

ACTIVE LEARNING THROUGH EDUCATIONAL RESOURCES IN UNIVERSITY COURSES*

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Abstract

It is essential that at the university level, each educational activity ensures the active involvement of students. The university course must be in line with this goal. The academic presentation must be accompanied by modalities and teaching materials that ensure analysis, conceptual comparisons, argumentation, critical thinking, and the relationship with real life and the future profession. This research goal is to investigate the responses of 20 university teachers regarding the use of educational resources/materials to sustain active learning and student-centred learning in the course activity. The research results show that the university teacher uses modern educational resources and a variety of them. These resources sustain their lecture and involve the students in different active learning contexts.

Key words: Educational resources, Teaching materials; Course activity; Active learning.

1. Introduction

Conceptualizing and enacting approaches to learning requires new notions of power (Mihans *et al.*, 2008), such as a greater ability to act and a greater sense of responsibility (Manor *et al.*, 2010, p. 10). At the university level, the academic lecture is the primary method in carrying out the course activities. As an oral method for transmission of curricular contents, the lecture ensures, on a topic from the discipline sheet, the transfer of curricular contents, from teacher to student, having the character of a logical chain of reasoning, through which new or less informative material is communicated (Cerghit, 2006).

The scientific rigors of the curricular contents are obligatory in the oral communication, but also a specific structuring, systematization, clarity, and explanation of them. The lecture also requires good oratorical preparation of the teacher. The presentation is accompanied by intonation and a nonverbal language that awakens and maintains the student's interest and points out the key elements of the content transmitted. In modern pedagogy, it is recommended do not hesitate to

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eliminate topics. Instructors, especially new ones, tend to pack too much material into a course. It is better to teach a few issues well than merely to cover the material with a steamroller and wind-up teaching very little of anything (Nilson, 2016).

Although the university course transmits a relatively large volume of knowledge in each activity (relatively short), the academic lecture does not ensure interaction with students. It often does not connect to their understanding needs. Wetherell *et al.* (2001) named this kind of communication subordinate communication related to a dominant state of talk and no effort to conceal what they are communicating or with whom auditory. But dialogue is not simply a small-group activity to be employed in a discussion seminar, but a way of being with others that can be encouraged even in unlikely times and places (Black, 2005). The teacher and the student must have a common language in each course activity, culture, and references to understand the message transmitted can be achieved. Teachers who balance the course workload with their relational teaching style (availability, communication style) were more likely to have engaged students (Mottet *et al.*, 2006). Frequently, the simple presentation of the contents does not arouse the students' intrinsic motivation, not accompanied by the questions or possible problems related to the curricular contents exposed. In this respect, lecturers in large classes (courses) must have more reminders of class-related issues and upcoming lectures to establish positive learning environments.

In contrast, lecturers in small classes tend to make digressions to reinforce rapport between lecturers and students (Lee, 2009). Due to the lack of continuous interaction, the teacher cannot permanently ensure what the student understood and retained, their needs and interests about the topic presented. The lectures are considered good when they are well prepared, entertaining, and exciting (Bartlett, 2003).

2. How could university teachers assure this excitement of learning for their students?

Educational resources (teaching, learning, and assessment) propose an extensive approach to university teaching materials considering all resources that support the entire educational process and each process to train and develop student skills. Educational resources represent all the academic community's human, material, and audiovisual resources available in the higher education institution that supports the administrative process and teaching (Usman, 2016, p. 30). Teaching materials at the university level are tools used to deliver curricular content to achieve educational goals. The analysis of the two concepts presented can be exemplified through didactic materials such as the course/seminar/laboratory support offered to the students to teach some curricular contents specific to the discipline taught in the study program. The discipline syllabus elaborates these teaching materials, presenting theoretical aspects (course support) relevant to the approached topic, with high scientific character and relevant bibliographical references.

What should drive the construction of such materials? The obvious answer to this question is that the needs and wants of the learners should go the university

teaching materials (Tomlison, 2003, p. 3). There are some characteristics of the university didactic material that we must take into account (adaptation after Skilbeck, 1982) when we construct or select such materials: be substantiated, rational, coherent, ordered, and organized according to rules, principles, and ideas with sufficient legitimacy in any educational context; be easily related to other contents; be rich in explanatory force; be critical and viable; be socially relevant (applicable to current life situations of the learners); be action-oriented (designed to make it easier for the learner to solve problems, acquire new skills); be modern, attractive, significant; be likely to be handed over.

The use of only some material supports that present predominantly theoretical or theoretical-pragmatic curricular contents do not offer enough foundation to form some students' skills, aptitudes, attitudes of the students. In this case, the developed competencies are not complete, even if some teaching materials support practicing models, theorems, skills. However, according to the model, all these remain at the level of repetition, not offering the student the opportunity to discover, solve problems, propose individual solutions, or even research and innovate.

Therefore, university materials as educational resources go beyond the rigid framework of the university-focused teaching process and tip the scales towards the importance of the learning process in student training. The teaching materials must be considered a resource in the student's learning, giving him even the chance to personalize the learning process, through the support provided and his permanent involvement: be support for achieving the educational objectives and the formation of the targeted competencies; be support the student in setting their learning objectives; be diversified in terms of how to activate students; determine an effective teacher-student communication, but also student-student; offer a different degree of experimentation of the curricular contents; support the efficiency of teaching/learning/assessment methods and techniques; support the efficiency of teaching time; be balanced in number so that they do not overload the student; determine a holistic approach and understanding of curricular contents (Mincu & Desire, 2015).

In this context, it is enough to offer students these traditional teaching materials. We need to reconsider and expand their goal to capitalize the resources that develop skills in the triad of teaching-learning-assessment processes, which occurs in virtually every university teaching typology?

The modern paradigm on teaching is oriented to the need to focus the entire teaching process on the student, on his learning activity. This shifts the balance from content-centred to skills-centred learning. Good and Brophy (2003) pointed that, although it is possible to identify contexts in which lecturing is appropriate, the effectiveness of the lecture is very much dependent on the effort and care that goes into the preparation of the lecture and the quality of the delivery. Activating student involvement is a complex teaching process that aims at their active cognitive, psychomotor, affective, motivational, and volitional participation to achieve the proposed educational objectives. Teaching and learning, which are carried out in close interaction, have the finality to develop skills that will ensure the student's

personal, professional, and social autonomy in his future profession. Student engagement is considered crucial to student success in higher education, understood as serious interest in, active taking up of, and commitment to learning (Kuh *et al.*, 2010). Students take an active role in the learning process (Wolf-Wendel *et al.*, 2009), with recent calls for students to become co-creators of learning (Davis & Sumara, 2002). Adopting an active and participatory role in teaching and learning activities, the students enhance their learning process and outcomes (Kuh, 2008). In this way, students engage in a meaningful (as opposed to rote) learning process and experience the freedom to become critical thinkers.

Using a modern university lecture, the activation of students represents both a resource and a result of their development. In other words, it is a means, not a result for itself, and is supported by an active and interactive teaching strategy. This activity results from various factors, one of them being the teaching and learning used resources. A few authors point out the importance of the interactive nature of lecture discourse (Camiciottoli, 2004; Morell, 2004). The level of interactivity and the interactive style impact how lectures are structured (Northcott, 2001).

The activation of the student determines the self-learning and self-training guided by a teaching process in which the student can be involved effectively, intensely, and thoroughly, engaging all his resources and developing them throughout the educational process. In this respect, the teaching materials become a resource in activating the students supporting their interest in the study, discovering, developing personal projects, or self-development. Often, students say that the teaching materials provided are theoretically complex and meet scientific requirements. The lack of motivational stimulation does not promote the message that the student will acquire specific skills useful for his professional and social future by learning these materials. The academic university staff should not be considered that their disciplinary expertise gives them complete authority over the learning process. The student must become a partner of the faculty in offering the most interactive course materials possible. This collaborative approach prompts both students and academic staff to confront fundamental questions about the nature of teaching and learning (Bovill *et al.*, 2011).

3. Research methodology

20 university teachers (from different specializations) participating in a training program (please see the acknowledgment) had to respond to three research questions:

What are the three most important educational materials/resources used in the courses?

What are the modalities in how you use the mentioned educational materials/resources in a course?

In which way do you assure the activation of the students, using each mentioned materials/resource?

Each teacher responded to the three questions, completing a table with the three question/task, exemplifying a specific topic from a course they sustained.

The objectives of this research were:

- to identify the most common educational resources/materials used in the university courses.
- to determine teachers to reflect on the modality in which they integrate these materials in the course activity.
- to know how teachers at university assure active learning during the course activities.

4. Results and discussion

In the following (Table 1), we present a synthesis of the previously mentioned responses on the three dimensions.

It can be observed that the most mentioned resources were the film (14 teachers), the case study (7 teachers), and the rarest were the personal blog, students' presentation, and handout (with one response for each of them).

Teachers affirmed that the mentioned resources were supported for their presentation (22 responses) or individual student task (13 responses) or questioning the students (10 responses). Only a few teachers affirm that the used resources supported students' presentation (3 responses) or reading together with the prepared text (3 responses).

Regarding how the mentioned resources activate or assure student-centred learning, teachers mentioned a variety of modalities. The most noted were: analysing (16 responses), linking theory with practice (13 responses), and critical thinking (13 responses). The least mentioned student-centred modalities to use the resources were: using student presentation, stimulating curiosity, reflecting, abstracting, and using students' personal opinions (each of them with one response).

Table 1. Categories of teachers' responses

The used educational resources/materials:	No of responses	Modality of using in the course	No of responses	How do these resources activate the students?	No of responses
Film	14	Support for teacher' lecture	22	Analysing	16
Case study	7	Student individual task	13	Linking theory with practice	13
Images/pictures	6	Determine questions for the students	10	Critical thinking	13
PowerPoint	5	Support group task	5	Comparing	6

Text for lecturing	4	Creation of critical observation sheets	4	Using previously learned contents	6
Online application/platform/site	4	Support for the teacher-student reading	3	Fostering interaction	7
Legislative documents	3	Support for students' presentation	3	Using feedback	5
Problem	3			Students' arguments	5
Book	3			Correlations between concepts	5
Book chapter	2			Students notes	3
Story	2			Abstracting	3
Article	2			Connecting the concept to visits	2
Visit	2			Connecting the concepts with real life	2
Handout	1			Providing the utility	2
Personal Blog	1			Deductive approach	2
Students' presentation	1			Student creation	2
				Systematization of concepts	2
				Conceptualizing	2
				Using student presentation	1
				Stimulating curiosity	1
				Reflecting	1
				Using students' personal experience	1
				Abstracting	1
				Using students' opinion	1

For exemplification, we present some integral teachers responses:

The used educational resources/materials:

Respondent A. Text lecture: Cmeciu, C. (2013). Current trends in public relations campaigns, Iași: Polirom, chap. 2 "Typologies of public relations campaigns".

The text presents various types of classifications of social campaigns from different fields.

Respondent B. Text lecture

(<https://docs.oracle.com/javase/tutorial/collections/interfaces/collection.html>). The official online resource (provided by the company that develops the language and language specifications) highlights the news in the Collections framework: filters, streams, parallel data processing.

Respondent C. Case study: www.praward.ro. The site offers classifications and analyses of the most awarded social campaigns in Romania by field.

Respondent D. Problem based learning

The issue: You receive a list of one-month shopping vouchers from a family that wants to know different information about their shopping profile.

What would you like the family to know about her shopping behaviour?

- The most common products purchased.

- The quantities of products bought for a certain product during a month.

Respondent E. The concept map. The map provides a summary of the main areas and typologies of social campaigns presented in the lecture.

Respondent F. Personal blog and Fb / Instagram page Literparc. Alternative learning pages. Presentation of the Literparc page and other pages that popularize the contemporary Romanian literary language and the cultivation of the language.

Respondent G. DOOM2 preface (fragment): spelling marks. Individual study sheet.

Respondent H. Science popularization article (online daily expressdebanat.ro). A topic close to the DOOM snippet (comma and the problems it creates - what we know and what we should know): resource comparison.

Respondent I. Presentation ppt. Presentation of the concepts related to the Collections in Java framework made by the course teacher. The presentation covers the following topics: define, framework architecture, punctual concepts: lists, dictionaries, sets, wildcards, comparison of the objects.

Respondent K. Handout- Defining and classifying social services.

Respondent I. The framework law for the functioning and organization of the social assistance system, which describes the system of social benefits and services, defines, and classifies social services:

http://www.mmuncii.ro/j33/images/Documente/Legislatie/Asistentasociala-2018/Legea_asistentei_sociale_18012018.pdf.

Respondent M. Pictures/images with the attack procedures and defense proceedings.

Respondent N. Book: Ristea, L., Tudose, C., (1995). *The trader profession*, Bucharest: Didactic and Pedagogy Publisher.

Modality of using the educational resources/materials in the course activities:

Respondent A. After I explain the main areas of social campaigns, we will look together at the proposed text to gain additional information.

Respondent B. Student mini-presentation - the presentation will be made 10 minutes at the beginning of the course, the student will prepare a Power Point presentation as a support for the presentation. The presentation will contain the following aspects: Identify the concepts added in versions > = 1.8, starting from the concepts in the studied text. Providing simple examples of using extremes, identify the advantage of using these innovations. The presentation will be sent to the teacher for feedback before being presented to the colleges.

Respondent C. The site will be projected on the screen that the whole group of students is looking at. Students have the task to identify in teams, with the teacher's support, the site's main categories, regarding the type of campaign promoted and how to promote.

Respondent D. The students identify questions and possible answers to the stated problem that should be asked and clarified before starting coding.

- What information can be extracted from the receipt?
- Is the information uniformly represented on all receipts?
- How do I organize the data collected from vouchers?

In the final part of the course, we will draw a concept map that will present the main areas and subcategories discussed during the class.

Respondent E. Students will write on the notes (post-it) three ideas they have learned from the course, then one student (with the help of the others) will draw the map on the board, using the ideas stated by each student.

Respondent F. PowerPoint exposure; The discussion; analyse; scoring features. Access task: select three images, argue your choice (observation, example, problematization). Group discussions of 4 persons, presentation of conclusions, drawing up a list of the most well-known dictionaries. Making cards specifying the differences between DEX, DN, MDA, DOOM (starting from the purpose of dictionaries) – Pictionary.

Respondent G. Assignment: to read about the spelling marks in the DOOM2 preface - to take notes according to the SINELG method (individual sheet for students with ☺ - +?)) – 30 min.

Respondent H. Student task: Create your grid based on the used language, tone, puns, language personalization, stylistic effects, irony, and other criteria proposed by students.

Respondent I. Lecture - presentation of information about the topics addressed throughout the activity. Problem) – framing the usefulness of the taught specific concepts (lists, dictionaries, sets). Concept map) – identifying the use of the key concepts presented.

Respondent K. When I present the classification of social services, students will have individually a material that they will keep with this classification structured according to criteria, follow me in the example + comments from them, and be able to make additions on the handout.

Respondent L. The law will be used after the introductory part of the lecture, the link being accessed by phone, selecting Chapter III, Articles 27) – 29, and is projected with the video projector on the wall (as a form of control).

Respondent M. Visualization after the theoretical presentation of each procedure.

Respondent N. I extracted from that book materials in a PowerPoint presentation.

How do these resources activate the students?

Respondent A. Each student will read about an exposed issue and communicate to colleagues in two sentences the most important information they have read (the specific type of campaign, the field in which they act). This encourages interaction and determines students to be active on the topic.

Respondent B. Individual study: The official documentation is a good starting step for the student to explore other topics. Analysis and systematization of the founded information (diagram on the board).

Respondent C. The student's attention will be focused on the screen - we will analyse in groups the way the site is built, both in terms of the theoretical content presented in the course, and visually, as a design: stimulating the analyse capacity and the aesthetics attitude.

Respondent D. Development of the skill of abstracting a statement. Analytical thinking by identifying questions. Examples from their own experience if they have used/seen such systems. It exemplifies a real-world problem and proposes the use of exemplified notions in a practical context.

Respondent E. The map will be built gradually, and new conceptual ideas will emerge. This ensures the development of critical thinking and teamwork skills in accomplishing a task.

Respondent F. Documentation, analysis, and creativity development.

Respondent G. Ability to take personal notes; immediate feedback; developing the capacity for synthesis, critical thinking; selection and compilation of useful, personal/personalized summaries.

Respondent H. Bring to attention elements from previous courses (avant-garde, given that Borges' first stage was ultraist); what does the Argentine epic mean (the question of the civilization/barbarism binomial); which means the binomial illustrated by Borges national/universal. I also suggest 2-3 questions that encourage critical analysis, comparison, etc.

Respondent I. Providing a starting point from which to begin to deepen the topics discussed. Making connections - most of the topics covered were also addressed in two other courses, one that talks about data structure and another that introduced these notions in another language.

Respondent K. When I present the classification of social services, students will have individually a material that they will keep with this classification structured according to criteria, follow me in the example + comments from them, and be able to make additions on the handout.

Respondent L. Will make a connection with the visits of the social service providers carried out in the previous semester to exemplify the classification of social services. (correlation with other contexts that use the same content). The students will present those visited services associated with each category of social services (association with applicability in practice and other learned concepts). This activity stimulates specific tasks for this profession.

Respondent M. Image analysis: identification of the technical elements and the connection between them. Identifying mistakes in erroneous images.

Respondent N. Feedback questions from students – for example: Which is the most important economic and legal aspect of a trader?

As we seen in the previous responses, the educational resources materials used in the university courses were modern ones. They were used as support for the teaching process and student learning such as problematization, analysis critical thinking, synthesis, comparison, connection with other contents or students background, mind mapping to connect students for their future profession.

5. Conclusions

Some university teachers can often be anchored in traditional pedagogy that considers the curricular contents an end in itself, without focusing on the student's needs not only because they offer theoretical supports that do not invite active participation, but also, as we have seen in Tabel 1 because they consider teaching materials to support their presentation (22 respondents). However, lecturing is often criticized as a teaching method that overemphasizes the teacher rather than the students, contributes to student isolation, and fails to encourage critical thinking and higher levels of learning (Mino, 2001). But many teachers embraced this theory because they mentioned a variety of modalities for supporting students' active learning through the educational resources used in the course and assured students' active implication.

The literature suggests conversational-style lectures in which lecturers deliver the lectures from notes and assure that interaction with students is becoming more common, especially in smaller classes (Schleef, 2009, Camiciottoli, 2005; Morell, 2004; Morell, 2007). This style could be supported by specific topics of reflection proposed in certain university teaching materials. The theoretical approach is essential, but educational resources sustain the practical tasks and offer real problems in specialization, real-life context, or professional issues. This reality is reflected in the various activating learning modalities, although many teachers have mentioned using materials as a teaching aid. A lecture can be highly motivational, but its success depends on the lecturer. An expressive, enthusiastic instructor can ignite students' interest in the material, and a reserved, boring one can douse it (Nilson, 2016). We have seen that our respondents are focused in their teaching on being dynamic and

creating an enthusiastic learning climate using educational resources/materials as supports for these goals. The trend toward large lecture courses occurs against a backdrop of educational emphasis on student interaction, empowerment, and learning-centred teaching (Davis, 1993; Garside, 1996; McKeachie, 2002, Mino, 2001, Wolfe & Wolfe, 2004) is present also in the Romanian universities. Teachers must create various educational resources that sustain teaching and learning and gaining of the specific competencies for the future students' profession.

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