

School Librarians' Attitudes Towards Teaching Information Literacy

Vincas Grigas¹✉, Anna Mierzecka², and Roma Fedosejevaitė³

¹ Vilnius University, Vilnius, Lithuania
vincas.grigas@mb.vu.lt

² University of Warsaw, Warsaw, Poland
anna.mierzecka@uw.edu.pl

³ Vilnius, Lithuania
roma.fedosejevaite@gmail.com

Abstract. The objective of the research is to outline school librarians' attitudes towards teaching information literacy by analysing teaching experience, the scope of courses taught, and attitudes towards motivation of teaching. Respondents to the survey were librarians from secondary schools in Lithuania and Poland. Respondents for the research were selected from the top 250 best secondary schools in Lithuania and Poland accordingly. Data for this study was gathered using Computer-assisted web Interviewing (CAWI) technique. The results of the survey showed that school librarians had more positive emotions about their teaching motivation than negative ones. We saw that school librarians concentrate more on finding information, but are less actively involved in developing skills on the use of the information found. Also, school librarians are more prone to speak about information sources and specific tools to find it rather than organising their teaching activities as a platform for building up learning experiences. For better insight, the analysis was carried out comparing results from Lithuania and Poland as well as linking emotions with job meaningfulness.

Keywords: School librarian · The Big6 · Information literacy
Motivation for teaching

1 Introduction

The American Association of School Librarians (AASL) describes the school librarians' duties as "working with members of the school community to develop the policies, practices, and curricula to guide student learning" [1, p. 17]. School librarians could potentially play a major role in infusing IL concepts and skills into secondary school curricula as well as enhancing implementation of IL knowledge practices and dispositions into the secondary school education system. Evidence suggests that emotions experienced by librarians during their educational duties may be included among the most important factors for improving their teaching proficiency [2]. It suggests a need

R. Fedosejevaitė—Independent Researcher (MPsy), Vilnius, Lithuania.

to evaluate school librarians' attitudes towards teaching, their experience in implementing IL, their potential to be ambassadors of IL at schools, as well as the ability to prepare secondary school students to be consumers and creators of information who can participate successfully in collaborative spaces.

Although there are studies which concern librarians' emotions related to professional tasks [2, 3], the affective dimensions of instructional work of school librarians need more detailed investigations. Emotions influence the efficiency and efficacy of teaching significantly, so we decided to conduct research among school librarians in Lithuania and Poland to gain knowledge of their feelings related to performing teaching, as well as job meaningfulness evaluation. Due to the lack above of IL teaching standards which are officially recognised (neither country has an official recommendation regarding which IL standard to use), the diversity of the courses is considerable. That is why we also examined the school librarians' teaching activities, using the Big6 model as a universal framework to assess content taught. The goal of this research was to recognise the IL situation from the school librarians' perspective and to understand better school librarians' attitudes towards developing IL skills in schools. Poland and Lithuania were chosen as countries that started implementing IL activities almost at the same time and under similar conditions (shortly after the collapse of communists' regimes and the Soviet Union at the end of the nineties). The cultural and social as well as the economic context are similar as well.

2 Theoretical Background

2.1 School Librarians as Teachers

A considerable amount of literature has been published on analysing the role of school librarians [4–8]. Today, school librarians are not only managers of school libraries but, according to AASL, are also playing different roles, such as information specialist, teacher, instructional partner, and program administrator [1]. The research conducted by Wine allowed her to discuss the radical change in the role of school librarians and to conclude that their skills and competencies predispose them to fulfil leadership roles in technology integration into classroom instruction [4]. Asselin made similar conclusions [9].

We would like to focus on the role of the school librarians as teachers throughout this paper. The responsibility and importance of this task are clear when we refer to the AASL guidelines, where the duties of school librarians are described as empowering students to be: “critical thinkers, enthusiastic readers, skilful researchers, and ethical users of information” [1, p. 8]. Although the previous studies reveal the significance of this job, it does not correlate with the level of support they receive at school. As Ash-Argyle and Shoham stated: “Despite their potential role as lead educators of IL skills in the school community, school librarians tend to be invisible to students, teachers and headteacher” [8, p. 119]. According to the literature reviewed by Lo and Chiu [5] the problems school librarians are faced with are similar in many countries: a lack of resources, time, certified programs and training opportunities, recognition of

school librarians' qualifications, as well as the fact that many teachers and administrators still do not understand the concept of IL and are not aware of the role which school librarians can play in this process. Another important issue is the school librarians' perception of their own readiness to implement IL education. Several researchers have found that school librarians perceive themselves as having a low level of IL skills [6, 10, 11], there are also studies which prove the necessity to improve the degree of those skills [11–13].

2.2 Teaching Librarians Emotions

In many cases, the level of the school librarians' job satisfaction is low [5, 8, 14–16]. The studies above provide grounds for a statement about potential difficulty with the affective dimension of teaching activity. Thus, in this paper, we will pay particular attention to emotions as factors for school librarians' professional identity. According to Garganté et al. emotion related to teaching should be understood as a “specific set of teachers' knowledge on the affective dimension of their teaching” [17, p. 163]. The significance of emotions as a factor influencing the process of instruction was highlighted by a study of Beauchamp and Thomas who indicated how strongly the emotions might affect teachers' attitude, culture and discipline [18]. There are also studies which focus particularly on the emotions of librarians during instructional work [2, 7, 19–21]. The researchers have noticed that teacher-librarians' emotions differ depending on their approaches to teaching [7], but also on organisational factors, self-conception, interpersonal factors and teaching agenda [2, 21]. The investigation conducted by Julien and Genuis show that considering emotions of librarians as educators may influence significantly their job performance, as well as that of a library as an organisation [2, 21]. Grigas et al. examined emotions related to different aspects of academic librarians' teaching. They found that the most positive evaluations were given to consistency and positive attitude toward teaching, while the most pessimistic evaluations were given to effort that teaching requires and feeling of tenseness during the teaching process [22]. Another important issue connected with the emotions is a feeling of performed job meaningfulness. The feeling of meaningfulness is crucial to work engagement and motivation [23]. Lo and Chiu's study confirms that school librarians' dedication and belief in the positive results of their work influence essentially an overall learning procedure [5, p. 8].

2.3 Information Literacy Programs at Schools

Considering the nature of school librarians' work we should notice that unlike other teachers there is no widely accepted syllabus or standards that school librarians on which they may base their teaching. This causes huge diversity in IL instructional programs. Throughout this paper, we would like to examine the affective dimension of different aspects of the teaching process; this is the reason we also need a framework to compare the differences between instructional work done by our respondents, as this may influence the emotions as well. There are a few models which may be used by school librarians to support their teaching efforts, that is, the Big6, REACTs, Pathway to Knowledge, FLIP IT, and I-Search [24, 25, pp. 33–76, 91–126]. We have decided

that the Big6 model will be the most useful for our purposes. The Big6, developed by Eisenberg and Berkowitz [26] defines information problem-solving regarding a research process and is a teaching approach widely used all over the world, from kindergarten through higher education [27–29]. The unique character of this model results from its construction: it comprises a unified set of information skills, which taken together, form a process useful whenever people are faced with an information problem or with making a decision that is based on the information. The Big6 involves the following six stages [30], which are outlined in Table 1, Sect. 4.2.

Table 1. Percent sometimes (3) and often (4) evaluation criteria were chosen in Lithuania and Poland sample and differences between countries

Information literacy skills	Percent of 3 and 4		Difference between countries (p)
	LT	PL	
1. Define the information problem	81%	83%	0.198
2. Identify their information needed (to solve the information problem)	71%	92%	0.000**
3. Determine all possible sources relevant to problem	69%	90%	0.000**
4. Select the best sources	85%	96%	0.001**
5. Locate sources	90%	97%	0.000**
6. Find information within sources	87%	96%	0.003**
7. Engage (e.g., read, hear, view, acquaint themselves with information)	65%	86%	0.000**
8. Extract relevant information	81%	91%	0.013
9. Organize from multiple sources	52%	79%	0.000**
10. Present the information	54%	64%	0.001**
11. Judge all above-mentioned actions' effectiveness (does it solve a problem)	53%	62%	0.002**
12. Judge all above-mentioned actions efficiency (whether it was possibly better)	47%	57%	0.002**
Average overall	70	83	
Average by Big6 steps:			
1. Task definition (1 st and 2 nd skills)	76%	88%	
2. Information seeking strategies (3 rd and 4 th)	77%	93%	
3. Location and access (5 th and 6 th)	89%	97%	
4. Use of information (7 th and 8 th)	73%	89%	
5. Synthesis (9 th and 10 th)	53%	72%	
6. Evaluation (11 and 12)	50%	60%	

**p < 0.005

The study by Wolf et al. metacognition research on task performance by eighth-grade students, proves the usefulness of the Big6 as a framework for scientific research [27]. In our study, it offers a clear framework to find out about the content of the teaching programs performed by librarians in different schools.

3 Method

3.1 Data Collection and Participants

The study was conducted in the form of a survey using Computer-assisted web Interviewing (CAWI), with data being gathered via an online survey tool 1KA.SI, open source software that allows a use of the semantic differential technique, a type of a rating scale designed to measure the connotative meaning of attitudes towards teaching.

Data collection started on 6th of March 2017 and came to an end on 31st of March 2017. Respondents to the survey were librarians from secondary schools in Lithuania and Poland. Respondents for the research were selected from the top 250 best secondary schools in Lithuania and Poland accordingly (we used official school ranking lists in Lithuania and Poland). Invitations to take part in the survey were sent to 500 schools. By the end of the survey period, data was gathered from 230 librarians (143 from Lithuania (LT) and 87 from Poland (PL)) – response rate was 46%. Data was collected following confidentiality procedures.

Teaching experience of the participants: less than 5 years (LT – 19%; PL – 8%); between 5 and 10 years (LT – 33%; PL – 12%); between 11 and 15 years (LT – 19%; PL – 17%); between 16 and 20 years (LT – 14%; PL – 8%); more than 20 years (LT – 15%; PL – 55%).

Type of lectures librarians implement in Lithuania and Poland: Several hours long mandatory Information Literacy courses integrated into curricula (LT – 4.4%; PL – 20.7%); Several hours long optional Information Literacy courses are not included in curricula and students can choose the course freely (LT – 16.2%; PL – 8.6%); Individual consultations to individual students or to group when is a need to solve particular information seeking issues (LT – 47.1%; PL – 32.8%).

3.2 Measures

The questionnaire has four parts. In the first part there are two questions: what type of information literacy lectures do they implement and for how long have they implemented information literacy teaching activities.

In the second part there are 12 items on which information literacy skills they develop during teaching activities at a school library in the first part. Each item was evaluated through the four-point Likert scale: 1 – never; 2 – seldom; 3 – sometimes; 4 – often. The design of this part was based on the Big6 six-stage model.

In the third part there are five pairs of adjectives dedicated to evaluating motivation for teaching. Teaching librarians' emotions were evaluated through a seven-point Likert rating scale. Semantic differential scores were transformed to fit in a scale ranging from -3 to +3 and a middle or neutral point of a zero (0). The design of this part was built on research conducted by counterparts in Spain who analysed affective dimensions of university professors about their teaching by exploring it through the semantic differential technique [22].

In the fourth part respondents were asked to respond regarding work meaningfulness [31]. Each item was evaluated through the seven-point Likert scale: 1 – Strongly disagree, 2 – Disagree, 3 – Slightly disagree, 4 – Neutral, 5 – Slightly agree, 6 – Agree, 7 – Strongly agree.

This research seeks to address the following questions: 1. What are school librarians' attitudes towards teaching information literacy? 2. How have the attitudes been affected by country, experience, and type of lectures? 3. How does work meaningfulness evaluation correlate with teaching emotions and developing IL skills?

3.3 Analytical Approach

We compared the average scores—averages and standard deviation (STD.)—of IL skills development and adjectives to find the most positively valued pairs of adjectives and the most often developed skills. We explored the Pearson correlation between the school librarians' activities on developing IL skills and motivation for teaching. We analysed the differences in the means of each of the Big6 model stages, motivation for teaching and job meaningfulness scale by applying independent samples T-test. We used multiple regression analysis to link motivation for teaching with job meaningfulness. Internal reliability was evaluated by Cronbach's alpha and criterion validity.

4 Findings

The high reliability of the questionnaire (Cronbach's alpha 0.849) and excellent reliability for the second, third and fourth parts of the questionnaire (Cronbach's alpha ranging from 0.914 to 0.933) let us analyse findings of this study with confidence.

4.1 General Results

First, let us look at the general evaluation of how often librarians develop IL skills during teaching activities at a school library.

The difference between the highest and the lowest mean was 0.98 (LT) (Std. 0.82) and 1.06 (PL) (Std. 0.74). Highest results are seen in locating and accessing information (5th and 6th skill), information seeking strategies (3rd and 4th skill) and task definition (1st and 2nd skill). Almost all, except the first and eighth items, were statistically significantly different ($p < 0.005$). Lithuania showed a lower mean in almost all items in comparison with Poland.

The single most noticeable observation to emerge from the data comparison was that school librarians from Lithuania in contrast to their counterparts from Poland are less likely to develop skills required to work with information sources. Also, it should be noted, that the standard deviation between the results in all items is quite high (around 0.8).

School librarians in both countries have a very positive motivation for teaching (average):

- Feelings regarding your attitude towards teaching (Positive - negative) (LT – 5.22; PL – 6.09);
- Significance of teaching to you personally (Irrelevant - relevant) (LT – 5.4; PL – 6.18);
- Your attitude to your future improvement as a teacher (Pessimistic - optimistic) (LT – 5.32; PL – 6.12);
- While teaching you feel (Tense - calm) (LT – 4.6; PL – 5.71);
- Feelings that you have about teaching (Intrusive - pleasant) (LT – 4.94; PL – 5.69).

The highest difference between Poland and Lithuania is in assessing feeling while teaching (mean difference 1.11). Lithuanian school librarians seemed to be more tense while teaching than colleagues from Poland and evaluated it lowest (mean 4.6) of all five items. All the elements are statistically significantly different ($p < 0.005$).

No insights can be made from the correlation analysis (no strong correlation) of information skills and motivation for teaching.

We made a multiple regression analysis to link teaching of IL skills with job meaningfulness. Our analysis showed no statistically significant relation.

School librarians think that their work is important and they have a meaningful job (average):

- The work that I do is important (LT – 6; PL – 6.2);
- I have a meaningful job (LT – 6; PL – 6.1);
- The work that I do makes the world a better place (LT – 5.7; PL – 5.8);
- What I do at work makes a difference in the world (LT – 5.3; PL – 5.5);
- The work that I do is meaningful (LT – 5.9; PL – 5.8).

By contrast school librarians reflected a bit less positively on their personal contribution in embracing or making the world a better place, and they are less likely to be confident in their ability to make a difference in the world.

4.2 Analysis of Information Literacy Skills Development

For a better understanding of the results, a deeper look into every item is needed. To see the differences between Lithuania and Poland and compare them all, we converted the results to a percentage equivalent. We decided to measure what percent of the highest evaluation criteria (sometimes and often) were chosen. We think it helped us to clarify which of the information skills are developed most often.

School librarians from Poland showed a deeper involvement in teaching IL skills on an average of 13%. The signalling items are 3, 4, 8, and 9, which differ more than 20% each. All of them are related to the requirement of higher order skills with which to deal.

No items in the case of Lithuania reached more than 90% while in the case of Poland we even have six highly evaluated cases such as number 2, 3, 4, 5, 6, and 8. It shows that school librarians in Poland give much attention to information seeking strategies, information location and access, and use of information.

Synthesis and Evaluation steps were evaluated least – on average 62% and 55%. It shows that far too little attention is being paid to the results of the whole process – organisation of information sources, presentation of the information, judgement of whether a problem was solved and whether it was possible to do better. Two discrete reasons emerged from this. One is that type of IL lectures implemented has a direct impact on how often Synthesis and Evaluation steps were evaluated more positively. Those who implement several hours long mandatory IL courses integrated into the curricula more often develop skills outlined in the Synthesis and Evaluation steps. Second, those, who work in the field for a longer time (between 16 and 20 years), evaluated their involvement in the development of skills outlined in the Synthesis and Evaluation steps more often.

However, in other items, there was no such consistency that those who have longer experience in the field more often than others develop IL skills numbered from 1 to 8. We found out that more experienced librarians develop a much wider range of information literacy skills in the case of Lithuania, in contrast to the case of Poland – we cannot find a clear difference in the elaboration of IL skills analysis by librarians' experience in the field.

5 Discussion

The results of the study showed school librarians' eagerness to implement stages of IL on a different level. School librarians are more prone to develop IL skills which are related to process (second and third stages), and less likely to develop skills related to using the results (content) reached after implementing the process (fourth and fifth stage). These results provide further support for the hypothesis that school librarians concentrate on finding information, but are less actively involved in developing skills in the use of the information found. Also, this leads us to an insight that school librarians are more prone to speak about information sources and specific tools to find it rather than organising their teaching activities as a platform for building up learning experiences.

Poland and Lithuania results differ in statistical significance, and we can see a tendency that Polish results are higher than Lithuanian ones. Many factors may cause these differences. We paid attention to the two possible explanations: (1) school librarians in Poland are more mature and experienced than the ones in Lithuania; (2) Polish participants more often teach several hours' long mandatory IL course integrated into the curricula. The official status of educational duties may cause more positive emotions arising from the perception of the importance of the job and the ability to develop a wider range of IL skills.

The current research was not specifically designed to evaluate factors related to the impact of outside factors. This research will serve as a base for future studies on what scope of IL is implemented at schools and what is the school librarian's motivation for teaching. A further study with more focus on school librarians' knowledge of IL and teaching methods are therefore suggested.

6 Conclusions

The empirical findings in this study provide an understanding about the way IL is developed at schools. This study showed that librarians from both countries taught students to locate sources, to select the best sources, and to find information within sources mostly, but gave little attention to the evaluation of information seeking and the efficiency of actions implemented during the process. Implementation of the fifth and sixth stages of the Big6 depended on the type of IL courses and experience in the field. Those more experienced and those who implement mandatory courses are the school librarians who develop higher order IL stages. Standard deviation between the results in all items is quite high (around 0.8) and proved that school librarians in their engagement in IL activities are not a homogenous group.

According to theoretical background – school librarians do not feel confident about teaching. This study has shown that librarians are not confident in their role of being teachers, but are proud of being named as teachers. Although the results of this research does support the idea that emotions experienced by teaching librarians depend on their teaching experience or type of lectures they are instructing. The results show that teaching activities have great importance for librarians and their attitude is quite positive about them.

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