

## **EDUCATION, COMMUNICATION AND LITERACIES: PEDAGOGY AND INNOVATION IN HIGHER EDUCATION IN PORTUGAL AND SPAIN**

**Luís Miguel CARDOSO**

Polytechnic Institute of Portalegre  
Centre for Comparative Studies - University of Lisboa  
(Portugal)

[lmcardoso@ipportalegre.pt](mailto:lmcardoso@ipportalegre.pt)

**Concepción Torres BEGINES**

Faculty of Education Sciences  
University of Seville  
(Spain)

[ctorres3@us.es](mailto:ctorres3@us.es)

**Abstract:** *Contemporary society, dominated by inexhaustible sources of information, complex social and generational changes implies that teaching and learning are increasingly associated with these transformations, implying a new teacher profile for the 21st century. The student is increasingly immersed in technology and there is a clear need to rethink the pedagogical innovation in Higher Education, namely when we associate education, pedagogy and the different literacies that must be taken to the classroom. METHOD. In order to establish a debate on what a professor needs to improve his/her teaching and get to his/her students, we have designed a questionnaire considering the main aspects on literacies in education and presented it to two target groups, one in Portugal and one in Spain. RESULTS. The results obtained are very similar in both cases: 100% of the students agreed that contemporary society needs more specific language to code and decode information and that the analysis of this information society challenges must be carried into the classroom, although they differ sometimes in the importance of one literacy or another. DISCUSSION. With this study, we can conclude that teachers in Higher Education clearly need to enhance different contemporary skills in order to correspond to the expectations of the generation of digital natives and cope with the technological and informational changes that affect the current educational system.*

**Key Words:** *education; communication; literacy; higher education.*

### **1. Introduction**

Today's society has created a deep and unavoidable need to rethink the worlds of education and pedagogy, namely the integration of literacy into the

teaching-learning process, which is increasingly shaped by the digital natives' generation (Prensky, 2001) and Web 4.0.

The greatest challenges of education until 2030 are clearly focused on building the skills needed to understand and interpret an increasingly complex world, take a prepared look and activate critical thinking for a more fruitful exercise in analyzing the world, the complex spaces of the communication and citizenship, as mentioned in the OECD report *The Future of Education and Skills* (2018):

*Unless steered with a purpose, the rapid advance of science and technology may widen inequities, exacerbate social fragmentation and accelerate resource depletion. In the 21st century, that purpose has been increasingly defined in terms of well-being. But well-being involves more than access to material resources, such as income and wealth, jobs and earnings, and housing. It is also related to the quality of life, including health, civic engagement, social connections, education, security, life satisfaction and the environment. Equitable access to all of these underpins the concept of inclusive growth.*

*Education has a vital role to play in developing the knowledge, skills, attitudes and values that enable people to contribute to and benefit from an inclusive and sustainable future. Learning to form clear and purposeful goals, work with others with different perspectives, find untapped opportunities and identify multiple solutions to big problems will be essential in the coming years. Education needs to aim to do more than prepare young people for the world of work; it needs to equip students with the skills they need to become active, responsible and engaged citizens (pp. 4-5)*

We consider digital natives, with their natural alignment with technologies that serve as real enhancements to reading and interpreting the world, with an ever-growing blend of written, verbal, sound, and image, are a major challenge for the teacher. In the same way, as this new student shows an appetite for these platforms and technologies, there is a corresponding need to provide the literacy skills to correctly encode and decode the information he receives and generates. At the same time, the teacher has to meet these challenges, with a primary focus on mastering new literacy and its subsequent teaching as a tool to understand this new world. As outlined in the European Commission's *The Changing Pedagogical Landscape: New ways of teaching and learning and their implications for higher education policy* (2015), this is a joint effort between higher education institutions and teachers, who are and should be indispensable to this process of change supported by educational innovations:

*One clear message has come through the discussion about innovation pedagogies and technologies: carried out requires committed and informed teachers, and a prerequisite of that is that high-quality teaching is valued by universities and by funders alongside research (Boyer, 1997) must either result in, or be accompanied by, appropriate reward and recognition systems for university teachers (p. 17).*

UNESCO (2013) advocates the essential contribution of teachers to ensuring that all citizens are able to access, evaluate and share information, as

citizens with literacy skills contribute to the goals of sustainable development, better living conditions, employment, income *per capita*, gross domestic product, industrialization and development of a country's infrastructure.

For UNESCO, teachers are key elements for change:

*UNESCO recognizes that teachers in service and in training are key players in building knowledge societies. In order to teach and prepare young people for tomorrow's world, teachers themselves need to be empowered, their needs addressed and supported. As UNESCO considers MIL an essential part of 21st century competencies, the MIL Assessment Framework intends to provide not only policy makers and decision makers and relevant educational planning and teacher training institutions with accurate and reliable data on MIL, but also to supply individual teachers with tools for self-assessment and self-improvement (p. 38).*

Given the vertigo of technological development and its consequences for society and the growth of students, there is an urgent need to harmonize education and training in order to adequately qualify teachers at all levels of education, including higher education, to face these challenges and a public plunged into this ocean of technologies, information and permanent changes.

One of the most important changes is to broaden the study of literacies, from childhood to higher education students. UNESCO (2017) presents us with the following thought on Literacy:

*First, what is meant by literacy? UNESCO has given several definitions, notably in 1958, 1978 and in 2005. The first two definitions focused on the capacity to read and write a simple sentence, whereas by 2005 UNESCO had moved to a broader understanding of literacy, recognizing that the complexity of the phenomenon meant that any definition could not claim to be universal. As a working definition and in the context of assessing literacy, a meeting of experts adopted the following formulation: "Literacy is the ability to identify, understand, interpret, create, communicate and compute, using printed and written materials associated with various contexts. Literacy involves a continuum of learning in enabling individuals to achieve his or her goals, develop his or her knowledge and potential, and participate fully in community and wider society." (UNESCO 2005a:21) (...) This review also uses a brief encapsulation of literacy as 'communication involving text'. Literacy 'involves text' because text is increasingly mixed with other modes, such as image and symbol, across manuscript, print and electronic media. Literacy is 'communication' since its function and value lie in communicating with others or oneself, alongside verbal and non-verbal modes. ( p. 13.)*

Literacy is a key competence to understand information, communication and society. The different literacies offer the teachers and the students a wide range of tools to work with today's challenges that all around us. Bringing literacies to school is to empower both teachers and students into the future. Thus, higher education can no longer consider them as secondary instruments to carry out the teaching objectives. Universities need to embrace literacies in curricula and classes

so that students can enter the professional world with up to date skills. UNESCO (2017) warns us for the following:

*(...) the adolescent today who has not achieved basic literacy and numeracy skills through schooling and who catches up through non-formal learning must move quickly to master the skills necessary for processing digital data and information. The speed of the development and adoption of ICTs requires equally fast learning: 'In an extremely dynamic global market where products and processes change rapidly, basic education in literacy and numeracy, as well as fast and efficient, continued learning are critical' (UNDP 2015: 130). The question is how will literacy be best developed in the light of ever-evolving demands on its use? Clearly, all of the well-known strategies such as identifying the purposes of literacy, its place in communication patterns, mother-tongue-based multilingual approaches and embedding literacy learning in the learning of other skills will continue to be foundational to address learners' needs in relevant and context-sensitive ways. It is perhaps the last feature – embedding literacy with other learning – that will count for the most since it proposes a learning mode that directly connects with prospective uses of literacy. (p. 73)*

In the context of literacy, in a first paradigm, the approach between teacher and digital literacy was introduced as the first bridge between education and pedagogy innovation. However, this paradigm is not enough to address the multiple challenges in today's society, with complex networking and an ever-increasing ability to generate information across multiple platforms. Moreira (2016, p.72) advocates a new paradigm characterized by the fusion of pedagogy and technology and encourages the development of multicentricity depending on the multiplicity of communication channels, and corresponding forms of differentiated communication, citing Amasha advocating an educational methodology through the development of multi-literacy, enabling individualized analysis skills in multimodal texts and even finding new textual approaches.

Provided that this second paradigm is our preferred horizon, it is also relevant to look at the teacher in this 21st century. Garba, Byabazaire and Busthami (2015) identify two major ideas:

*In a 21st-century learning environment, digital electronic communication technology is the key factor. Teaching and learning have to centre around the innovative use of existing and emerging technologies. Two things are therefore necessary for building the much desired 21st-century learning environment for our digital natives of the information age (21st-century learners). First, providing the basic ICT infrastructure and facilities and getting teachers to use the facilities in teaching and learning. The second thing is getting the teachers to adopt the use of 21st-century teaching-learning approaches and methods in their classroom practices. Teachers and technology are therefore the key role players in a 21st-century learning environment. Basic ICT infrastructure and facilities in 21st-century learning environment go beyond the provision of internet connectivity and one or two computer labs for the schools. (p. 8)*

Therefore, we truly need to reflect upon the XXI century skills for teachers and one of the main reasons is the opinion of the students, the key issue in this paper to determine how much we need to focus on this matter. In order to gather the thoughts and proposals from the students, we engaged a double work, in Portugal and Spain, to find out what are the most important ideas about education, communication and literacies in higher education.

## **2. Method**

We inquired a target group so that we could discover what do students think about literacies in higher education, namely in class, the profile of the teacher in this society of emerging literacies and the needs of the students on this matter. In Portugal, we inquired 21 students who recently concluded their degree in Journalism and Communication at the School of Education and Social Sciences of the Polytechnic Institute of Portalegre. We chose these students due to their proximity to these matters (communication, education, literacies) and for their knowledge of higher education teaching and learning. In Spain, we selected 21 students from the Degree of Primary Education of the University School of Osuna, Sevilla, because they have the experience of a full degree in their higher education learning plan.

The inquiry was anonymous and included questions with different answers to choose from, ending with an open question to allow us to gather deeper ideas about our main objectives. All the 42 students cooperated and gave us the basis for the following analysis.

## **3. Results**

In the Portuguese case, we conducted a survey of 21 students graduated from the Higher School of Education and Social Sciences of the Polytechnic Institute of Portalegre, of the Journalism and Communication course, due to its close proximity to the subject matter, namely the information society.

Regarding the first question, we point out that 57.1% of graduates consider that contemporary society increasingly requires specific knowledge to encode and decode information, while 42.9% partially agree. In short, all respondents agree with the expressed idea. These results are reinforced by the percentage of respondents (76.2%) who fully agree that the challenges of this information society should be analyzed in the classroom, in conjunction with 23.8% who agree partially, which emphasizes this clear idea of analysis in the classroom (100%).

We then delved into the subject matter and the objectives of our survey and asked the graduates to comment on the relevance of Literacies, identifying the statements with which they agreed. The statements were as follows: a) Literacy is the specific knowledge about a particular specific knowledge; b) literacy is a necessary knowledge in contemporary society; c) literacy must be taught at all levels of education; d) literacy must be taught in higher education. Claims b) and c) obtained the highest percentages (66.7%), followed by affirmation a), with 33.3% and statement d) with 28.6%.

As far as the knowledge of the graduates about the different Literacies, we can verify that the most known are Digital and Audiovisual / Film Literacies (85.7%), followed by Media Literacy (76.2%), Literacy and Critical Thinking (%) and Information Literacy (57.1%).

Next, we asked graduates to rate the relevance of Literacies in terms of teaching on a scale of 1 to 5 in Higher Education. Digital literacy received 52.4% of level 5 responses, followed by 8 levels 4 responses (38.1%) and 1 level 3 and 2 level responses (4.8%). Media Literacy collected 12 level 4 responses (57.1%), 7 level 5 responses (33.3%) and 2 level 3 responses (9.5%). Information Literacy had 8 level 5 and level 4 responses (38.1%), 4 levels 3 responses (19%) and a level 1 response (4.8%). Audiovisual / film literacy collected 11 responses from level 4 (52.4%), 5 from level 5 (23.8%) and 5 from level 3 (23.8%). Literacy and Critical Thinking obtained 11 responses from level 5 (52.4%) and 10 from level 4 (47.6%), with literacy being better known to graduates.

We also wanted to know what literacies the graduates felt the Higher Education teacher should know. Once again, Literacy and Critical Thinking achieved the best result, with 90.5%, followed by Informative Literacy (66.7%), Digital and Media Literacies (61.9%) and Audiovisual / Film Literacy (33.3%).

Regarding the interests of the graduates, we found that they prioritized, once again, Literacy and Critical Thinking (52.4%), which they would like to know better. This is followed by Information Literacy (38, 1%), Audiovisual / Film Literature and Digital Literature (33.3%) and Media Literacy (28.6%).

The last open question allowed respondents to explain their opinion more deeply about the competencies that higher education teachers must have to meet the challenges of contemporary society. Gathering the answers, we were able to define a teacher profile for Higher Education. This profile includes the following characteristics: information on contemporary society to know how to explain and teach, updated knowledge; dynamism; learn to captivate students; have training in literacy and critical thinking; to be perseverant; receptive to student opinion; be open to debate in the classroom, with a view to sharing and exchanging ideas and opinions that enrich knowledge and stimulate the thinking and critical vision of all; know the new media; open mind; have a wide range of skills and abilities, not only at a theoretical but also behavioral level, insofar as it is essential for human relations; to follow the various developments of society, be they cultural, computer, technological; innovation and creativity; make formations about the areas they teach; promoting the development of students' skills, research and innovation; have a deep critical sense; look at the student as someone capable of responding to their challenges. In short, the higher education teacher must be someone who can inspire the student to succeed. In the domain of the various literacies of 21st-century society, it is fundamental to combine a "humanist" literacy that allows the student to feel that the teacher is "close".

In the Spanish case, a survey was carried out among 21 Spanish students of the last year of the Primary Education Degree of the University School of Osuna, Seville. We have chosen this group for having already had a complete tour of their

university education and to eliminate the possibility that training in different literacies could occur at another time along the route.

Regarding the first question, it should be noted that 65.5% of students agree with the statement: Contemporary society requires more and more specific knowledge to decode and encode information, with the remaining option marked "34.8%" in agreement". There is, therefore, no student who is in complete disagreement. This percentage "totally agrees" grows when responding to the statement: "The challenges of this information society must be analyzed in the classroom" (78.3%), not having marked again anyone "in disagreement".

The next block of affirmations related to literacies throws again interesting results on the subject of study. On this occasion the students were asked to mark the statements with which they were more in agreement among the following: a) literacy is knowledge about a specific knowledge, b) literacy is a necessary knowledge in contemporary society, c) literacy must be taught at all educational levels, d) literacy must be taught at the university. The number of students (21) that pointed to option c) stands out in our case, being the most chosen with 91.3%. Next, the most popular was option b, marked by 17 students, a total of 73.9%. At a great distance is option a), chosen by 30.4% (7 students) and d), with which only 4 students agree (17.4%).

Among the most familiar literacies recalled by the students interviewed, it stands out with a clear difference (91.3%), that indicated by 21 students: digital literacy. The rest move in a spectrum that moves between the 12 students (52.2%) who pointed out the media and information literacies, the 13 (56.5%) who know the audiovisual or film literacy and the 15 (65.2%) that have marked the option of literacy and critical thinking.

The following series of assessments allow us to delve into this aspect, focusing on which are the most important literacies, from the point of view of students, within the university teachings.

Literacy and critical thinking are the best valued by the students interviewed, with 69.6% of its highest value (5). Next, there would be information literacy, with 65.2% and digital literacy, with 52.2%. A great distance would be the media competition, indicated at the highest point of the scale by 30.4% and audiovisual-film (26.1%).

If we place ourselves in the opposite value (1), only positive responses have been detected in the critical thinking literacy, marked by 2 students and the audiovisual-film, marked by 1 student.

Describing the answers for each of the literacies, the first of them, dedicated to digital literacy, it is distributed among the highest values (3 to 5), highlighting as we have indicated before the 52.2% that has marked the 5, followed by 39.1% who scored 4 and 8.7% (only 2 students) who scored 3, as the lowest value for this literacy.

The media competition has much more shared its values, although in no case has its importance been assessed with the lowest score (1). Thus, highlights the 39.1% (9 students) who have scored the 4, followed by 30.4% (7 students) that

have marked the 5. At a distance are placed 3, with 17.4% (4 students) and 2, 13% (3 students)

The values for information literacy stand out for the difference that is established between the three options marked: 65.2% (15 students) have opted for the highest rating (5), compared to the remaining 34.8% that is shared between the 4: 26.1% (6 students) and 2: 8.7% (2 students).

Audiovisual - film literacy is characterized by having obtained responses in all its values, with the three highest scores remaining fairly even: 34.8% scored 4, 30.7% scored 3 and 26.1% scored 5. A quite a distance are placed equal options 1 and 2, marked by two students (one each), which is 4.3% respectively.

The difference between the values is especially evident in the critical thinking literacy, where the value 5 shoots up with 69.9%, with the remaining answers distributed between the value 4 (17.4%) and 1 (8.7%). ) and 3 (4.3%), leaving 2 unchecked.

About the literacies that the university professor should know, stand out especially with 91.3% (21 students) information literacy and literacy and critical thinking, followed by digital literacy (60.9%). At a certain distance, media literacy (39.1%) and audiovisual-film (34.8%).

With regard to the literacies that they would like to know better, literacy and critical thinking stand out, with 65.2%, followed by an audiovisual - film (56.5%), informational (43.5%), media literacy (34.8%) and digital (30.4%).

The last question is open so that students could freely express the skills they believe university professors should have to face the challenges of contemporary society. It was sought with this question that students could complete aspects that had not been addressed in the previous sections and on those who would like to draw attention. It highlights the affirmation of several of the respondents about the need to have a much greater informational competence, also based on critical thinking that starts from the very reflection of the teaching of the subject, which translates into a greater ability to transmit knowledge, based on the practice and creation of localized cases in current and real contexts. In addition, it emphasizes the need for university teachers to empathize with their students and update themselves to try to give them the most accurate training possible, which will help them to face the problems that will arise in their future professional practice. It even goes so far as to affirm the need to value the students, to listen to them and adapt "(whenever possible)" the methodologies. Likewise, we would like to highlight two of the statements collected and that have seemed especially significant to us: "Knowing your subject perfectly and knowing how to teach your class as if it were the most important subject" and "Vocation. Professionalism."

#### **4. Discussion**

About questions 1 and 2, both groups have agreed 100% that contemporary society needs more specific language to code and decode information and that the analysis of this information society challenges must be carried into the classroom. This leads us to our very first conclusion: students are concerned about the need for



basic training on working with information, considering it as a main competence that must be acquired independently from the chosen degree.

On questions 3 and 4, we asked them about their knowledge of literacies obtaining some interesting results. Around 30% of the students interviewed affirms that literacy is knowledge of a specific area. The double (66.7% in the Portuguese case and 75% in the Spanish one) consider literacy as an essential knowledge in contemporary society, but they all not agree in the need of being taught in every educational level. The 66.7% of the Portuguese students marked this option, opposite to the Spanish ones (91.7%). This fact is concentered by the next option, regarding the need of being taught only in Higher Education, being chosen by 28.6% of the Portuguese students and 16.7% of Spanish. When we asked them about the literacies they know, we found a big gap between Portuguese and Spanish students with a positive difference of nearly 20-25% on some literacies: 76.2% versus 54.2% on media literacy, 85.7% versus 54.2% on audiovisual-film literacy. In general, we can observe a wider knowledge of the literacies in the Portuguese case, which would explain the differences found in the previous question. This leads us to the second conclusion: Portuguese students don't consider the teaching of literary at every educational level as important as the Spanish ones because they already know most of them. The main topic here will be on how they have acquired that knowledge and the different ways students acquired them along their life, not only at school.

Questions 5, 6 and 7 are focused on the relevance the different literacies have in education. The items who have obtained the maximum grade in question 5 (on the relevance of literacies in higher education) are the same in both countries: digital literacy (54.4% Portugal, 50% Spain) and critical thinking (52.4%, Portugal, 70.8%, Spain). This idea is reinforced by the results obtained in question 6, related to the literacies that must be known by the higher education professor, where critical thinking occupies the top place in both countries (90.5%, Portugal; 91.7%, Spain) and digital literacy the third place (61.9% and 58.3), obtaining a very similar result.

Furthermore, some interesting differences in the results obtained from question 5 are the ones regarding information literacy and literacy and critical thinking. In the case of information literacy, Portuguese students have marked this option only in 38.1% of the cases, versus the Spanish ones, who have chosen it in 91.7%. Something similar has occurred in the option critical thinking, which has received the highest grade from 70.8% of the Spanish students and 52.4% of the Portuguese, although it is a very popular option in both cases. This stands in the same line as the results obtained in question 6, referred to the literacies that must be known by the Higher Education professor. The value given to Information Literacy (66.7%, Portugal; 91.7%, Spain) is a very interesting detail considering that the target group in the Portuguese case is composed of Journalism students, opposite to the Spanish ones who are coursing a degree in Education. We can also detect some fluctuations in the appreciation of and media literacies (61.9% versus 41.7%); remaining the same in audiovisual and film literacies in both countries (33.3%).

About question 7, on which literacies would the students know better, the winner is again critical thinking (52.4%, Portugal; 66.7%, Spain), followed by audiovisual-film literacy and information literacy. It is interesting to check how the same results keep appearing, giving special attention to critical thinking, not only to be known by teachers but also by students. This leads us to the third conclusion: digital and critical thinking literacies are highly valued by university students, is considered the most important ones for their training.

Question 8 is an open question where we have given the students the opportunity to share their ideas on the skills the professor must have to face contemporary social challenges. In both groups, we can find very similar qualities: critical thinking, reflection on the teaching process, updating, deep knowledge of the subject, openness to debate in class, open mind, a wide range of professional and human skills, creativity, critical sense and being an inspiration for his/her students.

## 5. Conclusion

All this data leads us to the last and main conclusion of this article: considering the results obtained, we can affirm that the main competence that a professor must accomplish and apply at any degree is critical thinking, involving a deep knowledge of the subject taught based on a developed information competence mostly obtained from special digital abilities, an open mind hearing for the students' opinions to promote the debate and encourage students' own critical thinking. In addition, the nowadays professor should be prepared to face a generation who manages almost perfectly digital, media and audiovisual/film literacies.

## References

European Commission (2015). *The Changing Pedagogical Landscape: New ways of teaching and learning and their implications for higher education policy*. Luxembourg: European Commission

Garba, S. A., Byabazaire, Y. and Busthami, A. H. (2015), *Toward the Use of 21st Century Teaching-Learning Approaches: The Trend of Development in Malaysian Schools within the Context of Asia Pacific*, International Journal of Emerging Technologies in Learning, Vol 10, No 4

Moreira, J. e Ferreira, Vítor (2016). *Cinema e Educação. Convergência para a formação cultural, social e artística*. Whitebooks: Santo Tirso

OECD (2018). *The Future of Education and Skills*. Paris: OECD

Prensky, M. (2001) *Digital Native, digital immigrants. Digital Native immigrants. On the horizon*, MCB University Press. Vol. 9, N.5, October

UNESCO (2017). *Reading the past, writing the future. Fifty years of promoting literacy*. Paris: UNESCO

UNESCO (2013). *Global Media and Information Literacy Assessment Framework: Country Readiness and Competencies*. Paris: UNESCO