradigm. The use of videos involves two things: 1) MVMs imply the implementation of the "Flipped" methodology; 2) MVMs can be, later on, used and incorporated as revised material in both CANVAS and other "Flipped" classrooms. Nevertheless, it is essential that the person in charge of the class who must think about its structure and where to apply it. This person must devise a plan (which includes the production time, technologies to use, collaborators, or partners…). During this preparation period, there should be an emphasis on the acknowledgment that the "Flipped" program requires the management of different technological tools. In CANVAS, for example, we have tried to gather and display all the tools required. In our PID, based on the current state of the scientific-technical knowledge of the Distance University, we have concluded that the production of modular videos is easier because even the Teachers of the Computer Science school of the Distance University are trying to extend the production of mini-videos to other Teachers through MOOCs (Letón, E. 2017); The director of this PIE is in fact as a student of one of them called Modular teaching mini-videos to design a MOOC (MDM); but although these videos offer in themselves an innovation in the learning of scientific knowledge, the particularity that they are carried out by the students themselves for other students, is a plus in this halo of teaching innovation.

Starting by guiding students in the materials to use and by giving them the responsibility and the challenge of materializing their own work in videos that their classmates will use is a good manner to begin promoting a methodological renewal of tutorials at the Distance University (Bendito, M.T. 2019) as well as the interest of students. Sometimes, this experience has already been tested previously when students were proposed to participate in a contest on Radio, for instance, "Concurso-Juegos Jurídicos-UNED" (Bendito, M.T. 2018).

3.3 Where to apply Flipped Methodology?

The starting hypothesis to achieve the proposed objectives could be described as follows: we would place the FTM in the classrooms of the Associated Centers, in which the Prof. Tutor has to face in a very short time (more in this subject than in the study plans goes from being annual to quarterly), to a very extensive program and perhaps the most technical and difficult of those that currently make up civil law. The usefulness of the material (MVM and MAM), in which students have explained the concepts, and cases that are more difficult to understand, is important for other students who will go to class with said knowledge and in the classroom they will go almost directly to the useful discussion of themselves and their relationship with others. The effort of occupying the role of the preparation of the classes carried out by the students is less with the material that wants to be done in this PID.

3.4 Benefits of the Flipped Methodology for Students and Teachers

The benefits that have been highlighted would be more evident if the dissemination and explanation of the prepared material were done from the University itself, with one of these three actions:

1) the preparation of a prize for the participation of the students who have intervened;

2) an academic compensation that could be related to, for example, the exemption from having to take an exam from that part of the subject in which you helped to prepare the MDM or MAM.

3) in the participation of the International Conference to which this PIE will be presented as a result.

Project Benefits: The change of roles of the students and teachers will produce:

a. These benefits for the Teacher:

1) The feedback of the students regarding the specific understanding of the contents of the program, so that the Teacher may correct (increase or decrease the explanations) the study materials.

2) The student's feedback regarding the understanding that the matter of real and real estate registration rights is difficult and difficult to fit into a semester. It would create trust in the Faculty.

3) Increase of the explanations in the classroom of the subject with other materials since it is assumed that the basics will be treated in the classrooms with the MVM and MAM.

b. These benefits for the student:

1) The face-to-face class would become a true forum for discussion and support for students who could attend, and with the increase in explanations, the best interests of some students would be satisfied.

2) To alleviate the lack of content and explanations that logically suffer from the recommended manual because it has to be coupled to new study plans in which the Civil Law III subject is restricted to a semester.

3) The MVM and the MAM would serve as telematic material for those students who could not attend the classrooms now converted into face-to-face forums.

4) If the associated center could record said sharing of the matter in the classrooms, in turn, other telematic material would be generated for everyone, for the students attending the forum, and for those who cannot attend.

This last point 3) is directly related to the PIE results since the MVM and / or MAM would be presented as Univesity material in any of the national or international conferences deemed pertinent. Specifically, through EADTU, this material would be presented to the Universities that are part of the EMPOWER project. Thus, a greater diffusion would be achieved than, on the other hand, it would be requested, as is obvious, from the University itself.

4. PILOT DEVELOPMENT AND TECHNICALITIES

The fundamental technical tasks that have been carried out during this second stage of methodological changes are:

Flipped Classes:

1. The coordination and support of the tasks for the application of the Flipped-Classroom methodology (Bergman, Y. & Sam, A. 2014), in the Civil Law III course of the Law Degree at Distance University.

Canvas Scenary:

2. The preparation of a Test to collect information about the Acceptance of Technology from users, used in the new bibliographic materials in each of the different groups involved (students and tutors).

4.1 TAM-UTAUT

Applying in a combined way the Technology Acceptance Model (TAM Technology Acceptance Model) (Covadonga, et al. 2017) and the Unified Theory of Acceptance and Use of Technology (UTAUT Unified Theory of Acceptance and Use of Technology) (Martín, A. V., García del Dujo, Á., & Muñoz, J. M., 2014) a test must be obtained with all its questions classified within the following constructs:

1) Individual characteristics (CI0)

Specified as gender, age, experience (training and professional orientation) and voluntary use.

2) Expectation of performance (ED1) or results (ER1)

The degree to which an individual believes that the use of the system will help them realize a performance benefit.

2.1. Perceived utility (PU)

The degree to which an individual believes that using a system will help improve performance.

2.2. Extrinsic motivation

Source of behavior caused by each person's need for external rewards.
3) Expectation of effort (EE2)
The degree of ease of use associated with the system
3.1. PEoU Ease of Use Perception
Degree of belief of a person in the level of effort required to use a system.
3.2. Apprehension
Anxiety towards the use of a new medium, system or technology. to the source of behavior.
4) Social Influence (IS3)
The degree to which an individual perceives that others will value the use of the system.
4.1. Social pressure
Source of behavior or individual motivation based on the belief that with it we will obtain a superior social status or that it improves our prestige.
5) Facilitating Conditions (CF4)
The degree to which an individual considers that the organizational and technical structure exists to help him adopt the system.

A test of between 10 and 20 questions will be generated where users will be able to express their agreement and disagreement in a range and a 5-point Likert scale (HYOSUN STELLA KWON, & CHIDAMBARAM, L. 2000): from 1 (Very unfavorable) to 5 (Very favorable).

4.2 Surveys

Survey questions have been grouped under two headings 'Content' and 'Format'. They were published in the Distance University learning environment (aLF) at a date close to the mandatory face-to-face tests of the subject and remained open throughout the course.
2.2.1. Tutors:
A 28-question test was created.
2.2.2. Students:
14 questions were written for the test.

4.3 Results

4.3.1 Tutors

During the 2019/20 academic year none of the tutors of the partner centers of all Spain has responded to the survey. So, these results should wait for future calls.

4.3.2 Students

During the 2019/20 academic year, 101 of the 1168 students from partner centers across Spain responded to the survey. So, these results, over 8% of participation, should be presented for this call as a reliable statistical.

Among students, in general, the acceptance of technology has been quite balanced and distributed, around 50% in all fields and constructs, divided between acceptors and detractors, considering that more than 70% of these students had not had previous performance experience with this type of enriched material.

Most of the difficulties raised were about the technical format used to generate the material (ePub) and the tool used to deploy the publication (Adobe Digital Editions) that conditioned the results negatively.

Only one exception: the use of these new information technologies in teaching materials had increased participation in the academic forums of the subject.

The content and development effort of the new book has been positively valued at 61% of respondents, especially in the case of audiovisual’s materials, which are the most valued.

4.4 TAM Conclusions

The realization and implementation of an initiative like this, has required, first of the help of an educational institution of recognized international solvency such as Distance University, despite the absence of funding; second of the participation of a multidisciplinary team that has worked altruistically and finally of the clear determination that improving the materials, methodology and motivation of students should result in better academic results in a shorter time.

But when this effort is not rewarded with a majority acceptance by the recipients, due to the format and technical execution, it must also be considered. For this reason and again with the help of the institution, the author has made the decision to migrate this ePub content the next course, abandoning this format in complex and enriched electronic materials like this and deploying it on MOOC-based learning platforms such as OpenEdX[1].

3. The preparation and publication of the "Informed Consents" (Buthta, 2004) to allow the computer processing of the information collected in these personalized tests for each group involved and further Machine Learning treatment.

It has been divided into a first information part, two specific parts about the automated processing to be carried out with the data, as well as a final part focused on collecting, in a justified and in accordance with Spanish/European legislation, the user's consent.

Despite the Distance University' extensive research experience in automated processing of content and materials outside the institution, surprisingly, there was no legally grounded initiative for these internal information processing, to the point that many of them were either abandoned or difficult to publish for this reason.

This initiative thus aroused the interest of the departments involved as it can be considered the first effort to provide justification within the legal framework of Spanish and European Data Protection for the automated processing of the information of the content collected in the learning environment of the institution (aLF).

5. FINAL CONCLUSIONS

The final objective of knowledge transmission in the world of Law Science, is not to obstruct any path, that is, to be open to any form or methodology of teaching and learning. Nowadays, with the use of new technologies, CANVAS has been able to collect telematic materials and design teaching pathways for teachers that are far from old-fashioned, as it tends to happen in basic paper-based books methodologies, where knowledge is corseted in epigraphs. Furthermore, the methodology presented not in a "linear" or "unidirectional" manner, since CANVAS breaks down the unilateral teaching direction (teacher-student).

CANVAS, an enriched electronic book that combines all kinds of telematic materials along with its Neuronal and Scenario systems, breaks with the tightness and unidirectionality of the conventional teaching paradigm. Thus, in this new freedom of the student's handling of materials, the "inverted class" surges, allowing teachers to plan more effectively classes, and at the same time, improving CANVAS, with the incorporation of the "*mini-videos*" produced by students.

Using the didactic materials of "Flipped", CANVAS will get this feedback, producing the rise of new learning pathways that are different from those already constructed by the author. Thus, the author benefits, simultaneously, from an enhancement of the ebook. Accordingly, this blend will also make it easier for the teacher to rely part of their work on their students, which in turn, will produce among students a higher degree of commitment and will to study the subject. Similarly, reinforcing CANVAS with the materials produced by the flipped class, such as mini-videos on some legal concept or practical cases, challenges the main disadvantage pointed out by the authors of the FCR methodology, which is that only students who perform flipped will benefit from the experience, thus leaving the rest of students in the same unidirectional learning experience as before.

Obviously, as alumni's participation in LEE increases, the authors' work will be to achieve harmony in three directions. The first one involves working with the teachers in their involvement in flipped, acknowledging the increase in their teaching workload and the possibility of being poorly evaluated by

[1] https://eonline.uned.es/courses

students. Making this counseling work less complex and arduous for them, both in and outside the class, is challenging and depends on the content found in the LEE. The second axis revolves around the materials per se. The newly produced contents in the LEE cannot become a simple collection of materials and increase without a sense of time and space. Finally, authors should ensure that all "flipped-students" have compensations in their final grade, in order to avoid their demotivation and criticism towards the teacher who proposes the Flipped methodology. All in all, we conclude that a flipping the classroom approach is a promising pedagogical approach when appropriately designed by LEE, as in CANVAS.

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