The Musical Offers of Children’s Programming on «Televisión Española» as its Hearing Universe

La oferta musical de la programación infantil de «TVE» como universo audible

ABSTRACT
The music that children are exposed to in their everyday lives plays an important role in shaping the way they interpret the world around them, and television soundtracks are, together with their direct experience of reality, one of the most significant sources of such input. This work is part of a broader research project that looks at what kind of music children listen to in a sample of Latin American and Spanish TV programmes. More specifically, this study focuses on children’s programmes in Spain, and was addressed using a semiotic theoretical framework with a quantitative and musical approach. The programme «Los Lunnis» was chosen as the subject of a preliminary study, which consisted in applying 90 templates and then analysing them in terms of the musical content. The results show that the programme uses music both as the leading figure and as a background element. The most common texture is the accompanied monody and the use of voice, and there is a predominance of electronic instrumental sounds, binary stress and major modes with modulations. Musical pieces are sometimes truncated and rhythmically the music is quite poor; the style used is predominantly that of foreign popular music, with a few allusions to the classical style and to incidental music. The data reveal the presence of music in cultural and patrimonial aspects, as well as in cognitive construction, which were not taken into account in studies on the influence of TV in Spain. Such aspects do emerge, however, when they are reviewed from the perspective of semiotics, musical representation, formal analysis and restructuring theories.

RESUMEN
La música de la vida cotidiana del niño tiene uno de sus referentes, junto a su experiencia real, en la banda sonora de la televisión, configurando una parte de su interpretación de la realidad. Este trabajo forma parte de una investigación más amplia sobre la escucha televisiva infantil en una muestra iberoamericana. El objetivo, conocer qué escuchan los niños en la programación infantil de «Televisión Española», ha sido estudiado desde un marco teórico semiótico con un enfoque cuantitativo y musical. El artículo presenta un resumen de los resultados obtenidos en un primer análisis del programa «Los Lunnis» mediante la aplicación de noventa plantillas y sus análisis musicales correspondientes. Estos resultados indican que el programa utiliza la música como fondo y figura, textura de monodía acompañada y utilización de la voz, predominio del sonido electrónico instrumental, acento binario y modo mayor con modulaciones. Aparecen piezas musicales cortadas y cierta pobreza rítmica, su opción estilística es la música popular no propia, con algunos guiños al estilo clásico y a la música incidental. Los datos muestran la presencia de la música en aspectos culturales, patrimoniales y de construcción cognitiva no considerados en los estudios sobre la influencia de la TV en España, pero que emergen cuando son revisados desde la semiótica, la representación musical, el análisis formal y las teorías de la reestructuración.

KEYWORDS / PALABRAS CLAVE
Soundtrack, observation, analysis, television, children, listening, music, audience.
Banda sonora, observación, análisis, televisión, infantil, escucha, música, audiencia.

Dr. Porta Amparo Navarro is Associate Professor and Researcher of the Department of Education at the Faculty of Humanities and Social Sciences of the University Jaume I in Castellón (Spain) (porta@edu.uji.es).
1. Introduction

In the twentieth century, music emerged as a powerful new force that was to reshape the borders of a number of areas including aesthetics, expression and communication. This redefinition of course also had significant effects on the field of education. Additionally, this new sonic space, widely used by the avant-garde artistic movements of the twentieth century, has been a key element for the mass media such as the radio, cinema and, more especially the one dealt with here, namely television. Yet, despite its importance and repercussions, it has received very little attention from education as a discipline. Some of the most important works found in a review of the Spanish literature on children’s television include those by Vallejo-Nágera (1987), De Moragas (1991), Ferrés (1994), Orozco (1996), Pablo de Río (1997), Aguaded (2005), Pintado (2005) and Reig (2005). Of the studies that were consulted, the «White Book: education in the audiovisual setting» (CAC, 2003) and «The Pigmalión Report» (Del Río, Álvarez & Del Río, 2004) contain a great deal of information about Spain, as well as some proposals for action.

The first of these two works studies the context of the mass media, together with their industry, contents, consumption and relation with education. In its conclusions, the Pigmalión Report recommends using global views that allow cultural proposals and the needs of childhood development to be integrated. To achieve this, researchers are asked to describe, explain and propose reliable alternatives involving new designs based on the evaluation of TV programmes (Del Río, Álvarez and Del Río, 2004). In the international domain, Cohen (2005) recommended a method for gaining a better understanding of the overall content of television and its local diffusion. This proposal consisted in examining three variables: 1) who selects the contents and for whom; 2) the proportion of local material to be included within the foreign content; and 3) how the latter is adapted to local viewing (Cohen, 2005). All the reports speak of an excessive exposure to television and poorly defined criteria for selecting and processing its contents.

The object of our study is the music that appears in the «television diet», which is affected by the issues outlined above and requires specific forms of analysis to be able to study it because music speaks using its own particular language (Porta, 2005: 285). A soundtrack consists of music, sound and noises, with which it produces effects on the audible thoughts and on the characteristics of listening (Schaeffer, 1966; Schafer, 1977; Delalande, 2004; Sloboda, 2005). One of the elements to be taken into account from the perspective of education is sound. This element of expression, which became liberated in the twentieth century, as shown by the Theory of Art (Cage, 1961; Hauser, 1963), is crucial in the production of TV programmes. The second element to be borne in mind owing to its presence and repercussions in everyday life is how sound is recorded and published on a material support (Delalande, 2004: 19). The third element is the nature of the actual medium, in our case, television. With regard to the generation of paradigms, Stiegler (1989: 235) spoke about the effect produced by «memory technologies», such as television, because they construct the coherence of their discourse from a combination of techniques, social practices and sound shapes.

When we speak of children’s sonic environment, a review of the international literature shows that most of the studies are conducted as laboratory experiments that cover artificial realities in groups determined by their learning characteristics or the fact that they are a risk population in schools (Ward-Steinman, 2006; Burnard, 2008) or by their eating habits and health (Ostbyeit, 1993). Music has also been linked to reading skills (Register, 2004) or violence (Peterson, 2000), among other things. Some of the most important works on television music include those by Beckers (1993) in Germany, Bixler (2000) in England or Magdanz (2001) in Canada. Others include those carried out on the programme «Sesame Street», and more especially the study entitled «Musical Analysis of Sesame Street» conducted by McGuire (2001). With respect to the influence of the soundtrack as music from the everyday environment and its relationships with identity, Brown (2008) reviewed the need to integrate fields of research taking into account the production of consumption, the production of culture and the cultures resulting from this process of hybridisation.

The same author also underlined the need to integrate this designer popular music within research. Finally, one important contribution on the subject of the globalisation of music that should be highlighted is the work by Aguilar (2001), which deals with preserving cultural products in changes and migrations that, according to the author, offer challenges for musicians and educators alike. She sees the effects of the media production on cultural phenomena as being selective, incomplete and inaccurate, and recommends the use of music that presents a valid image of itself. Likewise, she also urges musical and educational communities to offer a representation of musical culture that includes its roots and transformations. In Spain, although there are very few lines of research in this direction, some of
them are followed by our research group, such as the work by Ocaña and Reyes (2010) on the programmes shown on Canal Sur. Nevertheless, music on television is more commonly reviewed as an educational tool to help learning (Euforia 12, 1998; Comunicar 23, 2004).

From the psychological approaches, some of the most significant contributions have been those made by Cognitive Psychology concerning information processing and the Restructuring Theories, both of which are clearly based on «anti-associationist» concepts defended by authors like Piaget, Vygotsky or the Gestalt School. The key difference between the two lies in the unit of analysis that they use: while the first is elementarist, the cognitive approach is based on molar units (Pozo, 1989: 166).

One important point to be highlighted in this second approach is Vygotsky's socio-historic theory, which has been reinterpreted and adapted so that it can be applied to audiovisual comprehension (Korac, 1988). In his works on the use of television in education, De Pablos (1986) studied the Russian author and underlined some relevant elements of his work: 1) Mental processes can be explained by the instruments and signs that act as mediators; he therefore defends the study of the communicative nature of signs as holders of meaning. 2) From a semiotic point of view, internalisation is a process of gaining command over the different forms of external signs (codes). 3) Today, the semiotic offer has expanded to an unbelievable extent, so that, in addition to speech, it has also become important to be able to use other codes. Children perceive the world through the senses, speech and other codes in a process that goes from social speech (the mother tongue) to inner speech by way of egocentric speech. Hence, it could be said that television music follows this same trajectory and forms a semiotic instrument that the subject incorporates within his or her repertoire of inner dialogue for interpreting reality.

Finally, and to end this brief review of music and television, it should be noted that there are no empirical indicators that ensure a good knowledge of the field of study.

1.1. Presentation of the problem

The music used every day on television provides children with cognitive, social, emotional and patrimonial elements. It is therefore important for both academics and researchers to understand it so as to be able to:

1) Match curricula to these modes, media and musical contents.
2) Take on the educational commitment to be familiar with the music offered on television.
3) Lay down guidelines that allow high-quality television programmes to be produced.
4) Offer alternatives in both the educational domain and in terms of musical and audiovisual production.

In the twentieth century, music emerged as a powerful new force that was to reshape the borders of a number of areas including aesthetics, expression and communication. This redefinition of course also had significant effects on the field of education. Additionally, this new sonic space, widely used by the avant-garde artistic movements of the twentieth century, has been a key element for the mass media such as the radio, cinema and, more especially the one dealt with here, namely television.

1.2. Purpose and aims of the study

This work studies the soundtrack of the children's television programme with the largest audience in Spain, i.e. «Los Lunnis», which is produced by Televisión Española (TVE) and is broadcast every day from 7:30 to 9:30 am, the episodes from each week being shown again on Saturday mornings. Our intention is to find out what music is used on the most important public free-to-air television channel in Spain. «Los Lunnis» is the only children's programme offered by TVE and it is broadcast on its second channel and is financed by public funding. In order to analyse it we developed a system for coding and categorising musical material and the findings were to be used in a later (still to be initiated) phase involving the search for alternatives. In our study, the aim is to
1.2.1. What is listened to?

This first approach will provide us with the traits that allow the soundtrack to be classified according to an objective pattern of measurement. Our questions are: What musical sounds are used and what types and families do they belong to? What tempo and metre are used? How do the pieces of music begin? What pace and intensity do they have? What genres and styles do they display? What keys are most frequently used? How do the pieces of music end? How prominent is the soundtrack in the programme?

1.2.2. What is the music like?

The second approach has to do with the internal elements of the music in the television landscape (Atienza, 2008). In order to understand their musical and discursive meaning, we divided the programme into three sections, namely in-house (locally produced) material, advertising and cartoons. Our research questions were: How is the soundtrack constructed in the three sections? What are its musical characteristics? What are the songs about? How is the music related with the dramatic action, the scenes and the synchrony between them?

2. Material and methods

This work is part of a broader research project aimed at determining what children listen to in a sample of Hispanic TV programmes. Umberto Eco’s (1978) model was used as the semiotic framework of reference. Gómez-Ariza’s (2000) model was specifically utilised in the construction of the listening template and, lastly, Zamacois’ (1968) analysis of Musical Form was also employed.

2.1. Sample

The programming block that was selected, «Los Lunnis», consists of three sections with different proportions: 25% in-house programme material, 63% cartoons and 12% advertising. The sample is made up of the ten hours of the programme that were broadcast during one week (18 to 22 February 2008) in which no special events took place. The potential range of viewers’ ages was relatively wide. The sample comprised Spanish and US cartoons, advertising (commercials advertising food/sweets and toys) and lastly the in-house programmes, which included the opening and closing sequences, bumpers, dramatisations, reports, songs, news and interviews.

2.2. Design, instruments and data collection

To conduct this research a listening analysis tool was developed ad hoc and validated before applying it in the study (Porta & Ferrández, 2009). Sampling was performed by means of the expert choice procedure to ensure that musical elements from all three sections of the programme that were relevant to the first analysis were all included. Furthermore, the sample was complemented with 10 excerpts in order to establish the target musical material used in the programme. Three different instruments were used in the research, the first two being included within the same template. These were: 1) Data from the sample; 2) Musical categories; and 3) The musical analysis itself.

The first instrument gathered data about the rater, data record, country, programme, section, date, duration and the musical elements of the programme (opening sequence, signature tune, closing sequence, bumpers, songs, dramatisations, scenes, reports and excerpts). The second instrument consisted of 14 categories divided into 59 codes, which had «yes/no» or «undetermined» (ND) as possible answers. This tool divided the variables into different categories that could be measured in a dichotomous way, depending on whether they appeared in the selected unit or not (Porta & Ferrández, 2009).
In the Latin American study that this work is part of, a joint validation session was held so that programmes, countries and contents that were common to the whole research study could be reviewed by a panel of experts. A double interrater validation was also carried out, the results showing a mean percentage of agreement above 80%, which was considered to indicate a very high level of reliability of the instrument in general.

Approach 1. What do they listen to? The template was applied to the programme «Los Lunnis» by means of 90 units of analysis and a full examination of the form of 23 pieces of music.

Approach 2. What is the music like? Since not everything can be answered dichotomously, a new approach was developed to search for the molar elements (Pozo, 1989: 166-167) and their meaning, that is to say, the characteristics of the music, in: 1) The in-house programmes: study of the opening theme music, closing themes, bumpers and songs; 2) Cartoons: the series «Bermi», «Clifort» and «Pocoyó»; and 3) Advertising: commercials for toys and food/sweets. Finally, in order to study the intentional musical options from the programme, five diegetic songs were selected (that is, songs performed by the leading characters in the programme).

From these two approaches we sought to determine the options and musical elements used in children’s television programmes, that is, the place that music speaks from (Porta, 2007: 22). This will be the first step towards discovering the unexplored educational space of music and its communicative presence as a discourse that conveys meaning (Talens, 1994).

3. Results

3.1. What is listened to? The musical categories

The 14 indicators were applied to the five programmes broadcast during the week by means of 90 templates. The percentages indicate the measure of the dichotomous feature «yes/no» and «undetermined» that reflected factors involving mainly brevity and inaudibility. The most notable results were:

- Musical sound/non-musical sound. The programme often uses musical sound as well as a high percentage of non-musical sound consisting of noises and sound effects.

- Type of sound. The music studied is 70% electronic, 15.5% acoustic and 10.5% combinations. Groups of instruments from all the families can be heard, although there is a predominance of stringed instruments and electronic imitative sound.

- Voice and instruments. It was observed that 42% of the music was instrumental and the rest was vocal, mainly in groups (38.9%) with a prevalence of male voices (10%) over female voices (2.2%).

- Metre and rhythm. With regard to the type of stress, the results were binary in 88% of cases versus 1.4% of ternary, with occasional cases of blends.

- Type of beginning. The pieces of music had anacrusic beginnings in 57% of cases versus 37.8% thematic beginnings and very few cases of achenalous beginnings.

- Dynamics. The use of intensity was mostly flat (81%), with variations in 18.9% of the melodies that were listened to.

- Agogic. As far as variations in pace are concerned, the music in this programme was again seen to opt for no variations in tempo in 88.9% of cases versus 3.3% of cases in which it speeds up and a slightly higher percentage that uses ritardando.

- Cadences. Resolutions, regardless of the section of the programme in which they appear, were mostly conclusive (56.7%), while 25.6% were suspensive and 10% truncated melodies. This last type occurred in segments from advertising or in adjustments made to the continuity of the programme that cuts its melodies short in order to move on to the next programme.

- Sound texture. The texture in the sample was the accompanied monody (64.4%), in contrast to singing voices, which can be either homophonic (4.4%) or polyphonic (12.9%).

- Sound plane. The music often played a leading role in the programme, only appearing as the background to scenes and dramatisations in just 25.6% of the cases in the sample.

3.2. What is the music like? The musical contents

In order to study what the music in the programmes is like, the template was applied to 23 pieces of music from the three sections, bearing in mind the length of the work and its musical form. Thus, in the long pieces of music, the first and last phrases, two intermediate excerpts and an assessment of the whole piece were studied for the five days of the week.
3.2.1. In-house programmes

The results of the analysis of the in-house material (opening themes, closing music, bumpers and songs), cartoons and advertising were as follows: the opening theme music of the programme, which was repeated on each of the five days of the week, was studied using 15 templates, three for each day. It is a short tune lasting 34", with an anacrusis beginning, in G Major, and a tempo of 144 beats per minute. It is sung by an adult soloist and groups of vocalists accompanied by instruments (Figure 1). This tune is heard in links, the presentation of dramatisations, subsections, bumpers and closing themes, and in each case different versions are used (instrumental, vocal, semi-spoken) and could be complete, fractioned or played as a repeating loop.

In the closing themes, the programme uses different parts of the tune from the opening theme, while maintaining the motif from the signature tune, and they vary in length: 4", 36" and 1'33". This last closing theme, for example, is repeated in a loop while the last dramatic action in the programme is finishing, and ends with the signature tune shifting from the background to the foreground. On two of the five days, it was truncated and replaced by the next programme, which was already being announced, or by the «unrelenting commercials» (González Requena, 1988).

Eight of the bumpers lasted 7" and, again, took up the identifying elements of the opening theme tune and modified them with different arrangements and effects. There were many different songs and melodies in the programme. In this section we have selected the leading songs performed by the characters in different settings such as little theatres, pubs, television studios or virtual sets. These songs represent the different options that exist in television as regards form, genre and style, as well as their connection with the scene, the choice of subject matters and the synchrony between text and images. The five diegetic songs from the week (Table 1) were studied using 25 templates – five for each song: one for the first and last musical phrases, two intermediate excerpts and one assessment of the whole piece.

3.2.2. Advertising

Advertising was studied using a single template for each commercial or two when there was a notable change in the music. The common features were: average length 20"; tempo of about 123 beats per minute; instrumental, electronic imitative sound; binary; no variation in the dynamics or in the rhythm; pop and film genre; in a major key; and the music was background music that sometimes became the leading, foreground figure. In the case of «I’m pocket» two templates were applied due to the significant change that takes place between Excerpt 1 (from 1" to 18") and Excerpt 2 (from 18" to 20"), where there is a change in the music to highlight the theme tune.

3.2.3. Cartoons

Lastly, the cartoons were studied by taking an excerpt every 45" until the whole episode was covered. The following is a summary of «Berni» and «Pocoyo»:

- «Berni» is a cartoon series from 2006 without dialogues, produced by BRB Internacional S.A., which is about sports and features «Berni», a polar bear. It is made up of 3' episodes that are strung together to fill the whole broadcast. The study was conducted by means of six templates. The episode included both everyday noises and sounds and electronic imitative sound. The music was a combination of short sequences in the Classical style with others more closely related to the incidental music used in films. It was written in a major key and was instrumental, with no variation in the rhythm or in the dynamics, and both conclusive and suspensive cadences were employed. There were some modulations to other tones, the sound texture was the accompanied monody and the music appeared as background music, except for just one occasion on which it progressed from the background to the leading figure.

- «Pocoyo». This is a Spanish cartoon series from 2005 produced by Zinkia Entertainment which features Pocoyo, a little boy whose adventures involve discovering and interacting with the world around him. Each episode lasts 6'45" and the narrative action in this episode was about discovering one’s own fingerprints and those of others. The episode made use of both non-musical and musical sound from the pop environment with traces of incidental music from
4. Discussion

In answer to the aims and research questions of this study, we can say that: What is listened to? The programme «Los Lunnis» has a soundtrack that utilises musical sound (preferably electronic) that is divided into fairly equal proportions of instrumental and vocal music sung by groups of voices. Its music is binary, popular, anacrusic, with flat dynamics, no variations in the pace and the texture is the accompanied monody. It uses the major key with modulations to other keys, it resolves by means of conclusive cadences, and the music is predominantly the leading figure. There is a high percentage of non-musical sound consisting of noises and sound effects.

What is the music like? A preliminary evaluation of the musical analysis reveals that the diegetic music of the in-house material (25% of the programme) is made up of strophic songs with phrases eight bars long. They are listened to as whole pieces and resolve in a highly conclusive manner with all the closing elements available, sometimes using both polyphonic and homophonic polyphony. There is a certain lack of rhythmic richness, with a strong presence of binary stress. The intensity has no nuances and is controlled using a mixing desk, with shifts from the background towards the leading figure usually carried out by means of non-musical narrative strategies. The synchrony between the music and images in the programme is good and the instruments and sound objects are coherent with its soundtrack and stage spaces. Its tempos range from 78 to 168 beats per minute, with no variations in the rhythm and it uses the keys of CMaj, GMaj, DMaj and Dminor, which sometimes modulate to other keys. With regard to style and how it is linked with identity, the programme opts for foreign popular music. Its timbral composition is predominantly electronic with some acoustic elements of the popular music in question. This is also reflected in its harmonic and melodic structures, which are often accompanied by choreographic arrangements and an appropriate wardrobe and set design. Advertising, which takes up 12% of the total time, has a soundtrack with an average pace of 123 beats per minute. It is predominantly instrumental, with electronic imitative sounds, and is binary and thetic with no variations in the dynamics or in the rhythm. It has no defined style, sometimes using the film genre and non-musical noises and sounds, and appears in the major key in the form of background music. Cartoons, which account for 63% of the programme, use both music and non-musical sounds and noises to reinforce the dramatic action with the aid of changes in key and tempo, as well as the use of suspenseful effects and small leitmotifs to define characters. A study of the melodies used in the programme shows that the most common one is that of the actual signature tune, which appears as the introduction and at the end of each section, dramatisation and episode. Truncated pieces of music are also heard, especially in commercials and at the end of episodes. Another point to be highlighted, due to its specific weight in cartoons, is the preponderance of non-diegetic music and a wide variety of both musical and non-musical sounds.

Table 1. The diegetic songs from the week
Selection of genres and styles. Music from before the twentieth century is scarce, with a few exceptions in cartoons and parodies of the programme itself, in which there are some allusions to the classical style. Instead, the style chosen for the programme is popular music, the leading songs of the week being a ranchera, a country song, two blues and a pop song. In the sample that was studied, the music is always someone else’s and never one’s own work. Children’s television programmes require proximity contents (De Moragas, 1991), yet what is offered is a multicultural space that has been filled with exotic material and no longer contains any local elements. From an educational point of view, this option questions identity because music speaks about oneself, about others and to others (Porta, 2004: 112). Valuing diversity means recognising what is one’s own at an early age, because this egocentric speech (Vygotsky, 1981: 162) will eventually give rise to inner speech, and music is part of the cognitive construction.

Incidental music. Music is linked to the action in all the different sections of the programme in the form of tiny fragments of music that remind the child of the world of films. This is the case of the parody of «Luncciona» or that of «Psycho», or the repeated references to one of the last American heroes: «Indiana Jones». In «Pocoyo» there are leitmotivs associated to its characters, tonal and non-tonal music, modulations, variations in the dynamics and rhythm, as well as shifts from leading figure to background, and vice versa. And all this takes place within an expressive and aesthetic dialogue in space and time that has in mind a small, intelligent child who interacts with the television media through music.

Soundtracks of films and television programmes have an influence in education and also a social responsibility as part of the construction of children’s consciousness because they make an important contribution to the development of their cognitive, social, expressive, aesthetic and, later, critical capabilities. This article outlines some of the aspects that have received little attention from researchers in studies on the music used on television and its influence in childhood, but which become more apparent when they are studied from the perspective of semiotics, musical representation, formal analysis and restructuring theories. The conclusions point to the following as lines of action that should be followed: value must be given to the social, cultural and patrimonial functions of music on television because music speaks about others and to others. And it does so by means of representation: i.e. how the continuity of what is seen and heard is produced, articulated and created; and also from the position of the speaker: i.e. the television production, its meaning and influence. Television as a medium can favour the reconstruction of musical contents and their understanding, as well as the development of taste and the enhancement of the immaterial heritage. Thus, in future studies broader units of analysis will have to be defined, as proposed by cognitive psychology and the musical tendencies of the twentieth century. This study has responded to some of them, which refer to cultural heritage, identity and otherness, that is, interpretations of diversity and relationships with the environment in which music is far more than just an audio-visual medium – it is a vehicle, a means and a content of expression, representation and dialogue with the world.

Notes
1 The indicators, definitions and review of the results were discussed and agreed on at the II Encuentro investigator sobre la banda sonora de la television infantil y juvenil en el ámbito latinoamericano. Variables, impacto e influencia en el patrimonio sonoro held at the University of LANUS, Buenos Aires from 14th to 18th May 2008. The conference was attended by representatives from three Spanish (UV, UG and UJI) and five Latin American universities (U LANUS, UT, UNIRIO, US, UNE).

Acknowledgements
This work was made possible thanks to funding through projects: 1) RE-D (2007/2010) «Las bandas sonoras de la television infantil y juvenil en el ámbito latinoamericano. Variables, impacto e influencia en el patrimonio sonoro» held at the University of LANUS, Buenos Aires from 14th to 18th May 2008. The conference was attended by representatives from three Spanish (UV, UG and UJI) and five Latin American universities (U LANUS, UT, UNIRIO, US, UNE).

References

© ISSN: 1134-3478 • e-ISSN: 1988-3293 • Pages 177-185