

Online Communities of Support for School Teachers in VK

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Abstract

This paper explores main topics discussed in online communities of Russian-speaking school teachers in the Social Network Site Vkontakte. The method applied for the identification and further interpretation of topics is Structural Topic Modelling (STM) in R. Text posts from seven large open groups for teachers were analyzed during this study. The paper shows 24 distinguished topics that appear in teachers' groups in VK and their connection with types of social support observed in teachers' online communities; most frequent terms, the proportion of topic presence, and examples of posts are also provided. Besides, the research explores correlation between found topics and their co-occurrence in one post. Finally, the paper presents discussion of received results and compares it with studies conducted on other online platforms in different countries.

Keywords

Online communities, school teachers, SNS, Structural Topic Modelling, Vkontakte

1. Introduction

Social Network Sites such as Vkontakte provide school teachers an opportunity to form online communities, where they can communicate with their colleagues independently from time and location.

Many studies of online communities in Social Network Sites explored the patterns of communication between members, including information exchange and forms of provided support. Studies of communities in Facebook and Twitter for people with such diseases as diabetes and cancer showed that mainly members discuss their experience related to practices, share scientific information, and ask for moral support [1, 2].

The field of studies of teachers' online communities also contains works about ways of knowledge-sharing [3], reasons of teachers' online interactions [4], their motivation to participate in online communities for professionals, and forms of support which they can receive in these communities [5, 6]. Recent studies are also draw its attention to situations, when large teachers' groups in SNSs become commercialized, while unpaid most active members do not receive any payments from it [7].

Despite the fact that there are studies of forms of online support in teachers' communities, specific topics which teachers discuss in their online communities are not the main focus of researchers' attention.

The main aim of this research is to distinguish the main topics of posts in large online communities for school teachers in Vkontakte and explore which topics receive a higher response from participants of communities.

Therefore, the research question is the following: what are the principal topics discussed in posts in online communities of support for school teachers in VK?

2. Literature review

Content and participants' interactions in online communities for teachers are studied by researchers from several aspects. One of the ways of studies concentrates on the fact that online communities are

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one of the methods of informal learning for teachers. The other direction of studies uses the framework of social support and suggests that besides exchanging of information teachers support each other emotionally and by providing feedback.

Besides online communities for teachers also can be perceived as a way to avoid professional isolation [8]. Teachers from remoted areas often have lack face-to-face interactions with professionals in their sphere [4, 9]. That is why online communities due to its access in any time and place can solve this problem [10].

2.1. Teachers' professional development in online communities

Professional development of teachers can happen not only during formal events such as professional courses but also online with the help of professional online communities [4]. One of the earlier studies of school teachers' professional development suggested that the interactions in the online community for professionals makes learning more effective [11]. Authors identified that teachers cooperated with each other by sharing links to educational sources and study materials, teachers discussed their experience of including of new computer technologies into their teaching practices, and collectively came up with alternative methods for teaching. The idea of the importance of public exchange of teaching experience was supported by Lieberman and Mace [9], who suggested that teachers' knowledge exchanging in online communities helps not only in adaptation of new ideas into their work but also in structuring already known information. Furthermore, in later studies was elaborated that the ideas, which teachers learn from their online communities and later adapt into their classroom practices, also allow improving the performance of their students [12]. Besides, the study provided that teachers were actively involved in discussion mostly under the topics which were more relevant to them at the time when they were addressed to the community.

In later studies, researchers started to elaborate on the idea that interactions in online communities for teachers are one of the key elements for teachers' learning. The case study of the teachers' collaborative space eTwinning revealed that the collaboration of participants influences their feeling of mutual trust, which increases the effectivity of providing reflections about gained knowledge and the overall dynamic of discussion [13]. The importance of interaction was also highlighted in the study of PROEDI, the social network created specifically for teachers [14]. It was pointed out that the constant communication among participants allows other members faster find information about newly-appeared teaching practices and technologies.

Several studies of teachers' professional development argued that teachers need not only easy access to necessary information but also emotional support from peers [15, 16]. From the perspective of peer coaching, the main factors affecting teachers' learning are reflections and emotional encouragement [16].

2.2. Social support in online communities for teachers

The study of the teachers' community in the Social Network Site Twitter stated that teachers use the space both for gain knowledge and encouraging from other community members [17]. The study of teachers' usage of Facebook for professional purposes also supported this idea and suggests that teachers seek in online communities emotional support and opportunity to communicate with colleagues [18]. The research of Kelly and Antonio [5] conducted in open groups for teachers in Facebook showed that in communities teachers provide support online in several forms. The main form of support observed by researchers in those groups for school teachers was connected with discussion of practices. Next, the recent study of Facebook groups for teachers in Taiwan showed that teachers, who participate in online groups for schools' professionals, are more confident in results of their teaching performance due to the exchange of support with peers [19].

3. Material and Methods

The data for the analysis consisted of posts collected from 7 groups of mutual support for teachers in Vkontakte. All groups were open and met the following criteria: activity since 2017 or earlier, more than 1000 followers, no specification to school subject, opportunity for all members to offer posts and comment them.

As a result, groups "Подслушано у учителей", "Злой Учитель", "Подслушано| Учительский портал", "Я - классный руководитель", "Фоксфорд.Учителю", "Geek Teachers|Учителя гики", "Профсоюз 'Учитель'" were included in the sample. The data was parsed from Vkontakte with the help of API and R-package ("vkR"). Overall, 68 150 posts within the period from 2017 to 2019 were collected, posts marked as ads were removed.

Data analysis was conducted using the method of Structural Topic Modelling and R-package "stm". The number of topics was identified with the function searchK. Before processing the model, the text corpus was tokenized and prepared for future analysis with the package "quanteda". All letters were converted to lower case, punctuation, special symbols, numbers, typical Russian stop words and 132 custom stop words were removed.

Interpretation of topics was made using two indicators: High Probability and FREX ("Frequency and Exclusivity"). The parameter High Probability shows the most frequent words, which are more likely to appear in posts with this topic, while FREX indicates frequent unique words for the topic. The full list of topics' keywords with examples of posts is provided in Table 1. Besides, after topics' identification the network of correlations among topics was built.

Table 1
List of identified topics with their interpretation

Topic	High Probability	FREX	Interpretation	% Proportion	Example of post
23	классов, учитель, начальных, работать, английског о, образован ие	умк, переподготовк у, заканчиваю, дипломе, бакалавриат	Young professio nals	11,54	"Анонимно. Я мс. Скажите, много ли времени уходит на написание рабочих программ и планов ??Выхожу на работу с 10.08, и боюсь что не успею все сдать (минимум 6 классов) Какими источниками пользуетесь. Английский язык (Spotlight и Enjoy English)может ли кто то поделиться ?заранее спасибо" Podslushano - uchitelskiy portal, 07-08-2018
19	год, отпуск, директор, работать, руководст во, заявление, дней	декрета, отпускные, бухгалтерии, больничный	Vacations including maternal and seek leaves	10,88	"Доброе утро! У меня такой вопрос. Я сообщила директору о выходе с сентября на работу, но недавно узнала, что я снова беременна. Теперь боюсь сообщить об этом, боюсь осуждения. Как мне лучше это сделать?" Podslushano u uchiteley, 29-06-2019
8	поделитес ь, заранее, дорогие, класс,	идеями, паблики, сценарием, методичка,	Asks for sharing ideas, materials,	10,2	"Здравствуйте! Поделитесь, пожалуйста, может у кого-нибудь есть примерные задания олимпиадные по математике за 1

Topic	High Probability	FREX	Interpretation	% Proportion	Example of post
	опытом, помогите, провести	подкиньте, посвящение, поделитесь	experience		класс ? Заранее спасибо” Podslushano - uchitelskiy portal, 08-04-2019
4	скажите, право, директор, администрация, должен, имеет	обстоят, отказаться, прописано, организатором, заставляют, субботу, ссылаться	Conflicts with school administration, teachers’ rights and duties	7,58	“Могут ли заставить учителя делать ремонт, если он увольняется? Как правильно по закону.(анонимно)” Ya - klassniy rukovoditel, 11-06-2018
18	класс, дети, делать, родители, год, первый, урок	пмпк, столкнулась, дисциплину, дз, уроках, проблема	Students’ discipline issues	7,5	“Анонимно. Дети подрались в пятом классе. Прибежала, завела в кабинет - писать объяснительные. Родители возмущаются, что не имела права брать объяснительные с детей, да еще и без присутствия родителей. Скажите, как у вас в школе с подобными моментами?” Zloy uchitel, 22-03-2018
6	егэ, огэ, языку, оценки, задания, русскому, математике	впр, критерии, балла, фипи, оцениваете, огэ, четвертные	State exams	5,75	“Здравствуйте, коллеги. Вопрос об ОГЭ по русскому языку. Есть ли пособия, в которых тесты бы были разбиты по темам? Например, фонетика, орфография... или что-то подобное хотя бы.” Podslushano u uchiteley, 29-09-2017
22	мама, девочка, мальчик, ребенок, ситуации, говорит, родителей	диктофон, обижают, родительница, обзывает, звонит, мамочка, девочка	Problems with students and their parents	5,32	“Здравствуйте. Хотела спросить коллег. Какие записи вы делаете в дневнике младшего школьника? Я такие: " опаздал на урок", "не пришел в школу", "не выучил стих и т.д.", "не готов к уроку". Мама ученика грозит подать в прокуратуру, за то что я "разрисовываю" дневник его ребенка. Это она написала мне в дневнике такое послание.” Ya - klassniy rukovoditel, 02-10-2019
11	курс, сайте, участие, обучения, школьником,	регистрация, вебинаре, вебинара, fest, технологиям	Online courses	4,68	“Как проектировать интересные уроки? Как составить программу урока, чтобы можно было спланировать образовательные результаты и при этом соответствовать ФГОС? Ответим

Topic	High Probability	FREX	Interpretation	% Proportion	Example of post
	сертификация, образование				на эти вопросы на бесплатном открытом занятии «Основы педагогического дизайна: изучаем современные инструменты создания интересных и эффективных уроков». Foxvord - uchitelu, 26-06-2019
2	сентября, праздник, подарки, класс, выпускной, марта	поздравление, #я_классный_руководитель_день_учителя, медали-открытки, подарками, поздравляете, открытки-медали	Celebrations	4,44	"Уважаемые коллеги!!! Подскажите, весёлую песню для первоклассников, на последний звонок!!!" Podslushano - uchitelskiy portal, 10-05-2019
3	работать, люблю, сил, дома, год, нравится	радуясь, люблю, успеваю, чувствую, репетиторство, устала, нервов	Feelings towards work	3,65	"Просто хочу поделиться...Я учитель. ПОМОГИТЕ! Сил уже нет на работу! Постоянное раздражение, срыв. Такое ощущение, что уже ни на что нет сил. Может кто сталкивался с этим на работе? Может я выгорела?" Ya - klassniy rukovoditel, 03-10-2019
7	кабинет, тетради, фото, ремонт, купить, школа	A4, распечатывать, покупаете, оформляете, шкафы, раздать, стенгазета-раскраска	Renovation and decoration of school classrooms	3,56	"Классные руководители, висят ли в ваших классных комнатах общие фотографии с классом? Возникла идея распечатать несколько лучших фото, вставить в рамки и повесить. Вот только думаю, какого формата... Скорее всего, не менее А4." Ya - klassniy rukovoditel, 28-07-2019
24	времени, хотелось, интересно, почему, стоит, мнение	мнение, группе, хотелось, считаете, относитесь, услышать, коллег	Asks for colleagues' opinions	2,86	"Здравствуй! Коллеги, как вы считаете из-за чего может быть непонимание задач в нескольких действиях?" Podslushano - uchitelskiy portal, 22-10-2018
21	образование, учитель, педагог, школ,	луховицкий, сопредседатель, профсоюзов, лжем,	Teachers' professional union	2,74	"Пикет профсоюза "Учитель" около здания Минпросвещения в Москве против "черной метки", введенной Департаментом

Topic	High Probability	FREX	Interpretation	% Proportion	Example of post
10	профсоюза, области, россии должен, учащихся, правила, поведения, собрание, родительско	департамента, профсоюза организовывае т, анкета, собрания, родительское, поведения	Parent-teacher meeting	2,65	образования Москвы.” Profsouz uchitel, 14-12-2018 “Коллеги, подскажите, пожалуйста, наиболее актуальную на сегодняшний день тему родительского собрания. Спасибо!” Ya - klassniy rukovoditel, 16- 04-2018
17	учитель, работать, почему, родители, статья	выгляжу, обещаю, профессия, грязью, шишки, придирки, наставник	Reflections about the teaching profession	2,64	“Когда я шла работать в школу я ожидала: - интересные уроки - составление планов уроков - работа со слабо-успевающими и одаренными детьми - заполнение журнала. В итоге я хожу на концерты/мероприятия, на которые сгоняет нас администрация, хожу по дворам и переписываю детей, доказываю родителям, что их дети не настолько одаренные, как они убеждены, а скорее сядут в тюрьму в ближайшие годы за разбой, уговариваю родителей прийти на выборы, заполняю кучу никому ненужной макулатуры. Да, и в перерывах между этим всем уроки провожу. Ага.” Podslushano u uchiteley, 10- 03-2018
20	слова, читать, дети, буквы, слово, писать	слоги, печатными, почерка, почерк, буквы	Teaching children to read and write	2,3	“Здравствуйте, коллеги. Когда в 1 классе начинать писать диктанты? Пишем под диктовку буквы и слоги. Про диктанты - тексты в программе ни слова в 1 классе.” Podslushano u uchiteley, 18- 12-2019
16	мая, потерять, шаблоны, автор, безопасности, уголок	шаблоны, ростовская, поздравлялок, парад, полк	Preparations to May 9	1,92	“9 мая — праздник, который навсегда останется в нашей памяти. Мы помним подвиг наших солдат и благодарим за мирное небо над головой. Коллеги, как вы рассказываете ученикам о Дне Победы?” Foxvord – uchitelu, 09-05- 2018
15	деньги, участие,	комплектов, собираете,	Participation in	1,84	“Анонимно, пожалуйста. Уволилась учитель, которая

Topic	High Probability	FREX	Interpretation	% Proportion	Example of post
	участвовать, конкурсах, дети, родители, принимать	участвовать, конкурсах, стендов, олимпиадах	competitions		должна была участвовать в " Учителе года", и теперь участвую я. За 2 недели до конкурса я об этом узнала(((Ничего в голову не идёт, нужен мастер-класс. Я знаю вы все можете, подскажите идею. Буду очень благодарна" Ya - klassniy rukovoditel, 02- 11-2019
13	новости, учитель, дети, области, района, против, родители	протеста, издательско-полиграфического, следователи, следственного, техникума, пенсионного	News and accidents	1,83	"КАЗАНЬ, 13 мая — РИА Новости. В Казани задержали десятиклассника, который пришел в школу с пневматическим пистолетом и ножом, сообщили в республиканском МВД." Podslushano u uchiteley, 13- 05-2019
9	дети, столовой, обычно, дома, жена, еду	захожу, по-советски, питаются, жена, завтрак, врач, шк	Nutrition	1,73	"Всем добрый день! У вас вкусно кормят в школьной столовой? Если нет, то вы можете на это как-то повлиять? И что продают в буфете? Иногда ребята вместо обедов покупают шоколадки(((." Podslushano - uchitelskiy portal, 20-11-2018
12	рф, труда, образования, образования, заработной, платой, российской, платы	исследовательских, лестница, научно-практических, инновация, пртникдм, научно-образовательной, заработной	Discussion of teachers' wages and laws related to it		"Существует ли где-либо нормативная база по оплате труда педагогов с обучающимися ОВЗ? К моей коллеге в класс пришел ученик, который будет обучаться по адаптированной программе 7.1. Когда она пошла спросить о том, положены ли ей какие-либр доплаты, то получила отказ. Оказывается, что документа, где прописаны обязательные доплаты педагогическим работникам при работе с детьми ОВЗ на Федеральном уровне нет. Только рекомендации. Вопрос: существуют ли такие документы в природе? Анон." Podslushano - uchitelskiy portal, 25-12-2019

Topic	High Probability	FREX	Interpretation	% Proportion	Example of post
5	расписани е, смену, вторую, урок, личной, инициатив е, расписани и	мэш, гласные, power, расписание, смену, личной	Teachers' work schedule	1,2	“Работаю во вторую смену. Хочу взять репетиторство на утро, но боюсь, что могут быть проблемы, если попросят заменить урок в первую смену. Что делать? Можно ли отказаться от замены по этой причине?” Podslushano u uchiteley, 27-03-2019
1	жить, год, дети, души, началось, глаза, слезы	айфон, фен, баловство, миксер, подчинятся, заборы	Expressio n of emotions	1,02	“Как же надоели эти проверки! Да просто достали! То убери, сё убери. Как будто никто из этих проверяющих чай в кабинете не пьёт. Да ещё и важные такие ходят, детей прерывают при пересказе. Прямо брррррр. Крик души, извиняюсь. Анонимно.” Podslushano u uchiteley, 01- 03- 2017
14	читать, ребенок, мест, количество, родители, домашнег о	онлайн- интенсив, полюбили, сертифицирова нный, поднимите, скорочтению	Home reading	0,5	“Пару недель назад мы писали, как повысить у ученика скорость чтения. Этот пост можно найти тут: https://foxford.ru/l/b7M По просьбам подписчиков подготовили сегодня пост, как повысить понимание текста.” Foxvord – uchitelu, 05-02- 2019

4. Results

The received model contains 24 distinguished topics among posts in groups from the sample. According to provided keywords (see Table 1), the most frequent topic includes a discussion of young specialists, their professional training, and specifically a discussion of “training and methodology complex” which are official recommendations for teaching practices. The second frequent topic is connected to the discussion of vacations, including maternity and sick leaves. The next frequent topic includes requests to share ideas and scenarios for school events, manuals, and personal experience.

Besides, among the top-10 frequent topics also are discussions of conflict situations with students and their parents, problems with school administration, state exams, and school events such as September 1st and high school graduations. The topic related to problems with school administration covers a wide range of issues such as writing explanatory notes, conflicts about the distribution of extracurricular workload on teachers, teachers' rights, and obligations.

Less frequently in online groups for teachers appears such topic as children's home reading. Among the least frequent topics, there are also discussions of emotions, teachers' working schedule, news and accidents.

The correlation between topics means that these topics are more likely to be discussed in one published post.

According to the topics' correlation network (see Fig.1) topics that cover discussion about conflicts with students, their discipline issues, problematic situations with parents, asks for colleagues' opinions and teachers' feelings towards their work are closely interconnected.

Besides, there are additionally two groups consisting of three connected topics. The first “triangle” consists of topics 21, 13, and 12, which include posts about the activity of teachers’ professional union, wages, and news related to the educational field. The second “triangle” is formed by topics 2, 8, and 16 connected with discussions of state exams, school events and teachers’ ask for ideas and materials.

Several topics do not have a connection with other topics. These topics discuss specific themes, such as home reading, participation in teachers’ competitions, online courses for teachers, parent-teacher meetings, renovation and decoration of school classrooms, teachers’ work schedules.

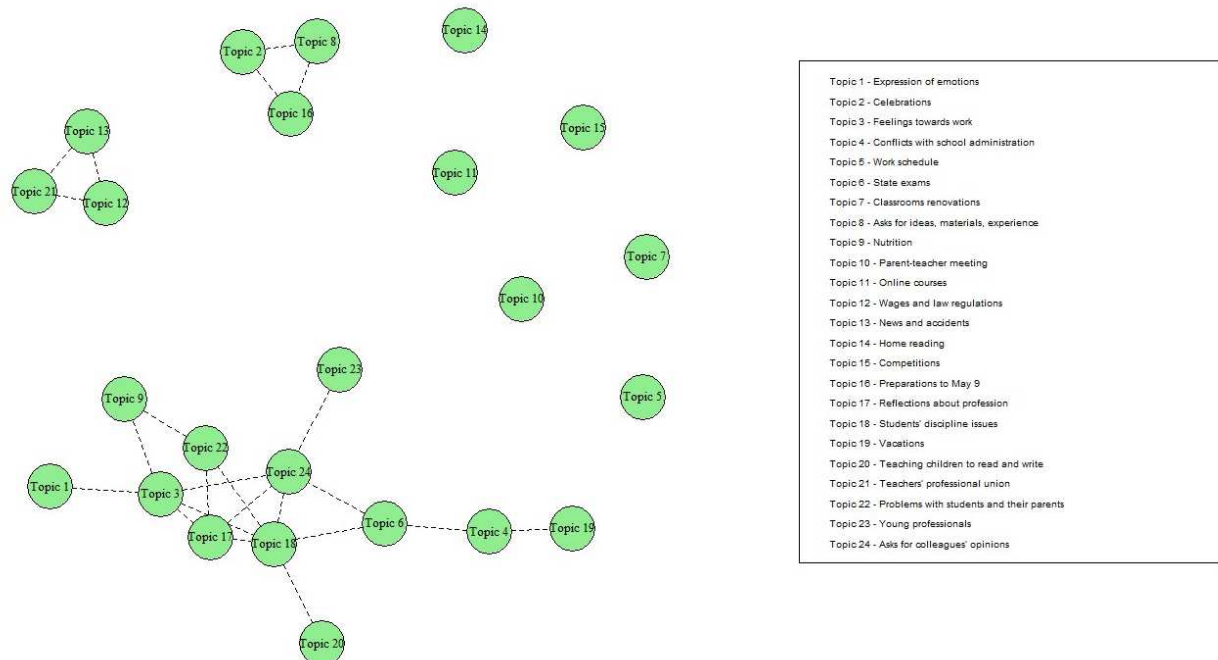


Figure 1: Correlation of identified topics in groups for school teachers in VK

5. Discussion and Conclusions

From the list of identified topics can be suggested that Russian-speaking teachers are seeking social support in professional online communities. They are not only sharing and exchange information but also express their feeling, ask for the opinions of colleagues. Also, several distinguished topics are related to teachers’ relationships with their surroundings, including students and their parents, colleagues, and family. Several distinguished topics are connected with conflicts and their solutions. According to the correlation network topics of feelings’ expression are interconnected with topics that discuss situations outside the methods of teaching. Teachers exchange their experiences about being involved in problematic situations at schools. These situations can be related to the behavior of their students, miscommunications with their parents, relations with school administration. In such posts, teachers ask for help and reflections of their colleagues, and also seek emotional support from professionals with similar experiences. It supports the idea that teachers’ interactions in communities in Social Network Sites involve not only the exchange of professional knowledge but also include emotional aspects of peer support [18].

Besides, one of the most frequent is related to young specialists. Teachers, who only begin their school careers undoubtedly need assistance from more experienced colleagues to overcome challenges [20]. In received results, the topic related to beginning professionals is connected with questions about colleges’ opinions. It can be assumed that by communicating in online communities young teachers gain the necessary support for their professional development.

To conclude, online communities in V Kontakte allow teachers to interact with peers, share their ideas and professional experience, learn practices related not only to teaching but also to conflict solving. Teachers are able to get emotional support and anonymously express their feeling towards situations at their workplace, which they lack in face-to-face communications with colleagues.

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