

Influences of the Literary Canon: Statistical Analysis of High School Reading Lists in the Czech Republic

Keywords: canon, school list of literary works for the graduation exam, Catalogue of graduation exam prerequisites for the graduation exam, graduation exam, high school, high school education

Abstract

This study focuses on the analysis of the school lists of literary works for the graduation exam, which were published for the exam in the school year 2019/2020. The aim of this pilot study is to determine if there is a relation between school lists and the state-certified list, which is also a determining factor for the graduation exam in the Czech language and literature. Questions regarding the influence of the school list on the success rate of the graduation exam or the relation between the type of school and the size of the list and the graduation exam are also discussed. We analyze the lists from 72 schools from the South Moravian Region in the Czech Republic. In total, we are dealing with 7 551 items, on which the correlation analysis, regression analysis and cluster analysis are applied.

Introduction

The term “canon“ comes from the Greek word and originally, it stood for ‘cane’, ‘wand’, ‘cane’ or (later) ‘measuring rod’¹ (Markiewicz, 2007, p. 63). Over time, its meaning settled down on a list of se-

¹ Framework educational programs determine the educational areas (Czech language and literature is included in the area of Language and language communication), the target focus of this area, the educational content, including the expected

lected works which stand out in terms of their quality. More precise definition of 'quality' is a subject of frequent discussions. Harold Bloom (1995) relates it exclusively to aesthetic qualities and denies any social influences. Jan Mukařovský (2007) considers canon to be an 'overall set of standards', which is superior to the individual evaluation. John Guillory (1993, 1995) also accentuates the influence of specific educational institutions on forming the canon. If we understand the term canon as a 'measuring rod', we encounter a question. How and by whom it is decided if a specific book is good enough to be placed among elite literary works. Literary scholars? Contemporary readership charts? Teachers?

If we narrow down the term canon to high school canon, we can find a double canon phenomenon in the Czech Republic, which define a content of one exam – the graduation exam. On one hand, there is a state-certified list, which was created on a basis of a wider agreement of a professional public and which seems to be invariant. On the other hand, there are so called school canons (school lists of works for the graduation exam), which content is set by a specific teacher or a group of teachers. They accentuate only selected works, which can get on the list due to the subjective opinion of the teacher. Therefore, they may not avoid the risk of reduction and leaving out „the literary breeding pool where the canonical works came from“, as stated by Dobrava Moldanová in reference to a settled canon.

In this pilot study, we will focus on formal similarities of both lists, influence of the school list on the success rate of the graduation exam, principles of creating the school list. There is a question that underlines our whole research of school lists of works for the graduation exam. Is there a universal literary canon in the Czech schooling system? We will probably leave this question unanswered, but we expect to confirm the meaningfulness of our research, i.e. that the school lists are not created accidentally and that the questions regarding the high school canon can be analyzed further.

outputs and the curriculum, which are subsequently binding in the process of creating the school education plan formed by a specific school.

Literature and Graduation Exam

Czech high school system offers educational programs, which can be completed with a final exam (so called high school education and high school education with a trades certificate) or with a graduation exam (high school education with a graduation exam). The graduation exam is a basic prerequisite (although it is not the only one) for studying at a university (Act No. 561/2004). The Czech Republic does not have a uniform procedure for entrance exams to universities, unlike for entrance exams to secondary education with a graduation exam. Universities are self-governing and determine the students requirements themselves.

Mother tongue and literature are being taught in all high school programs, although they are prominent in the high school education with a graduation exam. Czech language and literature is the only subject, which can not be avoided during the final exam. That affects all programs with a graduation exam. The graduation exam consists of three basic parts – centrally created, distributed and evaluated didactic test, written essay and oral exam. For this study, the form of the oral exam will be crucial. However, the didactic test is closely connected to the solution of the canon problem. In the Czech Republic, there are no unified thematic plans (formerly known as curriculum) for individual subjects and schools enjoy a relatively large extent of freedom.

On a state level, there are so called frameworks educational programs¹ for individual subjects of the high school education. In a majority of schools, most of the time was and still is spent on history of literature, which is defined in the framework for teaching for grammar schools very briefly as „the development of literature in the context of contemporary thinking, art and culture – periodization of literature; the development of the context of Czech and world literature; thematic and expressive contribution of the great authors; literature styles and movements with the focus on modern literature“². Every year, the

² Framework educational program for grammar schools. Available at: RVP G* – Rámcové vzdělávací programy pro gymnázia – edu.cz.

didactic test (created and distributed on a state level) contains 10 to 20 percent of questions focusing on history and theory of literature. Therefore, we had to define the necessary minimum of knowledge, which a student should have and which could be assessed in the didactic test. The Catalogue of Graduation Exam Prerequisites also contains the overview of styles, basic concepts of literary theory, authors and anonymous literary works, which the students are expected to know. The list of authors and works, which authors are unknown, is a result of a discussion between the representatives of high school teachers, Association of Czech teachers and Institute of Czech Literature of the CAS (provides comments during the feedback phase). In the final and narrower work group, three academics, two teachers and two representatives of the organisation responsible for the graduation exam in the Czech Republic (Cermat) were also present. The final list consists of 109 writers and 11 anonymous literary works. One of the additional aims of this study will be a comparison between this list and the school list for the oral exam, which is a part of the graduation exam. We expect that we will be able to evaluate if the centrally defined list corresponds with reality, i.e. if “the canon“ defined by teachers compiling the school lists corresponds with the expectations represented by the list in the Catalogue of graduation exam prerequisites (the state list).

Enhancing skills such as the understanding the text and using of basic concepts of literary theory are considered to be the primary function of the oral graduation exam. To a lesser extent, it also focuses on testing the knowledge of literary history. The main disadvantage of this type of examination could be the fact that it does not focus on the development of critical thinking. Until the school year 2019/2020, the oral graduation exam from the Czech language and literature belonged to the common, i.e. state-certified parts of the exam. At the beginning of the school year, the principal of the school had to publish a list of at

³ Catalogue of Requirements for Examinations of the Common Part of the graduation exam valid from the school year 2017/2018. Czech Language and Literature. P. 9. Available at: Microsoft Word - III Katalog požadavků 2018 CJL.docx (cermat.cz).

least 60 literary works. This list was compiled predominantly by the Czech teachers of that particular school. They could choose relatively freely, there is no state-defined content of the list. Students then chose 20 works according to the criteria regarding the works period of origin and authorship (max. 2 works per author). The evaluators of the exam (usually teachers from that particular school) had to pass a course and obtain a certificate, which enabled them to evaluate the students. During the exam, the students were given a work sheet, which contained an excerpt from the work chosen at random from their list, as well as an excerpt from a non-fiction text, which could or could not be connected to the particular literary work.

In order to pass the exam, students had to pass the cut-off score in each of the partial exams, i.e. in the didactic test, written essay and oral exam. The cut-off score was set uniformly, regardless of the type of the school. For the didactic test, it was set on 44 %. In the oral exam, students had to gain 13 points out of 28 (46,4 %). Each of the partial exams was equally important in determining the final mark. In the analyzed year, 5,4 % of the students taking the exam from Czech language and literature for the first time failed it (GRADUATION EXAM 2020; cermat.cz).

Research questions

RQ1: The state list of authors and anonymous works defined in the Catalogue of Graduation Exam Prerequisites for the didactic test (state list) influences the school lists for the graduation exam, which are published for the oral graduation exam (school list).

RQ2: The size of the school list and its resemblance to the state list influences the success rate of the students taking the graduation exam.

RQ3: The size of the school list depends on the type of the school. We assume that grammar schools (i.e. the schools which are perceived as prestigious) have the largest lists.

Methodology

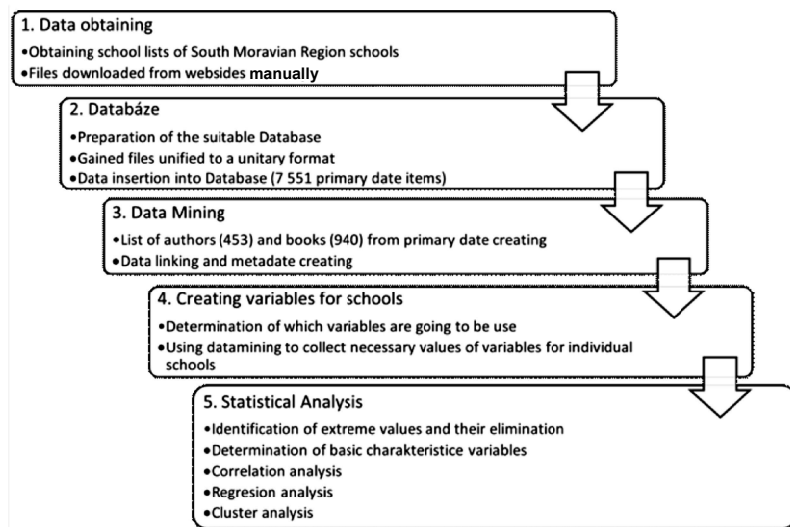


Fig 1. Scheme of the procedure for obtaining and processing data

In her study *Úvahy o kánonu*⁴, Czech bohemist Dobrava Moldanová considers the existence of individual and group canons, which function alongside the state canon, which is more difficult to define. With its difficulty, the definition of group canons stands between the individual canons (which can change during the lifetime) and the national canon.

With regard to the fact that one of the goals of this study is to assess the extent, to which the “collective canon” of teachers is identical with the centrally created list of authors and anonymous works, we decided to focus the pilot study on schools in one of the 14 regions, i.e. we limited the number of monitored schools on the geographical principle, thus limiting the analyzed school lists of works as well. Therefore, we

⁴ Moldanová, Dobrava. Chvála nekanonických autorů /In Praise of Non-Canonical Authors/. In: Moldanová, 2021, p. 11–19.

will examine the group canon of teachers of a particular area. Among other things, this was necessary in order to create an initial database of literary works that appear in school lists based on such limited data sample. We want to work with this database in the future, we expect a more detailed analysis of the development of school lists over time and also at the national level.

We chose the South Moravian Region, which is the third most populated region in the Czech Republic. In the monitored school year, according to the data from Czech Statistical Office and Ministry of Education, Youth and Sports (the central authority of state administration regarding schooling and education), there were 124 high schools, 40 of them were grammar schools, secondary vocational education was provided by 90 schools⁵.

Schools are obliged to publish the list of works for the graduation exam, however, the manner of publishing is not specifically defined. The lists do not have to be uploaded to a central storage space and therefore, we had to search for the necessary file on the website of every school. Data were gathered from April to June 2020. We managed to obtain the lists of works from the school year 2019/2020 from 75 schools. Other institutions do not have them freely accessible by remote access. Either they are available on internal school portal or they are not available at all.

Schools do not have to publish the data in a unified format. Therefore, each school has the list available in a different form (text file, PDF, photograph), which makes automated processing difficult. The majority of primary data items were inserted manually with a help of an application created for this purpose.

One of the schools was removed from the selection before further processing, because its list contained 8 authors (W. Shakespeare, E. M. Remarque, K. Čapek, J. Seifert, J. Škvorecký, J. Skácel, B. Hrabal and M. Viewegh) without any specific work. Instead, there was

⁵ Some schools offer grammar school programs as well as secondary vocational education.

a mention of an individual agreement with a teacher, which does not correspond neither with our methodology nor our aims. Subsequently, the boxplot of the amount of books in the high school reading list showed that two other schools (200 and 462 works in the list) can be marked as extreme values and therefore, they were removed from further analysis. In total, the lists of 72 schools of different types were processed.

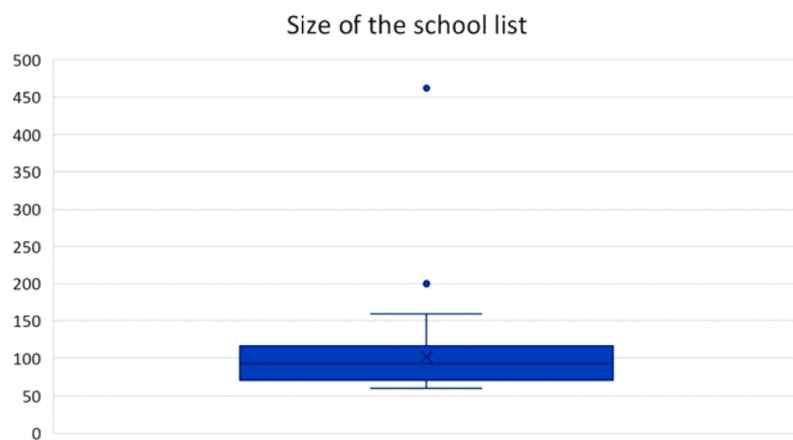


Fig 2. Boxplot of the number of books in the high school reading list

In total, we have found 7 551 items, which always contain the year of the school list's validity, identification of the school, name of the work together with the name of the author (with the exception of anonymous texts).

In cases when the high school violated the state's rule, that there should be only one school list of works, and published two⁶ lists, we worked with both lists and assigned each to the school's appropriate field. In the analysis of school types, we also respected the differentiation of the lists for different programs.

⁶ Potential situation with more than two lists did not occur.

The state list also contains two pairs of authors (Voskovec and Werich, Svěrák and Smoljak). On the other hand, some literary works were written by a pair of authors, but only one of them is present in the state list. Therefore, it was necessary to set an algorithm in order to evaluate the connection between the school and state lists in such cases. Out of 12 possible situations, only those described further did occur. If there is a pair of authors on the state list, we count it as one author, if there is a work by this pair on the school list. If the school list contains a work by only one author from the pair on the state list, we counted this author as an author who is not on the state list. In case of the situation, when the state list contains only one of its members rather than both writers from the pair of authors and the school lists operates with the work of such a pair of authors (typically the very widely presented realistic drama *Maryša* by the Mrštík brothers, of which only Vilém is on the state list), we counted this item as an item in accordance with the state list.

Using automated procedures, the values of several dozen variables have been obtained from these data and during further discussions about their suitability, the following nine were selected.

Table 1. Names and characteristics of the variables

Name of the variable	Description of the variable
Size of the school list	Number of books in the school list
Number of authors	Number of authors whose books are a part of the school list.
Number of recommended authors	Number of authors from the school list, who are a part of the state list.
Percentage of recommended books	Value indicating the percentage of books from the school list is simultaneously appearing on the school list.
Percentage of recommended authors	Value indicating the percentage of authors from the school list is simultaneously appearing on the school list.
Similarity between the school list and the state list	Tanimoto coefficients indicate a degree of similarity between the set of authors on the school list and the set of authors on the state list. Value 1 indicates a match between the sets, value 0 indicates, that they are completely different.
DT success rate	Percentage of students of an individual school, who took the didactic test from the Czech language and literature and succeeded (so-called net success rate).

OE success rate	Percentage of students of an individual school, who took the oral exam from the Czech language and literature and succeeded.
Size of the school	Average of the number of students of a specific school, who took the didactic test from the Czech language and literature, and the number of students of a specific school, who took the oral exam from the Czech language and literature.

These variables were analyzed using quantitative methods in order to identify the characteristics and their mutual relationships. We used mainly Pearson's coefficients and their significance tests, linear regression analysis using the least-squares method or cluster analysis with Euclidean metrics.

Empirical Results

When compiling the school list of work, the schools were given a great degree of freedom. The state has only set the requirement regarding the minimum of works – 60. On average, school lists contained 95,6806 books, the median was 91 items.

In the context of the fact that a higher number of books on the school list means more work for teachers regarding the preparation of worksheets for the oral exam, this indicates that teachers of Czech language and literature perceive the number set by the state as underestimated or insufficient to cover the literary history in its entirety. However, there are significant differences between schools in this regard. Of the variables directly related to school lists, canon size had the highest coefficient of variability (0,3057). Only 5 secondary schools adhered to the minimum set by the law (2 hotel schools, 2 technical schools, 1 grammar school).

Table 2. Basic characteristics variables

	Average	Minimum	Median	Maximum	Std. dev.	Coef. of var.
Size of the school list	95,6806	60,0000	91,0000	159,0000	29,2517	0,3057
Number of authors	79,0833	47,0000	77,0000	141,0000	22,2053	0,2808
Number of recommended authors	50,5000	31,0000	48,0000	76,0000	10,6797	0,2115

Percentage of recommended books	0,6846	0,5583	0,6702	0,8852	0,0749	0,1094
Percentage of recommended authors	0,6545	0,5068	0,6438	0,8776	0,0844	0,1290
Similarity between the school list and the state list	0,3655	0,2480	0,3607	0,5396	0,0562	0,1538
DT success rate	0,8396	0,4500	0,8678	1,0000	0,1495	0,1781
OE success rate	0,9413	0,6176	0,9559	1,0000	0,0663	0,0704
Size of the school	71,5486	7,0000	54,2500	252,5000	49,8078	0,6961

The state list contains 109 writers and 11 literary works, which author is unknown. On the other hand, the school lists contain significantly less authors, the median is 77, average is 79,0833. This item also has a relatively high coefficient of variability (0,2808), which indicates significantly different approaches of individual schools. The lowest number of authors offered to the students by the school was 47, the highest 141. Generally, it can be stated that the schools do not usually implement the state list in its entirety and therefore, this state approved-list seems to be oversized.

This is related to the fact that on average, out of the 109 state-recommended authors (authors from the state list), only 50,5 of them appeared on the school lists, the median in this case was 48. None of the evaluated school lists implements the state list in its entirety, the maximum is 76 writers, some schools use not even a third of the state list (the minimum was 31 authors corresponding with the state list). The differences between the schools are big in this case as well, the coefficient of variability is 0,2115. This indicates, that the state list probably does not correspond with reality. The teachers of the Czech language and literature are not implementing it in its entirety and in some cases, its content covers only a small part of the school list. It can also be stated, that the teachers of the Czech language and literature are compiling the school lists and choosing the authors offered to the students individually and they do not feel to be bound by the state-approved list.

The variables „Percentage of recommended books“ and „Percentage of recommended authors“ also indicates more liberal approach of those compiling the school lists to the choices of individual items. On average, the authors from the state list are represented on the school lists only by 65,45 % and books from the authors of the state list only by 68,46 %, the medians in this case are 64,38 % and 67,02 %. The same is confirmed by the variable „Similarity between the school list and the state list“. Tanimoto coefficients, which values are on average 0,3655 and its median 0,3067, indicate the connection between the school lists and the state list, because even at the minimum, this coefficient does not reach the value 0 (the minimum is 0,2480). On the other hand, the state list is not the only mechanism determining the content of the school list, because the coefficient does not reach the value 1.

The variable “success rate” is included in relation to the priority determination of both monitored lists. The state list has an impact primarily on the didactic test (DT) because it determines which authors and which anonymous works can be part of the test questions, but we have also demonstrated above its connection with school lists that are compiled for the needs of oral exam (OE). We work with the so-called net success rate, which takes into account the number of students actually taking the exam, not only students registered for the exam. The data were obtained from public sources, provided by the Centre for Evaluation of Educational Outcomes (hereinafter referred to as Ceremat), which organizes the common part of the school-leaving examination. In the monitored schools, the average and median success rates were higher for OE (94.13% and 95.59%, respectively) than for DT (83.96% and 86.78%, respectively).

We assess the size of the school according to the criterion that is relevant to our study, i.e. the number of students who took the graduation exam in the given year. As the number of students taking DT and OA may have differed (e.g. due to failure of one partial examination in the previous school year), we have determined the average of the students who took these examinations. The standard deviation of this variable (49.8078) shows that we worked with schools of various sizes,

from schools with 7 graduates to schools with 252.5 graduates. The average was 71,5486, the median was 54,25.

What influences the school list?

As concluded above, the state list does not constitute an absolute determinant in the process of compiling the school list of works and the teachers willingly retain a considerable degree of autonomy while working on it. We were also interested if we can observe generally applicable regularities during evaluation of the data from 72 schools, i.e. the minimum of 72 teachers⁷.

Table 3. Pearson correlation coefficients

	Size of the canon	Number of authors	Number of recommended authors	Percentage of recommended books	Percentage of recommended authors	Similarity between the school list and the state list
Size of the canon	–	0,9479***	0,8585***	-0,5255***	-0,6532***	0,6017***
Number of authors	0,9479***	–	0,915***	-0,6095***	-0,6714***	0,6491***
Number of recommended authors	0,8585***	0,915***	–	-0,2785***	-0,3324***	0,8994***
Percentage of recommended books	-0,5255** *	-0,6095***	-0,2785** *	–	0,9618***	0,1245
Percentage of recommended authors	-0,6532** *	-0,6714***	-0,3324** *	0,9618***	–	0,0858

⁷ It can realistically be assumed that many more teachers took part in creating the school lists. In addition to the school principal, some of the lists were also signed by one teacher, who prepared the list. But there were also references to the approval of the document by the subject committee, a collective body that usually brings together teachers of the same subject or related subjects and which gives the principal recommendations related to given subject or subjects.

Similarity between the school list and the state list	0,6017***	0,6491***	0,8994***	0,1245	0,0858	–
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P-value – ,01***, ,05**, ,1*

Pearson correlation coefficients showed a statistically significant correlation between variables, where a mutual relationship can be expected. A larger school list means that it will contain more authors and more authors from the state list at the same time. Analogously, the same applies to works and books included in the state list. As the size of the school canon increases, so does the number of featured anonymous literary works, although not as statistically significantly as in the case of writers. What is more interesting, however, is that as the size of the school canon increases, the percentage of representation of authors who are not included in the state list increases, and on the contrary, the percentage of authors matching the state list decreases. This suggests that teachers are more likely to supplement the school lists at their own discretion rather than by adding additional authors from the state list. In order to determine this behavior more precisely, a regression analysis was performed, the results of which are in Table 4.

Table 4. Regression analysis - The influence of the size of the school list on the number of recommended books

Model	Absolute coefficient	Linear coefficient	Significance of the model F-test p-value	Determination coefficient
All schools	12,2106***	0,5458***	$1,2 \cdot 10^{-35}$ ***	0,8959
Schools with small size of the list (I)	23,2786**	0,3913***	0,0002***	0,3420
Schools with big size of the list (91)	5,904932	0,596898**	$3,3 \cdot 10^{-15}$ ***	0,842698

P-value – ,01***, ,05**, ,1*

If we take a model using all the evaluated schools, we find that if we increase the list by another book, there is a 55% chance that this

book will match the recommended books. Furthermore, the schools were divided into two halves according to the size of the school list (the median 91 was used). For schools with a small list, a new book has an average of 39% chance of being by a recommended author. On the other hand, this probability is almost 60% for schools with an extensive list. We believe that with small school lists, teachers have not yet sufficiently projected their idea of canonical or potentially canonical literary works into the list and may try to use the potential of this list precisely to expand their personal canon. On the other hand, this individual canonization initiative is already satiated in the case of large school lists.

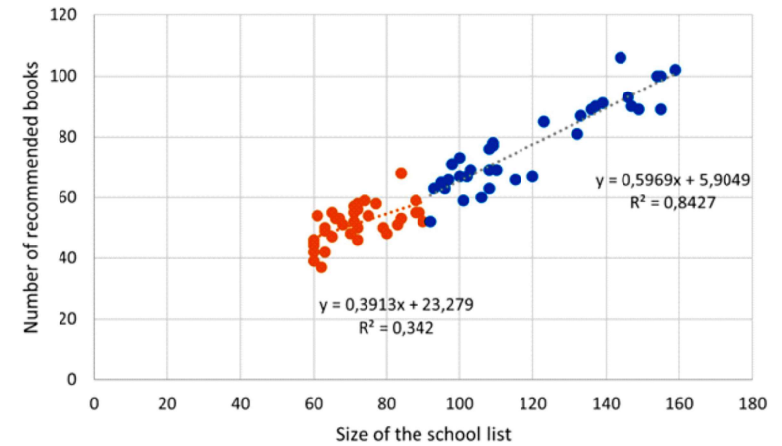


Fig 3. Overview of the regression analysis of the dependence of the number of recommended books on the size of the school list

Another aspects of these models should also be mentioned. All models are statistically significant. However, the model for small school lists is not suitable for more accurate prediction, due to the low determination coefficient. However, this does not reduce the results, as all linear coefficients are statistically significant.

Based on the statistical significance of most of the absolute coefficients, we can conclude that there is a certain minimum number of used recommended books (common base) for the monitored schools,

which are not determined by the regulations, but by the intuition of the teachers.

However, earlier results show that as the size of school lists increases, the proportion of recommended books included in them decreases. However, the model results show that in the case of larger lists, adding a book is more likely to result in a recommended book being added. This is not an inconsistency if we consider the existence of some kind of lower limit on the number of recommended books that will cause the relative frequency of recommended books to increase for smaller school lists. In both cases, the percentage of books from canons (small and large lists) is then lower than the average relative frequency of recommended books (0.68, see Table 2). Thus, indeed, as the size of the school list increases, the average relative frequency decreases, theoretically down to a value of 60 %.

Similarly, the relationship between the size of the school list and the number of authors on the list was analyzed. As expected, the number of authors is growing again with the growth in the number of titles. But once again, we can observe different behavior of schools with a smaller list and schools with a larger list.

Table 5. Regression analysis – The influence of the size of the school list on the number of recommended authors

Model	Absolute coefficient	Linear coefficient	Significance of the model F-test p-value	Determination coefficient
All schools	10,2331***	0,7196***	$1,7 \cdot 10^{-36}$ ***	0,8986
Schools with small size of the list (l)	-4,5565	0,9274***	$1,0 \cdot 10^{-13}$ ***	0,8074
Schools with big size of the list (91)	13,6754	0,6902***	$2,1 \cdot 10^{-11}$ ***	0,737112754

P-value – ,01***, ,05**, ,1*

When looking at the model containing all schools, we can see that an average of 72 percent of the books added cause a new author to be added. So we have only 28 percent of the books whose author has already been listed. This pattern is different for schools with a smaller

list, where the probability of adding a book with a not recommended author is nearly 93 percent. For schools that already have a more extensive canon, that percentage drops to 69 percent.

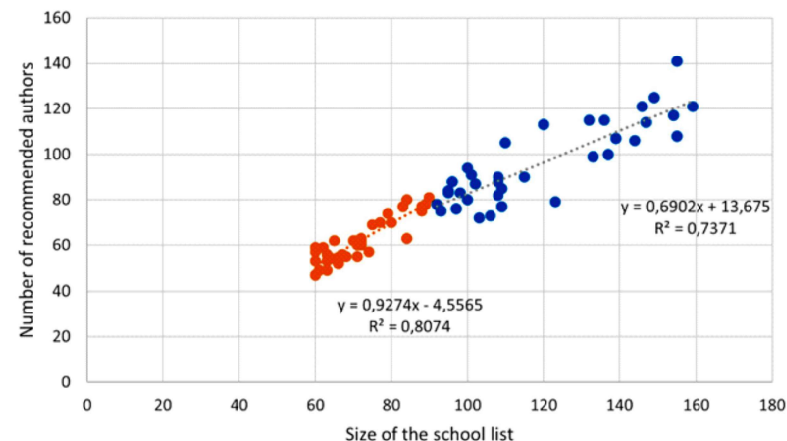


Fig 4. Overview of regression analysis of the dependence of the number of recommended books on the size of the school list

The significantly different behavior of small and large school lists suggests that teachers focus on saturating the list with authors first, thus creating a certain base. Only when this base is filled, do they expand the school list with the second and other works of the already featured writers. Therefore, it seems that for teachers, the canon is defined by authors, not by specific works. This corresponds to the traditional concept of teaching literature at Czech secondary schools, which combines literary development with prominent representatives of trends, movements and groups.

We assumed that the size of the school list and its similarity to the state list would affect the success rate in the graduation exam. We expected that authors (and their works), who are considered key at national level, would be focused on more often by teachers in their classes and thus included in school lists. However, this was not confirmed, especially in the case of the oral exam. A statistically significant rela-

tionship can be observed only in the case of success rate in the didactic test (see Table 6). In this case, the net success rate is influenced by the size of the school list (the larger the list, the more likely the student is to reach the cut-off score) and the number of authors featured on both lists of works or the similarity of the school lists and the state list (the greater the match or the similarity, the more likely the student is to succeed). The difference between the didactic test and the oral exam can also be explained by the fact that the didactic test is in many respects more objective. The answers are recorded by the student (or by the designated person⁸) in the answer sheet and scanned afterwards. The evaluation is conducted at central level. On the other hand, the oral examination is conducted by two certified examiners, usually teachers of the given school who evaluate the individual parts of the examination according to the centrally defined criteria with points, but it cannot be ruled out that the teachers will not be completely objective. Unlike DT, students are not evaluated by a computer program (for the most part), but by people.

Table 6. Pearson correlation coefficients

	DT success rate	OE success rate	Size of the school
Size of the canon	0,3115***	0,0856	0,0613
Number of authors	0,3129***	0,0956	0,073
Number of recommended authors	0,2959***	0,0856	0,0399
Percentage of recommended books	-0,1278	-0,0789	-0,0834
Percentage of recommended authors	-0,1681*	-0,0825	-0,1146
Similarity between the school list and the state list	0,221**	0,0686	-0,0056

P-value – ,01***, ,05**, ,1*

⁸ In case of students with recognized adaptation of conditions.

Traditionally, the differences in the success rates of students in individual schools are attributed to the types of schools rather than school lists.⁹

Types of schools

In the Czech context, several typologies of secondary schools are being used. Typically, we talk about grammar schools, lyceums, professional schools and secondary vocational schools. Somewhat aside are conservatories, schools educating artists, which offer not only secondary, but also special education. With regard to the fact that we decided to work with the success rate of the graduation exam as one of the variables, we accepted the division of schools according to the Cermat methodology, an institution that provides basic data on the success rate of exams through aggregated data on its website. The differentiation criterion is the focus of the field of study.

Schools can be divided into:

1. Grammar Schools (G)
2. Lyceums (L)
3. Secondary Vocational School of Economics (E)
4. Medical Secondary Vocational Schools (M)
5. Hotel and Business Secondary Vocational School (H)
6. Secondary Vocational Schools of Pedagogy and Humanities (P)
7. Technical Secondary Vocational Schools (T)
8. Secondary Schools of Arts (Ar)
9. Agricultural Secondary Vocational Schools (Ag)
10. Other Secondary Vocational Schools (O)

We are aware of the fact that we work with a very small sample (especially for some types of schools) that will not be statistically significant and that for more definitive conclusions, it will be necessary to

⁹ Based on his analysis, Ondřej Špaček even distinguishes between schools with low cultural capital and high cultural capital. However, his study shows that elementary distinction is the type of school with which we also work further.

conduct the intended national survey by the authors of this study in the future. To illustrate this, we present an overview of averages of monitored variables for individual types of schools.

Table 7. Characteristics of monitored variables according to the type of school

Type of school	Ag	Ar	E	G	H	L	M	O	P	T
Number of schools	3	2	5	30	10	7	3	1	3	8
Number of books – Average	73,33	132,00	76,20	109,17	76,40	93,00	97,67	74,00	107,33	65,63
Number of authors – Average	62,67	109,50	65,00	89,33	64,80	79,71	77,33	57,00	87,33	45,25
Authors on the state list – Average	43,33	68,00	42,80	55,63	41,60	49,57	51,00	44,00	55,00	0,7383
Relative frequency of books from authors on the state list – Average	0,7068	0,6472	0,6897	0,6770	0,6734	0,6557	0,6949	0,7973	0,6679	0,7104
Relative frequency of authors – Average	0,6989	0,6237	0,6677	0,6400	0,6496	0,6313	0,6615	0,7719	0,6282	0,3492
Similarity to authors on the state list – Average	0,3390	0,4592	0,3261	0,3887	0,3158	0,3540	0,3772	0,3607	0,3885	61,88
Size – Average	36,50	79,00	70,40	72,20	73,50	109,00	73,50	40,50	37,33	0,7364
DT success rate – Average	0,7157	0,7909	0,7510	0,9684	0,7439	0,7985	0,6741	0,7805	0,7308	0,9284
OE success rate – Average	0,9528	0,9447	0,9291	0,9685	0,8791	0,9506	0,9043	0,9250	0,9387	0,9284

On average, the largest school lists are presented by art schools (132.00), grammar schools (109.17) and pedagogical schools

(107.33). This corresponds to the largest number of authors: art schools (109.50), grammar schools (89.33) and pedagogical schools (87.33).

In the case of our sample, it is evident that there are very small differences in the average success rate of the oral exam. On the other hand, the success rate of the didactic test fluctuates more (67 % to 97 %). If both tests placed similar demands on students, it could be expected that the success rate would be at least approximately the same, but this is only the case for G and T, a small difference can also be considered a comparison of these variables in H. On the other hand, the most significant disproportion is in M. This may demonstrate the aforementioned subjectivity of the oral exam assessment or indicate that the setting of this partial exam is very accommodating to students.

Cluster analysis

Simple comparison of school lists based on school types yielded almost no relevant results and therefore, we decided to use cluster analysis. We chose three basic criteria – the number of books, the size of the school and the similarity of the school list with the state list. These variables represent different characteristics or different behavior of the given school, and at the same time the dependence between them is weak. We have come to the conclusion that the schools can be divided into 3 groups.

Based on the results of the cluster analysis, a cluster dendrogram was created, in which the schools were marked according to their type and distinguished by a number. The dendrogram showed that the division into clusters copies the typology of schools only partially. A single type of school does not figure exclusively in any of the clusters. Even schools perceived systemically as most prestigious, i.e. grammar schools, are found in all three clusters.

Cluster 1 (C1) consists of school lists, which are most comprehensive, containing an average of 127.4 books, and at the same time show the highest degree of similarity with the state list. The schools that belong to it are of medium size (according to the number of gradu-

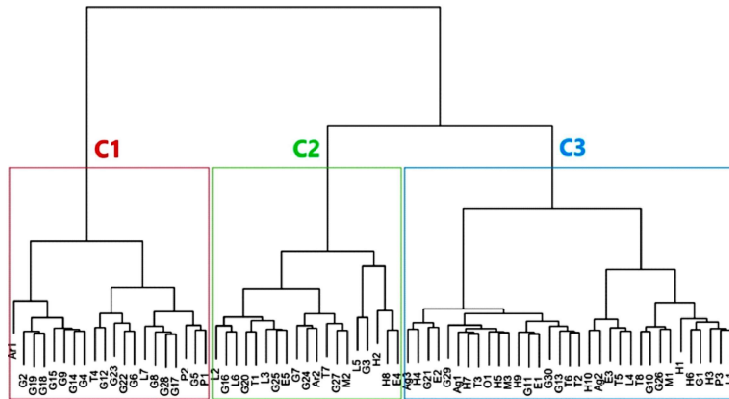


Fig 5. Cluster Dendrogram

ates in 2020). A total of 20 schools is included. The smallest cluster, Cluster 2 (C2), is represented by the largest schools, whose school lists are in terms of size, slightly below the average of all analyzed samples at the same time. The largest cluster 3 (C3) includes the smallest schools and, at the same time, the smallest school list from the point of view of the entire sample. We can also see this in Figure 6, which shows the division into clusters based on the variables number of books and school size.

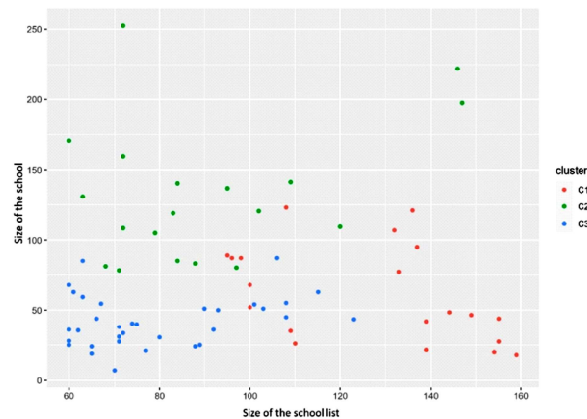


Fig 6. Clustering based on number of books and school size

C1 includes half of all grammar schools, the majority of pedagogic schools and half¹⁰ of art schools, i.e. humanities-oriented schools. This could suggest that schools focused more on humanities tend to have more extensive school lists and perceive them as an opportunity to expand the canon. However, this claim would require an examination of the school curricula of grammar schools included in the given cluster, as they can be focused in various directions. C2 includes more diverse types of schools: art schools, schools of economics, grammar schools, medical schools, lyceums and technical schools are included. Typologically, this cluster can not be clearly defined. It is obvious that secondary vocational schools predominate. In the most populated C3, we also find the most diverse selection of schools, from grammar schools to secondary vocational schools (O). It is worth noting that the cluster with the smallest school lists includes the majority of schools that focus on science subjects (agricultural, medical, technical), as well as schools focused on economics (economics, hotel schools). It is therefore possible that teachers take student's lesser degree of interest in literature for granted and attach less importance to the school list of works than other schools. This assumption could be verified by a qualitative investigation in the future.

Table 8. Percentage division of individual types of schools into clusters

Type of School	C1	C2	C3
Ag	0,00%	0,00%	100,00%
Ar	50,00%	50,00%	0,00%
E	0,00%	40,00%	60,00%
G	50,00%	23,33%	26,67%
H	0,00%	20,00%	80,00%

¹⁰ We are aware of a small, statistically insignificant sample of art schools, but we see a correlation with other types of schools in this cluster.

L	14,29%	57,14%	28,57%
M	0,00%	33,33%	66,67%
O	0,00%	0,00%	100,00%
P	66,67%	0,00%	33,33%
T	12,50%	25,00%	62,50%
All schools	27,78%	26,39%	45,83%

Average values of determined variables were calculated for individual clusters. The first three correspond with those according to which the clusters are created, and therefore, differences are expected in their case. For the other variables, large differences show the different behavior of schools included in individual clusters.

Table 9. Characteristics of monitored variables by cluster

	C1	C2	C3
Number of schools in the cluster	20	19	33
Number of books – Average	127,40	90,11	79,67
Size – Average	61,75	132,71	42,27
Similarity to authors on the state list – Average	0,4293	0,3546	0,3330
DT success rate – Average	0,9158	0,8650	0,7788
OE success rate – Average	0,9544	0,9580	0,9238
Relative frequency of books from authors on the state list – Average	0,6617	0,6822	0,6998
Relative frequency of authors – Average	0,6217	0,6525	0,6755
Authors from the state list – Average	63,7	48,63	43,57

Significant differences between clusters can be observed mainly in the DT success rate, whereas the differences in the average OE success rate are minimal.

Discussion

We assumed that the state list of authors and anonymous works potentially influences the school lists, even though each of them is a document for different type of exam in the context of the graduation exam in the Czech language and literature. We began with a premise that in general, the state list creates a pressure on the curriculum of the subject, from which the teachers choose the content of the school list for the oral exam. This assumption was only partially confirmed.

It is obvious from the results of our research, that the authors from the state list represent on average only 65,5 % of the authors on the school lists. None of the schools uses the state list in full. Usually, they create narrower lists, the median of authors from the state list, who are also on the school lists, is 48 while the median of authors represented is 77. The state considers 109 authors (and 11 anonymous works) fundamental. The teachers' collective canon appears to be more selective, which raises a question if the state list is realistic or if it differs from the pedagogical experience and didactic reality.

At the beginning of the research, we assumed that the size of the school list would have an influence on the success rate of the students. We thought that an extensive list of literary works could reflect a rich curriculum and higher demands on students. If we focus on the oral exam, this assumption was not confirmed. The differences in success rates are so small that the correlation with a specific structure of the school list can not be suggested. Despite the centrally set requirements and scoring criteria, it can rather be stated, that teachers are modifying the difficulty of this partial exam according to their students' level. In order to evaluate if the lists themselves (from which the students choose their own reading according to individual criteria) are being set on that level, it will be necessary to closely study the content of the school lists. We plan to do that in a subsequent research.

However, we managed to at least partially find the connection between the school lists for the oral exam and the success rate in the didactic test. The fact, that larger school lists and lists more similar to the

state list show higher success rate in this partial exam, indicates secondarily a certain influence of the graduation exam on curriculum. Or at least on what the school accent in their curriculum.

We also expected that the size of the school list would depend on the type of the school. For a long time, Czech education system has been criticized for its qualitative inequality and selectivity of the students, which starts after finishing the fifth grade of the elementary school with the departure of the most successful students for an eight year studying at the grammar schools and after finishing the seventh grade of the elementary school with the departure of the most successful students for a six year studying at the grammar schools. Talented students also leave for the four year studying at the grammar school after finishing the elementary school (Straková and Greger, 2013, Matějů et al., 2010). Given the specific position of this type of school, we expected that our analysis would prove the exclusivity of grammar school reading lists for the graduation exam. At least in our sample, which contained 30 grammar schools, this exclusivity was not proven. The results of this pilot study rather suggest a link with the focus of the fields of study, where the fields of study focusing on humanities choose the lists with the most items on them.

Cluster analysis also proved the fact, that the size of the school list is not proportional to the size of the school or the number of the students taking the graduation exam in said school in the examined year. Schools with the largest school lists tended to be a medium-size schools. On the other hand, schools with the lists containing rather below average number of items belonged to the largest schools in the analyzed sample. The teachers most likely do not take into consideration, how many students are going to choose their personal canon for the graduation exam from the list, and they do not mind that during the oral exam in any given year, the books could come up more than once.

Conclusion and the Research Potential

In the Czech environment, the term canon began to be used in the past ten years in connection with the graduation exam in the mother

tongue and literature. The central canon, i.e. a list of the most important authors approved by the state, and partial school lists, which form is determined by individual teachers or teacher collectives within legal boundaries. While the central canon is a result of wider consensus among the professional public, not much is known about the principles of creating school lists. At the same time, it is obvious that for students on the threshold of adulthood, the measuring stick of quality will be precisely these school lists, which determine at least part of their high school reading.

This study proved that both lists do not exist in parallel as separate sets, but the influence of the state list on the school lists can be observed. The result corresponds with the position of the graduation exam within the Czech education system. The exam is a culmination of students' effort after four years of studying, it improves the graduates' position on the labor market and is a basic prerequisite for studying at a university. It would be misguided to think that the form of the graduation exam does not have an influence on the curriculum. On the other hand, the mutual ties show that it is worthy to analyze the content of the school lists and find out, if there is any common base which could be considered universal high school canon that could be further analyzed from the content and time perspective.

We consider one finding, that emerged from our analysis, to be significant, namely that the state list is not implemented in its entirety. None of the monitored schools reflected it in their list one hundred percent. We expect to address teachers' motivation in follow-up research. At the moment, we assume that one of the causes may be the gradual obsolescence of the state list, which ends with V. Havel (1936–2011) from among the Czech writers and U. Eco (1932–2016). It should also be mentioned that the Catalogue of graduation exam prerequisites for the graduation exam, which also includes the state list, was first published for the school year 2017/2018 and has remained unchanged ever since. This raises the questions:

- Do the schools operate with all the authors mentioned in the state list?

- Do high school choose different writers? If so, which ones? And why these?
- Which authors form the base of the school lists and also appear on the state list?
- Are we at the point of „Restylization of the canon“ (Papoušek, 2007)? If so, which of its principles are being used?

The answers to those questions have the potential to not only influence the partial school lists, but also indicate whether the state list is no longer a functional document, which does not correspond with the everyday reality of Czech teachers and their students.

References

- Act No. 561/2004 Coll., Act on Pre-primary, Basic, Secondary, Tertiary Professional and Other Education (Education Act), as amended.
- B í l e k, Petr et al. *Kánon a literatura*. Praha: Univerzita Karlova v Praze, 2007.
- B l o o m, Harold. *Kánon západní literatury: Knihy, které prošly zkouškou věků*. Praha: Prostor.
- B l o o m, Harold. *The Western Canon: the Books and Schools of the Ages*. 2nd edition. London: Papermac, 1995.
- Catalogue of Requirements for Examinations of the Common Part of the graduation exam valid from the school year 2017/2018. Czech Language and Literature*. P. 9. Available at: Microsoft Word – III Katalog požadavků 2018 CJL.docx (cermat.cz)
- Framework educational program for grammar schools*. Available at: RVP G* – Rámcové vzdělávací programy pro gymnázia – edu.cz.
- G u i l l o r y, John. *Critical Terms for Literary Study*. Chicago: University of Chicago Press, 1995.
- G u i l l o r y, John. *Cultural Capital: The Problem of Literary Canon Formation*. Chicago: University of Chicago, 1993.
- K a p l i c k á Y a k i m o v a, Vera. *Literární kánon a překračování hranic*. Formování literárního kánonu v cizím prostředí. Praha: Academia, 2015.
- M a r k i e w i c z, Henryk. O literárních kánonech. *Aluze*, 2007, No. 3, p. 63.
- M a t ě j ů, Petr et al. *Nerovnosti ve vzdělávání. Od měření k řešení*. Praha: Slon, 2010.
- M o l d a n o v á, Dobrava. *Na okraji kánonu. Literárněhistorické úvahy a studie*. Praha: Karolinum, 2021.
- M u k a ř o v s k ý, Jan. *Estetická funkce, norma a hodnota jako sociální fakty*. 2. vyd. In: *Studie I*. Brno: Host, 2007.

- P a p o u š e k, Vladimír. Restylizace kánonu. In: B Í L E K, Petr et al. *Kánon a literatura*. Praha: Univerzita Karlova v Praze, 2007, s. 31–42.
- S t r a k o v á, Jana, G r e g e r, David. Faktory ovlivňující přechod žáků 5. ročníků na osmileté gymnázium. *Orbis scholae*, 7 (3), p. 73–85.
- Š p a č e k, Ondřej. Kulturní kapitál a maturitní zkouška: analýza školních seznamů literárních děl. *Orbis Scholae*, 2020, 14 (3), p. 55–71.