A study of teacher's preferences by using of statistical methods

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Abstract: In this paper the mathematical statistics is used for investigation of the teaching Orthodox culture in the former USSR. An example is considered religious education in Lithuania and Russia. These two countries were choosing because Lithuania was the first Republic of the former USSR in which religious education rather successful was introduced after the Soviet time. In contrast, in Russia teaching of religion culture was introduced relatively recently and still there are a lot of debate and difficulties.

1 Introduction

In the Soviet times, it was forbidden at schools of the USSR to talk about religion. After "perestroika" in the schools of the former soviet republics in one form or another have been introduced courses related to religion. So in Catholic Lithuania teaching religion (Catholic, Orthodox, etc.) as a school subject has been introduced in 1992, with the active use of the experience gained in foreign Catholic countries. The subject is called "Basis of morality", is mandatory to study from first to twelfth classes, and is divided into modules: the Catholic religion, the Orthodox religion, secular ethics, etc. The right to create educational standards on religious subjects belongs to religious communities. For example, the Catholic Church makes the following tasks for teaching "Catholic religion": to form the religious consciousness and behavior, to include pupils in the parish and liturgical activities, to develop their capacity to communicate with God, the world and the society.

Similarly, in the "Standard of the Orthodox component of education in Lithuania" are presented the key issues revealing the spiritual experience of the Orthodox Church, the spiritual world of the Holy Scripture and Holy Tradition. It is permitted to pray before the lesson. Pupils are expected to participate in the beliefs and practices of the Orthodox religion [3].

In 2009 the teaching of religion was introduced in Russian schools only in the 4th form in a similar way (subject is divided into modules: the Orthodox culture, Islam culture, secular ethics, etc.), but from the beginning the teaching of this subject has faced with great difficulties. Some researchers have considered the issues of teaching religious cultures [4], [5], but this research is not enough. The purpose of this paper is to compare and contrast teachers' views on a goal and preferable type of religious education in Lithuania and Russia. We want to develop guidelines for the training of teachers on the basis of using the experience of well-known experts in this field such as M. Grimmitt and J.M. Hull.

2 Problem Formulation

One of the main problems of teaching the Orthodox culture in Russia is teachers training. Professional training of teachers takes place mainly in the form of refresher courses and requires special techniques. The difficulties are related with the fact that the tradition of religious education was interrupted for many decades and it is not clear yet what

methodology should be based the teaching of this subject.

Michael Grimmitt proposed the main types of religious education: 'learning religion,' 'learning about religion,' and 'learning from religion' [1]. We will use this classification to examine the preferences of Orthodox religion teachers.

The 'learning religion' is allowed in Lithuania, but in the Orthodox religion lesson teachers are free to use each of type of religious education.

The situation in Russia is different. After the anti-religious propaganda of Soviet times, many people are afraid of indoctrination from religion and prefer the second or third approach to the study of religion. On the other side from this subject is expected to improve the moral state of society, to provide the opportunity for pupils to relate their own spiritual and moral feelings with religious culture.

First step of our investigation was to determine the dependence between the type of religious education, which teacher prefer, and the objectives, which he seeks to achieve by teaching religious culture.

2.1 Methods

First the questioning of religion teachers was conducted in Lithuania and Russia, each participant was asked to complete the questionnaire. Then by using the SPSS package the questionnaires were subjected to mathematical treatment in order to clarify the internal connections between the data obtained.

2.1.1 Participants in the experiment

The participants in the experiment were 15 teachers of Orthodox religion from Lithuania and 20 teachers from Russia.

2.1.2 The content of the questionnaire

Initially, each participant was asked to consider three possible approaches to the study of religion, proposed by Grimmitt. Using [1] and [2], we describe them as follows:

Learning Religion: 'Learning religion' describes the situation where a single religious tradition is taught from the inside. "Teachers are expected to be believers in the religion themselves and the object of the instruction is to enable pupils to come to believe in the religion or to strengthen their commitment to it". It may also be, on some occasions, that a more or less unified and monolithic society begins to respect the hopes and ideals of its minority faiths. When plurality in formerly monolithic societies does appear, it may be a pluralisation of learning religion in which students are offered a system of parallel instruction. "Children from each faith are educated in separate classrooms and receive instruction from a representative of that faith. For example, the Muslim children are educated by the Muslim teachers, the Orthodox children by the Orthodox teachers, and so on" [2]. Pupils are expected to participate in the beliefs and practices of the religion being taught.

Learning About Religion: Religion is taught from the outside. The Bible is not taught as a religious book or as a sacred book, but as literature. "Sometimes this kind of religious education may be called 'education in comparative religion' and may be based upon anthropology. Sometimes, indeed, the subject is called 'religious studies,' and often it follows one or more of the various disciplines evolved by the study of religion such as the history of religions or the phenomenology of religions, or the ethnography of religions" [2].

Learning From Religion: The distance between the pupils and the religious content, which is typical of 'learning about religion,' is strictly maintained. The objective is "the humanisation of the pupil, that is, making a contribution to the pupils' moral and spiritual development" [2]. An example of 'learning from religion' may be found in "the Gift to the Child project carried out at the University of Birmingham. Teachers select units of material from various world religions for study by children, aged 4-11 years. These units might consist of a statue, a picture, or a passage of Holy Scripture. Of each item, the question is asked, "What gifts might it offer the children?" For example, Ganesha, the elephant-headed deity celebrated in southern Asia, might offer a stimulation to the curiosity of the children, challenge their values, deepen their distinctive sense of identity, and impart empathy for others" [2].

Next, participants of the experiment, were asked to rank how they think, it is advisable to study the religious culture in the modern educational system (1 - most appropriate, 2 - appropriate, 3 - does not correspond).

The next item on the questionnaire was the following one.
"Rank in order of importance to you:
The study of religious culture is necessary for:
- Provide the opportunity for students to relate their own spiritual and moral feelings with religious culture.

- To inform the known facts in the history of culture and religion.
- To acquaint students with the laws of the religious life."

The third item on the questionnaire was:
"Express your attitude to the statement
"Religious culture has its own values"
Yes
No
I do not know".
The fourth item:
"What are the values that are contained in the religious culture of Orthodoxy?"

The last item was:
"If possible, illustrate by example the importance of one of the named values in the life of our contemporaries".

2.1.3 Statistical method

A selection of statistical methods to the study of a pedagogical problem presents some difficulty [6].

From one point of view our data are nominal (we have the categories with no intrinsic ranking), and we can check the hypothesis about the independence by using the Pearson-Fisher Chi-Squared Theorem. So we can use in SPSS procedures determine the independence of the nominal data such as Pearson Chi-Square Test.

From the other point of view participants of the experiment, were asked to rank how they think it is advisable to study the religious culture and it's possible to classify data as the ordinal one. So we can use the statistics for the ordinal random variable, such as Spearman's rank correlation or Kendall's rank correlation.

3 Problem Solution

Test results of teacher preferences of a particular type of religious education we denote by the word "learning". Results response to the second question, we denote as a "goal". We can see in Figure 1 Pearson correlation between the teacher preferences and the goals of learning the religious culture in Lithuania obtained using the SPSS statistical package.

Correlations

		learningl	goall
learningl	Pearson Correlation	1,000	,700**
	Sig. (2-tailed)		,000
	N	45,000	45
goall	Pearson Correlation	,700**	1,000
	Sig. (2-tailed)	,000	
	N	45	45,000

**. Correlation is significant at the 0.01 level (2-tailed).

Fig.1. Pearson correlation between the teacher preferences and the goals of learning the religious culture in Lithuania

Spearman's and Kendall's rank correlations calculation results are shown in Figure 2.

Correlations

			learningl	goall
Kendall's tau_b	learningl	Correlation Coefficient	1,000	,658**
		Sig. (2-tailed)	.	,000
		N	45	45
	goall	Correlation Coefficient	,658**	1,000
		Sig. (2-tailed)	,000	.
		N	45	45
Spearman's rho	learningl	Correlation Coefficient	1,000	,700**
		Sig. (2-tailed)	.	,000
		N	45	45
	goall	Correlation Coefficient	,700**	1,000
		Sig. (2-tailed)	,000	.
		N	45	45

**. Correlation is significant at the 0.01 level (2-tailed).

Fig.2. Spearman's and Kendall's rank correlations between the teacher preferences and the goals of learning the religious culture in Lithuania

All methods of counting show the statistically significant correlation between the studied variables. Pearson correlation coefficient is 0.7 at the level 0.01, Spearman's rank correlation coefficient is 0.7 at the level 0.01 and Kendall's rank correlation coefficient is 0.658 at the level 0.01.

This means that for the majority of teachers who choose 'learning religion' it is very impotent to provide the opportunity for students to relate their own spiritual and moral feelings with religious culture.

We can see in Figure 3 Pearson correlation between the teacher preferences and the goals of learning the religious culture in Russia.

Correlations

		learningr	goalr
learningr	Pearson Correlation	1,000	,175
	Sig. (2-tailed)		,181
	N	60,000	60
goalr	Pearson Correlation	,175	1,000
	Sig. (2-tailed)	,181	
	N	60	60,000

Fig.3. Pearson correlation between the teacher preferences and the goals of learning the religious culture in Russia

Spearman's and Kendall's rank correlations between the teacher preferences and the goals of learning the religious culture in Russia calculation results are shown in Figure 4.

Correlations

			learningr	goalr
Kendall's tau_b	learningr	Correlation Coefficient	1,000	,160
		Sig. (2-tailed)	.	,167
		N	60	60
	goalr	Correlation Coefficient	,160	1,000
		Sig. (2-tailed)	,167	.
		N	60	60
Spearman's rho	learningr	Correlation Coefficient	1,000	,175
		Sig. (2-tailed)	.	,181
		N	60	60
	goalr	Correlation Coefficient	,175	1,000
		Sig. (2-tailed)	,181	.
		N	60	60

Fig.4. Spearman's and Kendall's rank correlations between the teacher preferences and the goals of learning the religious culture in Russia

All methods of counting show the low correlation between the studied variables. Pearson correlation coefficient is 0.175, Spearman's rank correlation coefficient is 0.175 and Kendall's rank correlation coefficient is 0.16. There is no statistical reason to reject the hypothesis of independence of the studied variables, because the level of significance is 0.167 or 0.181.

On the other hand the majority of teachers in Russia the goal of learning formulate as the possibility to provide the opportunity for students to relate their own spiritual and moral feelings with religious culture (13 teachers from 20). Comparing the results for Lithuania with the results obtained for Russia, we can say that the objectives of the teachers are approximately the same, but the Lithuanian teacher more clearly imagine the ways to achieve them. This is due, firstly, to the fact that the teaching of religion in Lithuania is carried out for a longer time and in all 12 classes of schools. Secondly, in Russia teachers are not so free to choose the type of teaching because of the fear of indoctrination in society.

99% of teachers in both countries claimed that Religious culture has its own values. The values that they choose are: love, family, Mercy, compassion, spiritual life, sanctity, fatherland, tradition, collegiality, patriotism, conscience, beauty, hierarchy, faith and hope in God and so on.

4 Conclusion

Type of the study of religion in Lithuania has been set mostly by the Catholic Church and in the classification of Grimmitt named 'learning religion', but in the Orthodox religion lessons teachers are free to use each of type of religious education. Our investigation shows that there exists the strong dependence between the type of religious education, which teachers prefer, and the objectives, which he seeks to achieve. If the goal is to provide the opportunity for pupils to relate their own spiritual and moral feelings with religious culture, teachers prefer mostly 'learning religion'.

The situation in Russia is different. After the anti-religious propaganda of Soviet times, many people are afraid of indoctrination from religion and prefer the second or third approach to the study of religion. On the other hand from this subject is expected to improve the moral state of society, to provide the opportunity for pupils to relate their own spiritual and moral feelings with religious culture.

So in bought countries the goals of learning the majority of teachers formulate as the possibility to provide the opportunity for students to relate their own spiritual and moral feelings with religious culture. Almost all of them think that religious culture has its own values such as love, family, Mercy, compassion, spiritual life, sanctity, fatherland, tradition, collegiality, patriotism, conscience, beauty, hierarchy, faith and hope in God and so on.

Our research shows that the teaching pupils mentioned values require more freedom in choosing the type of teaching religious culture than now have a teacher in Russia.[1]

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