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THE POSITION OF FIELD EDUCATION IN THE CURRICULUM OF PRIMARY, SECONDARY AND TERTIARY EDUCATION IN THE CZECH REPUBLIC

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Table of contents

Introduction	3
The Czech Educational Curriculum	5
Field education in the framework educational programs for primary education and grammar schools	6
Research methodology of integrating field education of geography and history into school curricula of primary schools	11
Field education of geography in the school curricula of primary schools	12
History and field education in the school curricula of primary schools	13
References	15

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Introduction

Similarly to our lives which do not only take place within enclosed rooms and buildings without the slightest direct interaction with the surrounding environment, teaching in schools should not underestimate the importance of working with the realistic and existing environment. Jan Amos Comenius, the teacher of nations, was already well aware of it (Komenský, 1948). The need for creative and inquisitive work of a student, the emphasis on his or her own experience and practice is gradually accented by a number of other authors and pedagogical movements. In the interwar period, it was mainly the so-called pragmatic pedagogy and its representative John Dewey. After World War II, it was the pedagogical constructivism of the Swiss Jean Piaget.

“People should learn, as much as possible, not to acquire reason from books, but from heaven, earth, oaks and beeches, to know it and to examine things by themselves and not only by other people’s observations and evidence of things.” (Komenský, 1948)

For a long time, field education has been considered an important educational strategy as well as a mean towards the comprehensive understanding of the phenomena and processes around us and which we, as humans, are a part of. As reported, for example, by Rickinson et al. (2004), a well-thought-out, well-arranged and implemented field education provides pupils with new opportunities to expand their knowledge and skills and to tack on greater added value to their daily teaching experiences. This issue is perceived similarly by Řezníčková (2008) or Hofman et al. (2003). However, the terrain cannot only be conceived as a space where a student verifies or tests what he or she had learnt at school, or even as a certain setting in which a teacher or a third party provides them with ready-made information, but above all as a certain laboratory (e.g. geographical laboratory, see Wilczyńska-Wołoszyn, 2003), where the pupil deepens his existing competencies and discovers new ones, in the broad contexts and connections that real environment naturally contains. Quite logically, field education should be closely connected with classroom teaching (Řezníčková, 2008) and the pupils’ work in both areas should follow up and complement each other.

According to Hofmann et al. (2003), field education is a complex teaching form which comprises of different teaching methods which include for example experiment, laboratory activities, observation, the project method, cooperative methods and methods of experiential pedagogy. It also includes various organizational forms of teaching such as walking, field practicum, excursions, thematic school trips and expeditions, whereas the focus stays on field work, especially outside school. Such a very broad understanding of field education naturally gives the possibility of finding it in the curricula of a number of educational subjects or in a simple implementation into them. On the other hand, it also brings a number of risks and misconceptions. There are different types of field education. For example, completely different educational goals can be met by a walk around the pupil’s school, within which the pupils will read information on the signs of a specific nature trail or gradually listen to the teacher describing the character and the specifics of the visited sites, in comparison to the

pupils carrying out a set of measurements and observations at each locality, which will be recorded and later evaluated and compared at school or at the end of the field exercise.

At Czech schools, however, out of all forms of field education, it is walks, excursions and school trips, which are most commonly realised and which serve as illustrations for the topic under discussion (Marada, 2006; Svobodová et al., 2019a). Nevertheless, within these forms of field education, most often pupils only serve as passive recipients of information provided by guides, and the learning potential of the visited places is therefore not fully exploited (Marada, 2006). Such concept of field education from the perspective of current pedagogy which promotes an active approach of students to the construction of their knowledge, respectively to changing the role of the teacher to the position of a teaching facilitator (Job, 1999; Ost et al., 2001), can be perceived as considerably obsolete. It is precisely the ratio of the teacher's activity to pupils that the individual forms of field education differ significantly from each other (Oost et al., 2001) – see Fig. 1. Research into their actual implementation into teaching is rather difficult (Marada, 2006) as it largely focuses on the analysis and comparison of school education programs of selected schools of certain levels of education (e.g. Svobodová et al., 2016, or Svobodová et al., 2019b). Only a small part of the works analyses the specific educational goals, educational strategies and the usage of didactic resources used in teaching of specific subjects and topics by individual teachers at schools, which declare the use of some form of field education in their school educational programs. It is necessary to mention especially the work of Svobodová et al. (2019a) using also the methods of semi-structured interviews conducted with a total of 19 primary school teachers in her research.

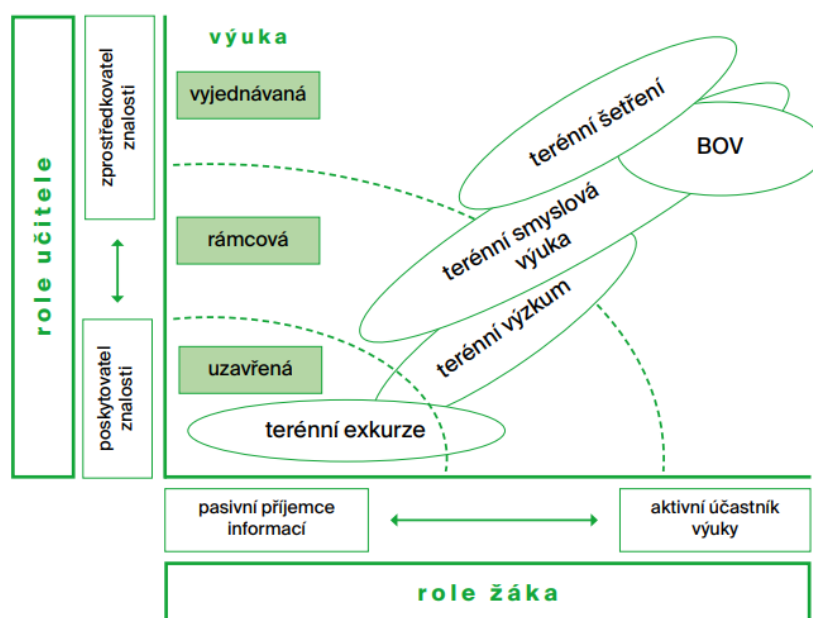


Fig. 1: The role of the teacher and the pupil depending on different forms of field education (Oost et al., 2011) – taken from Svobodová et al. (2019a).

The Czech Educational Curriculum

The educational curriculum in the Czech Republic can be divided into two basic levels. The first level is the national one, i.e. a conceptual form of curricula which contains the general state's educational policy and the so-called framework educational programs resulting from it. These are divided according to the level of education and, in case of upper secondary education, according to the school in question. Based on the framework educational programs, each school is obliged to create its own educational program (see Fig. 2). Due to the newly-formed educational policy of the Czech Republic, which was presented in the so-called strategy 2030+, revisions of the framework and school educational programs subsequently have been gradually beginning to take place.

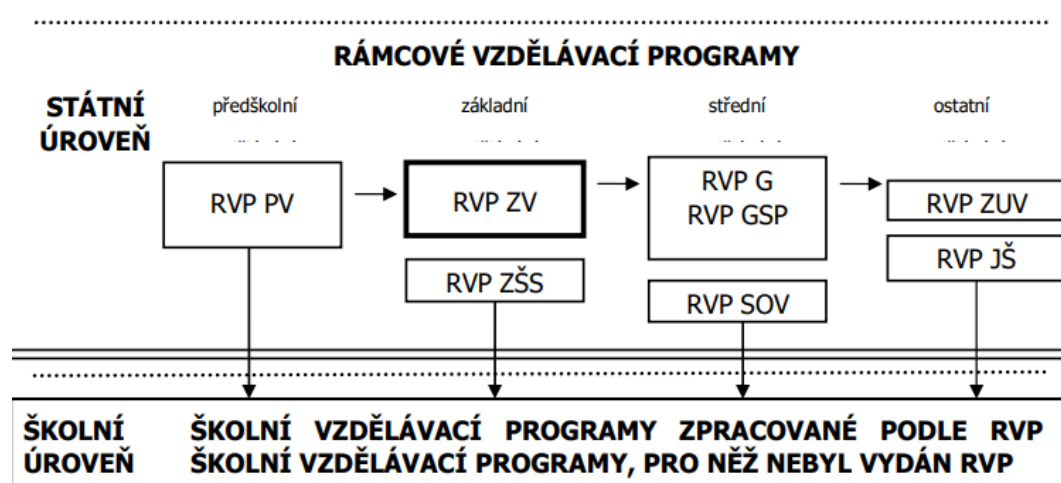


Fig. 2: System of curricular documents (NÚV¹, 2021; modified)

The framework educational programs are based on the current educational strategy of the Czech Republic and they emphasize and formulate the following:

1. Key competences, their connection with the educational content and the application of acquired knowledge and skills in practical life;
2. The principles of common education and lifelong learning;
3. The level of education set for all graduates of the individual stages of education through expected outcomes;
4. Pedagogical autonomy of schools and teachers' professional responsibility for educational results (NÚV, 2021).

While the framework educational programs are very general and on the surface, the educational programs of individual schools are much more specific through a more precise

¹ The National Institute for Education

formulation of the so-called school outputs and specification of educational content (curriculum) and their elaboration for individual subjects and classes. However, it is still but a project form of the curriculum (Maňák et al., 2008) which only tells us little about the very form and concept of teaching by individual teachers in individual subjects and topics. It is necessary to look into the so-called implemented curriculum for these purposes, which is in the form of methodological instructions, guidelines or, ideally, preparations for teaching; or, alternatively, to subject the lesson itself to a didactic case study (for more see Slavík et al., 2017).

Field education in the framework educational programs for primary education and grammar schools

For the purpose of this insight, the currently valid framework educational programs were used. For grammar schools, therefore, it is a program which has been valid since 2007, as subsequently amended. As for primary education, it is a program which has been valid since 2005, respectively 2017 (according to them, the analysed school educational programs have been prepared) and the program valid since 2021.

Speaking of the Framework Educational Program for Primary Education, some form of field education, explicitly mentioned, can only be found within two educational fields, namely in Physical Education at the 1st (pupils aged 6–11), and 2nd (pupils aged 11–15) level and in Geography (at the 2nd level). As shown in Table 1, in the context of Physical Education, it is often only a question of introducing field education in the curriculum and not in the expected outcomes (i.e. in the binding part of the curriculum). Astonishingly, we cannot find a mention of field education within the educational area “Man and his world” (1st level) where pupils focus on themes such as “The Place We Live In”, “People and Time” or “Diversity of Nature” or in the educational fields of Chemistry and Natural History at the 2nd level.

Subject	Level	Output	Curriculum
Physical Education	1.	The pupil adapts to the aquatic environment, observes swimming hygiene, manages swimming skills in accordance with individual assumptions.	swimming

	1.	In accordance with individual assumptions, the pupil masters selected swimming technique, elements of self-rescue and safety.	
	1.	---	hiking and stay in nature
	1.	---	swimming*, skating*
	2.	---	athletics (endurance running on the track and in the field)
	2.	---	hiking and stay in the nature
	2.	---	skiing*, snowboarding*, skating*
	2.	---	swimming*
Geography	2.	The pupil masters the basics of practical topography and orientation in the field.	exercising and observations in the field of the local landscape, geographical excursion
	2.	The pupil applies practical procedures in the field for observing, displaying and evaluating the landscape.	

*Tab. 1: Field education in the Framework Educational Program for Primary Education (source The Ministry of Education, Youth and Sports, 2021; modified); (explanations: * included according the school's conditions)*

Due to the spiral nature of the classification of the curriculum of most educational subjects (fields), a similar classification of teaching in the field can be found in the Framework Educational Program for Grammar Schools (i.e. for the level of upper secondary education). Biology is added to Physical Education and Geography. Nonetheless, both within Physical Education and within Biology, these are only topics in the curriculum without being anchored directly in any expected output.

Subject	Output	Curriculum
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Physical Education	---	hiking and stay in the nature
	---	athletics (running on the track and in the field)
	---	hiking and stay in the nature
	---	swimming*
	---	skiing
Biology	---	field work and geological excursion
Geography	The pupil is able to orientate himself with the help of maps in the landscape.	field geographical teaching, practice and application (e.g. geographical excursions and field exercises)

Tab. 2: Field education in the Framework Educational Program for Primary Education (source The Ministry of Education, Youth and Sports, 2021; modified); (explanations: * included according to the school's conditions)

The methodological and, for the most part, also content freedom given to individual schools and teachers by the framework educational programs can be perceived twofold from the point of view of the actual implementation of teaching and the use of individual didactic resources. Some schools remain in their designed and implemented curriculum only at the level of prescribed expected outcomes, or curriculum and field education, which are, according to research, one of the most demanding didactic tools. These schools then do not include more in their portfolio. Other schools may approach their school curriculum completely differently, taking the content of framework educational programs only as a basis and look for the most suitable means for its fulfilment. (The selection of expected outputs of the Framework Educational Program for Primary Education leading to the development of historical and geographical competencies, within which it is appropriate to use field education, is shown in Table 3). This discrepancy is also shown by the results of research carried out so far (e.g. Svobodová et al., 2016), as well as the presented analysis.

<i>Subject (area of education)</i>	<i>Expected output of the Framework Educational Program</i>	<i>Proposal for the integration of field education</i>
<u>1st grade of Primary School</u> (pupils aged 6–11)		

Man and his world	The pupil marks the place of his or her residence and school on a simple map, as well as the journey to the designated place and distinguishes possible dangers in the immediate vicinity.	Walk, field observation – work with the city plan (part of the city), drawing of the school building, description of its surroundings, comparison with the representation in the plan, gradual drawing of the walking path, identification of dangerous places in the field (busy roads, dark places etc.) and drawing these to the map.
	The pupil is able to determine the sides of the world in nature and according to the map, to orient himself or herself according to them and to follow the principles of safe movement and stay in nature.	Work with compass and map, field observation – determining the location of selected dominant elements around the school (e.g. playground, main entrance, garden pavilion etc.) using the sides of the world; description of the mutual position of dominant elements around the school, drawing of these elements in the map.
	The pupil is names some natives, cultural or historical monuments, important events that have happened in the region.	Walk, field observation, field sensory teaching – historical monuments of my village, description of their function, form and their position within the village (possible addition of their drawing – interdisciplinary link to Art Education)
	The pupil applies basic knowledge about himself or herself, about one's family and activities, about human society, coexistence, habits and people's work, comparing the past and the present using examples.	Walk, field observation – based on historical photographs, identification of changes in selected localities of the village.
	The pupil uses libraries, museum collections and galleries as sources of information to help him understand the past.	Excursion – educational program in the local museum and library.
	The pupil observes, describes and compares visible changes in nature in different seasons of the year.	Field observation, field sensory teaching – changes in selected localities near the school in different seasons of the year.

	The pupil classifies some products of nature according to conspicuous determining features, gives examples of occurrence of organisms in a known locality.	Field observation, research-oriented teaching – observation of the occurrence of different species of plants and animals in different localities (by the water, in the square, in the forest, in the park, etc.), their determination and mutual comparison of these localities.
2nd level of Primary School (pupils aged 11–15)		
History	The pupil will explain the situation of the Great Moravian Empire and the internal development of the Czech state and the position of these state departments in the European context.	Excursion – educational program in an open-air museum or museum
	The pupil illustrates the position of individual layers of medieval society, gives examples of Romanesque and Gothic culture. The pupil recognizes basic features of individual cultural styles and introduces their representatives and examples of important cultural monuments.	Walking, field observation, field sensory teaching – historical monuments of my village, description of their function, form and their position inside, addition of their drawing (interdisciplinary connection to Art Education), comparison of individual architectural styles and types of buildings.
Geography	The pupil organizes and adequately evaluates geographical information and data sources from available cartographic products and reports, graphs, diagrams, statistical and other information sources. The pupil uses basic geographic, topographic and cartographic terminology, understanding these terms. The pupil distinguishes and compares elements of the natural sphere, their contexture and conditionality, recognizes, names and classifies the shapes of Earth's surface. The pupil compares the effects of internal and external	Field research, research-oriented teaching – e. continuous meteorological measurements and observations, representation and evaluation of results, identification, description and classification of selected shapes of Earth's surface in the local landscape; implementation of soil probes and monitoring of soil composition and soil edaphon in connection with the use of land and its fertility

	processes in the natural sphere and their impact on nature and human society	
	The pupil assesses how natural conditions are related to the function of a human settlement, and names the general basic geographical features of settlements.	Field research, observation, research-oriented teaching – e.g. identification of the development parts of the city within the city space, respectively their specifics, identification and description of functions in the city and their mutual relationship, identification of the differences among particular parts of the city, respectively among the city, its hinterland and the countryside in relation to the nature of the settlement, the life in it and the quality of life
	The pupil compares different landscapes as part of the mainland part of the landscape, distinguishes specific features and functions of landscapes on specific examples. The pupil gives particular examples of natural and cultural landscape components and elements, the spatial distribution of the main ecosystems (biomes). The pupil presents the serious consequences and risks of natural and social influences on the environment on selected examples.	Field research, observation, research-oriented teaching – e.g. to identify and evaluate the impact of man to nature on examples of local landscape; identification of selected landscape elements in the field, description and evaluation of their significance

Tab. 3: Proposals for the integration of field education into educational subjects (fields) developing the geographical and historical competencies of Primary School pupils.

Research methodology of integrating field education of geography and history into school curricula of primary schools

Due to the large number of primary schools, the probe method was chosen for some of the school educational programs which are accessible freely in their complete form on the schools' website. The analysis was performed on a sample consisting of 146 primary schools across the Czech Republic, respecting the regional structure. The selection of schools was

made with regard to the size of the region, respectively the number of schools in given region, as well as schools from regional towns, district towns and schools in central municipalities or village schools. In order to specify the given findings and enable a better insight into the implemented curriculum, the method of a questionnaire was subsequently chosen for the subject of Geography. The questionnaire was later distributed to selected primary schools. The research was carried out during the school years 2018/2019 and 2019/2020.

There were 2778 primary schools teaching pupils in the 2nd level registered in the Czech Republic in the school year 2019/2018, with an average of 198 of them in each region, with the exception of the Karlovarský kraj region, which has, due to its size, significantly fewer of them (82). On the contrary, the Středočeský kraj region and the Moravskoslezský kraj region have significantly more (300 and more). This corresponds to the numerical representation.

A total of 56 Geography teachers from 47 primary schools in 8 regions of the Czech Republic took part in the questionnaire part of the survey focused exclusively on the Geography curriculum. The average age of the teachers in the sample was 44.5 years, which roughly corresponds to the national average.

Box 1: Structure of the research sample (data source: the Czech Statistical Office's own survey, 2020)

Field education of geography in the school curricula of primary schools

Due to the fact that field education has been anchored directly in the Framework Educational Program for Primary Education, at least one of the forms of field education had been identified in each of the monitored school educational programs. Apart from the educational content itself, certain forms of field education are most often mentioned in the introductory description of the subject where they are included among other organizational forms. Field education is frequently mentioned in connection with the development of key competencies (especially work competencies). Similarly, the majority of the surveyed Geography teachers answered that they include field education into their lessons (69 %). However, more than 70 % from that also stated that they only use this form of teaching marginally. The average age of teachers who have declared clearly that they use field education was 46.5 years which roughly corresponds to the average age of primary school teachers. The median value was half a year higher, with only 3 % of teachers answering they do not use or want to teach fieldwork. In all cases, the teachers were over 60 years old. In the monitored sample, no correlation has yet been demonstrated between the second approbation subject and the use of field education. A large part of teachers (45 %) rely on the provision of field education by a third party – mostly in the form of a regional environmental education centre, a zoo, a science centre or a museum or an observatory.

Field education is mainly used in cartographic topics in the 6th grade (pupils aged 11–12). It mainly comprises of working with a map or a compass, respectively it consists of activities aimed at developing the pupils' ability to orientate themselves in a field. Such field lessons are usually one to two hours long. Only in exceptional cases there are all-day teaching activities. The length of these activities is related directly to the space where they are carried out. Most schools realize activities within their premises or nearby. An interesting finding is that only in two of the examined schools some forms of field education were used in the teaching of general physical geography which belongs to the traditional components of the 6th grade curriculum. A total of 19% of the addressed schools use field education for teaching environmentally and physically-geographically oriented topics across all grades. Largely it is a local landscape theme. Although most of the addressed schools declare the use of some the forms of field education, it is not a systematic classification, i.e. within all thematic units suitable for the implementation of field education. On the other hand, for example only 28 % of schools use field education to develop the local region competencies of the pupils and only 11% use it to teach at least one of the humane-geographical topics. With one exception, however, these are exclusively excursions with a minimum requirement for the pupils' activity. Just a fraction of schools include the excursion in the teaching of regional geography in Europe or the Czech Republic.

History and field education in the school curricula of primary schools

A total of 67 schools from the monitored sample, which is less than a half (46 %), explicitly include field education in History in their school curriculum. As for the remaining 54 %, according to these schools' curricula field education is not counted with in connection with the subject of History, see Fig. 3.

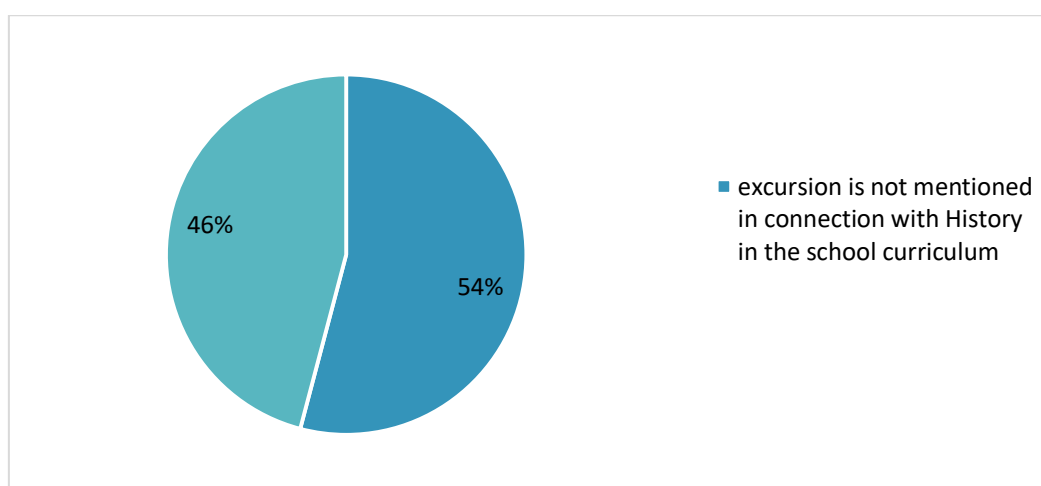


Fig. 3: Occurrence of an excursion in the school curriculum in the subject of History

As in the case of Geography, there seems to be a very typical general listing of various organizational forms of teaching within the organizational definition of the subject, among

which excursions figure. Another option which has been used is to introduce the organization of excursions under the item “development of key competencies in the field of work competence”. Descriptions of field education are often highly selective and only refer to one form of teaching outside the school premises, for example they mention only the possibility of visiting an exhibition or only the possibility of teaching outside the classroom in a museum or in an archive. It is typical to mention field education as a voluntary option with reference to the current needs and opportunities of teachers and students. Teaching outside the main classroom² or computer room, respectively outside the school building is often defined as occasional, complementary, additional, or alternative. An excursion is exceptionally defined in the school curriculum as an integral part of teaching History, or even as a preferred and popular form of teaching for students. A specific way of recording field experience which is often shown is standardized wording which refers to the fact that History uses information obtained by pupils elsewhere. Therefore, it is assumed that pupils visit memory institutions individually and that it is possible to work with their experience in the framework of teaching.

A much more specific idea of the use of field education in History can be found by taking a deeper look into the educational content of the subject in individual school curricula. Within the monitored sample, specifically planned excursions with a defined destination appeared in only 16 school curricula (less than 11 % of the schools), see Fig. 4. This category also included schools in whose school curricula excursions did not appear systematically for all grades in which History is taught, but more or less randomly. Likewise, schools with specific goals of excursions and institutions outside the school building, but in whose school curricula these were not connected chronologically with the curriculum, but rather with a description of the characteristics of the subject or with a description of the strategy for developing key competencies, were included in this category. The number of examples of systematic and continuous inclusion of excursions into the History curriculum is only minimal. Those are schools where an excursion is planned in each year for a specific curriculum, sometimes also with a specific destination. Much like in Geography, the insufficient usage of the specifics of local environment in the teaching of selected historical topics is striking.

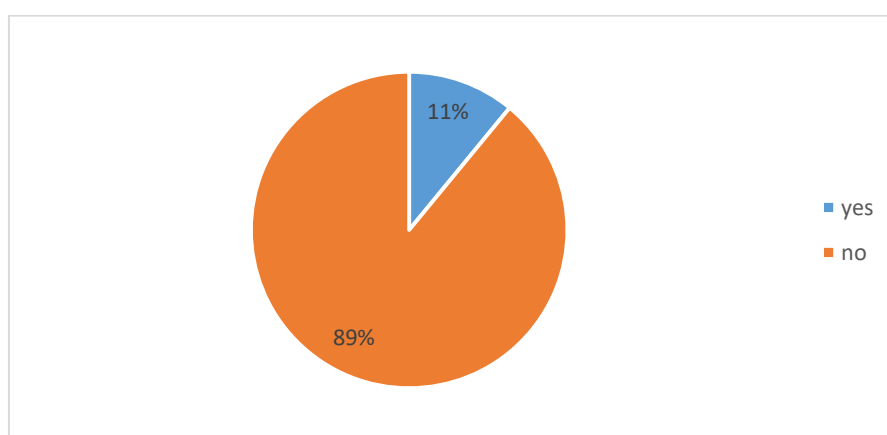


Fig. 4: Occurrence of field education in the form of excursions in the educational content of the subject of History.

² a classroom which is assigned to each grade and in which most of the lessons for that grade take place

Schools where history excursions are not included in History, but in a separate subject History Seminar, create a specific group. The History Seminar is a compulsory elective subject. Therefore it is a capacitive limited subject which is not taught within the whole grade. The subject usually focuses on deepening the curriculum and deeper knowledge of the region and it is a subject in which excursions can be represented in a much larger number and more systematically. A large number of forms of field education can be found in history seminars. In addition to the common excursion, walks and especially practical exercises can be found more often.

As for the school curriculum for primary schools, there is only a limited involvement of outdoor teaching in History. If the school curriculum already permits this possibility, then it is only as an occasional supplement to the teaching that takes place in the main classroom or other classrooms of the school otherwise. The school curriculum explicitly states that it is a supplement to teaching, depending on the current possibilities and will. Only 11 % of school curricula link the teaching of History in the field in connection with a specific subject or even with a specific location.

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