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Innovating History Education for All

Needs Assessment Annex

Warsaw, June 2017.

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1. Introduction

The objective of work of the team of the Educational Research Institute under the second part of the Innovating History Education For All project was, primarily, further expansion of knowledge about the needs of history educators with respect to their use of ICT tools during classes. Activities undertaken during the extended work on the Needs Assessment were, in particular, aimed at expanding the status of knowledge on four issues:

- the strengths and weakness of websites that enable educators to make their own on-line learning activities with history sources;
- the priorities of history educators in terms of historical content;
- best presentation of on-line learning activities to students;
- ideal manner of giving feedback to students.

To this aim, in the period between April 2016 and May 2017, Internet questionnaires and individual interviews with educators were conducted. In effect of such activities, a new and extended version of the main report has been prepared. However, not all new determinations easily fitted the previously adopted report structure.

The results of studies pertaining to content priorities, which should be taken into account when expanding the resources of the HISTORIANA portal, were presented as part of the expanded version of the Needs Assessment report. This was possible without violating the structure, as already the first version of this report featured a sub-point pertaining to these issues, yet it has not been sufficiently extended at that time. Expansion of the part of the report pertaining to content priorities was therefore a relatively simple task and did not affect the previously adopted structure of the entire text. The case was quite different with other issues, which were tackled as part of the previously unused time assigned to the Needs Assessment. Adding separate chapters pertaining to the analysis of Internet tools available for educators and issues related to the manner of making students familiar with the work with such tools and providing them with feedback pertaining to such work would adversely impact the consistency of the IHEA Needs Assessment Report. On account of this, the authors decided to present the issues related to such problems in a separate annex.

The presented annex contains data pertaining to the other three areas of interest, i.e. the strengths and weakness of websites that enable educators to make their own on-line learning activities with history sources, issues related to introducing students to ICT tools and the best manner of offering feedback to students after work with such aids, according to history educators.

The first part of the annex constitutes an analysis of ten Internet aids available to educators. A description of each of them contains data about their functionalities, possibilities that they offer when working with students during history classes and a critical evaluation of their weak and strong sides, both with respect to utility in training critical thinking and skills that are significant in historical education (such as the reading of materials, searching for information in materials, evaluating their reliability and limitations, as well as potential bias), as well as the ease of use, both by students and by educators. In particular, such analysis is aimed at:

- Identifying the different ways in which the websites enable educators to present and share their on-line learning activities with students and/ or other educators;
- Mapping different ways in which the websites enable educators to give feedback to their students.

Therefore, the objectives of this part are very practical and specific. Data contained here are primarily aimed at providing information about best solutions that are already functioning and potential directions of development for tools prepared under the IHEA project.

The second and the third chapter of the annex rely on two Internet questionnaires conducted among history educators in May and June 2016 and in October 2016, along with individual interviews with history educators[1]. They contain data on the best manner of presenting the on-line learning activities to students and the ideal feedback given by educators to their students. Each of the chapters tries to respond to such questions in the most efficient manner with respect to the preparation of new tools. These issues seemed particularly important as part of the work on tools prepared under the IHEA project. Introducing the students to work with ICT tools was signalled in the course of focus interviews as a key element determining, to a great extent, the success of classes in the course of which computer didactic aids were used. If the use of ICT tools makes a part of a class too difficult or too time-consuming, this often determines the failure of the class. On account of this, a closer look at these issues seemed of vital importance. On the other hand, the issue of offering feedback to students is important not only in the work with ICT tools, but also in the work with traditional methods. Feedback about the students' work, properly presented to them, is the basis of learning. On account of this, it seemed important to find out in more detail how to do it most efficiently according to history educators and how such best solutions may be applied in the ICT tools.

Even though the Annex as a separate document was prepared at the end of the IHEA project, the majority of detailed conclusions presented in it were communicated during the project to the team involved in designing and creating the tools and in this way, it influenced the shape of the prepared tools and the solutions applied in them.

[1] Cf. Jasik K., Lorenc J., Mrozowski K., Staniszewski J., Walczak A., (2017). Innovating History Education For All. Needs Assessment. Warsaw: Educational Research Institute, 10.

2. Strengths and Weakness of Currently Available Websites

The majority of on-line tools designed for educators are nowadays addressed to the general public and they are not dedicated to individual subjects. Tools are created on on-line platforms, they operate in a cloud and due to this, instead of installing software on the computer, it is enough to register on the educational platform and choose one of the roles: teacher/ student. Another type of software are the so-called add-ons or widgets to Internet browsers, which offer additional functionalities to popular services.

Selection of tools available to teachers is presented below. Each of them is presented in a similar manner, allowing for becoming quickly acquainted with the most important possibilities that they offer and weak and strong sides of solutions applied by their designers.

Learning Apps

Link: https://learningapps.org/

Brief description:

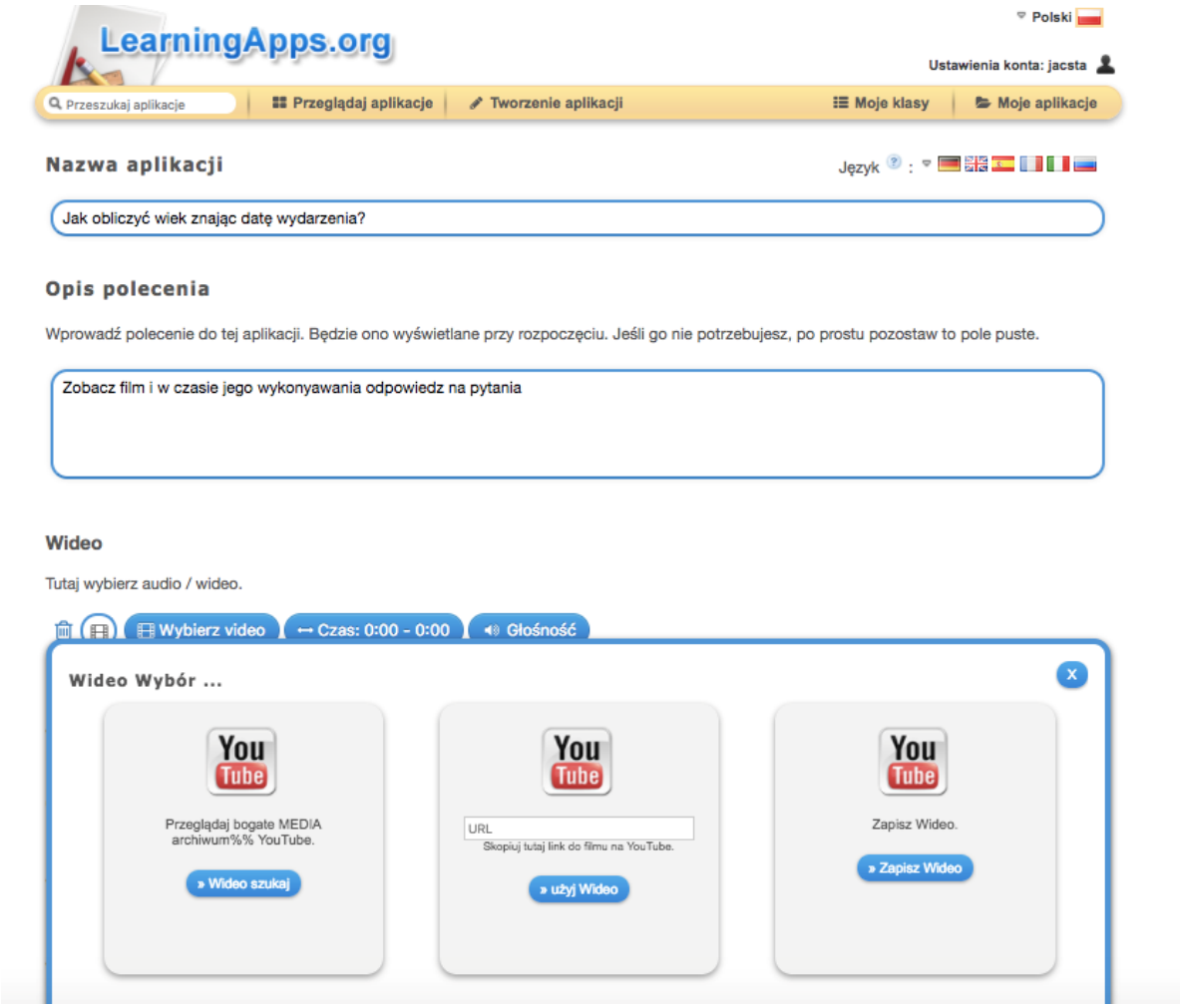
> The tool is used to create simple schemes, timelines, graphs and other modules that may be, with the use of a unique URL address, sent to students.

Ease of use: average

Language: the app services multiple languages.

Strong and weak sides:

> The greatest advantage of the tool is its' flexibility. Creative educators can design apps that will help them strengthen the students' knowledge in an interesting manner and will train their skills. The weak side is the absence of methodological guidelines for teachers of specific subjects. There is only the tool.



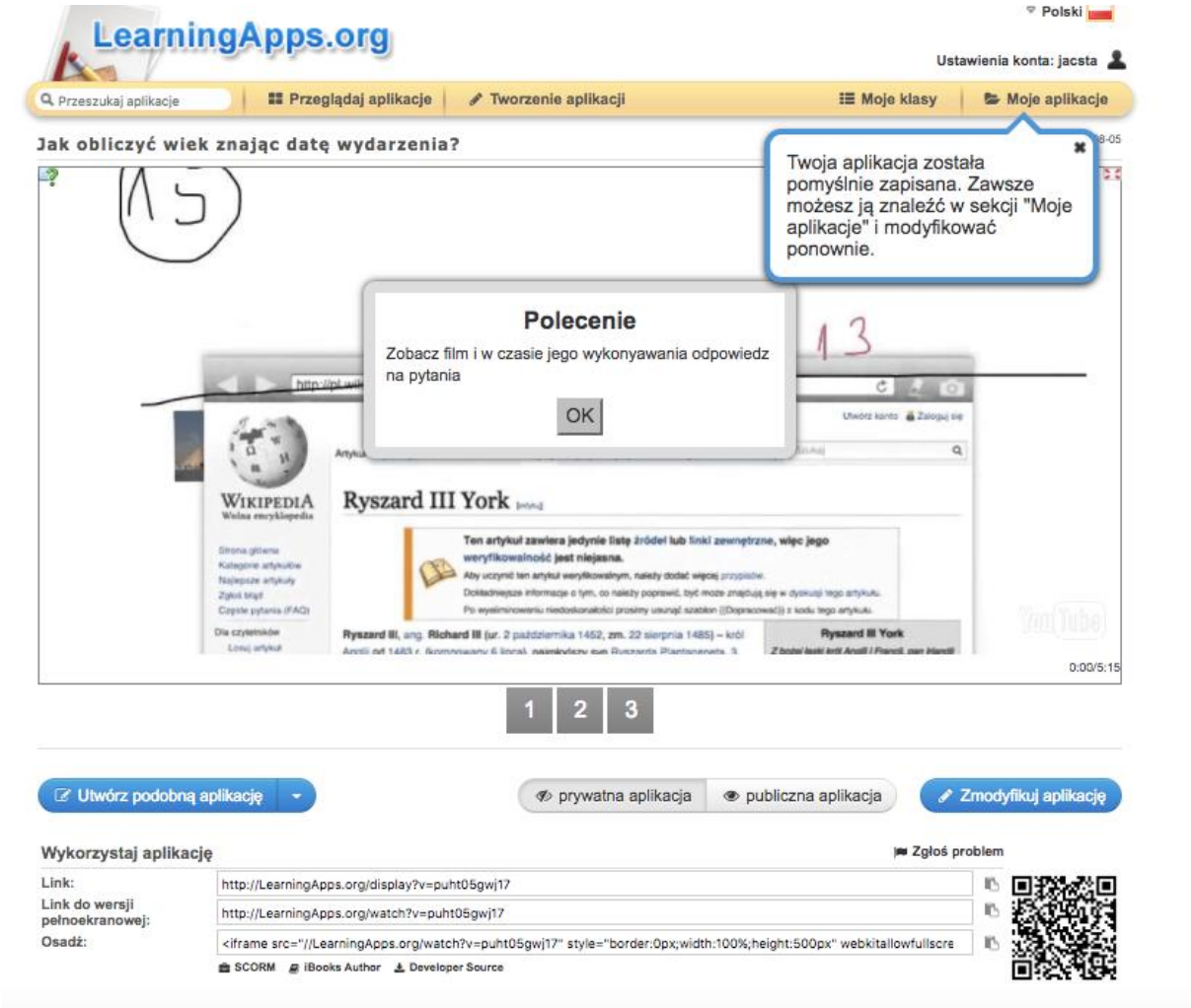
Uploading a film from YouTube to the app.

Saving own work:

Everybody can log-in and set up own account. There is no possibility of using Facebook or Google accounts.

Sharing with others:

It is possible to save own apps and share them publicly. Every app contains two links (for ordinary and full-screen sharing) and a code that allows for posting the app on own site. Even people who do not have accounts on the tool's website may share it. The apps are divided into subjects.



Saving work:

The app may be private or public.

Training the historical thinking skills:

The tool offers a multitude of possibilities for creating apps that are used for this purpose. It is possible to create apps checking cause and effect thinking, prioritising, understanding chronology. However, everything depends on the educator's invention. The tool as such does not offer guidelines on how to do it.

Lino

Link: http://en.linoit.com/

Brief description:

The app is used to create virtual boards with sticky notes. They may include notes, but also graphic files and films. The background of the board may be chosen among several pre-defined ones. It is also possible to choose own one.

Ease of use: easy/ average.

Language: English.

Brief description:

A special platform allowing to use the extensive Ted film database for educational purposes. For the needs of the platform, several short, often animated, films have been prepared. The platform allows for designing tasks pertaining to the film and sending the answers (in an open and closed form) to the teacher.

Strong and weak sides:

The app does not service other languages apart from English. The interface is not clear and may seem chaotic.

Saving own work:

It is possible to create a new account, as well as log-in via Google or Twitter accounts. Own boards may be saved at a relevant location on the profile and ordered within the profile.

Sharing with others:

Sharing own boards is not a problem. Boards may be shared by providing a unique URL of every board. At the same time, one can choose whether the board may only be read or edited by other users.

Training the historical thinking skills:

The tool is great for designing exercises related to the training of historical thinking. It helps showing, in a graphic form, the dependencies between events and their links, importance or impact on one another.

Ted Ed

Link: https://ed.ted.com/

Ease of use: easy.

Language:

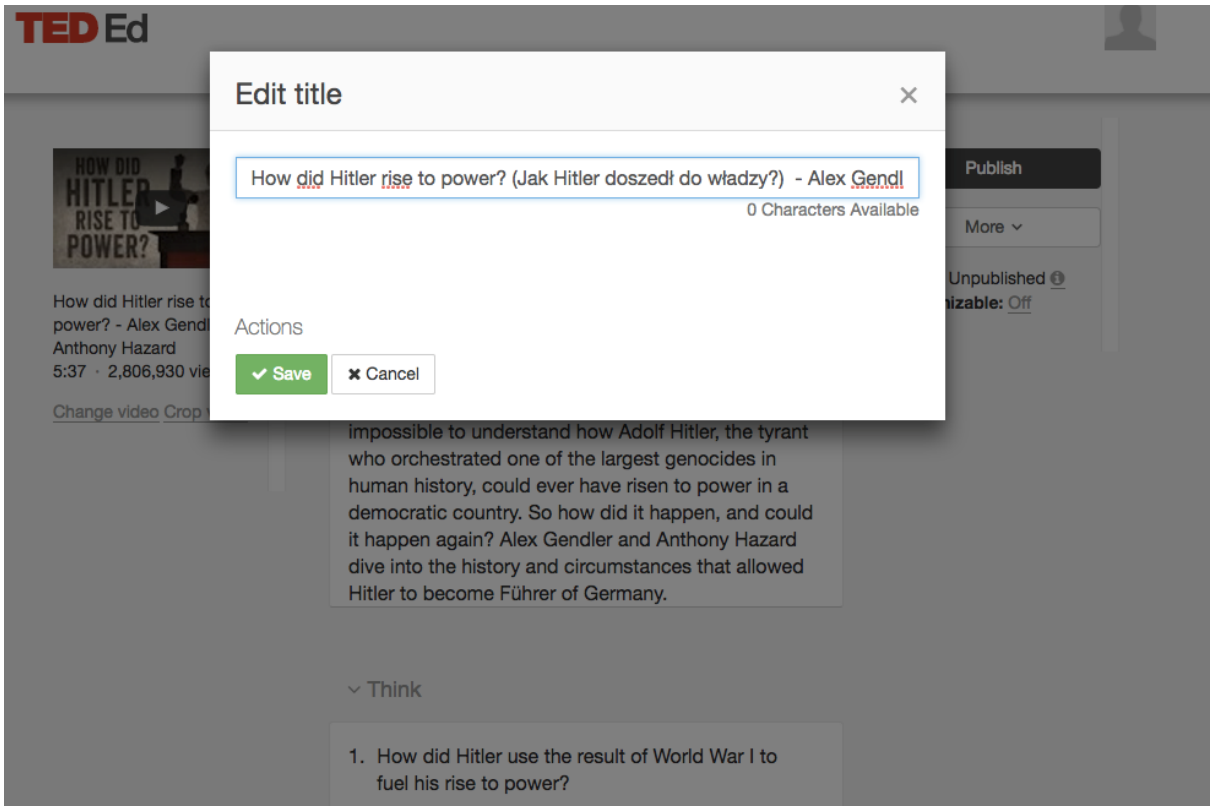
Depends on the film material. The majority is serviced by most popular European languages.

Strong and weak sides:

Possibility of designing a task based on own film. Individual language versions are not on a similar level.

Saving own work:

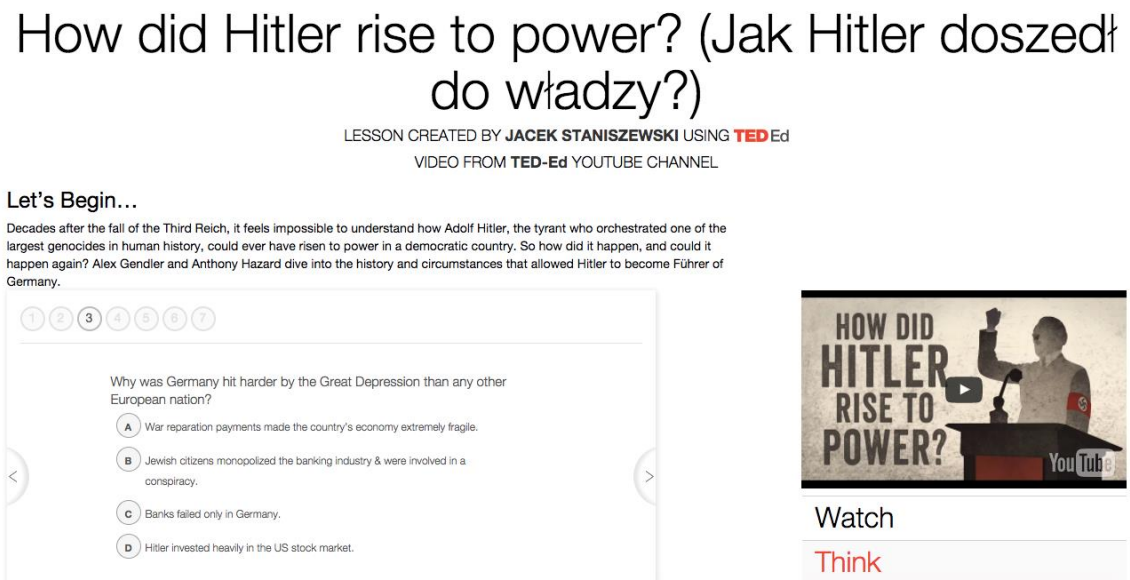
After setting up an account via Facebook or setting up a new account, it is possible to save and edit tasks related to individual films. The types of tasks are pre-defined, but it is possible to change their length. One's role may be limited to translating the original task, it is also possible to save it anew.



Edition of the original task. Translation to Polish.

Sharing with others:

Every activity designed by the educator is assigned a unique URL. The educator decides whether the students should set up an account on Ted website. If the educator does not require it, students set up their nicks which only refer a specific task.



The task with the translated title, ready to be sent to students.

Training the historical thinking skills.

A lot depends on the film and tasks assigned by the educator. Films are usually explanatory and used to provide the students with relevant knowledge. Therefore, they may become useful when the educator uses the flipped classroom method.

Real Board

Link: https://realtimeboard.com/

Brief description:

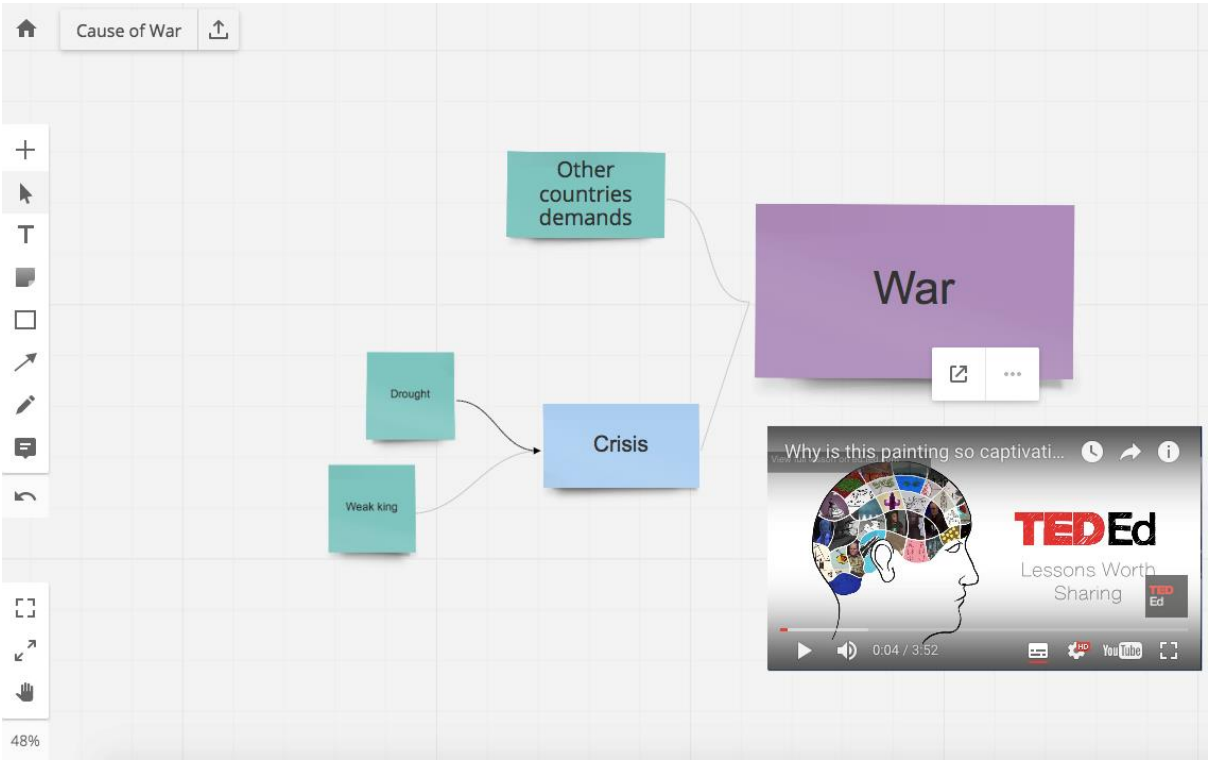
A tool that allows for creating tables, mental maps and diagrams with the use of multiple wizards and templates. It also allows for using external files and objects with the use of relevant codes.

Ease of use: difficult.

Language: mainly English.

Strong and weak sides:

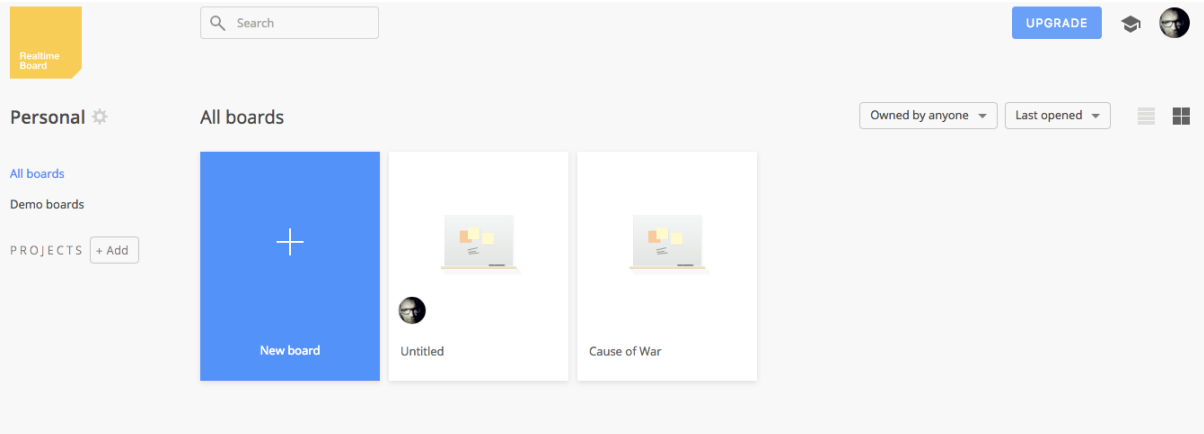
The main advantages of the programme are the possibilities related to all types of graphs, lists and, primarily, mental maps.



A simple mental map: cause of the war with an attached film.

Saving own work:

Very intuitive. All user's boards are saved in one location.



Sample saved boards.

Sharing with others:

Sharing may consist in making own work available to individual users with various levels of access. It is also possible to provide a unique URL.

Training the historical thinking skills:

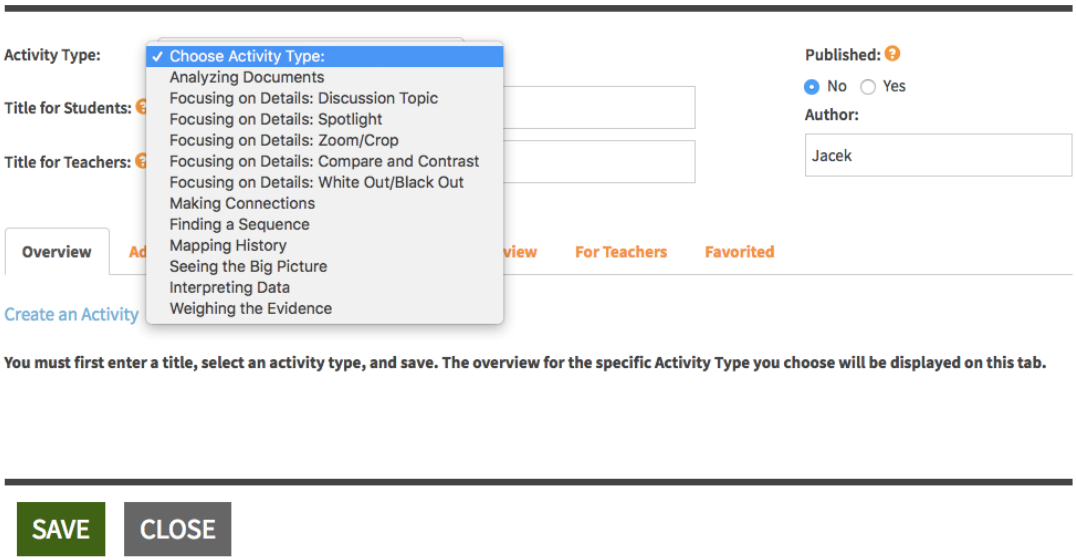
The tool is great for designing exercises related to the training of historical thinking. It helps showing, in a graphic form, the dependencies between events and their links, importance or impact on one another.

DocsTech

Link: https://www.docsteach.org/

Brief description:

A very advanced tool intended for history educators. It allows for creating tasks that are built around sources and other materials. Wizards allow for building tasks such as compare, show relations, look at the details, etc.



Task creator: in the first place, it is necessary to choose the type of task.

Ease of use: difficult.

Language: English.

Strong and weak sides:

> The tool has been designed especially for educators/ it is very difficult to use, time-consuming and requires cooperation of several educators in order to set up a good base; extensive tutorials on YouTube.

Saving own work:

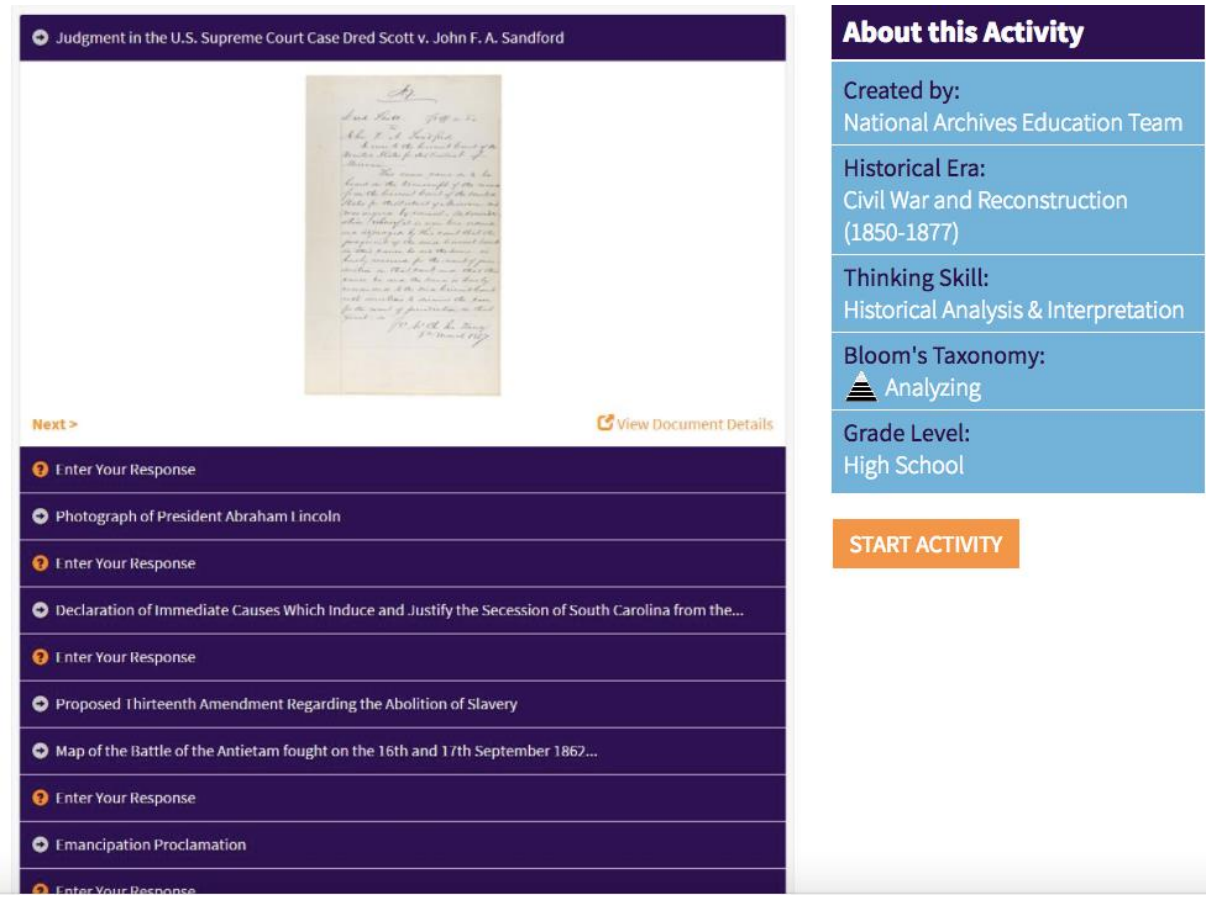
> Before starting to use the app, it is necessary to set up own account and then activate it with the use of the provided link. It is very simple and intuitive.

Sharing:

> The app allows for sharing with students and other users of the tool.

Training the historical thinking skills:

> The tool has been designed to train the historical skills of students.



A task indicating skills that will be trained.

Recite.com

Link: http://recite.com/

Brief description:

A very simple tool which allows for creating graphically attractive captions, quotations and brief descriptions. The user's task is to enter the text and to choose the template.

Ease of use:

Language: English; the app services all languages, yet some diacritics may be incorrectly displayed.

Strong and weak sides:

Too few templates, no possibility of adding own templates.

Saving own work:

The site does not require logging in. It is also possible to save the file on a local disc.

Sharing with others:

Each of the graphics is assigned with a link and a code allowing to share it via social media.

Training the historical thinking skills:

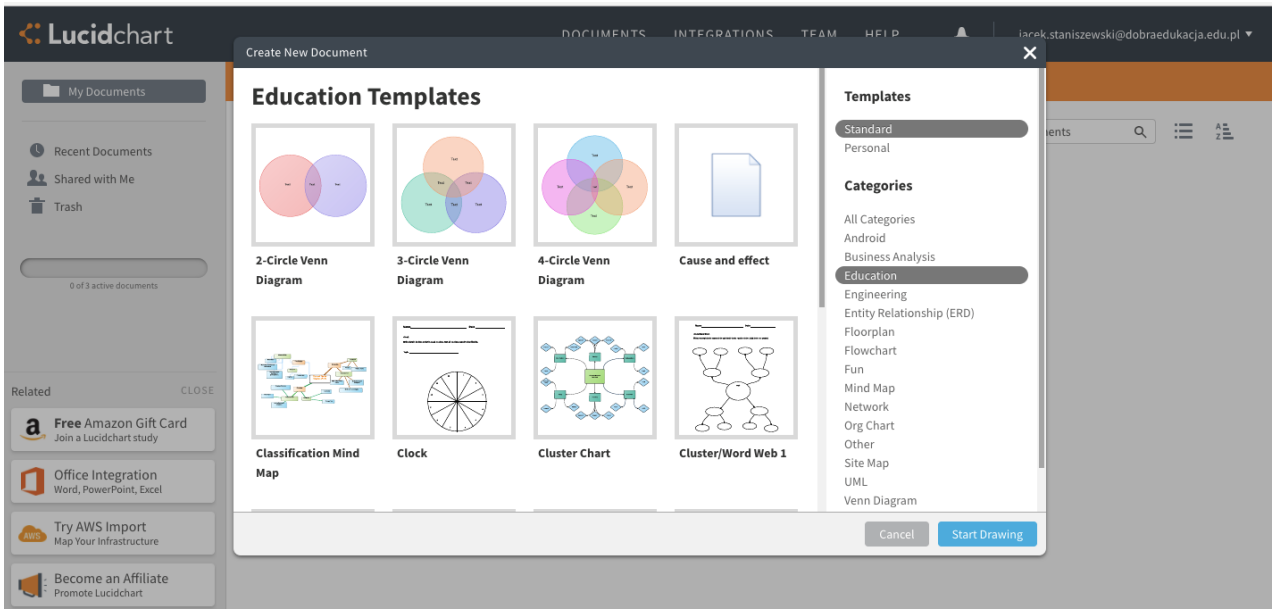
The tool may be used to make reading of source texts more attractive. For example, the students may be asked to make a list of most important quotations.

Lucidchart

Link: https://www.lucidchart.com/

Brief description:

A complex tool used for creating various types of schemes, diagrams and graphs. It integrates very well with Google Docs, even though it may also function independently. In the free and basic version, it is possible to create a number of useful complex graphs on-line and later export them to various formats. The app also allows for designing mental maps.



Ease of use: quite difficult.

Language: English.

Strong and weak sides:

A complex interface for less advanced teachers; a possibility of easy export to multiple formats, possibility of cooperation.

Saving own work:

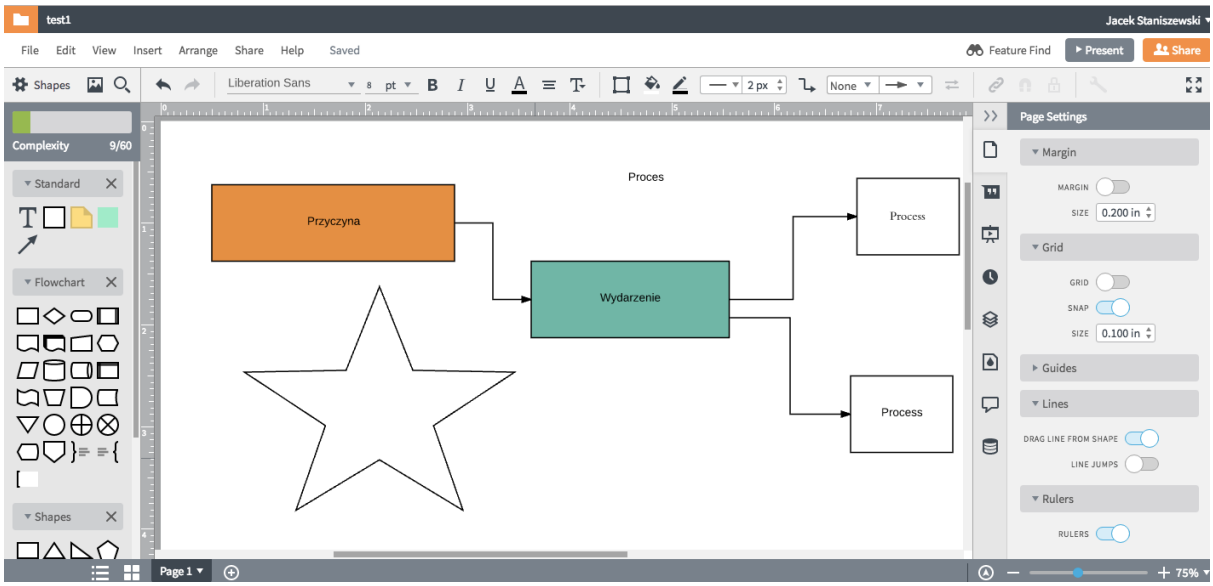
Everybody can log-in and set up own account. There is no possibility of using Facebook or Google accounts.

Sharing with others:

It is possible to save own apps and share them publicly. Every app contains two links (for ordinary and full-screen sharing) and a code that allows for posting the app on own site. Even users who do not have accounts on the website may share it. The apps are divided into subjects.

Training the historical thinking skills:

The tool offers a multitude of possibilities for creating apps that are used for this purpose. It is possible to create apps checking cause and effect thinking, prioritising, understanding chronology. However, everything depends on the educator's invention. The tool as such does not offer guidelines on how to do it.

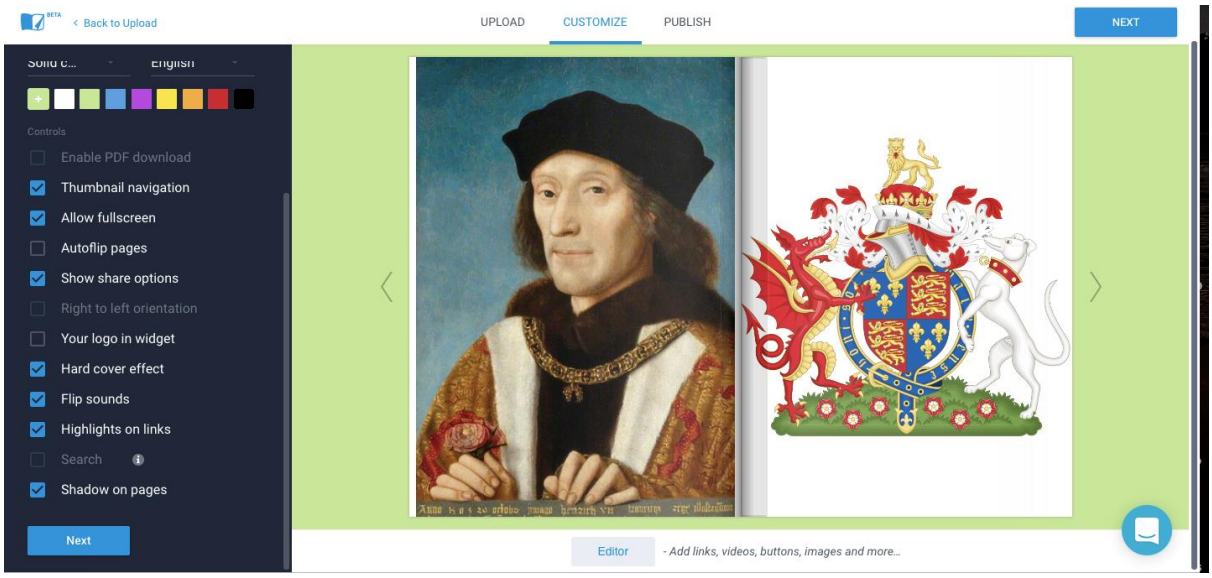


Flipsnack

Link: https://www.flipsnack.com/

Brief description:

A simple programme to create virtual books that imitate real books on the screen (the effect of turning pages, paper rustle). In a free version, the user may create a book with up to 15 pages. It is performed via upload of several files. The wizard also allows for adding elements from own menu (captions, shapes and colours).



Ease of use: simple.

Language: English.

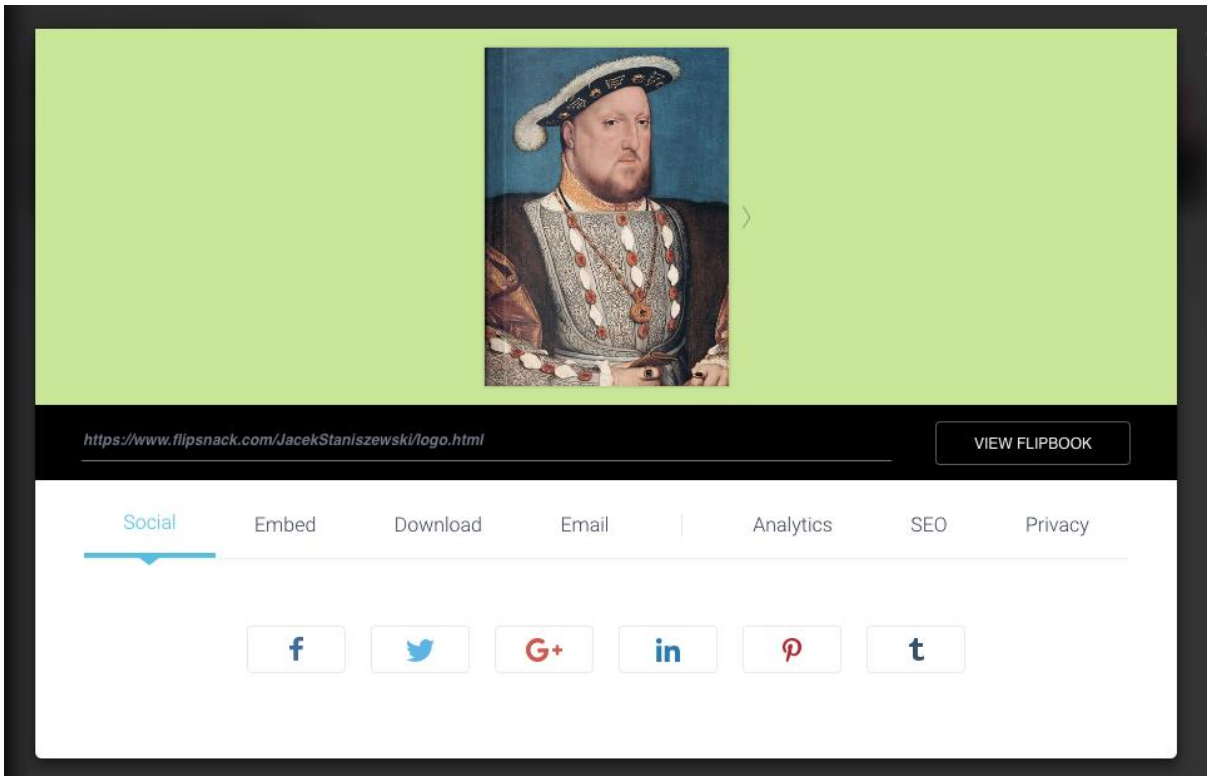
Strong and weak sides:

The programme offers many possibilities and excites creativity.

A disadvantage is quite unhandy file upload panel and significant restrictions in the free version.

Saving own work:

Saving own work is limited to 10 books in one account. It is also not possible to download a file. However, all other methods are serviced very well.



Sharing with others:

Sharing is not a problem. All popular social websites are serviced. The website's embed potential is also very extended.

Training the historical thinking skills:

The tool may be successfully used to develop the historical narrative skills, to show the significance of events and cause and effect relations. Educator's creativity is of major importance.

Make Beliefs Comix

Link: http://www.makebeliefscomix.com/Comix/

Brief description:

A simple app that may be used to create comic books. It may be useful for summarising a lesson, for creating scenes to be remembered by students.

Ease of use:

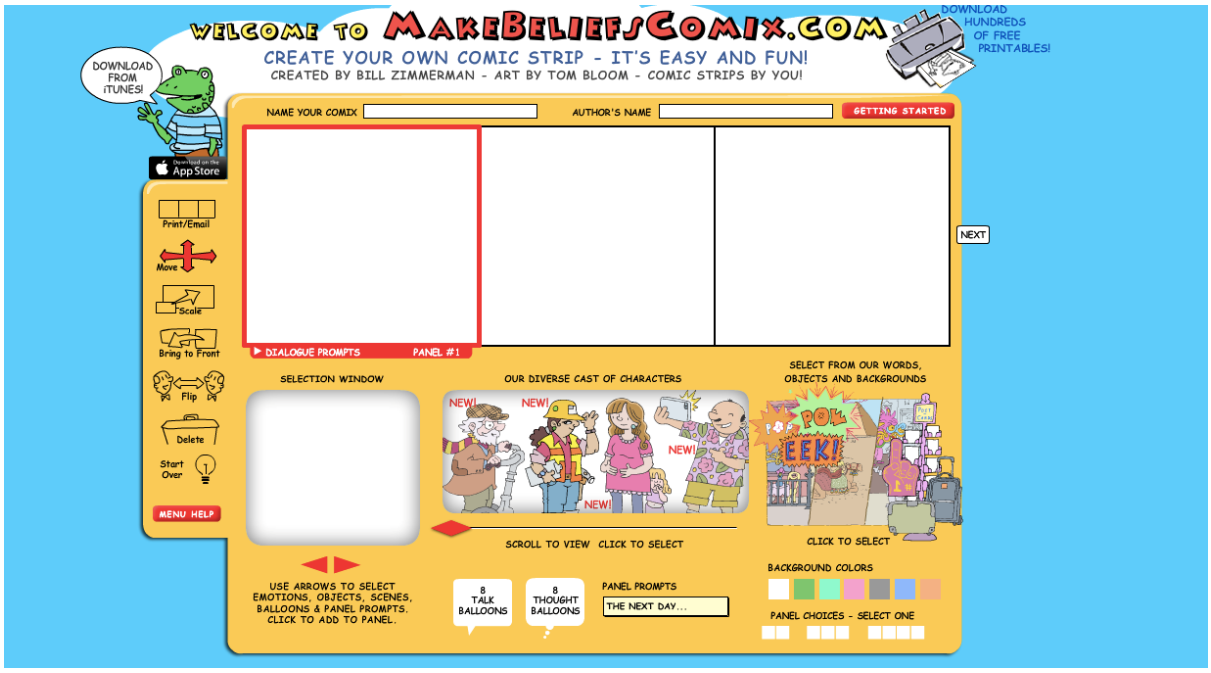
Initially, the interface may seem quite complex and obsolete. The appearance of the website definitely differs from modern websites.

Language: English.

Strong and weak sides:

The website is free and allows for creating a simple dialogue.

There is too little space of “comic action” and few characters to choose from.



Saving own work:

It is not necessary to log-in; comic books are created on-line; later, one can save the results on a disc.

Sharing with others:

This is not a part of the tool.

Training the historical thinking skills:

The tool may be useful to recapitulate classes. In particular, it may be useful during classes with younger students.

Pixton

Link: https://www.pixton.com/

Brief description:

An advanced tool for creating comic books. It allows for creating longer comic books. It is possible to use a number pre-defined templates making references to the history of the United States. After purchasing a licence, one can edit the templates and create own ones.

Ease of use: average level of difficulty.

Language: English, Spanish, French.

Strong and weak sides:

Quite a complex wizard for creating comic books from scratch.

Saving own work:

Everybody can log-in and set up own account. There is no possibility of using Facebook or Google accounts.

Sharing with others:

It is possible to save own apps and share them publicly. Every app contains two links (for ordinary and full-screen sharing) and a code that allows for posting the app on own site. Even people who do not have accounts on the tool's website may share it. The apps are divided into subjects.

Training the historical thinking skills:

The tool may be useful to recapitulate classes. The possibilities of the tool allow for using it both in work with younger and older students.

Conclusions

- All the analysed tools require quite proficient computer skills according to the web 2.0 principles. The educator who uses them should understand the mechanisms consisting in sharing materials, saving work in cloud, editing apps of other users and be familiar with access rights to individual apps.

- The majority of the analysed tools do not require logging in by the students; they only require intuitive skills.

- Apart from obvious attractiveness of tools, there are no doubts that all of them offer a potential for training historical skills. However, they require the educator's significant consideration at the stage of creating an app or a task. Therefore, in the case of each of them, the problem is not so much the applied technical solutions, but the absence of an extensive and valuable pool of materials which may be compiled by the educators and adjusted to their needs. It is important to build a network of educators who will together build a pool a resources.

- In the case of majority of analysed tools, basic English skills are also necessary. This may be an obstacle preventing common use.

- The most important elements related to the sharing of materials prepared by the educator with other users are:

- possibility of setting the public or private mode for the prepared materials;

- possibility of setting a version for the prepared task: for other educators or for students;

- no necessity of logging in by the students to the tool in order to perform the task that was prepared for them;

- ease in generating URL codes and ease in generating direct links to the task.

- The analysed apps did not focus on offering feedback to students after performance of activities. However, some of them allowed for offering comments to students after completion of the activity.

3. How to Present the On-line Learning Activities to Students?

In the course of interviews with history educators attention was often attracted to the role that the manner of introducing students to work with the ICT tools plays in success of work with ICT tools. It was emphasised that if the manner of designing the ICT tools makes this element of classes too difficult or too time-consuming, it often hinders or even prevents the use of ICT during classes. Being aware of the significance of this issue, it was analysed in detail as part of several questions contained in two Internet questionnaires. This issue has also been discussed during interviews with educators.

Introducing students to work with ICT tools takes place at various moments of classes - both at the beginning, during and at the end of classes, when homework is assigned. It also depends on the manner of class planning by the educator and the objectives for which the ICT tools are used. It seems that for educators, the form of introducing tasks with the use of on-line tools does not differ from presenting the students with “analogue” tasks. In general, one may venture saying that there are two most common approaches to introducing students to tasks with the use of Internet aids. Each of them results from the objective for which the educators are using the tools.

The first mode considered good by educators is often used when assigning homework requiring the use of Internet tools. Such form of presenting the ICT tools to students and the homework related to them seems to be the most common, due to the fact that educators more often assign homework with the use of on-line tools than use them during the classes.

At the end of the class, the educators inform the students what task they have to perform at home. Subsequently, they present the manner of its performance, making the students acquainted with the tool that is going to be used when preparing homework (e.g. an Internet app for collecting information, an on-line document that may be edited by all pupils, a programme for preparing a joint presentation) or a function of a tool with which the students are familiar (e.g. search with the use of filters in an Internet browser). In such situations, some educators also prepare tutorials for students or other forms of instruction for the tools which the students are supposed to use. Aids of this type constitute, e.g., previously recorded films for students on YouTube or specially prepared written instructions. They are made available to students via the Internet. Therefore, it is worth emphasising that if the educators

want their students to work with ICT tools at home, they usually prepare an instruction for the task first and a user manual in an oral form during a class and later, they send the students a multimedia instruction via e-mail, social media or other tools allowing for sharing files (most often written, less frequently in the form of a film).

The second form of presenting the students with activities with the use of ICT tools is related to their use during the classes. Limited time in which the students are presented with the tool and informed about what they should do results in the fact this form of work with the ICT tools is used less frequently by the educators. If it is actually used, educators usually plan to devote the whole class to the use of a given tool. In such case, they spend a lot of time on preparing the class, often designing exercises for students in a manner that allows for the most precise use of the potential offered by on-line tools. Then, planned classes are not only limited to the search for information on the Internet by the students (even though such cases of using on-line tools are also quite common). Classes of this type often assume teamwork of students, the effects of which are visible for everybody. Popular and frequently mentioned tools include Google tools (Google docs, Google slides and Google forms).

In case of presentation of tasks and tools used during a class, educators take care to show the potential of a given tool in practice. Therefore, before the students perform an exercise assigned to them, the educator always shows the sample use. In this case - as opposed to assigning homework with the use of ICT tools - educators rarely prepare tutorials in the form of films or written instructions. Most often, they rely on showing the examples that they prepared to the students. However, there were also educators who assign becoming familiar with an instruction manual for a tool that they want to use during a class as homework to their students. However, in such case they pay attention to the encountered problems during school practice; such problems tend to emerge when not all the students became acquainted with such instruction or if it turns out too difficult for some of them.

Summing up: it is possible to indicate two modes of presenting the students with activities involving the use of ICT. In case of assigning homework, educators are inclined to prepare written or video instructions on how to use the tools and how to perform the activity, whereas when on-line tools are used during a class, they pay more attention to the practical presentation of functionalities of the tool to the students and assume the role of presenters. In both cases, the educators emphasised that they devote most time to making the students familiar with the new tools. They also indicated that a complex interface, too many functions and excessively complex servicing result in the fact that they relatively often resign from using Internet tools unknown to the students.

Many respondents pointed out to the difficulties with using certain tools if the interface is not in the students' native language or if there are no manuals written in a form accessible for the students.

The objects of discussions were also the best and the most efficient, according to educators, forms of presenting the activities to students. Best communication channels that were listed included social networking sites, primarily Facebook, which allows for keeping in touch with the students on an ongoing basis and responding to their potential problems relatively quickly. Communication via e-mail plays a lesser role, as the students check it less often than Facebook. In this case, data from the interviews confirm the conclusions formulated in the IHEA Needs Assessment. Some schools have their own sites at their disposal that allow the educators to provide tasks and information to the students.

An important issue in the case of presenting the students with ICT tasks is the hardware used to perform a given activity at various stages of work. It may happen that the educator prepares a task for

the students and the instruction manual for a given tool having tablets available at the school in mind. Meanwhile, students may use personal computers (of various producers and with various operating systems) at home or even mobile phones. Therefore, such situation may lead to additional technical obstacles hindering or even preventing the students from performing an exercise. The educators noticed this problem mainly in the case of assigning homework. They emphasised that they tried to avoid a situation when a project started at school was to be continued by the students at home. However, it is not always possible to avoid such situations and homework is often a natural and didactically significant supplement for the work with ICT tools. Thence, according to some educators, it would be good if the functionality of the tool did not depend on the hardware that is used. In their opinion, an ideal situation should allow for an easy transfer of the content developed on one piece of hardware to another one. The available tools should also have their versions dedicated to various hardware, whereas the version for PC should be, in their opinion, basic, as the majority of students have access to such hardware both at home and in school. Some educators also indicated the commonness of smart phone use among students; use of smart phones may solve potential problems with absence of school hardware or limited availability of a computer room. On the other hand, a significant part of schools have tablets at the students' disposal, which perform the role of a portable computer room. All these data derive from a quality study and it is impossible to provide specific information about the provision of schools in various parts of Europe with computer hardware. Data available on this subject was referred to in the main part of the report. However, interviews with educators allowed for ascertaining that situations when students work on one task using different hardware do take place; therefore, when preparing the tools, it is necessary to pay attention to full functionality irrespective of the hardware that is used. It is also important to make the interface as similar as possible and make sure that it does not require the educators to present one tool to the students with all the variations depending on the hardware that they are going to use.

4. How Can Educators Give Ideal Feedback To The Students?

Providing the students with information about the quality of work performed by them is one of the key elements of an educator's work. Efficiency of such activities results from a number of factors that may, in general, be divided into two sub-groups. First of all, the technical quality of formulated assessments plays an important role: their clarity, explicitness, focus on most important issues. Simultaneously, the actual impact of such assessment on further development of students is usually determined by soft factors: a personal relation built between the educator and the students and, to a significant degree, the atmosphere in a given class, thence the relations among students. These last circumstances strongly determine the manner in which students receive the educator's guidelines and, in general, determine whether they are internalised by the students or rejected by them as oppressive or simply unworthy of consideration. Meanwhile, educators in principle focus on the technical aspects of the assessment. The majority of them is aware of greater utility of descriptive grades, rather than point-based grades. Simultaneously, even educators who are familiar with theoretical guidelines which should make the feedback properly received by students and, subsequently, actually influence their level of competence, often have to face practical limitations.

Among circumstances which - according to educators - hinder proper formulation of feedback for the students the most prominent is the lack of time. Many educators repeated the opinion that preparing exhaustive guidelines for all students about the assigned written work or similar activities is simply very time-consuming and, in practice, sometimes impossible to do. Time limitations encourage the educators to adopt various - often obviously undesired - strategies. The most simple one consists in avoiding such forms of exercises which would require the educator to devote a greater amount of time to it, thence simply resigning from activities that consist in preparing a longer written response to the students. Provision of laconic comments (perfect! very good!) on better work is also quite typical in order to save more time for preparing more extensive feedback for these students who do not cope so well with a given task.

Use of on-line tools only ostensibly reduces the problems with the lack of time. In this case, a number of activities may be automated which, however, rarely leads to improvement in the quality of the grade as such, because mechanical calculation of points from a given test does not, in any manner, facilitate formulation of a descriptive evaluation of strong and weak sides of individual students. Making use of various possibilities that are offered by new applications may sometimes have a negative impact on relations between the student and the educator. For example, the educator's strict control over the student's progress in implementing a given task or the possibility of full supervision over the student's work may result in the fact that the student will feel strongly controlled. In effect, the educator may transform from a mentor into a trainer. Likewise, excessively precise guidelines from the educator sometimes tend to be treated by the students as restricting their own expression. In effect, even the most detailed and formally correct advice from the educator is not internalised by the students.

Negative grades constitute a separate problem. Educators often attract attention to the fact that assessment formulated in writing, which the students receive without any direct contact (e.g. via e-mail) is interpreted as offensive and, in effect, weakens the student/ educator relation. The educators suggested relatively often that this type of assessment is easier to formulate during a personal talk with a student in order to partially alleviate its generally negative impact. Sometimes, automatic access to such grades for the parents is also a drawback in relations between the students and the educator; in certain cases the parents, instead of delving into the educator's guidelines, see them as criticism of their child's accomplishments.

A personal talk or a discussion of a given activity during the class solves another significant problem of the educators, who often have doubts whether their feedback sent to students via specific apps or on-line tools is analysed at all. In this case, it has to be noted that the more detailed the educator's guidelines, the greater the risk that the students will simply not understand them or that they will not have sufficient motivation to become actually acquainted with them.

The educators often paid attention to the fact that the quality of feedback provided to the students was also greatly impacted by the basic technical issues. Thence, it has to be noted that even though the majority of educators prefer taking manual notes on the margin of students' homework, for some educators it is more convenient to write such comments on the computer. Individual educators declared that the necessity of handwriting discouraged them from more extensive comments on the students' written work.

In the discussion on the significance or impact of good feedback on the level of the students' skills or the level of their engagement in a given activity, the educators often paid attention to the issue of significant diversity in students' expectations. Individual persons often require an individual approach; therefore, the far-advanced universalisation of applied methods does not seem to be the most desired solution. Instead, the educators are trying to apply a diversified approach in order to reach individual students with their message. In this respect, the atmosphere in the class also plays an important role, as mentioned before. Certain environments are going to favour solutions based on group competition mechanisms (quizzes/ rankings), even though in general, in a long-term perspective, activities of this type usually lead to the polarisation of students' attitudes, and those who are weaker tend to lose their interest in the subject.

When talking about the potential offered by on-line apps, the educators also attracted attention to the fact that they allow for more precise ordering of remarks presented to specific students and, thereby, showing them the path of their development or - more frequently - the mistakes that they keep making. This solution tends to be quite useful, especially in a situation when a student may actually see that his/ her work is becoming better and better. Simultaneously, in case of less talented students, the catalogue of repeating mistakes or imperfections may be quite frustrating and - similarly to the factors mentioned above - may lead to discouragement.

Finally, some educators paid attention to the fact that introduction of specific apps to their practice resulted in greater involvement of these students who are simply interested in new technologies in specific tasks, yet this effect was usually short term. On the other hand, other educators noticed that their students - who used social apps quite intensely on a daily basis - in reality needed an area on which they could simply develop their social skills. Therefore, a face to face talk about the mistakes that they made, or imperfections of their work, allows for making them familiar with a specific social situation and also reinforces their competences in this respect. From this perspective, it is important - in the educators' opinion - not to resign from feedback of this type and try to find time for direct dialogue with every student.

The conducted interviews with educators show that in principle, the range of their impressions related to the optimum forms of providing feedback to students are usually delimited by the frames of activities that they undertake. Relatively few educators sometimes concede that they could be more active in this area; in such a situation, they usually blame it on the lack of time. In general, the solutions applied by the educators are quite diversified – they use various approaches in case of specific classes (groups of students) or simply individual students. Nevertheless, it has to be emphasised that - similarly to other situations - a significant group of educators is simply accustomed to the methods they have worked out over the years and does not feel the necessity of changing them. On the other hand, quite a large group believes that the most efficient form of providing feedback to students is direct conversation, either in class or individually, in the course of which it is possible to discuss all - even the less positive - aspects of the student's work. Such "honesty" may not always be exercised when the educator's remarks are provided with the use of on-line tools. Simultaneously - in spite of the above-listed reservations - it has to be noted that the educators declare their readiness to experiment with tools that could streamline this area of their work, yet they are quite sceptical as far as their actual utility is concerned.