Enhancing German language learning through interactive tools

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Abstract. This article explores the utilization of interactive tools in the creation of interactive exercises for German language lessons and the assessment of learners' performance. The concept of didacticization, which involves adapting educational materials and authentic texts, is examined in detail. The article outlines the essential steps for didacticizing authentic texts and provides examples of how digital tools can be employed to accomplish this task, thereby facilitating their integration into the educational process. The primary objectives of employing these tools are to foster language competence development and evaluate the attainment of learning outcomes. The study establishes that the utilization of mobile applications and Web 2.0 interactive tools effectively organizes students' work both within and outside the classroom, leading to the enhancement and refinement of their language competence.

Keywords: mobile applications, interactive tools, Web 2.0 technology, communicative competence, foreign language, didacticization, authentic materials

1. Introduction

The most important task of foreign language teaching at universities is the practical mastery of a foreign language, the ability to conduct a foreign language communication with native speakers, taking into account the cultural characteristics, because the language and the culture are inseparable [22]. Modern foreign language teaching relies on the authenticity of teaching materials, because learning a foreign language involves getting to know the foreign culture and because linguistic content is always linked to cultural and social information.

One can motivate students to learn German by offering them well-prepared materials to which they bring experiences from their own world and which encourage them to see their own world anew from a changed perspective [6, p. 30].

Appropriate use of media can further increase motivation to engage with the materials because technologies are taken for granted by modern young people, and they enjoy using various mobile devices in their everyday lives to communicate and research, play and learn.

We should also not forget that students must be able to use modern information and communication technologies and digital tools to solve the job-related problems [25].

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The use of the authentic materials, taking into account the methodological-didactic principles, certainly contributes not only to the development of linguistic and regional competences, but also to increasing the motivation to learn German [27]. And the preparation of the texts with the help of Web 2.0 tools also promotes the students' media competence, among other things [15].

2. Didactization of the authentic materials

In the methodological literature there is a lot of discussion about the use of authentic materials and one can also find different definitions of authenticity. Mostly it is about texts from newspapers or magazines, song texts, audio texts or similar, which are used parallel to a textbook in class and are linguistically authentic [2].

Since authentic texts are both linguistic and cultural products, they give learners the opportunity to observe and draw conclusions about the customs and rules of communication in the target culture, which can help learners form a cultural frame of reference for the language [20, p. 45].

The relevant literature deals with either authentic or synthetic texts, and their use in the classroom depends on the particular goal. However, we should not forget that authentic texts are often quite difficult for learners and therefore require a certain adaptation to the learners' level of knowledge.

As for the adaptation of the authentic texts, there are different opinions about it. Nosonovich [21] believes that:

1) adapted texts lose the characteristic features, the individuality of the author and the national peculiarity;
2) authentic texts differ in style and content and are therefore of interest to learners; they illustrate the functioning of language as adopted by its speakers;
3) use of artificial, simplified texts can lead to further difficulties in perceiving real-life texts [21, p. 12].

Wicke [29], based on the experience of his work with authentic texts, points out that learners have an extraordinary interest in everything "other" connected with everyday life, i.e. in authentic materials [29, p. 22].

Heyd [5] notes that the formation and development of skills with artificial, non-existent texts is hardly possible, because they are not typical for the real communication process.

A different point of view regarding the use of the authentic unprepared texts is represented by Weigmann [28]. He believes that the authentic text used for teaching purposes, first of all, changes the addressee for whom it was written. Weigmann [28] believes that authentic texts, due to their language complexity, may even reduce the motivation to read, as they exceed the level of knowledge of learners. Therefore, they can and must be adapted for teaching [28, p. 73].

Below we give an example of an authentic text used in language history class (not adapted) with the task of underlining the lexical units whose spelling differs from modern German literary language and explaining the differences. Then the students were to find obsolete words and grammatical structures and try to replace those with modern German words and rewrite the text.

> Ankauf zweier Glokken in der Kolonie
> Elisabethdorf und hiernach getroffene
> christliche Ordnung [24, p. 22-23]
>
> Bevor noch der Stamm der, aus Badnern und Hessen-Darmstadtern bestehenden, Gemeinde der Kolonie Elisabethdorf ganz aussterben mögte, beschloß diese Gemeinde; damit die heranwachsende Jugend die christliche Ordnung kennen lerne und bewahre, in welcher ihre Aeltern im Auslande erzogen worden, einige Glokken anzukaufen und zur gewohnten Sitte anzuwenden. Im Herbste des 1836 sten Jahres ging der Beschluß, zur Freude Aller, in Erfüllung. Zwei ziemlich große Glokken wurden aus Charkow besorgt und unter einen Glokkenthurm gebracht. Von Stund an traf die Gemeinde auch die Anordnung, durch Läuten der Glokken folgende christliche Sitte, zu der der Prediger noch ermahnte, festzustellen, nämlich: bei Anbruch des Tages zur Erinnerung an das Morgengebet; und Mittag die Mittagsstunde und den Gott schuldigen Dank für Speise und Trank an's Herz zu legen, bei eintretender Abenddämmerung zum Dank gegen den Geber aller guten Gaben, nach vollbrachtem Tagewerke, durch ein zu betendes Vater Unser aufzufordem; um 9. Uhr Abends jedem Gemeindegliede einen Wink zu geben, daß auf Straßen und in Schenken Ruhe hergestellt werde; an Sonn- und Festtagen den Beginn des Gottesdienstes anzuzeigen; nach der Predigt, beim Beten des Vater Unsers, allen zu Hause Befindlichen ein Merkmal zur Verrichtung desselben Gebets darzubieten; und bei Leichenbegängnissen den Leichenzag anzukündigen und feierlicher zu machen. Außerdem hat gedachte Gemeinde noch die Einrichtung beim Gebrauch der Glokken hinzugefügt: den Abend vor einem Festtage um die gewöhnliche Zeit, statt, wie an gewöhnlichen Tagen, mit einer, alsdann mit beiden Glokken zu läuten, um den bevorstehenden Festtag anzuzeigen; ingleichen bei Beerdigungen mit beiden Glokken zu läuten, und so auch das dritte und letzte Mal an Sonn- und Festtagen, als eine Viertel-Stunde vor Beginn des Gottesdienstes.

However, such historical texts are very specific and are hardly suitable for regular German lessons, where modern authentic texts should be used. In this regard, the Internet portal of the Germans of Ukraine also offers many interesting materials, namely the traveling exhibition [3], which presents interesting facts about the history of the Germans in Ukraine. The author of the concept of this exhibition and the texts for it is Dr. Alfred Eisfeld, a Russian-German historian, expert on the history and culture of Germans in the Russian Empire, the Soviet Union and the CIS and author of numerous scientific works. Part of the exhibition is devoted to the Azov region and is about the colonies founded in the 18th-19th centuries by German resettlers from West Prussia, Bavaria, Hesse, Alsace and Baden near Mariupol. The texts and pictures from the exhibition were used in the regional studies classes in the 7th semester and in the language practice classes in the 3rd semester as part of the topic "Germany and Germans".

> Die Ansiedlung deutscher Kolonisten in den Steppen des Asowschen Gebiets erfolgte in mehreren Etappen. Die ersten Kolonien wurden am Fluss Molotschnaja 1804–1810 gegründet. Außer den Mennoniten siedelten sich hier aus Württemberg, aus Baden und Preußisch-Polen Stammende an, welche den Molotschnaer Kolonistenbezirk bildeten. Das Zentrum wurde Prischib. Die in den Jahren 1818–1819 aus der Umgebung von Danzig, Elbing und Marienburg (Preußen) angekommenen 500 Familien von Katholiken und Lutheranern hielten sich 5 Jahre lang in den alten Kolonien auf, weil das ihnen zugeteilte Land sich als für die Bewirtschaftung nicht geeignete wasserlose Salzerde erwies. Sie lehnten es ab, dort zu siedeln. Schließlich wurde ihnen Land in der Nähe von Mariupol zugewiesen, auf dem die Mariupoler Kolonien, auch Planer Kolonien oder Preußenplan genannt, mit dem Zentrum in Grunau gegründet wurden (1823).

> Die 1822 in der Nähe von Berdjansk von schwäbischen Pietisten gegründeten 3 Kolonien wurden als Separatisten-Kolonien bezeichnet. Die Pietisten haben schon in ihrer Heimat die Verbindung mit der lutherischen Kirche abgelehnt. Sie wurden Chiliasten oder Separatisten genannt.

When preparing the regional studies texts, one should follow certain steps suggested by Rösler and Würffel [23, p. 119]:

1) establish sublearning objectives;
2) analyze vocabulary and linguistic structures and adapt the text as needed;
3) develop tasks related to the text.

Since our idea was to didactize the texts with the help of the digital applications, the next section is about digital tools that are suitable for this purpose.

3. Digital applications for the development of linguistic performance

Digitalization is reaching into all areas of life, and the learning process is of course no exception [26]. Students need to master technologies that are available to them so that they can use them to learn German successfully and later, as future teachers of German, to carry out their own teaching activities.

The Internet offers a wide range of modern online tools and applications for learning a foreign language [17]. Of course, everything in this area changes very quickly, and one should inform oneself regularly in order not to miss important developments. In addition, care should be taken to ensure that language teaching encourages students in the competent use of media and develops media literacy.

In this article, we focus on the ability to use media and look at digital offers that can bring regional studies topics closer to students. We are interested in the Web 2.0 platforms that can be used to create interactive exercises, because the idea is to didactize the found materials in such a way. For our goals we have chosen two tools: Learningapps and Wordwall, which are similar in their functions, but differ in the external appearance and in some additional possibilities.

LearningApps.org supports learning and teaching processes with small interactive, multimedia building blocks that are created online and integrated into learning content [16]. A whole range of different exercise options are available for the building blocks: Match Pairs, Group Matching, Number Line, Simple Sequence, Free Text Response, Match to Picture, Multiple Choice Quiz, Cloze, App Matrix, Audio/Video with Overlays, Million Game, Group Puzzle, Crossword, Puzzle, Match with Map, Word Grid, Where's What, Hangman, Horse Race, Pairs Game, and Guess [18]. The apps do not represent self-contained learning units, but must be embedded in a teaching scenario, which actually offers unlimited possibilities for creating your own exercises [19].

Wordwall, a Web 2.0 tool that can be used to design vocabulary and grammar exercises, as well as various learning games, puzzles and tests, has similar functions. The templates range from simple quiz formats such as true-or-false to crossword puzzles and fill-in-the-blank exercises. There are various design options, images can be inserted from an image archive of

Wordwall or even your own photographs. This allows you to adapt the task to the topic and the learning group. For example, you could use pictures to visualize certain facts in a lesson on the topic "German Traces" [4, 8, 14]. You can also use a differentiated approach by providing pictures as additional help.

Some exercise types, such as multiple-choice quizzes, are suitable for collaborative play, i.e. learners can participate in the quiz together via their own end devices, which is in line with the principle of learner activation. Some task types can be saved and printed as PDFs, and can therefore be used not only digitally but also analogously, if it fits the logic of the lesson.

It should be noted, however, that both applications can only be used to create closed task formats, i.e. those for which there is only one solution that the computer can evaluate as correct, automatically marking the other solutions as incorrect. To encourage creativity and critical thinking, more exercises should be developed that involve discussing and debating the content. And this means that digital and analog offerings should be closely linked in the learning process. The interactive exercises can serve as a basis for further engagement with the topic, as an introduction to the topic, as exercises that awaken interest in the topic and increase motivation to learn German.

4. Digital applications for performance evaluation

Evaluation of learners' performance is an essential part of the educational process, and competence orientation is one of the most important principles of teaching German. That is why formative evaluation as such approach, which allows to reduce negative aspects in learning, to promote individualization of educational process, to increase motivation to learn and autonomy of learners [30], is absolutely contemporary and corresponds to the goals of teaching German.

Nowadays, there are many digital tools that can be successfully used for formative evaluation. Depending on the goal of the evaluation, you can use them in different phases of teaching.

AnswerGarden (https://answergarden.ch) can be integrated in the context of numerous teaching situations, for example as a simple brainstorming tool, as a survey or as anonymous feedback. The words entered are visualized directly in real time as a word cloud. The tool is free and no account is required to use it. The disadvantages include the fact that the interface is completely in English and that the app for iOS requires a fee.

With *ChatterPix* (https://www.duckduckmoose.com/educational-iphone-itouch-apps-for-kids/chatterpix/), you can make pictures talk and practice speaking and reading aloud in this way. The learners take or select a photo, write a text and speak or read it aloud. In this way, a short story is created. The products can be shared, for example, a common padlet where the learners introduce themselves or tell about their daily routine, and so on. This is very easy and fun for the learners. For formative assessment one can use the tool by evaluating the texts created by the learners according to certain predefined criteria. The texts can be assessed by both teachers and learners. The app is free and intuitive to use.

Wordwall (https://wordwall.net/) offers a lot of possibilities for formative evaluation, as it is possible to use created exercises on different templates, so it can serve not only for evaluation but also for practice. A big advantage is that the teacher has an overview of the learners' answers, so it is easy to see the learning progress of each individual. Such intermediate results

can also be very helpful for further planning, which has a positive effect on the achievement of the global learning goal. Another plus point is that you can also print out many exercises as PDFs. Most templates are available in both interactive and printable versions. After creating an activity, you can transfer it from one template to another with a single click. This saves time and is great for internal differentiation. The tool can be used in class if learners have access to their own devices, or as homework.

Cacoo (https://cacoo.com/) is a tool that can be used in many ways, for example to create diagrams, mind maps, infographics or sketches. For schools and for the educational sector, the use is free, but a registration with a school address is necessary. The program works cloud-based and therefore simultaneous collaborative use is possible. A number of templates and templates can be used to create collaborative products.

For formative evaluation, this can be used by, for example, repeating vocabulary on a particular topic, creating a mind map. The mind map can be developed during the lesson and the teacher determines whether the learners have learned the vocabulary. The results are discussed immediately in class.

Tagxedo (http://www.tagxedo.com) is an alternative to the tool known to all as "Word Cloud". However, to use Tagxedo, the Silverlight browser plugin must be installed. With Tagxedo you can create word clouds in real time, customize font, theme, color, alignment and shape, save as images for printing and sharing with many options, display word clouds as thumbnails and select the one you want for further customization or saving, choose from many default fonts, limit the word cloud to selected shapes (heart, star, animals, etc.), use images as custom shapes (e.g., a portrait, an animal silhouette). In class you can use Tagxedo as an introduction to the topic and also for evaluating the results.

Formative evaluation is one of the most effective forms of performance assessment that allows learners to fill in the gaps in their knowledge and skills. And using digital tools for formative evaluation helps learners become more motivated and interested in the language.

5. Possible applications of the created interactive exercises

The exercises described here were used in regional studies classes in the 7th semester and in language practice classes in the 3rd semester as part of the topic "Germany and Germans". The broad objective was to acquaint the students with the German traces in their own region, the sub-objectives were related to the development of sub-skills. After each exercise, which was fulfilled in individual work, the reflection phase was scheduled, where the students reflected on the content in plenary and had the opportunity to ask additional questions to the teacher.

Beispiel 1 [11].

Aufgabe: Ergänzen Sie die Lücken im Text, indem Sie die Wörter von der Leiste oben in die Lücken im Text ziehen.

Ziel: Die Studierenden kennen die Geschichte der deutschen Kolonisten, sie können die Bedeutung der Wörter aus dem Kontext erschließen und beherrschen die Lesestrategien auf der Satzebene.

The interactive exercise works on the principle of "drag and drop" and can be controlled by the students themselves. The teacher can see the progress of the students if the appropriate

Figure 1: Interactive exercise "Settlement of German colonists in the steppes of the Azov region".

Figure 2: Interactive exercise "Settlement of German colonists in the steppes of the Azov region" (solution).

settings have been made. This was not our goal, we did not develop the exercises for summative evaluation, but for practicing, that's why we tried them out together in class and discussed the content afterwards.

Beispiel 2 [13].

Aufgabe: Bringen Sie die Wörter in die richtige Reihenfolge.

Ziel: die Studierenden kennen die Geschichte der deutschen Kolonisten im Asowschen Gebiet, sie kennen die Wortfolge in verschiedenen Satztypen und können die Sätze bilden.
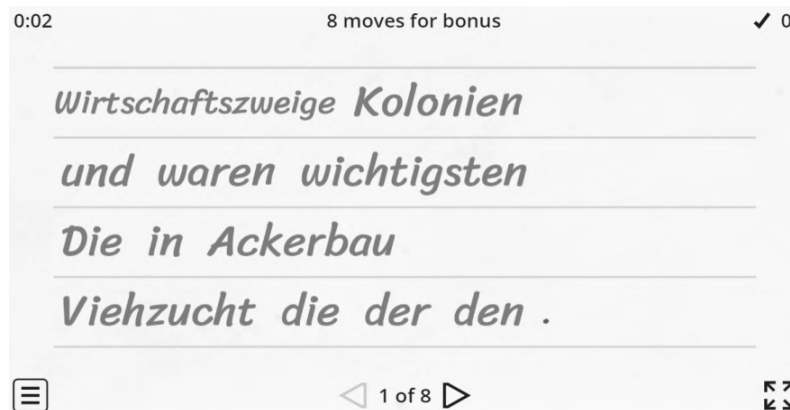
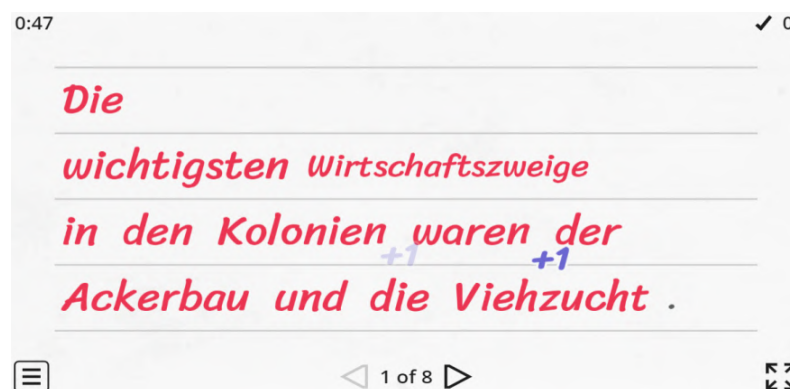**Figure 3:** Exercise "Economic branches in the colonies".

Figure 4: Exercise "Economic branches in the colonies" (solution).

The reflection phase is also an important component in this exercise because in its development we were guided by the theoretical foundations of constructivist theory established by Jonassen [7]. He believed that learning tasks should model the real world by creating a problem-based learning environment and that learners should be involved in the mental processing of information. They should reflect on how they achieved a particular learning outcome and also be accountable for it. To solve a particular problem, they would, according to Jonassen, combine new knowledge with what they already have and try to achieve the cognitive goal in

an active and purposeful way. Moreover, they have to work in groups to acquire new knowledge and skills, as they are part of a group working together to create a knowledge system in the classroom [7, p. 61].

Beispiel 3 [12].

Aufgabe: Bringen Sie die Buchstaben in die richtige Reihenfolge, sodass Sie die Namen von Kolonien bekommen, deren Gründung im 18. Jahrhundert auf Initiative der Zarin Katharina II. stattfand.

Ziel: die Studierenden kennen die Geschichte der deutschen Kolonisten im Asowschen Gebiet, sie kennen die Namen der sogenannten Mariupoler Kolonien.

Figure 5: Exercise "Mariupol Colonies".

Figure 6: Exercise "Mariupol Colonies" (solution).

Exercise 3 is directly connected to exercise 4, which was created with learning apps. Here it is about the students listening to the names of the Mariupol colonies and finding them on the virtual map. The map is also available in printed form in the room, and after completing the interactive exercise, they go to the map to discover the former German colonies and understand where they were actually located.

Figure 7: Exercise "Mariupol colonies on the map" [1].

Beispiel 4 [10].

Aufgabe: Hören Sie die Namen von Mariupoler Kolonien, deren Gründung im 18. Jahrhundert auf Initiative der Zarin Katharina II. stattfand, und finden Sie die an der Karte.

Ziel: die Studierenden kennen die Geschichte der deutschen Kolonisten im Asowschen Gebiet, sie können die Namen der sogenannten Mariupoler Kolonien beim Hören verstehen.

Figure 8: Exercise "Who wants to be a millionaire?".

Beispiel 5 [9].

Aufgabe: Spielen Sie das Spiel „Wer wird Millionär?". Entscheiden Sie sich für die richtige Variante.

Ziel: die Studierenden kennen interessante Tatsachen über die Deutschen im Asowschen Gebiet.

In developing this interactive exercise, we used information about well-known Germans such as Peter Regier, who founded one of the largest shipping companies in the Russian Empire in Mariupol, and Viktor von Graff, who created the first artificially planted forest in the arid steppes of Azov, and architect Viktor Nilsen, according to whose design the famous water tower in Mariupol was built.

6. Conclusion

As can be seen from the above examples, the digital tools offer many possibilities to didactize the authentic materials and to evaluate the learners' performance. The students' feedback on the materials and on the exercises was very positive. The analysis of the questionnaires that the students filled in after completing the tasks testifies that the students enjoyed the topic and the exercises, that they were motivated and interested. Thanks to the interactive exercises developed on the basis of the authentic materials, they would have developed their country knowledge skills and media literacy. This was because they had to develop similar exercises based on the recommended materials for their fellow students as homework. The students also found the reflection periods after the interactive exercises very important because they had been stimulated to reflect and discuss.

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