Interactive Textbook - A New Tool in Off-Line and On-Line Education

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ABSTRACT
Implementation of ICT in the educational process has allowed us especially in the last decade to fully develop cognitive and psychomotor skills of students. A typical example is the use of multimedia, through which the learner gradually formed and developed their skills in the area of sensory perception. The paper is focused on one of the modern tools of education geography for interactive textbook for grammar (high) schools. The new generation of interactive IRS systems allows not only listen to audio files of the book, but the book also communicate with the computer. This function can be used in on-line teaching process, where the teacher receives immediate feedback regarding the work of students in class. The new generation of interactive textbooks it can perform the function of the voting equipment. Talking books as exercise books are intended primarily for testing and practicing curriculum.

Keywords: IRS system, Interactive textbooks, ICT, talking books.

INTRODUCTION

Numerous studies show that students complain about of their obsolete textbooks, and that they seldom read these textbooks, leaving them poorly prepared to understand lectures (Stelzer et al., 2009), (Podolefsky & Finkelstein, 2006), (Chen et al., 2010). Much recent innovation in classroom methods and technology addresses this problem of student motivation and preparation in the natural sciences.

Reading is an activity that is not only informative or pleasurable, but can have significant social benefits. Especially in a family setting, it is part of the interaction between children and their parents, it helps create a bond between children and their grandparents, and even bring adults and their older parents closer. Furthermore, reading can be a challenge for older adults or for those with impaired eyesight. To address these problems are determine e-book(Attarwala et al., 2013).

Interactive study materials have been shown to improve student learning outcomes in various STEM fields (Donnell, Singhose & Kivila, 2014). An interactive textbook has substantially less text than a traditional textbook, instead having numerous embedded question sets designed for learning and not quizzing, numerous animations of key concepts, and some built-in tools.

To address the problem of student engagement with textbooks, we have chosen to move away from the resources provided by traditional publishers. We promote the use talking books. These devices are poised to have a significant impact on the way textbooks are prepared and used in college science and engineering courses. Talking books to be very effective classroom tools when projects can be developed and programmed entirely on the devices (Liu et al., 2011).

Demonstrable impact on student learning It has been repeatedly discussed (Perez et al., 2012), (Perez et al., 2011), (Sloan, 2012), (Van Oostveen et al., 2011), (Weisberg, 2011).

Talking books for primary and secondary schools have broad use in collective work at the school during the classes, but also for individual activities in preparation for teaching and in leisure time activities. With active using of speaking textbooks students can do independently prepare to education, even learning a foreign language without the presence of a parent or teacher. Talking books as exercise books are intended primarily for testing and practicing curriculum. Unlike traditional books are the correct answers to each question can be immediately evaluated directly in the text and not at the back of textbooks. Talking books also contain quizzes, allowing a secret key, the correct password or code after successfully answering all questions. A parent or teacher can thus verify whether the student passed the whole curriculum.
Talking books contain a large amount of additional information that is not in written form, but as recorded. The amount of information in a talking book, therefore, is not limited by number of pages, but often several times

higher than on the paper. Talking books are useful in school, at home, while traveling, anywhere. Talking books for students of secondary schools are richly illustrated and provides a large amount of interesting information. To work with books, it is necessary IRS pen, that can reproduce sound and work with books acquires a new and interesting dimension. Pen also facilitate the control and responsibility. The book offers many definitions and attractions that are not part of conventional textbooks.

THEORETICAL AND METHODOLOGICAL BASIS

Work with textbook has the most diverse forms and specific characteristics. It is preparing for higher forms of independent work with professional geographic text. Frequent, systematic, diverse and thoughtful application of geography textbooks in various stages of the lesson leads to the fact that students not only understand the formulations, designs and tasks, but also they create a skill and habit of working with textbooks or other required literature. When testing and checking knowledge, the teacher can rely on suggestions in the textbook to verify whether if students used it for preparation at home. Themselves able to use the book, is necessary to teach students how to find out internal connections and relationships between different parts of the text and match earlier knowledge with new curriculum (Čižmárová, 2008, Dubcová, Kramáreková, Oremusová, Bagita, 2010, Hasprová, Oremusová, Rampašeková,1999).

Complementary geographic literature is very attractive for students and presents many phenomena, facts and regions more interesting, associated with personal experience, describing the journey into the unknown parts of the world (Krogmann, Veselovský, 2003, Kramáreková, Dubcová, Vojtek, 2012). Additional such documentation is the novelty of speaking textbook for secondary as well as primary schools.

Educational tests are the modern resource to detect the quantity and quality of knowledge and skills of learning subjects. The test contains a relatively large number of proposed tasks so that the answers to which are not time consuming, but doing so in difficulty undermine their solutions. These tasks may simultaneously solve all students of class or even more classes (Kramáreková, Dubcová, Farkaš, 2015, Dubcová, Kramáreková et al., 1999, Likavský et al., 2001, Kopernická, Rampašeková, Feszterová, 2010, Rampašeková, Kramáreková, Feszterová, Kopernická, 2001).

IRS SYSTEM

Interactive Response System (IRS), is an interactive system, that turns the classic books on speaking. Talking books with the IRS logo are not different from the classic book at the first view. On each page, they contain invisible code that can read by IRS pen sound files with possibility with listen through the built-in speaker in the pen, or through headphones connectable to the pen.

IRS pens allow not only listen to audio files of the book, but the book also communicate with the computer. This feature is useful in the learning process where the teacher receives immediate feedback on student´s work in class (answers of questions are recorded and statistically processed on the teacher's computer).

Talking book works along with related interactive IRS pens. IRS interactive pen is compatible to all books. Each book includes in the background information, how it will be activated in the pen (supplied IRS pen at the logo on the cover of the book). After activation just only touch by pen on examples of relevant tasks or pictures and pen automatically reproduces relevant text or any audio recording. Besides the IRS pen reading books also works as a MP3 player while USB key. After connecting pen to the computer (via mini USB cable) can be on the internal memory (2GB) or external memory of pen (micro SD Card - Max. 8GB) to record MP3 music files and play those in the pen, either via built-in speaker or through headphones connectable to the pen. IRS pen also serves as a USB key to transfer any data, since the computer can connect to the computer is seen as an externally attached disk.

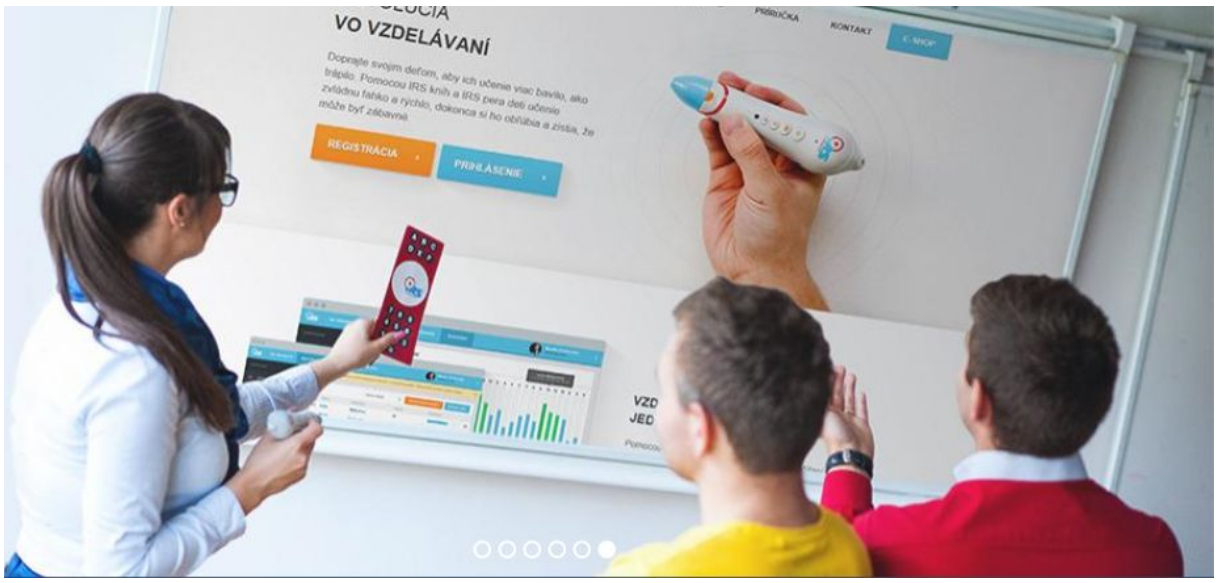

Figure 1: IRS system (www.hovoriaceknihy.sk, 2015)

By IRS pen knows every user work with book very quickly, since the work with the pen is very intuitive. After a short time everyone knows how to work with every book, creating tests to check their answers and thus improve itself. IRS pens have a headphone jack, so working with a talking book can be anywhere (on the bus, on the train, in the car, in a waiting room etc.).

IRS portal serves as a tool for teachers in testing and validation of students. Using this website, teachers can create any tests for students and how they respond by placing the IRS pen to the voting card. The test results are automatically evaluated upon their completion and thus relieve the teachers from manual correction of tests.

ADVANTAGES OF USING INTERACTIVE WORKBOOK

Interactive (speaking) exercise book has several advantages. One of them is the fact that the student / child can have fun without knowing read. Talking books are full of sounds, poems, stories, tasks to solve, but also information that children acquire by playfully stoking IRS pen on the pictures in the book. Children know how to entertain themselves without the presence of another person while to learn. Particularly through eye-catching way to develop their memory, attention and imagination. Talking books allow interesting way to learn a foreign language, for example. The student learns independently and can also be checked. Talking books as exercise books are intended primarily for testing and practicing curriculum. Unlike conventional books are the correct answers directly in the text and not just behind the textbook.

The student will obtain a greater amount of information compared with traditional books. Talking books contain a large amount of additional information that is not in written form, but only recorded. The volume of information in a talking book is thus not limited by the number of pages, and often several times higher than on paper. Talking books are available in both basic and extended the original which can be supplemented by various labels and coupons. The possibility of "movement" learning, it means that the book is useful in school, at home, while traveling, anywhere. IRS pens have a headphone jack, so working with a talking book can be anywhere (on the bus, on the train, in the car, etc.). IRS pens do not require special maintenance, operate on batteries or on the built-in rechargeable battery. Saving eyesight. Speaking reading books does not burden the eyes and the eyes do not get tired as when reading classic books or use a computer or tablet. Talking books allow to full-fledged entertainment, while at the same time they are building their relationship to books (www.hovoriaceknihy.sk, 2015; Šolcová, Baková, Trnka, 2015).

GEOGRAPHY - INTERACTIVE EXERCISE BOOK FOR SECONDARY SCHOOLS

Interactive geography exercise book for secondary schools is divided into three thematic areas - Introduction to geography, Physical geography and Human geography. Exercise book offers an interesting variety of different tasks. Topics and exercises are accompanied by pictures, maps, tables and graphs. The topics are accompanied by interesting information in paper form and in the form of recordings. Attractive processing curriculum in interactive form, contributes to higher motivation, creativity and student activities. The book impresses not only high school students but also students of lower ages who are interested in the geography. Physical geography is divided into chapters and georelief lithosphere, atmosphere, hydrosphere, pedosphere, biosphere and nature and landscape protection. Some sample tasks we present in this paper. Tasks are of different types such as open

questions, image and graphics tasks, right and wrong allegations, adding text, design of correct pairs and select the right answer and so on.

EXAMPLE OF TASKS FROM INTERACTIVE WORKBOOK

Tasks are different type's such as open questions, image and graphics tasks, right and wrong allegations, adding text, design of correct pairs and select the right answer and so on.

 Play button. If we apply Pen to this icon, we can to verify the correct answer to the task.

 This icon hides interesting additional information about actual problems.

Figure 2: Talking book (own creation)

In figure 2 is example of tasks from interactive workbook in slovak language. In this section we present translation to the english language.

Translation:

12. Answer the following questions.
a) Which of landscape features influence the geomorphological factors, processes and forms?
b) In which areas on the surface do not act fluvial processes?
c) What geomorphological forms generated by biogenic processes?

13. Name the continental relief and its forms.

At the end of the workbook is the key answers to all tasks. Questions and tasks are made up of creative, that students will be interesteded. Exercise book also contains texts marked with the letter “i”, which means that it contains supplementary information relating to the current theme or question.
The pen allows you not only read the questions but in prepared sites also inscribe answers. The pen is wirelessly connected to the server. In server are automatically saved and evaluated the answers. The teacher has a current overview of the number and accuracy answers.

Figure 3: Automatically sending correct answers to the teacher (own creation)

CASE STUDY QUALITY ASSESSMENT METHOD OF TEACHING GEOGRAPHY TEXTBOOKS AND INTERACTIVE MEANS OF A QUESTIONNAIRE
Note: The method of the study was assumed under the permission of the authors of publications Creation, management and analysis of e-courses (Munk, Munková, Lančarič, Červeňanská, 2008).

The aim of this research is to find out how students evaluate our method of teaching using an interactive teaching tool to support the teaching of the geography at high school, and identify problematic items in assessing their learning and interactive books from the student perspective. In addition, we wanted to get their opinion, whether the procedure and method of use remains.

At the end of the experiment already carried out, we asked the students experimental and control groups to complete a questionnaire, supplemented comment what they lacked and which according to them was too much.
Students were divided into groups according to their ICT skills. The experimental group included students who reported, that they have only basic ICT skills. The control group consisted of students who reported that their ICT skills are at the level of the user or advanced. Total participated in testing was 97 students (70 students of the control group, the experimental group of 27 students). Types of groups were inhomogeneous, such as by age and gender.

The process for conducting research:
1. Accessing interactive textbook for students of experimental and control groups.
2. Work with a textbook from May to November (7 months).
3. Evaluation of teaching and interactive textbooks by students after the experiment.
4. Identification of problem items - interactive textbook evaluation, process and method of teaching.

METHODOLOGY
Using methods: Descriptive statistics, analysis of variance for repeated measures.

Individual items of the questionnaire, which characterized the method of teaching and interactive textbook by students were measured on a scale from 1 to 9, where 1 means completely disagree, 5 nor disagree, agree and 9 means strongly agree. Overall, in the evaluation involved 97 students. The average age of students was 20.5, the highest recorded age was 33 and the lowest 18. The testing was attended by 30 men and 67 women. One of the respondents stated that a negative relationship of Geography, 92 said their positive and 4 respondents reported no relationship with Geography. From the questionnaire we wanted to see if there are significant differences in the assessments of an interactive textbook and the method of teaching as among all respondents, as well as among students of the control and experimental groups separately, and whether the proposed method of teaching and created an interactive textbook equally positive opinions as students experimental and and students of the control group.

QUESTIONNAIRE

The survey, which was conducted through a questionnaire from May to December, we focused on the influence and support of interactive textbooks in teaching, because currently prevailing trend of their implementation in different parts of the learning process. Our interest lies particularly in the level of awareness regarding the use of ICT and multimedia by students. Information and communication technologies in cooperation with textbooks in the educational process is currently phenomenon that has its own internal dynamics, like group, which may also develop, stagnate or even regress may occur. This is the result of group dynamics.

In the survey, we are most focused on whether it would be appropriate for students to establish interactive textbooks only as a supplement or as a substitute for a full education. At the same time we focused on teachers, because they can determine the direction and progress of the education process.
In the survey, we have chosed a questionnaire method, since this way is possible to get a lot of information in a relatively short time. At the same time the respondent has the opportunity to rethink and consider their responses.

The questionnaire is pre-prepared form that is submitted to the selected respondents from the survey sample. The quality of survey depends mainly on the questions (Annex 1)

The results from the questionnaire were used as input data that has been processed into a matrix (Annex 2)
Based on input data processed into the matrix we created descriptors range of individual items - descriptive statistics (average, standard deviation, standard estimation error of the average) and 95% confidence interval range of the average value of each item questionnaire - evaluation of interactive textbooks and method of teaching by students separately and both of groups were together (total). According to the average of the value range of the biggest differences were between the ninth and the rest of the item in all respondents groups. Whether this difference is statistically significant, respectively if there are also some other significant differences, we find the following testing hypotheses.

From these results we have set the following statistical null hypothesis:
H0: There is no statistically significant difference in ratings between students together.
H0: There is no statistically significant difference in the evaluation of experimental and control groups.

For testing the above hypothesis sufficient us an analysis of variance for repeated measures that tests both differences between multiple dependent samples (each item of questionnaire) and between independent samples (in this case between the experimental and control group). Before using this test, we have to verify the conditions of use, and it normally distributed dependent variable in groups according to levels of factors and condition of sphericity of the covariance matrix, ie equality of variance and covariance matrix of covariate. In case of violation of assumptions we use its non-parametric alternative, that the Friedman test.

The assumption of normality can not be verified in view of the fact that the sample is large enough. Any deviation from normality can be identified from the histogram translated by Gaussian curved line. To test the equality of variance and covariance of the covariance matrix used, for example Mauchley test of sphericity.

Sphericity condition of covariance matrix is not interrupted - variance and covariance of the covariance matrix are the same. Reject the null hypothesis with 99% confidence, that is we demonstrated statistically significant differences in the assessment of teaching methods and an interactive textbooks between students and we also showed differences in the assessments of individual students as experimental and control groups separately. Test results are visualized in graph of the average and confidence interval (Fig. 2).

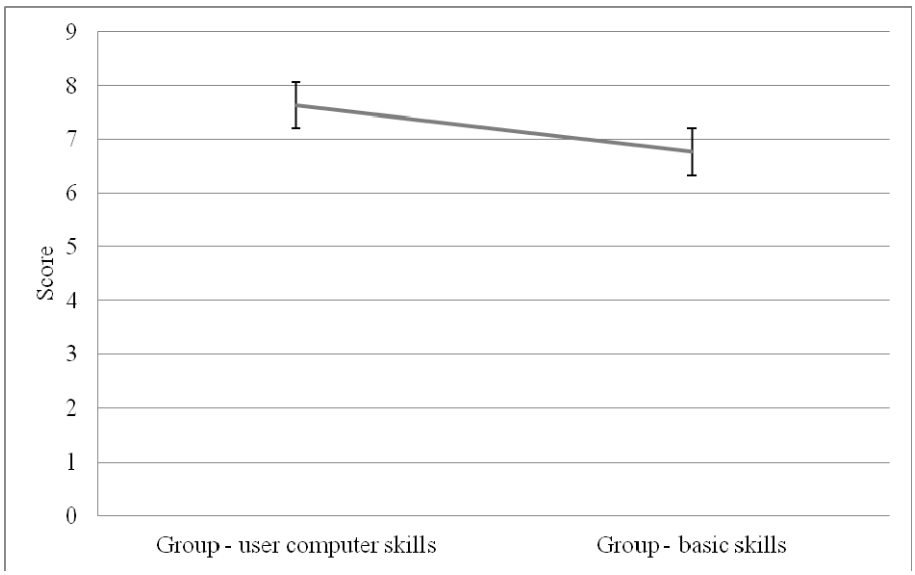

Figure 2: Figure of average and confidence interval by students assessment experimental and control groups

As can be seen from the graph of average and confidence interval, was positively evaluated an interactive textbook by students of the control group, those students with more user ICT skills.
The following figure 3 shows a graph of the average and confidence interval assessment of individual items for both groups together.

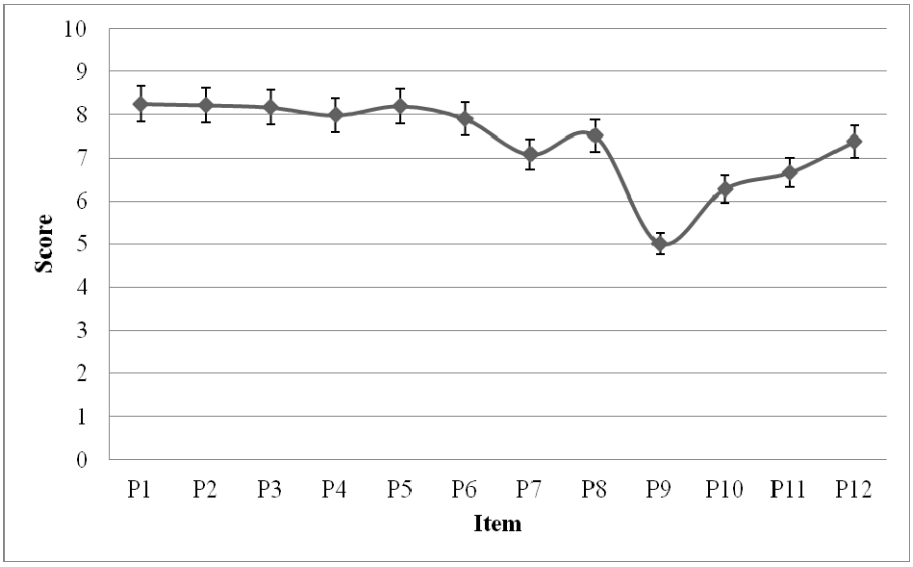

Figure 3: The average of the confidence interval assessment of each items for both groups together

From Figure 3 it can be seen that both groups of students negative evaluated particular question no. 9 - rated it by average 5.01. At the next Picture can be seen specific assessment by control and experimental group. The curves lines are essentially copied, which only confirms the results of the analysis in Fig. 4.

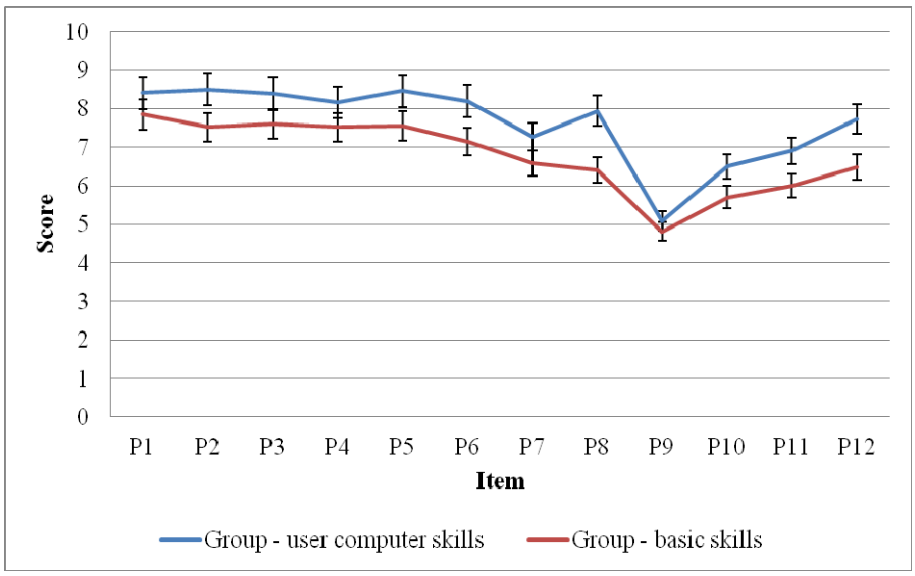

Figure 4: Average curve and confidence interval assessment of each items for both groups together

DISCUSSION

The results of the students questionnaire among find out that all of the items except no. 9 rated very positively (average ranging from 6.3 to 8.3 range from a peak of 9). Students agree that the structure of interactive books for them is transparent, we are glad of this fact because with its creation, we have intentionally used graphic symbols, which are standardized, easy to remember and re-identified. Students agree, that interactive textbooks to support the teaching of the Geography is sufficiently illustrative, individual chapters are sufficiently interactive and visual. They consider that the using of this textbook was the subject of Geography lesson more interesting and it facilitate their understanding of the curriculum. They agree that such interactive textbooks should be part of educational process.

Teaching method suits them and would like further training in this way. But it is not the opinion (item no. 9 (rated it an average range of 5.01, which means that disagree)) that they would suffice to understand the curriculum only through this interactive textbook. They need also teacher who will guide them, possibly indicates further step. But mostly teacher will confirm the accuracy of their solutions or conclusions. They need a teacher, even if they are convinced of something, to assure them that this correctly. A statistically significant difference in the assessment of individual items by students was demonstrated in particular between 9 and other item.

As mentioned earlier, the groups evaluated interactive textbooks and also method of teaching highly positive. Overall, the assessment of student control group (user of ICT, advanced skills) slightly better (7.63) than assessment of student experimental group (6.77), which has only basic ICT skills.

The comments, which highlight and vice versa, which would further add to this, the experimental group students said, that they really like working with interactive textbooks. Emphasized the simplicity launch an interactive visual illustrations and maneuverability. On the other hand, would added guidelines, marking an important for them, or even reminders of what follows by each activities.

CONCLUSION

Geography as a science has a great importance in solving many current problems of the world. Through this interactive text book students learn by fun way and acquire new skills. It is divided into three chapters - introduction to the geography, physical geography and human geography and managed well the following thematic units we consider them as priorities in terms of geography sectors. Talking book offers a varied range of different types of tasks - from definition through explanation, appointment, selection response, completion, assignment, calculation to identify geographic features on a map or data interpretation from graphs and charts. The book is not just a collection of requiring a mechanical reproduction of subject matter, but is the workbook, which encourages a comprehensive, logical geographical thinking. Therefore, we have expanded the basic question of challenging the solution which encourages work with information on making connections, finding new contexts and draw conclusions. Text of workbook is varied with more geographical curiosities and also images that are rich sources of additional information.

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ANNEX 1 QUESTIONNAIRE

Questions for evaluation of Geography interactive textbook
Sex:

a) Male b) Female

Age: .....

Relationship to the Geography:

a) positive
b) negative
c) none

ICT skills:

a) basic
b) custom
c) advanced

Please, use the rating scale from 1 to 9, where **9** is **totally agree**, **5** means **neither agree nor disagree**, and **1** means **strongly disagree**, to express your score by circling.

1. The structure of the textbook is transparent

9	8	7	6	5	4	3	2	1
Totaly agree				Neither agree nor disagree				Strongly disagree

2. The textbook is visual

9	8	7	6	5	4	3	2	1
Totaly agree				Neither agree nor disagree				Strongly disagree

3. The answers to each question are sufficiently interactive (interacting)

9	8	7	6	5	4	3	2	1
Totaly agree				Neither agree nor disagree				Strongly disagree

4. Graphical maps representation of the material is sufficient

9	8	7	6	5	4	3	2	1
Totaly agree				Neither agree nor disagree				Strongly disagree

5. The textbook provide enough many tasks

9	8	7	6	5	4	3	2	1
Totaly agree				Neither agree nor disagree				Strongly disagree

6. Geography lesson was more interesting by using with this textbook

9	8	7	6	5	4	3	2	1
Totaly agree				Neither agree nor disagree				Strongly disagree

7. Using this textbook in geography class was facilitated curriculum understanding of physical geography and human geography

9	8	7	6	5	4	3	2	1
Totaly agree				Neither agree nor disagree				Strongly disagree

8. This textbook respectively similar exercise books should be included of geography textbooks (resp. hours of Geography)

9	8	7	6	5	4	3	2	1
Totaly agree				Neither agree nor disagree				Strongly disagree

9. To understand of the subject matter would need only this textbook (I would not need a teacher´s interpretation)

9	8	7	6	5	4	3	2	1
Totaly agree				Neither agree nor disagree				Strongly disagree

10. I like the way this teaching

9	8	7	6	5	4	3	2	1
Totaly agree				Neither agree nor disagree				Strongly disagree

11. I would like to further educate in this way

9	8	7	6	5	4	3	2	1
Totaly agree				Neither agree nor disagree				Strongly disagree

12. Using of Interactive (speaking) textbooks should be included in the teaching of geography

9	8	7	6	5	4	3	2	1
Totaly agree				Neither agree nor disagree				Strongly disagree

ANNEX 2 MATRIX

Sex	Age	Relationship to the Geography	ICT skills	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12
Female	21	positive	custom	9	8	9	8	9	5	5	9	8	9	9	9
Female	21	positive	custom	9	9	6	9	9	9	5	9	9	6	6	8
Female	20	positive	custom	9	9	9	9	9	3	4	1	1	1	1	1
Female	21	positive	custom	9	9	8	9	9	9	8	9	5	6	7	5
Female	20	positive	custom	9	8	9	9	9	9	8	9	7	8	9	9
Male	20	positive	advanced	9	8	8	8	9	9	9	8	5	6	5	8
Female	20	positive	custom	9	9	9	9	9	9	8	9	3	8	9	8
Female	20	positive	custom	9	9	9	9	9	9	8	8	2	7	7	9
Female	21	positive	custom	5	8	8	9	9	5	5	5	5	6	6	8
Male	21	positive	custom	9	9	9	8	9	9	8	9	7	5	8	9
Male	21	positive	custom	8	8	9	7	8	5	7	7	5	7	6	8
Male	21	positive	custom	9	8	6	9	7	9	6	9	5	5	7	9
Male	21	positive	advanced	9	9	9	9	8	8	8	9	6	8	5	7
Male	21	positive	custom	8	9	9	8	9	7	8	9	6	8	9	8
Female	19	positive	custom	9	8	9	7	9	9	8	7	5	5	6	8
Female	19	positive	custom	8	9	8	7	9	7	8	8	4	4	6	5
Male	20	positive	advanced	8	7	8	9	6	9	8	9	6	8	9	9
Female	19	positive	custom	9	9	9	8	9	9	8	8	5	5	7	7
Female	19	positive	custom	8	8	5	7	9	8	6	8	8	7	6	6
Female	20	positive	custom	8	7	8	7	9	9	8	8	6	7	8	9
Female	19	positive	custom	8	9	8	9	9	9	5	9	4	6	6	8
Female	20	positive	custom	7	8	6	7	9	6	5	6	4	5	5	4
Female	20	positive	custom	9	7	5	7	8	8	6	9	1	3	3	7
Male	19	positive	advanced	8	9	9	8	9	8	9	9	7	8	9	9
Female	20	positive	custom	9	9	9	8	9	9	5	9	5	7	7	6
Female	20	positive	custom	9	9	9	9	9	9	7	9	5	6	6	7
Female	19	positive	custom	9	9	9	9	9	9	7	9	1	7	7	8
Female	19	positive	custom	9	9	9	9	8	8	7	8	7	8	8	9
Female	19	positive	custom	9	9	8	9	9	8	7	8	8	8	8	9
Female	19	positive	custom	9	8	9	7	9	8	9	9	1	5	3	6
Female	20	positive	custom	8	7	8	8	6	9	8	8	5	6	7	6
Female	19	positive	custom	8	8	9	7	8	8	7	6	5	5	6	8
Male	20	positive	custom	8	8	9	9	9	8	8	6	5	6	5	6
Male	21	positive	custom	9	9	6	7	7	7	6	9	5	6	9	9
Male	20	positive	custom	8	8	9	9	9	8	8	8	8	9	9	9
Male	33	positive	custom	9	9	9	7	9	9	9	9	5	5	5	5

Male	20	positive	custom	7	6	9	7	5	9	7	9	1	7	9	9
Female	19	positive	custom	9	9	9	8	8	9	9	9	5	9	9	9
Female	20	positive	custom	9	9	9	8	9	9	9	9	9	7	6	9
Male	19	positive	advanced	7	8	9	7	9	9	8	7	9	6	7	9
Female	21	positive	custom	7	8	7	6	1	7	6	4	1	4	5	6
Female	19	positive	custom	9	9	9	9	9	9	9	9	5	9	9	9
Female	19	positive	advanced	8	9	9	8	9	9	7	9	3	6	5	9
Female	19	positive	advanced	8	8	9	8	9	9	6	9	5	5	5	8
Female	19	positive	custom	9	9	9	9	9	9	9	9	1	9	5	9
Female	19	positive	custom	9	9	9	9	9	9	9	9	1	5	5	9
Female	19	positive	custom	9	9	9	9	7	8	9	7	5	9	9	9
Female	20	positive	custom	9	8	9	8	7	9	5	8	3	4	6	9
Male	21	positive	custom	9	9	6	9	9	9	9	8	5	6	6	6
Male	19	positive	custom	9	9	9	9	9	9	9	9	9	9	9	9
Female	19	positive	custom	9	9	9	9	9	9	7	7	5	6	8	8
Female	20	positive	custom	8	9	8	7	7	8	7	9	5	6	6	9
Male	19	none	advanced	8	9	7	9	9	9	8	8	5	5	6	9
Male	20	positive	custom	9	8	7	8	9	5	6	5	8	8	7	5
Female	22	positive	custom	9	9	9	9	9	9	8	8	6	6	7	8
Female	23	positive	custom	9	9	9	9	9	9	5	8	5	6	4	6
Male	22	positive	custom	9	9	9	9	9	9	9	9	5	9	9	9
Male	22	positive	custom	9	7	9	6	9	8	5	7	6	7	9	7
Female	23	positive	custom	9	9	8	8	9	9	8	5	9	9	9	9
Female	23	positive	custom	7	9	9	8	9	7	9	7	5	7	7	7
Female	22	positive	custom	8	8	8	8	9	7	8	8	5	5	6	8
Female	24	positive	custom	8	9	9	8	8	9	8	8	7	8	9	8
Female	22	positive	custom	8	9	9	9	9	9	5	7	5	5	9	7
Female	22	positive	custom	9	9	9	9	9	9	7	6	4	5	6	7
Female	22	positive	custom	7	8	9	7	9	9	6	9	5	9	9	9
Male	22	positive	custom	5	9	9	9	9	9	9	9	1	6	9	9
Male	23	positive	custom	7	8	8	6	6	7	6	5	6	7	7	5
Female	22	positive	custom	9	9	9	9	9	9	7	9	5	6	6	9
Female	22	positive	custom	9	9	9	9	9	9	9	9	5	5	8	8
Female	21	positive	custom	9	8	9	8	9	5	5	9	8	9	9	9
Female	21	positive	basic	9	9	9	9	9	9	9	7	7	8	8	9
Female	22	positive	basic	9	9	8	8	9	8	8	7	5	5	7	5
Female	20	positive	basic	8	8	8	7	9	7	7	6	5	5	5	5
Female	20	positive	basic	8	9	9	9	9	9	8	8	5	6	7	8
Female	21	positive	basic	8	9	7	9	9	6	6	6	3	6	5	6
Male	19	positive	basic	9	8	9	9	9	9	9	8	9	9	9	9

Female	22	positive	basic	8	9	8	9	9	9	9	9	5	9	6	7
Male	23	none	basic	5	6	5	4	4	5	6	6	8	7	6	5
Female	20	positive	basic	6	5	5	3	4	6	5	1	5	3	1	1
Male	19	negative	basic	5	1	5	3	1	1	1	1	1	1	1	1
Female	20	none	basic	1	1	1	1	1	1	1	1	1	1	1	1
Female	20	positive	basic	9	5	9	9	9	9	9	9	5	5	9	9
Female	21	positive	basic	9	5	8	9	9	9	8	8	5	5	8	9
Male	20	none	basic	7	8	6	9	9	9	6	5	6	5	7	9
Male	19	positive	basic	9	9	9	8	9	9	9	9	3	8	8	9
Female	20	positive	basic	9	9	9	9	9	9	8	9	5	5	5	9
Female	19	positive	basic	8	9	8	8	7	6	6	7	5	4	4	5
Female	19	positive	basic	8	8	7	7	6	6	5	5	4	4	1	5
Male	18	positive	basic	8	9	9	9	9	8	6	9	1	9	9	5
Female	19	positive	basic	9	9	9	9	9	9	5	7	5	6	6	5
Female	20	positive	basic	9	6	7	9	7	5	4	2	1	5	5	5
Female	20	positive	basic	8	8	7	7	8	6	9	8	7	6	7	9
Male	19	positive	basic	7	8	8	6	6	5	5	6	6	5	6	6
Female	19	positive	basic	9	9	9	9	9	9	7	6	5	9	8	9
Male	23	positive	basic	9	9	9	7	7	6	6	5	9	5	6	6
Female	22	positive	basic	9	9	9	9	9	9	8	9	4	8	9	9
Female	22	positive	basic	9	9	8	8	9	9	8	9	5	5	8	9