MEDIA LITERACY OF HIGH SCHOOL STUDENTS IN ECUADOR AGAINST THE SCHOOL CURRICULUM

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Abstract

This statement is based on the diagnosis made of the competence levels of the Baccalaureate students in Ecuador in relation to the media. A qualitative study of content analysis in the baccalaureate curriculum following the dimensions of the concept of media competence of Ferrés and Piscitelli was carried out. The study made it possible to determine that 8% of the total skills contemplated in the baccalaureate contribute to the development of media skills, while 92% do not. This proves that the percentage is low compared to the total of skills worked, limiting with this the ability of students to perceive, analyze, discriminate and enjoy media communication.

Keywords: Ecuador. Curriculum. Media literacy. Media education. High school. ICT.

Resumen

El desarrollo tecnológico de la sociedad actual demanda hoy en día que la competencia mediática del alumnado sea concebida como una variable más en el diseño curricular para solventar las necesidades diarias de conocimiento de los medios. Esta afirmación parte del diagnóstico de los niveles de competencia mediática del alumnado de bachillerato en ecuador. Se realizó un estudio cualitativo de análisis de contenido en el currículo de bachillerato siguiendo las dimensiones del concepto de competencia mediática de Ferrés y Piscitelli. El estudio determinó que el 8% del total de las destrezas contempladas en el bachillerato contribuyen al desarrollo de las competencias mediáticas, mientras que el 92% no lo hace. Se prueba con ello que el porcentaje es bajo, frente al total de destrezas trabajadas, limitando con esto la capacidad de los estudiantes para percibir, analizar, discriminar y disfrutar de la comunicación mediática.

Palabras clave: Ecuador; Curriculum. Competencias mediáticas. Educomunicación. Bachillerato. TIC.

1. Introduction

1.1. Media competencies in the Ecuadorian context

Initially, the concept of competition in the working world and companies was developed. Little by little, the school and academic world was introduced until it became a thematic axis in the recent educational reforms, both school and university in most of the European and Latin American countries. As a result, we understand by competition the combination of knowledge, skills

and attitudes that are necessary for a given context. Thus, media competencies must develop people's autonomy and compromise them both socially and culturally (Ferrés & Piscitelli 2012).

The competency, in addition to a know-how, must include knowing how to understand, comprehend the implications of the facts, foresee the consequences, and assume them responsibly. In Ecuador, both public and private community social media must satisfy the information, education, and entertainment needs of all social groups (UNESCO 2011: 95). The audiovisual media in Ecuador do not have any special treatment for non-literate people. In the Organic Law of Communication approved in 2013, in its article 74 on common responsibilities, it appears in its section 9: "To promote educommunication". But is this section being developed?

In Ecuador, in recent years, work has been done on ICT use programs; one of them is the strengthening of learning based on the use of ICT (Peñaherrera 2011). The first state initiative in Ecuador aimed at incorporating ICT into the educational system began in 2002, when teachers of computers implemented were provided with a training program for pedagogical use. It was the Maestr @ .com program (Peñaherrera 2012). Subsequently, there was an inactivity due to the political situation. In 2006, the incorporation of ICT was strengthened through the White Paper on the Information Society, which constituted the framework of the ICT policy (CONATEL 2006).

So, the integration of ICT in the educational sector in Ecuador is obtaining notable infrastructures, classrooms with computers, computing resources, educational software, teacher training, creation of educational portals and technical support. There are various publications on ICT educational standards (Ministry of Education of Ecuador 2012). Studies have also been carried out on the use of ICT by Ecuadorian teachers where is necessary a training plan to acquire digital skills that involves them is necessary. Both training and self-training are important (Valdivieso, 2010). We find that in Ecuador the practice of incorporating ICT is carried out according to the initiatives of researchers and academics (Marín-Gutiérrez, Díaz-Pareja & Aguaded 2013).

In Ecuador, an attempt has been made to give a vision of the meaning of media competence and to see what has been done so far in the Ecuadorian school context. Mainly, research on media competencies has been carried out in high school in southern Ecuador (Marín-Gutiérrez et al. 2014). The

results show that students are the ones who have made the best use of ICTs in processes of a more social and non-academic-educational nature since in the school context there are still limitations on teachers to use technologies. Thus, it is suggested to consider in the academic field and the official curriculum the compulsory use of ICT as tools that enhance learning and interaction between teachers and students.

1.2. Media competencies in the Ecuadorian baccalaureate curriculum

The term "curriculum" implies several meanings. Some authors such as Posner (2003) consider that "the curriculum is a construction (and formation) plan that is inspired by articulated and systematic concepts of pedagogy with other related social sciences that can be executed in an effective and real process called teaching" (Posner 2003). For Lafrancesco (2004), the "curriculum" is the set of operational learning objectives conveniently grouped into functional and structural units in such a way that they lead students to achieve a degree of mastery that efficiently regulates teaching-learning activities.

The "curriculum" then systematizes and coherently organizes the objectives, methods, resources, knowledge, teaching-learning processes, and evaluation criteria. However, the knowledge society requires, on the one hand, new profiles in students and, on the other, "to contemplate the use of ICT as a priority in curricula" (Acosta 2010). The question then arises: how to integrate media competencies in the Ecuadorian baccalaureate curriculum? This is an issue apparently contemplated in the curriculum and applied in the teaching-learning processes. However, incorporation goes further. It requires the structuring of true learning communities that handle information, learn with it, process it and produce it to be transmitted, revalued, studied, as a cycle in permanent movement (Abendaño & Parada 2012).

Hence the importance of including in the school curriculum skills that promote the development of logical, critical, creative, productive and meaningful thinking through the use of the media and ICT in order to consolidate skills that allow students to communicate effectively, seek information, visualize and objectify places, events, processes or situations of reality (MEE 2014). In other words, knowing how to say and knowing how to interpret

the information available to them, generating research, creativity and innovation (Abendaño & Parada 2012) for solving everyday problems and thus achieving comprehensive student training in the framework of Good Living.

The Ecuadorian baccalaureate proposes a curriculum structure that starts from a common core of basic learning during the first and second year; then in the third year, although 20 hours per week of common subjects are conserved, diverse study options are opened. During the three years of this level, all students must take the group of general subjects defined in the compulsory national curriculum and can be supplemented according to the specificities and particularities of educational institutions (MEE 2011).

This modality seeks, among other aspects, for the student to use technological tools as an exit profile in a reflective and pragmatic way to understand the surrounding reality, solve problems, have access to the information society and manifest their creativity, avoiding appropriation and improper use of information (González 2010).

In order to achieve this projection, a curriculum based on skills with performance criteria is proposed, which express the know-how with one or more comprehensive actions that establish relationships with a given knowledge, and with different degrees of complexity depending on scientific rigors. -cultural, spatial, and temporal among others (MEE 2014). The development of skills will be measured by evaluation indicators expressed especially in the four areas of the national curriculum: mathematics, language and literature, natural sciences and social studies, clarifying that, in the future, standards corresponding to other areas of learning such as such as ICT, foreign language, citizen training, art education and physical education will be formulated (MEE 2011).

Facing these requirements, the 2011 Ecuadorian Baccalaureate curriculum presents several skills that aim at incorporating media competencies for employment in teaching-learning processes. However, the incorporation of technological mediators in all subjects is still necessary to support collaborative learning processes, facilitate permanent interaction and turn traditional institutions into nodes of a network framework that can provide synchronous and asynchronous communication environments.

Thus, the dialogue will be empowered, therefore, at the same time a simulation will be provided that can improve the results of the traditional

class (Montero et al. 2008). The appropriation of ICT by the teacher favors the interaction of these tools with knowledge and allows the development of mental structures in students to prepare them comprehensively for life through coexistence and active participation in an intercultural and multinational society (Riascos, Quintero & Ávila 2009).

2. Methodology

The research aims to know and explain a concrete reality and determine certain generalizations that can explain what educational-communication dimension is found in Ecuador's high school curricula. These objectives lead us to resort to an empirical-analytical methodology and a non-experimental and descriptive design, in accordance with that established by Cáceres (2008) and Corbetta (2003).

The phases that have been followed in this process were: the approach to the research problem, the delimitation of the study objectives, the formulation of hypotheses, the identification and naming of the different dimensions to be studied, the research approach, the information collection instrument and the qualitative data analysis techniques with Atlas.Ti. The hypotheses that were proposed were: (H: 1) The percentage of skills that include media competencies is low in relation to the overall percentage of skills proposed in the high school curriculum; (H: 2) The dimensions that constitute media competence are addressed in the curriculum with the same frequency; (H: 3) The dimensions of the media competences, in the skills of the curriculum, predominate according to the particularities of the subject.

2.1. Method

The development of the research prioritized content analysis as a method. This methodology, according to Bardin (1991) and López (2002), is descriptive and aims to extract from a content the basic components of a given phenomenon.

Units of analysis

In this study, the analysis unit was configured as follows: first, a grammatically based registration unit made up of sentences and paragraphs derived

from media competencies at their levels of analysis and expression; secondly, a context unit made up of legal texts from the Ministry of Education and, thirdly, the existence or non-existence of the categories present in each of the skills with performance criteria as well as the quantification of their presence.

The materials used were the eight curricular texts that are developed at the baccalaureate level, of which 27 subjects corresponding to 11 areas such as experimental sciences, social sciences, economics, art education, entrepreneurship, philosophy, informatics applied to education, Science and technology research, Language and literature, Mathematics and Psychology were analyzed; in this way, the generalization of the results was extended to the high school curriculum. In the context of Ecuador, at the end of the baccalaureate the "Being a bachelor" test is applied as a requirement to enter a quota at the university where the degree to which the students achieve different skills is evaluated, among which media competency does not appear; hence, research at this level is warranted. The study population was 978 registration units (skills with performance criteria), of which 82 corresponded to media competencies.

2.2. Procedure

The curricular documents were obtained from the official web pages of the Ministry of Education of Ecuador to ensure revision from the original source. The selection criteria were the Organic Law of Intercultural Education (2011) and the Curricular Guidelines for the Unified General Baccalaureate of Ecuador (2011). The search date took place in the months of May, June, and July 2015.

2.3. Analysis of the information

Prior to the analysis of the information, the units of registration (skills with performance criteria) were codified according to the curricular guidelines of Ecuador, the year, area and subject of the baccalaureate; Search criteria were established to identify the performance criteria skills associated with media competencies according to the dimensions, subdimensions, and descriptors established by Ferrés (2006, 2007). The analysis of the skills of the following subjects was then carried out: Higher Biology, Higher Chemistry, Higher

Physics, Biology, Physics, Chemistry, Physics, Chemistry, Education for citizenship, Problems of the contemporary world, Sociology, History and social sciences, Currents Philosophical, Development of philosophical thought, Informatics applied to education, Research science and technology, Critical reading of messages, Language and literature, Ancestral language and culture, Creative writing, Psychology, Economics, Musical appreciation, Theater, Art education, Entrepreneurship and management , Mathematics and Higher Mathematics.

These registration units were introduced into the ATLAS.ti program and were categorized based on the 55 descriptors established by Ferrés and Piscitelli (2012) for the six dimensions that define media competence: languages, technology, interaction processes, processes of production and dissemination, ideology and values, and aesthetics.

The "Language" dimension is related to the knowledge of the codes that make audiovisual language possible and the ability to use them to communicate in a simple but effective way. The "Technology" dimension has to do with the theoretical knowledge of the operation of the tools that make audiovisual communication possible in order to understand how messages are made and the ability to use the smaller, simpler tools to establish efficient communication in the audiovisual environment. The dimension of "Production and programming processes" is the "knowledge of the functions and tasks assigned to the main production agents and the phases in which the production and programming processes break down" (Ferrés, 2017), and takes into account account the elaboration of audiovisual messages, that is, the person's production capacity and the acquisition of knowledge about the importance of new environments to communicate. The dimension of "ideology and values" is the comprehensive and critical capacity of audiovisual messages as representations and critical analysis of reality and, consequently, as bearers of ideology with values. The "Reception" dimension develops the ability to recognize oneself as an active audience, especially with digital technologies, which allow participation and interactivity. The last dimension is "Aesthetics", which analyzes and values messages from the point of view of formal and thematic innovation and the education of the aesthetic sense.

Finally, with the generated results, a descriptive analysis is carried out, which identifies the skills of the curriculum that contribute to the development of media competencies of high school students.

3. Results

This study made it possible to determine that 8% of the total skills contemplated in high school contribute to the development of media competencies, while 92% do not. This proves that the percentage is low compared to the total number of skills worked, which limits the person's ability to perceive, analyze, discriminate, and enjoy media communication. It is necessary, then, to understand the importance of the inclusion of this type of competences in the curriculum. We are in a digitized society where "the profusion of media, technological advancement and progress, intergenerational gaps and the much brought and carried metaphor of digital natives" (Prensky, 2001) generate the urgent need to include and dynamize focused skills, among other aspects, to the development of media competencies. Parting from this analysis we can conclude that the percentage of skills that include media competencies is low compared to the overall percentage of skills proposed in the high school curriculum, as shown in Table 1.

Table 1. Skills that develop media competencies

SKILLS	F	%
Do not involve media competencies	896	91.65
They do involve media competencies	82	8.35
TOTAL	982	100%

Source: Own elaboration

In Figure 1 it can be identified that the dimensions of language and technology are mostly addressed with 39.2% and 31.71%, respectively. They are followed in representation by the dimension of ideology and values with 15.85%, the dimension of programming and production with 9.76% and the dimension of aesthetics with 3.66%.

This classification allows us to see that the high school curriculum prioritizes the development of the knowledge of audiovisual codes that make

language and communication possible for the analysis of messages and the perspective of meaning and meaning. Likewise, it also gives greater importance to the theoretical knowledge of the operation, understanding and use of technological tools that make audiovisual communication possible in an effective way.

The ability to understand and critically read audiovisual messages regarding representations of reality that are explained in the high school curriculum requires strengthening as an expression and support of the interests, contradictions and ideologies and values of society. Participation and interactivity in the use of digital technologies is not frequently promoted in the high school curriculum. Therefore, the critical assessment of audiovisual messages regarding the emotional, rational and contextual does not develop effective programming and production.

The analysis and evaluation of audiovisual messages from the aesthetic point of view as well as their relationship with other forms of media and artistic manifestation are the skills that are least developed in the curriculum. From this analysis, it is concluded that the dimensions that constitute the media competence are addressed in the curriculum with different frequency, depending on the skills, area and year of high school, strengthening some in a greater proportion than others.

Graph 1. Dimensions of media competency that are addressed in the curriculum
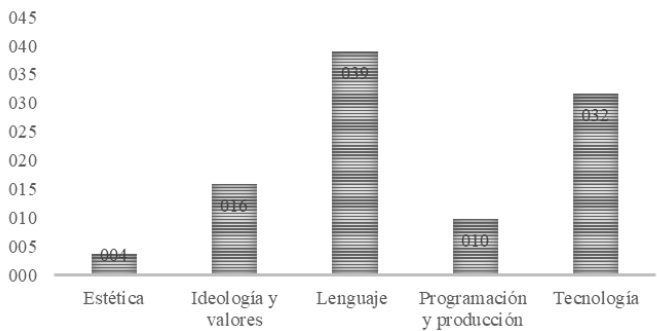
Source: Own elaboration

The dimensions of language, technology, processes of interaction, production and analysis, ideology and values and aesthetics as areas of media competence involve concepts, procedures and attitudes that, from our turning point, are directly related to the subjects and skills that these are worked on.

Thus, in the subject of Artistic Education, 100% of the skills related to media competencies are relevant to the aesthetic dimension. In this field, a skill is described in which the implication to manipulate concrete and virtual sound material in order to improvise musical rhythms from different regions of the country is more evident. Likewise, in this subject, as shown in Table 2, the dimension of ideology and values is developed in a greater percentage with 53.85%, since, among other skills, the understanding and ethical use of ICT are proposed in learning so that it is broken down into activities that require analysis both of the programming of media power and of the interpretation with evaluation of artistic productions.

In addition, the subjects that involve media competencies related to ideology and values in their skills are informatics applied to education and biology (15.38%) and, to a lesser extent (7.69%), education subjects for democracy and contemporary world problems. Now, if we analyze the characteristics of the skills and the contents that are addressed, we can conclude that the ideology and values dimension is related to the subjects since these prioritize the human being, the assessment of their environment, the reflections, the knowledge from research, and practice of values.

Table 2. Ideology and values dimension and its implication with the skills of the subjects

Subjects	Ideology and values dimension (%)
Artistic education	53.85
Informatics applied to education	15.38
Education for citizenship	7.69
Biology	15.38
Problems of the contemporary world	7.69
Total	100

Source: Own elaboration

Table 3 shows how the dimension of language has a direct relationship with the subject of language and literature (28.13%), since it considers citizen formation and democracy as a priority in its approach through the development of language communication skills and the use of codes that allow communication in its various types. It is in this subject, supported by critical reading and creative writing, that the dimension of language meets its horizon since knowledge of codes and the ability to analyze audiovisual messages from the perspective of sense, and meaning are fostered.

It is worth mentioning that in this dimension a greater number of subjects are grouped due to the particularity of the area and its way of approaching it. Besides that, this dimension becomes a specific subject, since it is part of a transversal axis in which all subjects converge in various moments and therefore seeks the constant passage from a simple description to a sociocultural criticality evidenced in the nature of the subjects (biology, art education, critical reading, all with 15.63%).

It can also be seen that, in the results of the experimental subjects (Chemistry, Physics-Chemistry, Applied Chemistry and Higher Physics, all with 3.13%, the implication of the dimension is relatively low; however, it is considered an effective means within the teaching-learning process.

Table 3. Language dimension and its implication with the skills of the subjects

Subjects	Dimension of Language (%)
Biology	15.63
Artistic Education	15.63
Chemistry	3.13
Physics-Chemistry	3.13
Applied Chemistry	3.13
Critical Reading	15.63
Language Creative Writing	12.5
Language and literature	28.13
Física Superior	3.13
Total	100

Source: Own elaboration

Graph 2 shows how the dimension of programming has a higher percentage according to the results in the subject of Artistic Education (62.5%) in such a way that the objective of imagining, creating, innovating and developing a flexible mind is achieved through processes in which students can transfer knowledge and link it with their reality, using the media to document the most important social relationships in the environment through photography, video or text.

Faced with the results, it is also necessary to specify that the subjects that are most supported in the programming dimension are chemistry, with 25%, and biology, with 12.5%. In this case, the principles, laws, theories and procedures are many times subjective; hence the need for didactic-technological resources to be used in these subjects to objectify the content and simulate everyday processes or situations. It can be deduced that, in fact, the programming dimension does relate to the subjects whereby skills are developed involving media competencies.

Graph 2. Programming dimension and its implication with the skills of the subjects
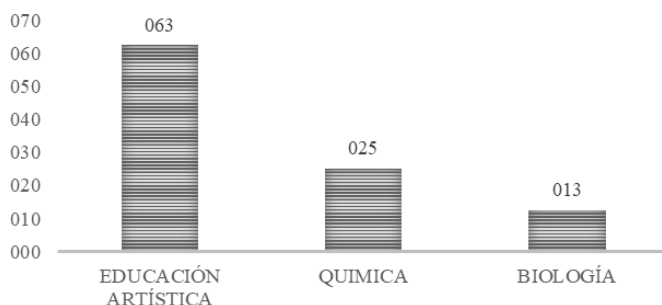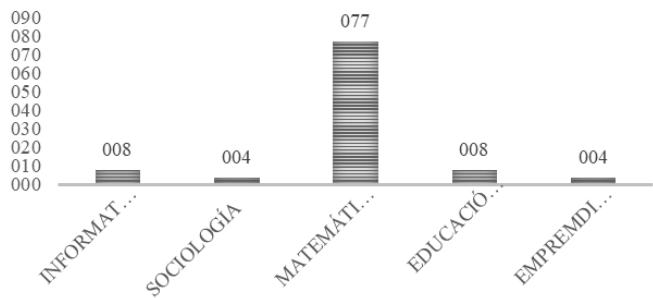

Source: Own elaboration

It is necessary to comment that, in the curricular guidelines of the baccalaureate, the subject of informatics applied to education does not contemplate skills with performance criteria, in such a way that, given the relationship between the name of the subject and the media competencies, an inductive

skill writing process with performance criteria based on the essential evaluation indicators was carried out.

In the case of the technological dimension, as shown in graph 3, mathematics is the subject that, with the highest percentage (76.92%), implies this dimension in its skills; precisely, a learning axis of the area contemplates the use of technologies in solving problems and, according to the approach, technologies are non-evaluable tools for the application of knowledge.

The other areas that consider the technological dimension do so in percentages of less than 7.69% (Artistic education) and 3.85% (Entrepreneurship and management and Sociology). These data allow us to deduce that, although the area of mathematics is closely related to the dimension of technology, it is required that other subjects also involve media competencies in order to enhance the relationship.

Graph 3. Technological dimension and its implication with the skills of the subjects

Source: Own elaboration

4. Discussion and conclusions

In the research that we present, we have verified how the six dimensions of media competencies are present in high school curricula and, briefly, we see that some are better developed than others. Thus, the percentage of skills that include media competencies is also low in relation to the overall percentage of skills proposed in the high school curriculum; Similarly, it is evident that the dimensions of media competence are not addressed in the curriculum

with the same frequency since they predominate according to the particularities of the subject, especially highlighting the dimensions of Language and Technology and, the least outstanding, the dimension of Aesthetics, which would be promoted through music and the plastic arts by applying ICT. From these conclusions, some action lines that must be worked are described below.

The curriculum should guide the development of cognitive and affective abilities that high school students need to function in the information society. It is necessary to critically and selectively value the messages of the media, reflect on the media discourse and become aware of their presence in their own personal life, habits and attitudes, since they must internalize values and actions that allow the development of citizen global awareness.

It is important to place reading in its broadest form within the activities of teachers and in the skills of the curriculum. It is also pertinent and feasible to include the technological-didactic resources and strategies in the description of each and every one of the skills of the curriculum that guide the development of media competence as a form of affective and effective educational communication.

The educational system will help the understanding of the media discourse, as Bukingham (2007) affirms, not only decoding the messages, but also understanding the ideologies and values of today's society where young people must develop their creative abilities and critical reception of messages.

The inclusion of tablets and smartphones connected to the Internet to carry out activities within the classroom should be encouraged. In addition, students should receive classes that allow them to relate theory to practice.

Finally, it would be important to develop a systematic media literacy in the high school centers integrated into the curriculum.

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