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Published in:
Information Research

DOI:
[10.47989/colis2229](https://doi.org/10.47989/colis2229)

Published: 01/01/2022

Document Version
Accepted author manuscript

Document License
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[Link to publication](#)

Please cite the original version:
Ruokolainen, H. (2022). A methodological approach to misinformation: An analysis of the data creation process in two interview studies. *Information Research*, 27(4), Article colis2229. <https://doi.org/10.47989/colis2229>

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A methodological approach to misinformation: An analysis of the data creation process in two interview studies

Hilda Ruokolainen

Abstract

Introduction. *This study discusses misinformation from the qualitative methodological point of view. Methodological library and information science (LIS) discussions have not addressed the question of information sufficiently, which also is shown in misinformation research that needs more qualitative contributions in order to understand the phenomenon more broadly. Two data creation processes are used as an example of how to ask about misinformation as a nuanced phenomenon in semi-structured interviews.*

Method and analysis. *The data creation process of two interview studies was analysed. Semi-structured interviews were conducted with two participant groups: volunteers working with asylum seekers and youth service workers working with youth. The analysis focused on the direct misinformation questions and indirect discussion on misinformation in the interviews.*

Results. *Both direct questions and indirect discussions resulted in discussing misinformation and its surrounding aspects. There were individual and group-specific differences in what worked best: volunteers tended to favour more indirect discussion whereas direct questions functioned slightly better with the youth service workers. Misinformation can be reached through the combination of free discussion and gentle probing.*

Conclusions. *Qualitative interviewing creates new knowledge on misinformation and helps to understand it broadly and in nuance. The connection between the theoretical premises and methodological choices of empirical research should be made more visible, and the question of how to study information should be discussed more in LIS.*

Topic areas: *Theories of LIS, Qualitative research methods, Methods and methodologies*

Keywords: *Misinformation, Qualitative research, Semi-structured interviews*

Introduction

This paper analyses the interview questions and discussion from two studies to understand how misinformation can be found through semi-structured interviewing. A starting point for this kind of analysis is the lack of methodological discussions in the field of library and information science (LIS) on *how to study information*. Information and its surrounding aspects are studied with increasingly versatile methods, but seldom is it further described how information is detected in these studies. Qualitative research especially still lacks methodological meta-level discussions (Cibangu, 2013; Suarez, 2010). Misinformation as a topic is gaining more and more interest, which is in itself not surprising. People are increasingly concerned about its effect in the modern information environment. Nevertheless, we argue in this paper that the research on misinformation is somewhat one-sided and lacking more precise theoretical and methodological definitions. There are also few qualitative contributions.

Methodological publications describing individual studies often present a single method in a specific context, i.e. the way the data is collected or created. Our method is not a new or innovative one: rather, interviewing is one of the most common techniques in qualitative LIS research (Togia & Malliari, 2017). Central to this analysis is not the method per se but our approach is slightly different: our focus is not on the research method but rather we discuss *how* to study one phenomenon, misinformation, by combining the theoretical premises and the method, which we call a methodological approach. The purpose of this paper is to function as an example, though not an exhaustive one, of how to build a qualitative study on misinformation. The aim is to broaden the research field of misinformation so that it would be

studied versatily, and also as a part of people's natural information environment and activities.

The paper firstly discusses studying *information* in qualitative LIS research, and, secondly, the qualitative methods used in research on *misinformation*. These preliminary states of research show that there are scant meta-level discussions on information and misinformation from the methodological point of view, and the methodological choices are not always sufficiently discussed or justified. Qualitative research on misinformation is still emerging. Thirdly, we briefly present our social-constructionist view on misinformation, which is needed to understand the methodological approach, i.e. the conversational approach, through semi-structured interviews. Two groups working with people in need of support with information were interviewed: volunteers working with asylum seekers and youth service workers working with youth. Analysis of the interviews shows that both direct questions about and indirect discussion on misinformation are needed to understand this broad phenomenon. Asking about misinformation requires *gentle probing*, as the topic itself is difficult and even sensitive. At the same time, understanding misinformation in its natural milieu requires openness and giving space to the views of the participants.

Information in qualitative LIS research

Quantitative methods have long dominated the LIS research, but qualitative methods have started gaining a firmer foothold in the field (Togia & Malliari, 2017, pp. 48–49). However, in some areas, such as information behaviour research, qualitative and quantitative methods are more evenly distributed, and qualitative methods even dominate (Greifeneder, 2014; Vakkari, 2008). Qualitative methods are mostly borrowed from other fields, mainly from other social sciences, which is in itself natural, as *'[t]he concept of information is so deeply part of the social and cultural experience of being human that the study of information cannot be easily detached from the very phenomena it seeks to investigate'* (Sutton, 2018, p. 3807). Julien et al. (2013, p. 257) point out that *'few scholars publish meta-level discussions of their methodological approaches, which could guide new research practices within the field'*. LIS has suffered from using methods without critically considering what is actually studied, that is the epistemology of information (Cibangu, 2013; Day, 2010; Suarez, 2010). An answer to this problem would be conceptual critique, which also extends to methods and research practices (Day, 2011).

In empirical studies, methods are normally described briefly and on an average level. Meta-level discussions of methods, again, are often mainly lists of methods borrowed from psychology and social sciences, without discussing their use in LIS. Sutton (2018) divides qualitative methods into the following: historical approach, ethnographic methods, case study, grounded theory, and ethnomethodology. Togia and Malliari (2017, p. 48) count *'case study, biographical method, historical method, grounded theory, ethnography, phenomenology, symbolic interactionism/semiotics, sociolinguistics/discourse analysis/ethnographic semantics/ethnography of communication, and hermeneutics/interpretive interactionism'* as qualitative methods. Jamali (2018) uses three approaches—grounded theory, ethnography and phenomenology—in his analysis of the impact of qualitative methods. For Cibangu (2013, p. 203), the chief qualitative methods are *'ethnography, historical criticism, literary criticism, discourse analysis, case study, open-ended interview, casuistry, meditation practice, logic, counseling, therapy, focus group, grounded theory, biography, comparative method, participant observation, and introspection'*.

As Cibangu points out, using a specific method does not mean that a study is qualitative, as some methods can be used in both qualitative and quantitative research. He rather understands qualitative research as research that is, firstly, using one or several qualitative methods and, secondly, having one or several characteristics of qualitative research: ethnographic, contextual, experiential, or case-analytic characteristics (Cibangu, 2013, pp. 201–203).

Qualitative methods with misinformation

Misinformation is a topic gaining more interest in all fields, including in LIS. It is a broad topic with different angles and areas of study focus, for example, on its diffusion, recognition, or correction (e.g. Kumari et al., 2021; Qinyu et al., 2021; Zhao et al., 2021). As there is not yet any critical discussion on qualitative methods with misinformation, in the same manner as presented above, we approach the question through document searches on the Web of Science (WoS), which are neither exhaustive nor systematic. However, they can give some indication of the current state of research from the methodological point of view. All searches were conducted January 4, 2022.

A WoS topic search on ‘misinformation’ and ‘qualitative’, with limiting the results to Information Science and Library Science, gives twenty-one results in English, and in three of these, misinformation is mentioned in the publication title, indicating the central focus of the study. Methods include focus group interviews (Ardèvol-Abreu et al., 2020; Matthews et al., 2002; Naeem & Ozuem, 2021), semi-structured interviews (Huang et al., 2020), in-depth interviews (Logan et al., 2021), interviews (Igwebuike, 2021), grounded theory-based interviews (Greenberg et al., 2019), content analysis (Bangani, 2021; Patra & Pandey, 2021; Sahoo et al., 2021; Savolainen, 2021; Soleymani et al., 2021), qualitative documentary analysis (Kosciejew, 2020), case study (Liu et al., 2021), and clinical-qualitative method (Martinelli et al., 2021). Most of the publications are new, dating from 2019 to 2021, which indicates the growing interest in studying misinformation qualitatively.

A WoS topic search on ‘misinformation’ and ‘interview*’ in Information Science and Library Science yields twenty results in English, which for the most part are the same results as earlier. Three of the results mention misinformation in the title. For example, Young et al. (2020) used semi-structured interviews and a workshop to ask public library staff about their perceptions and experiences in misinformation, how library programming might address misinformation, and barriers in this programming. They also educated library staff about mis- and disinformation. No interview guide is included but interview questions concerning misinformation are described as follows, indicating quite direct misinformation questions:

A second set of questions then asked the participants about their prior experiences with misinformation, including whether they have had personal or professional experiences with misinformation, whether their library has ever done programs on misinformation, whether their patrons would be interested in such programming, and what they think would be an engaging and effective approach to teach their patrons about misinformation. (Young et al., 2020, p. 541)

Naeem and Ozuem (2021) analysed online reviews and tweets and conducted focus group interviews to understand the social meanings deriving from misinformation in the context of panic buying during the COVID-19 pandemic. Their group interview guide includes some direct questions on misinformation (e.g. ‘Q7: Can you share any rumor/misinformation on social media which negatively influenced the purchase of groceries?’) and also many contextual questions (e.g. ‘Q3: Do you think that social media influenced your spending practices and routines during this pandemic?’).

It is not possible to have a close look at all other methods used to study misinformation, but for purposes of comparison, a WoS search on ‘misinformation’ in Information Science and Library Science yields 286 results, which should include both qualitative and quantitative research as well as conceptual contributions. No meta-level analyses on studying misinformation methodologically were found in these searches. It also seems that the theoretical premises of misinformation are scarcely discussed or even defined in all the

studies, which definitely affects the methodological choices and thus also the findings of the studies.

Social-constructionist view on misinformation

Methodological choices and data creation processes should be guided by a theory or by theoretical approaches (Sutton, 2018, p. 3810). In this study, misinformation is understood as inaccurate, incomplete, vague, and ambiguous information, and the perception of what is considered misinformation is affected by various social factors (Karlova & Fisher, 2013; Ruokolainen & Widén, 2020). In social constructionism, information is considered a social entity that is created and formed in social and discursive interactions (Talja et al., 2005, 2002; Tuominen et al., 2006), information being a part of social practices that are *'concrete and situated activities of interacting people, reproduced in routine social contexts across time and space'* (Savolainen, 2007, p. 122). This also means that information can be studied through social practices.

Important for the social constructionist definition and understanding of misinformation is that the researcher cannot normatively decide what misinformation is or test the recognition of it. Two concepts are helpful when discussing and studying misinformation: perceived misinformation refers to any piece of information that an individual receiver perceives as false, whereas normative misinformation refers to information that is in some social context generally and normatively considered false (Ruokolainen & Widén, 2020). We highlight that any piece of information may potentially be fully or partly false in some situation or context, and misinformation does not necessarily equal bad information. Thus, when studying it methodologically, an open attitude to any kind of misinformation that the data might reveal is essential. Types of misinformation can be, for example, outdated or conflicting information or information that easily leads to misunderstandings or misconceptions.

Research questions

The following research questions guide the analysis of the method and the data creation process:

1. What kind of questions and discussion reveal misinformation in an interview situation when studying misinformation as a natural part of people's information environment?
 - 1.1. How do direct questions on misinformation function?
 - 1.2. How does indirect discussion on misinformation function?

Data creation

The paper presents two data creation processes, one with volunteers working with asylum seekers and the other with youth service workers. Both studies are a part of a qualitative research project focusing on misinformation as a part of people's information environment. The interview approach in the two studies can be described as semi-structured (e.g. Auress, 2012). As humans act in a conversational reality, interviewing is seen as a valid method by which to understand their social practices, and *'conversations are therefore a rich and indispensable source of knowledge about personal and social aspects of our lives'* (Leavy, 2014, p. 278). The semi-structured interview is a *'qualitative technique that requires the researcher to have a schedule of questions, but implements them flexibly allowing the participant to guide the direction of the interview'* (O'Reilly & Dogra, 2018, p. 37). Similar kinds of interview guides (Appendices 1 and 2) were prepared, covering approximately the same topics, but with some contextual differences. In the end, the interviews with the youth service workers were more structured, whereas there was much more individual variation between the volunteers, and their interviews tended to be less structured.

In the first study, six interviews with seven volunteers working with asylum seekers were conducted, addressing misinformation in the context of the asylum process and the asylum seekers' lives. Volunteers in two cities/towns in southern Finland were contacted directly and some were found through snowball sampling. As the circles of volunteers connected to the asylum process are tight and small, the small sample represents people working in almost all relevant organisations and actors in the chosen area. In addition to this, because of the in-depth nature of the interviews, the saturation point was reached quite quickly. Face-to-face interviews were conducted from September 2019 to February 2020. On average, the interviews were one hour and forty-nine minutes long. One pair interview with two volunteers working closely with each other was conducted. Three interviews were in Finnish, two in Swedish, and one in English. Participants worked in local NGOs, churches, or independently. However, they had contact with each other and had the same kind of support networks and schoolings, and they coordinated work among themselves. Although some of them were working professionally with asylum questions, they were not part of the official asylum system and, hence, we refer to them all as volunteers.

The second study focused on youth service workers, and the context of the interviews was misinformation in the lives of youth and the services provided for them. Thirteen interviews with sixteen participants were conducted from September to November 2021. Different organisations, both municipal and NGOs, which were either working with potentially marginalised youth or more generally with youth services, were contacted, and pair interviews were offered as an option for people working in the same organisation. Individual participants were also found through snowball sampling. Despite the slightly different work descriptions, all organisations were aimed at preventing both initial and further marginalisation of youth between fifteen and twenty-nine years of age. All participants provided information, guidance, or support services. As the interviews were conducted on Zoom, actors in different cities, towns and municipalities in Finland could be reached. All interviews were in Finnish and, on average, they were one hour and twenty-eight minutes long.

All interviews with both groups were conducted by the same researcher, transcribed by external transcription services, and analysed in NVivo. The participants were told about the objectives of the study—misinformation and challenges with information—but these aspects were not emphasised during the interviews.

It was justified to use the indirect approach through intermediaries, as the focus of the studies is misinformation, not the groups themselves. These two contexts both involve misinformation in potentially disadvantaged, marginalised and vulnerable situations, and we wanted to avoid burdening individuals in these groups. Misinformation is difficult to discuss for anyone, and even more so for people who are in the middle of an acutely difficult situation. If asylum seekers and youth had been studied directly, the samples would have had to have been much larger, due to at least two reasons: firstly, there could have been many individual differences between the individual participants, and secondly, it was estimated that misinformation would not be discussed as thoroughly in each interview as with people working with these groups. The data does not represent the thoughts of asylum seekers or youth.

The approach was to discuss broadly different matters that the participants found important to mention, i.e. focusing on their social practices in the work/volunteering context. However, as there is little qualitative research on misinformation, it was also considered important to study how a more direct approach to misinformation functions. Therefore, the researcher would also guide the discussion with direct misinformation questions and gentle probing. The assumption was that rich data on all kinds of social and information-related phenomena would be created, and misinformation would only form a smaller part of the data. Data on surrounding phenomena was considered important in two ways: firstly, warm-up discussion was needed,

and, secondly, it was assumed that misinformation could be found through indirect discussion on different topics, although it was not necessarily clear beforehand what these topics would be. Therefore, the questions were prepared so that various information aspects would be discussed and enriched by questions concerning misinformation.

Findings

Table 1 shows the number of references (i.e. mentions of misinformation) on which the analysis is based. The mentions refer to the coding of misinformation based on the nuanced understanding of it, not the term misinformation, and the participants were not necessarily always discussing misinformation directly and knowingly. Participants in pair interviews, one pair among the volunteers and three pairs among the youth service workers, were not analysed separately, as the discussion would often be overlapping. In all interviews with the volunteers (n=6), both direct questions and indirect discussion resulted in discussing misinformation broadly. Forty-three mentions (references) were found through direct questions, and sixty-five mentions through indirect discussion. Direct questions worked well in all interviews with the youth service workers (n=13), whereas misinformation was discussed through indirect discussion in eleven interviews. The number of mentions through direct questions was sixty-nine, and forty-one through indirect discussion. These numbers give some indication of how the questions and other discussion worked, but we will have a more qualitative look at this in the following sections. Volunteers, although a small sample, discussed misinformation richly and thoroughly, both when asked directly and spontaneously. However, indirect discussion seemed to work slightly better when looking at the quantity. With the youth service workers, direct discussion resulted in more mentions of misinformation. In two interviews, indirect discussion did not result in discussing misinformation at all.

	Interviews, volunteers	References, volunteers	Interviews, youth service workers	References, youth service workers
Direct questions	6	43	13	69
Indirect discussion	6	65	11	41

Table 1. Number of interviews and mentions of misinformation

Direct misinformation questions

The following questions were considered direct misinformation questions (based on the broad and nuanced understanding of misinformation), and therefore *direct* questions are considered to involve also misunderstandings and conceptions, not merely blunt questions on information.

- Have you received incorrect information?
- Have you given or shared misinformation?
- Have your clients misunderstood something?
- Have you misunderstood something?
- Are there misunderstandings between you and your clients?
- Is some information conflicting?
- Are there rumours? What kind?
- What kind of conceptions and preconceptions do your clients have?

The above-mentioned questions are simplifications of a natural discussion, which means that the questions would be asked in everyday language, and terms such as *information* and *misinformation* were often avoided. The questions were not posed as such in all interviews but were integrated into the discussion.

The question on rumours worked well with the volunteers, whereas it was quickly noticed that rumours could not be discussed in the same manner with the youth service workers. Their work does not involve close and tight circles in the same manner as does the work of volunteers. Then again, clients' conceptions and preconceptions were explicitly discussed with only youth service workers. The differences, which were also individual, had to do, firstly, with the different contexts and, secondly, with the participant-driven approach, where the participants' thoughts and a pleasant interview situation were considered more important than exact data.

Direct questions sometimes worked very well. Often participants would give examples of different kinds of misinformation when answering one question. For example, Karri talked about misunderstandings that his clients had, but also started discussing outdated information.

Researcher: Have you noticed other things that your clients have not understood or have misunderstood?

Karri: [About youth, services, and misunderstandings] Then this person asks me how to do it [make an appointment], and I have to google what the number is this week. The services keep changing quite often, so even a professional has a hard time keeping up with the practices.

Sometimes participants answered direct questions differently than was expected. One example of this kind of situation is when volunteer Marianne started explaining how she got angry when asked about giving misinformation. The phrasing of the question has to do with the original interview language.

Researcher: Have you accidentally said something wrong [given incorrect information]?

Marianne: Do you mean have I given wrong information or become angry? That one time I got angry...

Either the preceding discussion on a certain topic affected the understanding of the question or the participant had a theme that dominated the whole interview. The latter was quite common: for example, youth service workers could be concerned about the pressure their clients were feeling in society. Most of the volunteers had a very critical attitude towards official asylum politics and policies, which set a tone for the interviews.

Posing misinformation questions and having differing answers to them also showed that misinformation is not an easy topic about which to ask. Direct questions sometimes felt sensitive to ask, especially when they concerned clients and their conceptions. Most participants also diminished the importance of some misinformation, considering it too unimportant for the researcher to hear about, although participants were encouraged to talk about even small issues. Often participants would answer direct questions with a very short answer, not actually coming up with anything, but later providing answers to that topic through indirect discussion. This could indicate that, firstly, participants processed the topic unconsciously, or, secondly, that they simply did not understand the researcher's question but had something to say about it when discussing it on their own terms.

Indirect misinformation discussion

Indirect misinformation discussion is difficult to analyse through posed questions, as misinformation could also come in spontaneous discussion. Therefore, the analysis focuses on themes that were discussed when misinformation was mentioned. The first type of themes is connected to *clients*: clients' conceptions, the challenges and pressure they face and feel, their information needs and practices, their information literacy, and their situation in life.

Youth service worker Sami described the misconceptions he felt some of his clients had. Sami's quote is also a good example of how the researcher's questions can be understood and answered in different ways.

*Researcher: What kind of questions and needs do young people normally have?
Sami: One challenge is of course that many young people feel that when they have come to us, they should have a job at the end of the week and preferably with a good salary. Then they notice that we can't do any magic tricks, and then there is the challenge of whether or not these people come to the next meetings anymore.*

The second type are *work* themes. These include services and service networks, the asylum process (in the case of volunteers), as well as work and work descriptions. Youth service worker Helena's description of a work project is also a good example of how participants would come back to themes that were discussed earlier in the interview. It was quite common for participants to ask the researcher to explain the research project in more detail at the end of the interview, in response to which they would then come up with additional examples or topics. This kind of discussion was often fruitful.

*[Researcher explains the research project]
Helena: Funny that you approached us with your project. We have this project, and one person in it asked if we have had some challenges with student counselling. And then we discussed, in a bit of an exaggerated manner, that previously you could work quite passively. Nowadays, you have to actively seek information. The counselling suffers if you are not awake. When you asked me earlier about incorrect information, I just now came to think about how we might have, let's say, a guidance counsellor who has information from year X. They might not be acquainted with new guidelines; they just act based on old information and don't consider individual needs.*

Sometimes themes evolved into something else. Volunteer Emma discussed languages and interpretation services, as well as her work, but the discussion spontaneously turned to asylum seekers giving misinformation in asylum interviews and in regard to their feelings.

*Researcher: What languages do you use and speak?
[Discussion on languages and interpretation services]
Emma: We have had many situations where people in asylum interviews have completely frozen when there has been someone from the home village, some cousin of someone's wife or someone. When they've been asked if the interpretation goes well, they just say yes because they don't want to hurt the feelings of the interpreter. They feel they can't say anything in front of that person, but they can't express this concern in that situation.*

The third type of themes have to do with the *participants* themselves. They discussed their work identity, emotions, and attitudes, which were often critical. Especially the volunteers expressed critical and activist expertise (Sotkasiira, 2018), but this was not strange to the youth service workers either. For example, youth service worker Katja expressed her critical attitude throughout the whole interview. This led to talking about misinformation in bad encounters. Later, she came back to the theme when discussing her own emotions:

Katja: A psychiatrist states that you are not depressed because you have washed your hair, you've taken a shower. Or, just get a grip on yourself. [...]

Researcher: What frustrates you in your work?

Katja: Gross, invalidating encounters don't just frustrate, well, they make me try harder. I don't see any reason to be collegial if someone, psychiatrist or anyone, starts humiliating in an unprofessional way a person who is vulnerable.

Discussion

This paper provides an example of how misinformation can be found through semi-structured interviews. We analysed questions and discussions in interviews and found out that misinformation was discussed both when asked directly and through other themes, which included 1) clients and their issues, 2) work, and 3) the participants themselves. With direct questions, there were individual differences in how they worked. Sometimes it was clear that participants understood the questions differently than the researcher intended. Explaining the research project often evoked good insights. A comparison of the two studies shows that, despite the same approach and similar questions, the context of the study affects what kind of questions and discussions create fruitful data. With volunteers, the indirect approach worked slightly better, whereas the direct questions in the otherwise more structured interviews with youth service workers were slightly more successful. Both types of discussion were needed to get a holistic understanding of misinformation and the issues around it. Much misinformation would have been missed without one of the discussion types.

This kind of comparison of questions and discussions and of different groups is not an exhaustive methodological analysis. Rather, we aim to show that *information*, in this case misinformation, can be analysed from the methodological point of view. There should be a clear connection between the theoretical premises, the choice of the method, and the implementation of it. In this case, misinformation is seen as a phenomenon intertwined with various social practices (Karlova & Fisher, 2013; Ruokolainen & Widén, 2020), and information itself is formed through discursive and social interactions (Talja et al., 2005, 2002; Tuominen et al., 2006). As conversations are an important part of our social reality (Leavy, 2014), interviewing was considered suitable for understanding misinformation connected with different kinds of social practices. The semi-structured method (Aurens, 2012; O'Reilly & Dogra, 2018) gave enough structure for asking specifically about misinformation and enough space for the participants to address issues they felt are important to them.

Misinformation and different aspects of it could be found through different methods, and therefore we highlight the *approach* rather than an individual method. The semi-structured interview method is limited and cannot reveal all aspects of misinformation. For example, tacit, embodied, and visual information and knowledge could perhaps be found more easily through other methods, such as visual methods (Hicks & Lloyd, 2018), participatory arts-based methods (Given et al., 2013), or guided tours (Thomson, 2018). These kinds of methods could also help to study more hard-to-reach groups. However, the increased use of different methods and the introduction of new ones to LIS does not per se solve the question of critical reflection. Many already established methods, such as surveys, interviews, participatory methods and focus groups can still bring much to LIS research, but they could be critically and transparently analysed, i.e. in how they manage to reveal the phenomenon in the focus of the study. Future methodological contributions could make use of this kind of approach.

In this study, misinformation is understood as a broad and nuanced social phenomenon, and methodological choices should support this approach. In practice and in the case of this study, this means asking participants to describe their everyday social practices (e.g. Savolainen, 2007) broadly, combining it with *gentle probing* in misinformation. This combination may be needed as qualitative research on misinformation is still finding its form. It should be accepted that individual interviews might not reveal any piece of misinformation. Although here we did not further analyse the link between the questions and the different types of misinformation, it was clear that the interviews brought up many aspects that could not be

anticipated. Many aspects of misinformation were also left unsaid or said indirectly. Information is itself not a straightforward or easy topic to discuss. *How to ask about information?* could and perhaps should be a question concerning the LIS field more widely, bringing more conceptual depth, such as that for which Cibangu (2013), Day (2011) and Suarez (2010), for example, have called. Julien et al. (2013) have highlighted the need for meta-level discussion concerning methodological issues for guiding new research practices. Opening the questions and the data creation processes in this way can be one step towards that direction, making it easier for other researchers to create ways to study misinformation from different angles.

Qualitative LIS research has mostly borrowed methods from other fields without further meta-level discussions (Cibangu, 2013; Sutton, 2018; Togia & Malliari, 2017). Unique to LIS is the study of information and the aspects surrounding it, and qualitative approaches could contribute to the understanding of information as a complex phenomenon. This includes misinformation, where qualitative contributions are still emerging, as this study's document searches show. It is difficult to compare the findings of this study to the questions used in earlier studies on misinformation, as the contexts are different and the kind of analysis employed in this study has not previously been made. Nevertheless, Young et al. (2020) indicate using direct questions whereas Naeem and Ozuem (2021) seem to combine direct and contextual/indirect questions. As qualitative contributions to misinformation research that would dig more deeply into the phenomenon are still scarce, researchers would definitely benefit from sharing at least their interview questions and from briefly discussing whether they used indirect or direct ways to discuss misinformation in interviews.

We argue that our approach, the social-constructionist approach to misinformation and the way to study it as a natural part of people's information environment, brings valuable new knowledge to the topic. Describing the method and data creation processes in more detail than usual brings new insight into this emerging field that still seeks its research practices. With qualitative methods, in this case semi-structured interviews, the sensitivity connected with misinformation can be considered, understood, and included in the research. Misinformation is indeed a topic that involves various feelings and preconceptions, on both the participants' and the researchers' sides. These feelings and preconceptions can and should become part of the analysis, as they are at the heart of the topic. All research on misinformation, with different kinds of methods and approaches, is welcome, but the need to study the phenomenon more broadly should be highlighted. This includes deepening the understanding of misinformation as a natural and even unavoidable part of people's everyday lives and information activities, which should be shown in the methodological choices and discussions as well.

Conclusions

In this paper, we have described the methodological choices and data creation processes of two studies to show an example of how to ask about misinformation. Semi-structured interviews were conducted with volunteers working with asylum seekers and youth service workers to understand misinformation in contexts where people need support with information. Direct questions about and indirect discussions on misinformation were analysed. Indirect discussion involved issues related to the clients of the participants, work, and the participants themselves. Both types of discussion were needed to discuss misinformation broadly and in nuance, but there were individual and group-specific differences in what worked best.

Qualitative methods are increasingly used in LIS but meta-level discussions on such methods are still scant. LIS has also suffered from not addressing more specifically *how to study information*, despite information being the main focus of the field. Misinformation is a trending topic in research. Still, there are few qualitative contributions that would give

additional depth to misinformation research. It is also not always clear what the theoretical premises for misinformation are in individual studies, although this affects the choice and use of methods, too. Our analysis of misinformation from the methodological point of view is an attempt to contribute to these research gaps and start a fruitful discussion in the field.

This analysis is not an exhaustive one, and due to space limitations we could not provide a deeper analysis on different types and aspects of misinformation that were found through direct questions and indirect discussion. Our future research will analyse misinformation in contexts where support with information is needed. This methodological contribution is one viewpoint to the phenomenon. We encourage other researchers to discuss information-related phenomena from different angles, including methodologically. Methodological contributions could include topics such as information use and sharing as well as trust in information and how these aspects can be reached through different methods.

This study contributes to the understanding of misinformation, giving an example of how it can be studied qualitatively. We show that testing misinformation recognition and correction are not the only ways by which to understand this complex phenomenon. Rather, misinformation should be understood as a natural part of people's information environment, and this aspect should be seen in methodological choices as well. The approach of this study provides a deeper and open-minded understanding of misinformation. On a practical level, this analysis can help other researchers in figuring out ways to ask about misinformation—and, we would argue, also about information in general.

Acknowledgements

The author wishes to thank the interview participants for generously sharing their experiences, as well as her colleagues and supervisors Gunilla Widén and Eeva-Liisa Eskola and the anonymous reviewers for all the valuable and constructive feedback that helped to improve the paper.

About the author

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Appendices

Appendix 1. Interview guide with volunteers

Work/volunteering	Could you tell me about your work? What languages do you use?
Asylum process/situation	Do you have an overall picture of the situation? What about your clients?
Clients	What kind of information needs do your clients have? To whom do your clients turn when they have questions?
Networks	What kind of networks do you have? What contacts do you lack?

	What kind of networks do your clients have?
Rumours	Are there rumours circulating? What kind?
Misinformation	Do your clients sometimes misunderstand things? What are those things? Are there cases when you don't know what to do or how to give advice? Is some information difficult for you? Have you received information that was incorrect? Have you misunderstood something? Have you given misinformation to your clients? Is some information conflicting? Are there misunderstandings between you and your clients?
Emotions	What kind of feelings do your clients show you? Do you like your work? What do you enjoy? What frustrates you?

Appendix 2. Interview guide with youth service workers

Work	Could you tell me about your work? How did you end up working here? What is your educational background?
Clients	Who are your clients?
Clients' information needs	What do your clients ask you about? What kind of challenges do your clients have? How do you think that youth should get information about different things? What do you think is the best way to give information to young people?
Networks	With whom do you collaborate? How are your networks?
Misinformation	Do your clients sometimes misunderstand things? What are those things? Are there cases when you don't know what to do or how to give advice? Is some information difficult for you? Have you received information that was incorrect? Have you misunderstood something? Have you given misinformation to your clients? Is some information conflicting? Are there misunderstandings between you and your clients? What kind of conceptions, preconceptions, or even misconceptions do your clients have?
Emotions	What kind of feelings do your clients show you? Do you like your work? What do you enjoy? What frustrates you?