

Orthography Training with IDeRBlog - an Open Educational Resources Practice

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Abstract

The article depicts the blogging platform IDeRBlog as an example of an Open Educational Resources Practice. The exercise databases of IDeRBlog are focussed in the context of orthography training. After briefly outlining Open Educational Resources an overview on how the exercises were researched and reviewed according to an established quality framework is given. This is followed by the Analysis of missing exercises and the creation of IDeRBlog exercises by the project team.

Key Words

German Spelling Acquisition, Learning Analytics, Orthography Training, Open Educational Resources, Primary School, Technology Enhanced Learning, Educational Media

Introduction

The skill of spelling orthographically correct is important ability with regard to the participation in society. Hence, orthography training plays a central role in teaching. In this context digital media offers new possibilities. The IDeRBlog website provides databases of exercises dealing with a wide range of orthographic phenomena. It is used by parents and students at home and supports teachers while preparing their lessons. Overall, it can be used by everyone interested in orthography and the improvement of their orthographic skills. The exercises provided by IDeRBlog are licensed under Creative Commons and contributes to the idea of Open Educational Resources.

OER a brief historical outline and classification

Giving lessons teachers have always exchanged educational materials. Class tests were constructed collaboratively according to the curricula. Lesson schedules were created together and tasks were divided among each other. One colleague took materials from another colleague, modified it and made use of it.

The exchange and modification of educational materials has increased with the digitalisation of society offering new possibilities. In the past materials had been exchanged within groups of teachers or within schools. Nowadays digitalisation enables teachers to exchange their materials worldwide independent of time and place.

This is where the idea of Open Educational Resources (OER) comes into play. The concept

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of OER originated in 2002 in context of the UNESCO-Forum on Open Course Ware for Higher Education hosted by the Massachusetts Institute of Technology (MIT).

The idea behind OER is relatively simply. The point of origin is the “Universal Declaration of Human Rights (Art. 26.1) everyone is entitled to the Right of Education“. Hence, educational materials ought to be distributed freely and openly so that everyone has access to it (United Nations General Assembly, 1948). The idea of OER was further refined in the Cape Town Open Education Declaration of 2007 which expanded OER from Higher Education to schools (Cape Town Open Education, 2007). The Dakar Declaration in Open Educational Resources of 2009, the Commonwealth of Learning and the UNESCO published guidelines on Open Educational Resources in Higher Education of 2011 emphasize the important role of Educational Resources being accessible openly, freely and worldwide. During the UNESCO hosted World Congress on Open Educational Resources (OER) in Paris which took place from the 20th until the 22nd of June 2012 the Declaration of Paris has been passed. For the first time through the declaration of Paris the UNESCO calls on to other states to promote the idea of Open Educational Resources as well as to incorporate it in their institutions within the bounds of possibility (UNESCO, 2012). This call was repeated and reinforced at the OER conference in Ljubljana in 2017⁸. This idea is taken into account differently by individual countries, yet the creation of open, free and accessible materials is promoted in all of these countries.

The idea of Open Educational Resources is especially interesting / appealing in combination with the 5 Rs of David Wiley. These depict the way of OER materials in form of a well-made circular flow, starting with the aspect of retaining and consequently followed by the reuse, the revision, the remix and finally the redistribution of materials.

The Erasmus+ project (2014 - 2017) IDeRBlog takes the development of OER into account. The platform is openly and freely accessible on the internet under an open educational license for teachers, students and everyone interested in using IDeRBlog.

Researching Exercises

Round about 500 exercises are provided on iderblog.eu for free. These exercises are divided into 300 online exercises and 200 print exercises or worksheets. These exercises solely deal with the training of various orthographic phenomena and are suited for primary school pupils. All of these exercises were collected by the IDeRBlog team throughout the internet from different websites. Via links these exercises are displayed on the IDeRBlog website or more specifically integrated into the IDeRBlog exercise databases.

The Exercises were researched in two different ways. At first a variety of widely known websites providing exercises for primary pupils were visited and researched. Links on this website leading to further websites providing material for orthography training were used in order to find further exercises. Some of the authors were contacted with regard to small mistakes in their worksheets as well as to establish cooperation. All of the authors contacted were grateful for the feedback and happy to help. In some cases they provided the IDeRBlog team with additional educational materials or advice on where to find these.

In addition to the use of these websites several searches on the internet via search engines were performed. First, the search was kept wide open with search items like “exercises orthography” or “exercises orthography primary school”. Systematically the search was narrowed down until search items of special orthographic phenomena were employed. These included for example the search for the mixing up of “d” and “t” or “g” and “k” in context of the final devoicing.

Throughout the research, it became evident that there were many exercises concerning certain orthographic phenomena whilst other phenomena were not mentioned at all, a problem that will be discussed later on in the article. Furthermore, some exercises were

⁸ OER conference in Ljubljana in 2017 <http://www.oercongress.org/> (Retrieved February 11, 2018)

already excluded while browsing the search results because those were not suited for primary pupils. These included exercises not functioning properly or websites with huge amounts of advertisement. Hence, they were disqualified with regard to being linked on IDeRBlog.eu. Either way it became clear that the exercises researched needed to adhere to some sort of quality framework in order to be implemented on the IDeRBlog Website.

Quality Framework of Exercises

The project team came up with a quality framework consisting of criteria that needed to be met in order to integrate an exercise into the IDeRBlog exercise database. In addition, criteria being “nice to have” were formulated. Those criteria were regarded as optional and hence not mandatory for an implementation on the IDeRBlog website.

The final version of the quality framework encompassed six categories. These are presented in the following including examples of must have criteria. The first category “general” included the correctness of the exercise itself. Exercises containing spelling mistakes or incorrect grammar were excluded. Furthermore, exercises ought to function without registering or logging in beforehand. There must not be any links within the exercise as well as any pop-up advertisement. In addition, the introduction and feedback of the exercise ought to be in German. The second category concerns the task itself. A correct terminology and a logical sound sequence of the different parts of the exercise was established as a must have criteria. In addition, the task and the exercise should be self-explanatory to a certain degree that the teacher instantly knows what to do and hence is able to help students struggling with the formulation of the task. The third category depicts the design of the exercise. Implemented media must be retrievable as often as needed by the pupil. For example, audio tracks should be equipped with a replay function. In addition, texts in the exercise should not run contrary to the direction of writing. The fourth category concerns the feedback received by the student while working and after completing the exercise. Mistakes ought to be pointed out and a direct as well as clear feedback should be given. The fifth category deals with the methodology. The frequency of the distribution of orthographic phenomena and the processing depth of the exercises should be taken into consideration. In the context of orthographic rules, dialectal phenomena should be taken into account as well. The sixth and last category concerns dyslexia which is an overall “nice-to-have” category. Hence, the font and the size of the written text should be adjustable. An audio presentation of the written language and the marking of the exercise as being suited for students with dyslexia would be of advantage. Yet, not fulfilling the criteria of the sixth category would not lead to an exclusion of the exercise from the IDeRBlog database.

Reviewing Exercises

All of the exercises linked on iderblog.eu were reviewed and evaluated according to the developed quality framework. All of the researched exercises were numbered and written down in a collaborative excel sheet. Each team member or each institution was able to comment on every single exercise after having solved the task themselves. Over a period of a few weeks, these comments were collected. During the following meeting, the results of the review were discussed. In general at least three institutions had to review each exercise and at least two out of them had to approve of the exercise on grounds of the established quality framework.

Those exercises that scored three times a yes were directly approved of and consequently integrated into the IDeRBlog exercise database. Exercises which were not approved of by at least two out of three institutions or team members were directly excluded from the list of potential exercises for the IDeRBlog website. In the case that “only” two out of three partners approved of the individual exercise reasons for disapproval were discussed aiming at an approval of a large amount of exercises could by common consent.

Having passed the review process the selected exercises were integrated into the IDeRBlog

via links. In this context two databases were created, one for online exercises and another one for print exercises. Teachers also receive additional information on each individual exercise when clicking on it. Within this context, for example the number of words or the topic of the exercise is displayed. Additionally, the author of the exercise is credited.

Analysis of Missing Exercises

As already mentioned above, many exercises focussed on certain orthographic phenomena. For example the mix up of “l” or “ie” or when to use “ss” instead of “ß” were dealt with very often while prefixes or double vowels were mentioned significantly less.

Hence, there was a certain area of orthography that was almost completely neglected. The result was that the IDeRBlog database could not provide students struggling with these orthographic phenomena with the matching exercises.

The solution to that was the creation of a medium amount of print and online exercises by the IDeRBlog team. Yet, before doing so, an analysis was performed in order to determine which exercises are missing. One project member did the analysis by counting all of the exercises according to the orthographic phenomenon those dealt with. Within the frame of the next team meeting the numbers were presented and together a minimum number of exercises matching each individual orthographic phenomenon was decided on.

The creation of an own spelling training pool in IDeRBlog

Within the project, the PH Wien undertook the task of creating a custom-fit pool of spelling exercises. As it was still not clear at the beginning of the project, which of these exercises would be freely accessible on the internet or which quality they would have, first a quantitative frame for the project’s exercise pool was agreed upon. At least five exercises per error category should be created in an own training pool. In this way it should be guaranteed, that enough exercises per error focus should be available for the students on the platform, even if a search for freely accessible training material online was unsuccessful. In this way all in all 100 high-quality exercises should be created in an own training pool, which should then in turn be able to be used freely as OER, even without registering on the platform.

Selection and integration of the training tools

A first important question was which tool would fulfil the high requirements with regard to exercise design and technical integration. Finally, the project consortium decided for the “LearninApps.org” (<https://learningapps.org>), a Swiss OER platform that enables a high flexibility in the creation of interactive exercises for students. Furthermore the platform itself disposes of a group management system, so that teachers can create an own class, assign exercises and have access to different evaluation possibilities independent of IDeRBlog. Additionally LearningApps.org has a very attractive exercise guide, which is suitable for children, as well as a clear and friendly design and an easily understandable guide in the area of exercise creation.

As an autonomous OER platform, the integration of the exercises per single linking from IDeRBlog was accomplished without any problems. The IDeRBlog exercises were labelled on a uniform basis with the label “ID” before the exercise number and the exercise designation, because some exercises in the area of spelling already existed on the platform.

Quality management

The creation of the training pool was affected by primary school teachers in collaboration with didacticians from university. The goal was not only to compile the predetermined 5 exercises per error focus, but also to achieve a systematic differentiation of the difficulty level

with 9 exercises. All together 180 exercises were created.

In this way finally 3 easy, 3 intermediate and 3 difficult exercises were created per error focus. The easy exercises pursue the goal to make aware of spelling phenomena by means of simple formats and short instructions, whereas the intermediate and difficult exercises train the spelling phenomena in more complex contexts. Moreover, a higher reading and language competency is required for the more difficult exercises.

Regarding the course of the single exercises instructions concerning the task compilation are given. Furthermore, partly some hints on spelling strategy are provided at the beginning of each exercise. If the exercises are more complex, students can receive some help by clicking on the help symbol ("light bulb"). While solving the task students immediately receive hints marked in different colours to show, if the input is correct or not. In this way students are able to make corrections on their own. An evaluation of the whole task is provided at the end.

In order to create varied exercises, all the different task formats, which the LearningApps can offer, were exploited.

All exercises underwent a peer-review process before being taken over on the platform in order to secure a high and long-lasting quality standard.

Conclusion

In conclusion, the IDeRBlog website offers databases containing round about 500 exercises that are openly and freely accessible on the internet. Those exercises were researched and reviewed according to a quality framework established by the project team. The exercises created by the project team adhere to even higher quality standards. Students can use these exercises in school or at home with their parent. Teachers can use and share materials in the context or their lesson preparations. In this context, IDeRBlog clearly supports the idea of Open Educational Resources.

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