TEACHERS' USE AND PERCEPTIONS OF DIGITAL SCHOOL TEXTBOOKS IN ROMANIA

Dr. **Diana Cojocnean***

Abstract

The current study presents the case of the Romanian education system adopting digital textbooks in primary school. The study is based on the data collected from a one-question online survey conducted within the online teachers' community, *didactic.ro*, and on qualitative data collected from two sources, firstly, a netnographic source, namely, teachers' online comments to the one-question survey and secondly, English teachers' answers to an online open ended questionnaire. The data from these sources were triangulated in order to render a better picture of the use and perceptions of digital textbooks in the Romanian education system. The main aim of the study was to investigate the way primary school teachers use the available digital textbooks but also to examine the extent to which these textbooks are perceived as useful or not by primary school teachers and to identify the possible faults and positive aspects related to the use and content of digital textbooks.

Keywords: e-learning, digital textbooks, digitization policy, computer assisted language learning (CALL), mobile assisted language learning (MALL).

Rezumat

Studiul de fa   prezint modul în care sunt folosite manualele digitale în înv   mântul primar din România i percep ia cadrelor didactice asupra folosirii manualelor digitale. Studiul se bazeaz pe date culese dintr-un sondaj de opinie propus pe comunitatea online a cadrelor didactice, didactic.ro, i pe date calitative culese din dou surse. În primul rând, este vorba de comentariile cadrelor didactice care au r spuns la sondajul propus pe didactic.ro i de r spunsurile la un chestionar cu întreb ri deschise trimis online profesorilor de englez din jud. Cluj. Astfel, datele culese din cele trei surse au fost triangulate pentru a descrie modul în care profesorii din înv   mântul primar folosesc manualele digitale i percep ia lor legat de folosirea acestor manuale. Principalul scop al studiului a fost investigarea modului în care manualele sunt folosite la clas , analiza m surii în care ele sunt considerate utile de c tre cadrele didactice, dar i identificarea anumitor puncte forte i slabe legate de modalitatea de prezentare i con inut a acestor manuale.

* English Language Teacher,   coala Gimnazial Interna ional SPECTRUM, Cluj-Napoca, Romania
  diana.cojocnean@cluj.spectrum.ro

Cuvinte-cheie: *e-learning, manuale digitale, politica de digitalizare, înv are asistat de calculator, înv are asistat de tehnologiile mobile*.

1. Introduction

Technology integration along with a recently introduced primary education curriculum which is currently based on integrated knowledge, skills, values and problem-solving, have accelerated the digitization process of primary school textbooks in Romania. Therefore, following a very brief analysis of the pedagogical reasons and other merits of digital textbooks, they were expected to add value to the new improved primary school curriculum in the Romanian education system.

The Romanian experience with digital textbooks started in May 2013 (Barza, 2013) when the Ministry of Education proposed to the Publishers Union to offer along with the printed version of the textbooks for grade I, also the digital component. Therefore, in the academic year 2014-2015, students received a traditional textbook and a CD/DVD with the digital format of the textbook. Teachers and parents were also able to access an online platform, www.manualedigitiale.ro, where they could find the digital format of the textbooks along with the pdf version. The difference between the two is that the online platform also contained a set of interactive activities whereas the pdf version did not contain interactive activities. Although there was a public debate in the media ('oim nescu, 2015) and within the online teacher and parent communities related to the introduction of digital textbooks mostly suggesting that the Romanian education system was not ready for digital textbooks, listing the negative aspects of the digitization policy, the Ministry of Education has carried on its plans and the digital textbooks for grade I were first introduced in the academic year 2014-2015.

2. Legislative review

The Romanian government stated in its strategic national governmental plan for 2013-2016 Open Educational Resources, the integration of IT in learning and teaching. The governmental plan pointed out that the Ministry of Education would incorporate and support the introduction of web 2.0 educational resources as well as open educational resources in the learning process (Pavel, 2013). Moreover, the National Education Law (2011) states the potential existence of a virtual library and an e-learning platform. Therefore, before the introduction of digitial textbooks, there were some legislative texts that directed policy-makers in the process (Pavel, 2013).

Aiming to meet the goals of the digitization policy, the Ministry of Education disclosed the draft of pilot-schoolbooks for grade I, both in printed and digital format. Due to insufficient time to produce these textbooks, they were not introduced in the academic year 2013-2014. However, in the academic year 2014-2015, the Ministry of Education introduced the new digital textbooks for grade I for Romanian language, Maths&Science and English or French. These textbooks were available and given to students in printed format together with a CD/DVD. Also, they were freely available for use online and download in PDF format on the www.manuale.edu.ro website.

3. Teachers' use of digital textbooks

According to the public opinion (Voinea, 2014), given the lack of ICT infrastructure, Romanian schools were not ready to shift from traditional textbooks to digital textbooks. A recent research conducted by Intuitext (2016) showed that only 59% of teachers use digitial textbooks. Their research had as objectives teachers' perception as to the use of digital textbook, the extent to which digital textbooks are considered useful in the teaching activity and the extent to which these textbooks are actually used in the classroom. Also, their study identified the reasons for which some teachers do not use digital textbooks.

Their results indicated that 80% of the school teachers considered that digital textbooks are useful and represent a good idea. As to the content of digital textbooks, 44% of the teachers consider that it needs improvement whereas 44% stated that the content was reasonably acceptable. Also, only 41% of the teachers stated that they use the digital textbooks daily. As to the content of digital texbooks, 73% of the teachers prefer the interactive activities and games. The study also revealed that one of the main impediments in using digital textbooks is lack of technology equipped classrooms, as 50% of the teachers stated.

4. Research methodology

In order to collect data for the current study, I used the following data collection methods:
- A one-question online survey available on *didactic.ro* (636 answers)
- Teachers' comments to the one-question online survey on *didactic.ro* (33 comments)
- An open ended online questionnaire sent to English language teachers in Cluj county (14 respondents who teach English in primary schools)

Therefore, I combined an online survey, which provided quantitative data, with qualitative data provided by the teachers' comments to the survey and English teachers' answers to the open-ended questionnaire. Combining the data from the online survey with the qualitative data accomodates both the strengths and weaknesses of each method (Dörnyei, 2003). Each method of data collection complemented one another and enriched the quality of the results. Accordingly, I integrated and discussed the results from all sources within the Results discussion section.

4.1 Data analysis procedure

The questionnaire items in the open ended questionnaire were entirely written by myself whereas the one-question online survey was proposed by myself but slightly tweaked by the administrators of the website, *didactic.ro*. The content analysis of the participants' statements have been used to analyze the qualitative data. Following the data processing, several themes emerged which represented the basis for the content categories to be analyzed. A total of 33 comments were analyzed and 14 answers to the online open ended questionnaire. Finally, I triangulated the data from these three sources in order to render teachers' use and perceptions of digital textbooks within the Romanian education system.

The research sample was formed by 14 English teachers from Cluj county whereas the online comments were provided by both primary and secondary teachers. In both cases the anonimity of the participants was ensured. The participants' answers to the online questionnaire were given letters from A to N (14 participants) whereas the respondents who commented online were coded with numbers. The results section shows the main themes which emerged following the data analysis procedure and also relevant quotes from the participants in order to support the themes.

Thus, the study is based on a mixed methodology blending traditional qualitative research methods, such as an open ended online questionnaire and netnographic research (Kozinetz, 2010) with a one-question online survey. The data collection stage consisted of two phases. During the first phase, the data were collected from the one-question online survey available on *didactic.ro* from March 2016 to April 2016. During the second phase, I sent the open ended online questionnaire to the Google group of English teachers in Cluj county. It was completed by 14 English language teachers.

5. Results and Discussion

5.1. Teachers' general views on the use of digital textbooks

The one-question survey on *didactic.ro* had four possible answers focusing on teachers' perceptions as to the use of digital textbooks with primary school children as in Figure 1.
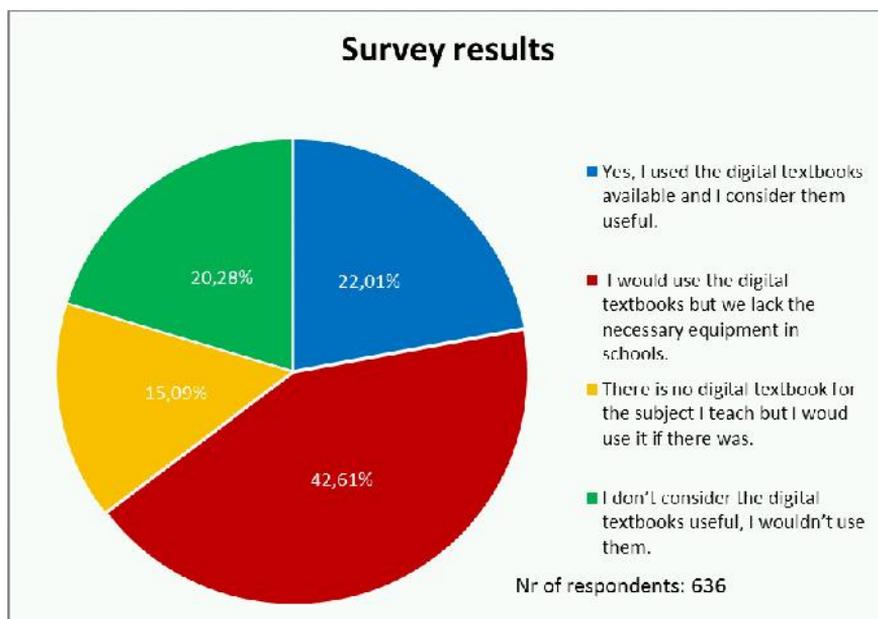

Survey results

- ■ Yes, I used the digital textbooks available and I consider them useful.
- ■ I would use the digital textbooks but we lack the necessary equipment in schools.
- ■ There is no digital textbook for the subject I teach but I woud use it if there was.
- ■ I don't consider the digital textbooks useful, I wouldn't use them.

22,01%

42,61%

15,09%

20,28%

Nr of respondents: 636

Figure 1. Teachers' use and views of digital textbooks

The survey was completed by 636 teachers and figure 1 shows the outcomes. The results indicate that 42,6 % would use digital textbooks but they lack the necessary equipment in the classroom, 22% have used digital textbooks and they consider them useful, 20,3% do not consider digital textbooks useful and they would not use them and 15,1% stated that there is no digital textbook available for the subject they teach, which is the case of teachers in secondary school or high school.

The results above show that the lack of ICT infrastructure in schools is the main impediment in the use of digital textbooks. It is usually the case of schools located in rural areas, but not necessarily. The procentages of teachers who consider digital textbooks useful and the ones who do not consider them useful are very similar, which suggests that in general there are teachers who

are always open to new educational challenges and there are teachers on the other side who are reluctant to approach new digital dimensions in education. Based on my personal experience in an educational institution, the digital textbooks are used along with the traditional textbooks and primary school teachers are not under the pressure of using them more than they feel they should be using them. Although in general all primary school teachers have at their disposal digital textbooks, given the fact that not all schools have the necessary ICT infrastructure, teachers cannot be blamed in any way for choosing not to use them to a great extent. Likewise, there is another aspect which has been overlooked before introducing the digital textbooks in schools, namely the need of teacher training in the use of digital textbooks. In my opinion, learning how to properly use a digital textbook with a class of students should be different from simply displaying the digital content on a projector. In the Romanian context the digital textbook could only be used frontally by the teacher, leading the teaching process, without encouraging interaction and collaboration between students. Accordingly, the design of the current digital textbooks does not necessarily seem to meet some of the students' learning needs.

Following the thematic content analysis of teachers' comments and answers to the open ended questionnaire, the following themes were identified.

5.2 The content of online digital textbooks

The results of the general survey described above indicated that 20,3% do not consider the digital textbooks quite useful. Therefore, as the data suggest, there are some issues with the content of digital textbooks. Participant 3 stated in the comment section: „*What we have at this point, can hardly be considered digital.*" Although participant 3 did not justify the statement, participant 4 commented, „*probably participant 3 means the poor quality of the content found in digital textbooks, the mistakes found in some of them.*" Likewise, participant 5 responded, „*What we received as digital textbooks cannot be called that way. Also I believe the academic level of these textbooks is below the level required by the school curriculum.*" Moreover, the following comment by participant 6 is again related to the poor quality of the content in the digital textbook, „*Seeing the quality of digital textbooks I wonder: will the publishing houses come up with auxiliary digital textbooks as well in order to supplement what is in the actual digital textbook?*". Although the respondents did not state what exactly in the content they found inadequate, more comments reflect on the content of digital textbooks, such as the following by participant 9, „*The purposes of a digital textbook have not been achieved*

by what the Minister has provided as digital textbooks." The teachers who responded above did not mention which textbooks they meant in particular or what specific wrong content they meant, therefore a more detailed content analysis of digital texbooks per individual subject would be more pertinent. However, these general comments indicate the fact that the content of digital textbooks is below what teachers expected to find in the new textbooks approved by the Ministry of Education.

On the other side, the English teachers who completed the online questionnaire stated some positive aspects related to the content of English language digital textbooks. Namely, all the participants considered that the best activities in a digital textbook are the animations, role play activities and the interactive exercises. However, the English teachers also observed that the activities in the digital textbooks for English language are below students' actual level and not challenging enough. Also, according to participant D, „*there is little variety in the interactive tasks and the number of interactive activities is quite limited in certain textbooks.*" Participant F also noticed the fact that writing skills are not necessarily encouraged in these textbooks and that the result is that students have begun to lose interest for what is not digital.
„*These textbooks don't encourage writing skills and therefore students are likely to lose interest for what is not digital*" (Participant F).

Also related to the content, participant B stated that „*the textbooks should contain more grammar exercises and more dialogues to practise.*" This indicates that the online digital textbooks may not contain enough practice activities. Furthermore, also participant E considers that dictation exercises would be very useful in the online digital textbook. Participant G identified a critical point as to the pronunciation aspect, namely „*there are two types of pronunciation within the same textbook (British and American) and the students often get confused as to how to pronounce*". Likewise, digital textbooks do not contain external links to online dictionaries or further online practice activities.

5.3 Positive approaches of digital textbooks
As the results show, 22% of the respondents considered the digital textbooks as quite useful in the classroom. The participants identified the following strenghts of the digital textbooks. Firstly, they consider them attractive for students creating a different dynamic in the classroom as stated by participant G, „*digital textbooks are very attractive and the lessons are more dynamic.*"
Also participant H considers that „*they are user friendly and most importantly*

they give instant feedback." Another advantage as identified by participants A and D is the fact that „*they are accessible anywhere provided there is Internet connection*". Participant H pointed out the following: „*these textbooks combine auditory with visual information enabling thus a better learning of vocabulary items*". From this perspective they add value to teachers' work and students enjoy their use in the classroom. Participant 11 stated, „*I like the fact that I can use several alternative digital textbooks and I can choose activities from several textbooks to do with my students.*" This suggests, that although teachers have at their disposal one traditional paper based textbook, the online platform allows them to use more than one textbook for their subject supplementing thus the lesson with extra activities. Also related to this comment, participant 18 mentioned the fact that: „*Any start up is difficult and will have drawbacks and of course there are students who may not benefit from it. But then, shall there not be any start up, even wrong, from which we can draw some conclusions? Honestly, I favor the paper based traditional textbooks but I also favor the digital ones, they are complementary*". This comment shows that although there are several drawbacks associated with the current digital textbooks, that does not mean we have to stop using them, not at least before we have had enough time to see whether they are effective or not.

Likewise, participant 15 commented, „*I think we always like to criticize the new and totally ignore the full side of the glass. I use digital textbooks, the children like the interactive activities and they can also access them at home and learn with pleasure. Yes, I agree that some students don't have access to Internet, don't have their own PCs, but that doesn't change the fact that humanity progresses.*" The comment clearly shows that indeed there might by faults with the digital textbooks, but still, they represent a step forward in our education system and we must not ignore the fact that students actually like using them. Moreover, participant 17 also stated that „*combining the modern with the traditional makes the lesson more interactive and dynamic. I use the digital textbooks because the students' parents equipped my classroom with the necessary technology . The students nowadays are very familiar with digital tools, they use them on a daily basis, they are attracted by sound and image. I am sure that we can have nice lessons with a traditional textbook as well, but with a low level of attention on the part of the students, unfortunately*". Participant 17 indicates that we need to integrate the digital component in the lesson because digital tools are part of students' life and their learning needs. It also suggests that learners' attention in the classroom is somehow determined by the use of digital tools. The results of the open

ended questionnaire showed that 12 teachers noticed a positive change in students' attitudes towards learning when using the digital textbooks.

5.4 Lack of ICT infrastructure in schools

The results of the survey clearly indicated that 42,6% of the respondents would use digital textbooks if their classrooms were technologically equipped. Apparently, the data in the survey showed that this is one of the main impediments in the use of digital textbooks. Some of the responses reflect the differences between students studying in rural and urban areas and the equality of chances between students. One of the main criticisms brought up is the fact that not all students can benefit from the digital textbooks in the classroom given the lack of IT resources. Participant 6 commented, „*I use the textbook but I have to use my personal laptop so that students can do the listening tasks. Local authorities forget that there are schools which lack basic facilities, such as tap water in the building or acceptable toilets, let alone computers and projectors.*" Likewise participant 1 stated, „*We can't really talk about digital textbooks as long as the ICT infrastructure and some students' standards of living are very poor, therefore there is no equality of chances between students.*" These comments suggest the fact that there are discrepancies between the ICT infrastructure found in rural areas and the one found in urban areas. Likewise, although some classrooms are equipped with a projector and a PC, still, students can't do the interactive activities individually or at least in small groups but only as a class with the teacher, featuring the same frontal classic teacher-students scenario as participant 8 indicates, „*It is very difficult to manage the classroom, they all want to do the activities, but there is one PC in the classroom only.*"

The digitization policy as presented by the Ministry of Education would have included the equipment of schools with tablets for students to use. Although this aim has not been achieved, based on personal experience of using digital texbooks in the classroom, they are not optimized for all mobile devices (tablets, iPads, smartphones). Therefore, in an ideal type of classroom, where the Bring Your Own Device (BYOD) policy could be implemented, as I have attempted in the institution I work, it would still not be douable to use the current digital textbooks given the technical issues associated.

6. Conclusions

The current study analyzed data from a one-question survey followed by teachers' comments to it and from an online open ended questionnaire completed by 14 English language teachers.

Although the Ministry of Education has addressed the need to integrate technology in the process of teaching and learning, however, based on the data analyzed in the current study, there are some critical issues related to the use of digital textbooks which teachers have identified. The main issues addressed by teachers are: the lack of technology equipped classrooms, making the digital textbooks not easily accessible anywhere; some teachers also noticed that there are issues related to the content of digital textbooks, claiming that the activities in some of them are below the level required by the curricula provided by the Minstry of Education. In terms of form and content, the e-learning specialists stated that the digital textbook should not be a duplicate of the printed one (Manasia et all, 2013). Digital textbooks are considered to be useful when they create a learning experience different from the one created by a traditional textbook. In terms of learning outcomes following the use of digital textbooks, the data in the comments provided by teachers on *didactic.ro* reflect the fact that the majority of the participants do not think that digital textbooks might improve in any way students' learning outcomes. However, digital textbooks are not designed to generate better learning outcomes but to improve all in all students' learning experience and determine their involvement in the lesson in a positive way.
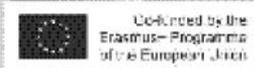
On the other side, the teachers participating in the study also identified positive aspects as to the use of digital textbooks. Some respondents considered that digital textbooks enhance a different dynamic in the classroom and students' attitudes have changed since using digital texbooks. The fact that digital textbooks can be accessed anywhere provided there is Internet connection and the fact that teachers can use more than one digital textbook for their subject are considered strong points. Also, the digital texbooks represent a step forward in the digitization policy which reflects learners' current needs and interests.

In conclusion, the integration of technology into the teaching and learning of foreign languages was made possible in Romania through the introduction of digital textbooks being also in line with the strategic European Commission framework for the digitization of the education systems in the member states (Manasia et all, 2013). The situation presented in the current study reflects a shift that has taken place in the Romanian education system, from traditional printed materials to digital resources. This initiative has been considered a way forward for the Romanian education system by the educational authorities but as the study indicated, teachers' use and views on digital textbooks are still quite varied among different teachers.

REFERENCES

Barza, V. *Remus Pricopie: the digitization of schools will cost more then 100 millions in euros*, 2013, retrieved from http://www.hotnews.ro, accessed 10 April 2016.
http://www.didactic.ro/stiri/59-dintre-invatatori-utilizeaza-manualul-digital-la-clasa, accessed 12 April 2016.

Kozinetz, R.V. *Netnography. Doing Etnographic Research Online*. London: Sage Publications, 2010.

Manasia1, L., Pârvan, A., Paraschiveanu, V. The Romanian educational system facing the digital school books. A case study approach, 2013, retrieved from https://www.academia.edu/5940710/THE_ROMANIAN_ EDUCATIONAL_SYSTEM_FACING_THE_DIGITAL_SCHOOL_BOOKS._ A_CASE_STUDY_APPROACH,
accessed 10 January 2016.

OECD. Students, Computers and Learning: Making the Connection, PISA,

OECD Publishing, Paris, 2015, retrieved from DOI: http://dx.doi.org/10.1787/ 9789264239555-en., accessed 20 September 2015.

Pantazi, R. *The auction for digital books will be released in September. How can be downloaded and how many types of textbooks will have students*, 2013, retrieved from http://www.hotnews.ro, accessed 20 November 2015.

Pantazi, R. *Remus Pricopie: Ministerul Educatiei are in vedere dotarea cu tablete a tuturor scolilor, inclusiv in mediul rural*, 2014, retrieved from http:// www.hotnews.ro/stiri-esential-18355409-remus-pricopie-ministerul-educatiei-are-vedere-dotarea-tablete-tuturor-scolilor-inclusiv-mediul-rural.htm accessed November 2014, accessed 30 March 2016.

Pavel, V. *State of OER Policy in Romania*, 2013, retrieved from http://oerpolicy.eu/ state-of-oer-policy-in-romania/, accessed 15 February 2016.

oim nescu, M. *Asocia iile de P RIN I atrag aten ia asupra introducerii manualelor digitale în coli. LISTA efectelor negative pe care le are tableta asupra copiilor*, 2015, retrieved from http://www.activenews.ro/prima-pagina/ Asociatiile-de-PARINTI-atrag-atentia-asupra-introducerii-manualelor-digitale-in-scoli.-LISTA-efectelor-negative-pe-care-le-are-tableta-asupra-copiilor-93380, accessed 25 February 2016.

Voinea, E. *Pro si contra, Manualele scolare electronice, un lux sau o necesitate pentru elevi?*, 2014, retrieved from http://www.avocatnet.ro/content/articles/ id_37970/Manualele-scolare-electronice-un-lux-sau-o-necesitate-pentru-elevi.html, accessed 15 April 2016.
https://www.manuale.edu.ro/