

Learning political-philosophical concepts with audio-visible scholars in a multimedia, multimodal and participatory learning environment

Autor(en): **Inglese, Terry / Caruso, Roberto / Rigotti, Francesca**

Objektyp: **Article**

Zeitschrift: **Studies in Communication Sciences : journal of the Swiss Association of Communication and Media Research**

Band (Jahr): **6 (2006)**

Heft 2

PDF erstellt am: **28.06.2024**

Persistenter Link: <https://doi.org/10.5169/seals-791127>

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TERRY INGLESE, ROBERTO CARUSO & FRANCESCA RIGOTTI*

LEARNING POLITICAL-PHILOSOPHICAL CONCEPTS WITH AUDIO-VISIBLE SCHOLARS IN A MULTIMEDIA, MULTIMODAL AND PARTICIPATORY LEARNING ENVIRONMENT. REFLECTIONS FROM A POLITICAL THEORY COURSE FOR FRESHMEN.

The goal of this brief article is to present a classroom experience in which we used multimedia and multimodal instructional contents within a freshmen Political theory course. We will first provide an overview of the classroom experience. Secondly, we summarize the two theoretical frameworks we used to analyze this teaching and learning experience: *the cognitive theory of multimedia learning* and *the situated learning theory*. Thirdly, we present results regarding the impact of the so called 'audio-visible author's effect' on students' learning outcomes.

Keywords: multimedia learning theory, case study, situated learning theory.

* University of Lugano, terry.inglese@lu.unisi.ch; roberto.caruso@lu.unisi.ch; francesca.rigotti@lu.unisi.ch

1. Introduction

Being a competent student involves more than being present in a classroom, paying attention, taking notes, studying and passing an exam. For us, it also means being an *active listener* as well as an *active participant* in classroom discussions, if the teacher considers *discussion* and *dialogue* as basic instructional modalities of learning. *Actively participation* in classroom's interactions is an important skill for becoming a competent student in *Communication Sciences*. This is true for *Dottrine politiche*, a *multidisciplinary* Political Theory course, with approximately 150 students each term.

2. The multidisciplinary approach

With the term *multidisciplinary* we indicate not only the juxtaposition of more branches of knowledge, represented by the *Dottrine politiche* course itself, which involves history of political theory, political philosophy, political and historical sciences, but also the combination of disciplines, which produces a shift of boundaries and unexpected 'interstices', interpreted as interesting and fertile exchanges (Gasparini 1998).

In order to detect these 'interstices', which most of the time are hidden, there is a need to undertake educational research as a way to study *classrooms discourse interactions*, in particular when *teaching* is designed as a *participatory instructional method* in order to build a *community of practice*, according to the *situated learning theory* (Lave & Wenger 1991).

The conditions in order to design *an active participation teaching and learning environment* are: a teacher, which promotes participation in the classroom; interesting disciplinary instructional content to be taught and discussed; communication rules to be respected; and, a rich, dynamic and multi-voices classroom environment.

Political theory is a discipline which promotes in itself discussion and participation, because of its embedded-ness in the daily events of our contemporary and complex society, which need to be understood and put into perspective with abstract theories and concepts. For this reason, active participation in classroom discussion is an instructional way for promoting awareness and interest in freshmen of Communication Sciences, which usually are coming from different academic backgrounds. According to our pre-questionnaires' results, which we gathered during the last three years, Communication Sciences' freshmen possess

inadequate prior knowledge regarding political theories issues, as well as little involvement in 'political activities' outside the university. There is therefore a need for introducing freshmen to abstract and often complex concepts in a new instructional way.

According to studies about interest and engagement into classrooms' activities, Askell and Lawson (2001) found that the features of interesting class lessons are conceptualized into three main categories:

- 1) teacher;
- 2) individual learning strategies; and
- 3) social learning.

Askell and Lawson argue that students want to take part in interesting lessons, even if the topic of the study does not have a deep personal attraction for them.

We will comment on each category in combination with the chosen theoretical frameworks.

3. The teacher

In order to introduce novices to complex and abstract concepts related to political theories, the teacher is constantly attempting to create the premises for a dynamic and rich learning environment in which students can become aware and learn about these new topics in a dialogical and participatory way. In addition, the teacher also needs to create interesting lessons as well.

But how may a teacher do that? The suggestions we propose are to design a dialogical and participatory learning environment and to use multimedia content accessed from TV and radio archives, such as the example of our *two audio-visible authors' case studies*. Both approaches had a positive impact on individual learning strategies, as well as on social learning, which we will comment on in the next sections.

4. Description of the two audio-visible authors' case studies

Archives contain 'cultural heritage resources' which are considered interesting educational and instructional resources (Inglese, PhD dissertation topic 2006). Thanks to a collaboration between the TV archive of the Swiss Public Television of Lugano (RTSI) and the University of Lugano, the *Political Science Team* (the teacher, her multimedia instructional designer and her assistants) used some TV interviews with important European

thinkers, taken from the past three decades, thinkers such as Karl Popper, Paul Feyerabend, Claude Lévi-Strauss and Pierre Bourdieu. These scholars are generally taught, read and studied only through written texts.

We developed two case studies, which consisted of using short videos of the 'audio-visible authors' extracted from the rather long TV interviews, during two terms (Winter Terms 03/04 and 04/05). First, we used them in the classroom as a way discussing the concepts mentioned by these authors, which the teacher selected and contextualized within her lectures. Second, students were invited during five weeks (within the thirteen of the entire course) 'to interact' with these authors using the Moodle learning platform through *the weekly audio-visible author's exercises*. These exercises consisted of answering two types of questions: *the technical ones*, meaning looking for definitions of concepts mentioned by the audio-visible authors in the interviews and describing these technical terms; and *the personal questions*, through which students expressed their personal experiences and critical thinking towards the audio-visible authors' perspectives.

The students' answers were collected weekly and read by the teacher. They became the basis of the weekly classroom discussions. In fact, each week of the *audio-visible author's exercises* the teacher commented on the students' answers, establishing at the same time an open discussion with the entire class. She mentioned the name of the students who wrote interesting and pertinent comments, quoting parts of their written answers and inviting the class to take position. Through this participatory interaction, some students who typically did not speak much were now actively engaged in classroom discussions.

Next, students had to read a text of an 'invisible' author, the Italian scholar Andrea Semprini. This author is considered 'invisible' because he was presented only through his written text, as is the typical way most authors in academic contexts are experienced in a classroom.

After the course, the teacher tested the students through a written exam on all materials presented in the course.

5. Theoretical frameworks

5.1. *Individual learning strategies*

Individual learners apply different learning strategies and cognitive processes in order to select, organize and integrate new information into

their prior knowledge (Mayer 1996). If the content to be studied is not only proposed through written texts, but also through a multimedia and multimodal format, such as interviews with the audio-visible authors, according to Mayer's *cognitive theory of multimedia learning* (2001), students might learn and perform better compared to studying the content only in a text-based format. *Multimedia* means learning with more media, such as text, video, illustration, etc. It also means that each medium has its own *symbolic code* that will impact on cognitive processes, such as retention and memorization. (Salomon 1979; Kozma 1991; Wetzel et al. 1994). *Multimodality* means learning with more sensory modalities, such hearing and seeing (Kress & Van Leeuwen 2001). We used the cognitive theory of multimedia learning to understand how students learned: a) the materials of the authors proposed through videos and texts and b) the materials of the invisible and text-based author.

The cognitive theory of multimedia learning is a combination of two other solid theories about how the human mind works, such as the dual coding theory (Paivio 1986) and the working memory theory (Baddeley 1992). This theory emphasizes that learners have two information processing systems: one for verbal and one for visual material. When the teacher presents material in words (texts) and pictures (videos), the learner takes advantage of the full capacity for processing the information, because two channels (sight and sound) are better than one, and - quantitatively - with two channels is possible to present more information than with only one. Qualitatively, words (texts) and pictures (videos) are different, but complementary. Therefore, when the material to study is presented in two formats, in a certain way the learner is exposed on a *double explanation*.

5.2. Social learning practices

But, seeing and hearing the authors one is studying is not enough to produce learning! First of all, media promote strong social effects on people using them (Nass & Reeves 1996). Secondly, according to Mayer and Clark (2003), it is not the medium, but rather the instructional methods that promote learning.

If individuals within a classroom are invited to actively participate and discuss concepts, theories and examples as an instructional method, for the educational researcher this is an opportunity to understand what kind of impact this participation might have on students.

In line with the social co-construction of knowledge's theories (Vygotsky 1978; Bakhtin 1986), we also took into account how Lave and Wenger (1991) define *learning* as a *situated activity*, characterized by the so-called *legitimate peripheral participation* process. This concept interprets learning as an engagement progression. The additional concepts of 'legitimation' and 'peripherality' indicate that even a partial participation of novices in an activity is "a way of gaining access to sources for understanding through growing involvement." (1991: 37)

Lave and Wenger developed these concepts from the analysis of *apprentices in action*. Our 'communication novices' (the communicators of tomorrow) are also considered *apprentices*. As in the relation of 'masters to apprentices', apprentices-students are allowed to actively participate in the classroom, where the rule is that everyone can learn from everyone else. And if each student is given the opportunity to contribute, the dyadic relationship of master-apprentices (instructor-students) becomes a triadic one, meaning apprentices-apprentices (students-students) and master-apprentices (instructor-audio-visible authors-students).

The consequences of adopting *legitimate peripheral participation* is a decentred view of master-apprentice relations, which according to Lave and Wenger leads one to understand that mastery (the communication skills) resides not in the masters (the teacher and the audio-visible authors), but in the organization of a *community of practice* in which the masters are only a part.

The *communication novice* gradually understand that communication means *participation*, and vice versa. The *legitimate peripheral participation* in such linguistic practice is a form of learning, that aims to establish a kind of participation where *talking* is distinguished from *talking about* and *talking within* a practice. "*Talking within* itself includes both *talking within* (e.g., exchanging information necessary to the progress of ongoing activities) and *talking about* (e.g., stories). Inside a shared practice, both forms of talk fulfil specific functions: engaging, focusing, and shifting attention, bringing about coordination, etc., on the one hand; and supporting communal forms of memory and reflection, as well as signalling membership, on the other. ... For the newcomers (the novices) then the purpose is *not to learn from talk* as a substitute for *legitimate peripheral participation*; it is *to learn to talk* as a key to *legitimate peripheral participation*." (1991: 109)

What are, lastly, the effects of participation in a multimedia and multimodal learning environment? We believe that during the short period of time of a semester the communication novices can learn to build and participate in a community of practice, through interactions with acknowledged masters, such as the teacher and the audio-visible authors, as a legitimate way to learn. “An apprentice’s contributions to ongoing activity gain value in practice – a value which increases as the apprentice becomes more adept ... (and gains) a deeper sense of the value of participation in the community and ... in becoming part of the community.” (1991: 111)

The consequence is the development of a sense of belonging to the community. The novice-student is involved as a whole person in what is happening in the classroom. Through the *participatory learning experience*, all students were allowed to participate and to dialogue with the teacher, as well as with their peers and with the audio-visible authors.

6. Results

What happens in a freshmen Political Theory course if students study a) authors through a multimedia, multimodal and participatory format and b) authors through text-based supports only?

We compared how students performed on the written exam questions through the two case studies. The teacher designed six exam questions: two of them covered the instructional content regarding the two audio-visible authors (interviews, interactions in class and texts of these authors). The question dedicated to the invisible author involved readings from his text. The other three questions were related to other course material, which we do not consider here.

From the multimedia cognitive perspective, we measured students’ *retention* of the course content. The scoring rubric was a 10 to 0 point-scale. In the graphs below, we see the following comparisons:

- a) the mean of the final grade between native Italian-speaking students and non-native Italian ones and
- b) the mean of the grades based on the two audio-visible author’s questions (1. VIS Author Grade, 2. VIS Author Grade) and on the invisible author’s question (INVIS Author Grade) between the two linguistic groups.

Table 1: Results from the first case study

	Avg. Final Grade	1. VIS Author Grade	2. VIS Author Grade	INVIS Author Grade
Italian (n=72)	7.38	7.01	7.68	6.95
Non Italian (n=35)	7.04	7	7.72	6.72

Table 2: Results from the second case study

	Avg. Final Grade	1. VIS Author Grade	2. VIS Author Grade	INVIS Author Grade
Italian (n=47)	8.03	8.01	8.02	7.23
Non Italian (n=39)	7.06	6.96	7.72	6.72

As we can see, for both case studies and for both linguistic groups the outcomes are higher with the audio-visible authors compared to the invisible author.

A more in-depth comparison between the two case studies (not discussed in this brief article) shows that: for the audio-visible authors' questions, both linguistic groups wrote more words and mentioned more times the audio-visible authors in their written compositions. These results reveal that there is a learning gain in using an audio-visible author.

Additionally, in another study Inglese, Mayer, Rigotti (2007, in press) showed that the non-native Italian speaking students performed as well as the native Italian speaking ones in answering questions on audio-visible authors. We can hypothesize that students might perform better on written compositions if the authors to be studied are presented in a multimedia and multimodal format, as well as through a participatory instructional classroom design.

Together with the quantitative data, we also gathered from students qualitative data using two methodologies: semi-structured interviews and thinking-aloud techniques, applying *the grounded theory* to analyze them (Strauss & Corbin 1998).

Because of the limited space of this article, we briefly mention some results extracted from the content analysis of the qualitative data regarding how students perceived reading the audio-visible authors and the invisible author's texts. We asked students of the second case study to rank which is the most comprehensible, the most interesting and the most emotionally closer author from their perspective.

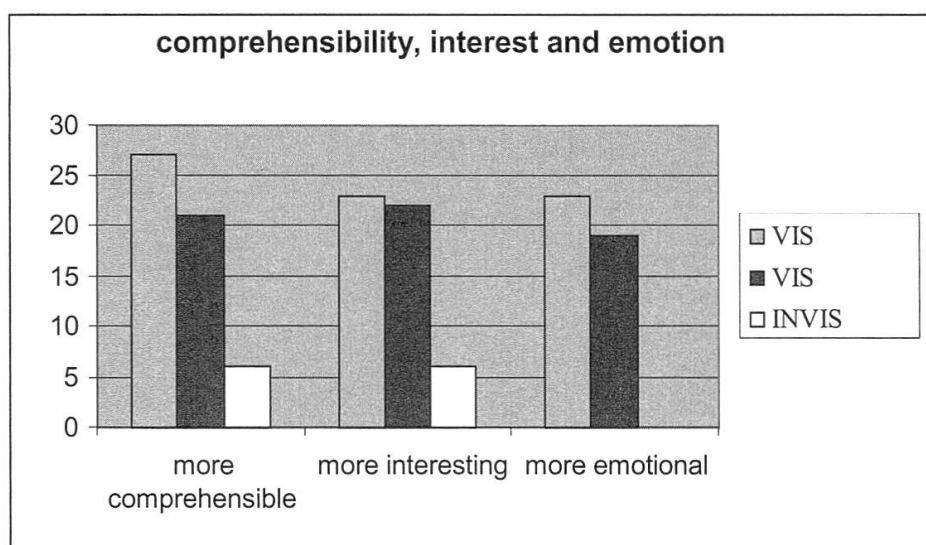


Figure 1: Frequencies regarding comprehensibility, interest and emotional cohesion self-reported by the students

From the histogram, we see that the two audio-visible authors (VIS) were perceived as more comprehensible, more interesting and more emotionally near compared to the invisible author (INVIS).

We argue that the social presence of the author, proposed through the multimedia, multimodal and participatory format, is producing a *difference* in the students' learning experience. The influence of the author's social presence in instructional texts on learning outcomes has been shown through studies by Paxton (2002) and Nolen (1995) using history and statistics texts. Both scholars compared students' outcomes when learning two types of texts: a) texts with a 'more socially present author' (when the author writes using the I-you rhetorical strategy) and b) texts in which the author is using a formal, anonymous and 'invisible 3rd person' writing strategy. Both studies showed that students' performance increased when they felt that there was an author behind their instructional text.

These types of analysis are opening new research patterns, especially in the development of new literacy skills in a multimedia and multimodal learning environment.

7. Conclusions

The multidisciplinary approach, which combines perspectives from different disciplines (cognitive psychology, media education, theories of social co-construction of knowledge), allowed us to analyse the results of the case studies with a more holistic approach, discovering new research areas after using TV interviews with Social Sciences' scholars, which are usually studied only through written texts.

Converging multimedia, multimodal and written texts within a participatory learning environment might promote in students new ways of learning. Additional research in this field is needed, but with a 'multidisciplinary spirit of investigation'. Having more analytic lenses and theoretical perspectives might help teachers and educational researchers to detect hidden meanings behind the traditional ways of assessing students' learning outcomes, such as grades, which we know are showing only one side of the coin.

We conclude this short article with an insightful quotation extracted from the students' interview collections about the effects of studying with audio-visible authors.

Student: "... a desire to be into the circle, to feel yourself as a part of them, to have the possibility to speak, but also to listen to, not only the other student near you, or to listen to the instructor, but also to the authors that are not between us any more, and that have left a trace of what they have done. I think we need to add to this multimedia experience, the feeling of freedom in learning that everybody in this course felt. Even when a concept was difficult or was less easy to understand, I think that the strong side of this course with the videos was a feeling of openness ... open to speak and exchange perspectives. It was not a mono-voice course, with the only voice of the instructor, but we listened voices of the past and the voices of our peers. ... a positive feeling of freedom in learning ... where learning is perceived as a natural breathing!"

Acknowledgments

The first author is sincerely thankful to Prof. Dr. Francesca Rigotti for the possibility to conduct educational research in her classrooms during the last three years.

Together, we express gratitude to the RTSI TV Archive for allowing us to use their archival artefacts for research purposes. We are thankful to all the freshmen of *Dottrine politiche* course of the falls 03/04 and 04/05, as well as to the two unknown reviewers of this article for their helpful remarks.

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