

## Doctoral theses within the Swedish Institute for Disability Research, 2000-2012: A Review of Content and Interdisciplinarity

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### Abstract

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The Swedish Institute for Disability Research (SIDR) was founded in 2000. The SIDR graduate programme is a leading research programme in disability science. The scientific method at SIDR is based on an interdisciplinary approach. The aim of this study is to describe content of doctoral theses presented within SIDR, and to analyze the occurrence of interdisciplinarity within the theses published between 2000 and 2012. Forty-one theses were included in the study. First, the manifest data was categorized in a matrix, and second, the latent content was analyzed within a scheme. The scheme included seven criteria within interdisciplinarity theory, namely: Is the phenomenon multi-dimensional? Does the aim reflect an interdisciplinary approach? Are the studies non-reductionist? Have multiple methods been used? Is the knowledge integrated? Are the results discussed as a whole? Do they explicitly show an interdisciplinary knowledge? Findings show a variety of disability groups studied within SIDR, but the main disabilities are hearing impairment or deafness, and cognitive and communication difficulties. Different theoretical perspectives are used within the theses. To different extents, an interdisciplinary approach is used as an overall meta-theory.

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**Key words:** disability studies, interdisciplinary, bio-psycho-social, critical realism

### 1 Introduction

Disability research as an academic field is a research paradigm in the Nordic countries as well as in the Anglo-Saxon world. Early initiatives were undertaken in the 1960s and 1970s, and by the 1990s the field was well established (Roulstone, 2013; Scotch, 2002). Disability research was first studied within the medical model, for example, in medical and rehabilitation studies, while disability studies became a part of the social model, for example, in social and psychological studies. In the Nordic context, disability was mainly studied within medicine, social science and special education (Roulstone, 2013) but was later studied in other disciplines such as caring science, psychology and social work and from multi- and interdisciplinary perspectives (FAS, 2012). This study focuses on disability research as an academic field because it is newly established as a research discipline in Sweden.

#### 1.1 Disability Research

In a special issue of the *Scandinavian Journal of Disability Research (SJDR)*, researchers from the Nordic countries summarize the history and development of disability research in the Nordic context, from 1970 to 2013.

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From a Swedish perspective, professor emeritus in sociology Mårten Söder sketches a picture of Swedish disability research in four phases of development: early initiatives, getting integrated, getting established and late developments. In the beginning, research in the field was often carried out by individual initiatives, but by the 1970s there was already a cross-disciplinary group of researchers with representatives from rehabilitation, social medicine, education, psychology and sociology (Söder, 2013). In the late 1990s and early 2000s, intersectional understandings of disability arose and some theoretical studies on disability were presented in relation to, for example, social justice (Danermark & Coniavitis Gellerstedt, 2004), gender (Barron, 2004), civil rights (Barnes & Oliver, 1995) and feminism (Thomas, 1999), and academia became very interested in the concept. As an extension of this academic debate, a discussion of a theoretical approach in disability studies has been ongoing (see Gustafson, 2004; Bhaskar & Danermark, 2006; Söder, 2013; Goodley, 2013). That discussion contributed to the discipline awareness that there is a significant need to develop a theoretical perspective to the research field in disability. In this article we are going to focus on one direction, namely interdisciplinary.

## 1.2 Theoretical assumption

Bhaskar & Danermark (2006) outline a meta-theoretical discussion from a critical realist perspective when they elucidate methodological tendencies and an interdisciplinary approach in disability studies. Ontologically, critical realism is characterized by a double inclusiveness, that is, different levels of reality and different theoretical positions. Epistemologically, critical realism indicates the direction and context of explanatory research from the manifest phenomena to the mechanism that produces them. Methodologically, critical realism is able to move beyond reductionism and non-reductionism through an ontological pluralism to a concept of the object of disability research. Bhaskar & Danermark (ibid.) argue for a (meta-) theoretical perspective in disability research, particularly for critical realism. According to Rowe (2008), interdisciplinary research refers to collaborations across major disciplinary boundaries, such as the combinations of physiology and social sciences. Interdisciplinary research refers to a true collaboration – a melding of disciplines – not just the addition of techniques and technology from one field to another.

From a critical realist perspective of interdisciplinary research it could be stated that reality is too complex to grasp within just one discipline. A central idea within critical realism is that reality is stratified or divided into levels (Danermark, 2002). As a consequence, it is not possible to get a holistic understanding of the phenomenon being studied based on the knowledge from merely one level of reality (ibid.). Hence, knowledge from several levels needs to be integrated. The integration of knowledge from two or more levels is an essential part of the definition of interdisciplinary research from a critical realist perspective. One example of a comprehensive approach, which can be beneficial in interdisciplinary research dealing with human health, is the bio-psycho-social model of disability. Disability as a phenomenon does not merely deal with a bodily impairment or illness. Instead, it refers to bodily, psychological and social components in our understanding of disability (Bhaskar & Danermark, 2006). The bio-psycho-social perspective is also explicitly stressed by the World Health Organization (WHO) in the International Classification of Functioning, Disability and Health (ICF, 2001) as an attempt to combine medical, psychological and social perspectives in order to get a more holistic picture of human health.

## 1.3 International Classification of Functioning, Disability and Health

ICF was created by WHO 2001 after a discussion about the use of terminology. The classification's purpose was to 'provide a scientific basis for the understanding and study of health and health-related states, outcomes and determinants' (ICF, 2001, p.6). Health is a concept that deals with people's function in their daily lives. In order to denote this positive and practical aspect of health, ICF uses the broad term 'functioning' (Bickenbach, 2012). In ICF, functioning is explained in a way that captures all body functions and body structures, and everything that people do (i.e. activities) as well as all actions they are involved in (i.e. participation). Functioning is the positive aspect of people's activities and participation, whereas disability is the negative aspect in a continuum of changes. The ICF framework is an interactive and dynamic model that includes the body with its anatomical parts (i.e. the body structure) as well as their functions. The negative aspect of restricted function is impairment and is labeled 'limitation'. ICF also includes a concept of participation, which is being involved in a life situation. The negative aspect of this is participation restriction. ICF also takes into account environmental factors. The classification makes it systematic and comparable and it also provides a common language within the research and clinical field (ICF, 2001).

Disability research can also be studied and understood in a bio-psycho-social integration or within a vertical and a horizontal integration of knowledge (Strandberg, 2015). Vertical integration is an understanding between different levels on a biological, psychological and social level. Horizontal integration is an understanding across varying disabilities.

#### 1.4 Swedish Institute for Disability Research

The Swedish Institute for Disability Research (SIDR) was the first institute in Sweden where it was possible to study disability research on a post-graduate level. It was founded in 2000 in cooperation between the Universities of Linköping and Örebro. The forerunner of SIDR was the Centre for Disability Research, which started a post-graduate course in 1996. In 2012 the University of Jönköping was associated with the institute. The SIDR graduate school offers a leading European research programme in disability research in Sweden. Disability research within SIDR is described as an interdisciplinary subject and covers medical and technical as well as behavioral, social and cultural sciences (SIDR, 2013).

This particular study is interested in how disability research has been formulated within a scientific context. SIDR describes disability research as an interdisciplinary subject, and one purpose of the institute is to provide interdisciplinary research. In the scientific society there has been a call for a theoretical consciousness and a self-critical approach in disability studies. For this reason, it is important to critically analyze the tendency and content within Swedish disability research, such as: type of impairments, age groups studied methodology, disciplines, theories, results and occurrence of interdisciplinary within theses from SIDR.

#### 1.5 Aim

The aim of this study is therefore to describe the content of all doctoral theses presented within SIDR and in addition, to analyze the occurrence of interdisciplinary within the theses published between 2000 and 2012.

## 2 Method and analysis

### 2.1 Sample

The sample comprised all 39 doctoral theses and two licentiate theses published within SIDR between 2000 and 2012, in total, 41 theses. One licentiate thesis was excluded from the sample since this study continued and finished with a doctoral thesis. In the field of disability research at SIDR, doctoral candidates from different academic fields come together to study a post-graduate course in disability research called the foundation course, and a course in the theory of science built on critical realism. The included theses can be found at SIDR's webpage ([www.ihv.se](http://www.ihv.se)). The reason for the year limitation was twofold. The first is a matter of logistics, in that it was a manageable number of theses to handle. The second is a logical reason in that we wanted to cover the first years of SIDR, after it became established as a research institute.

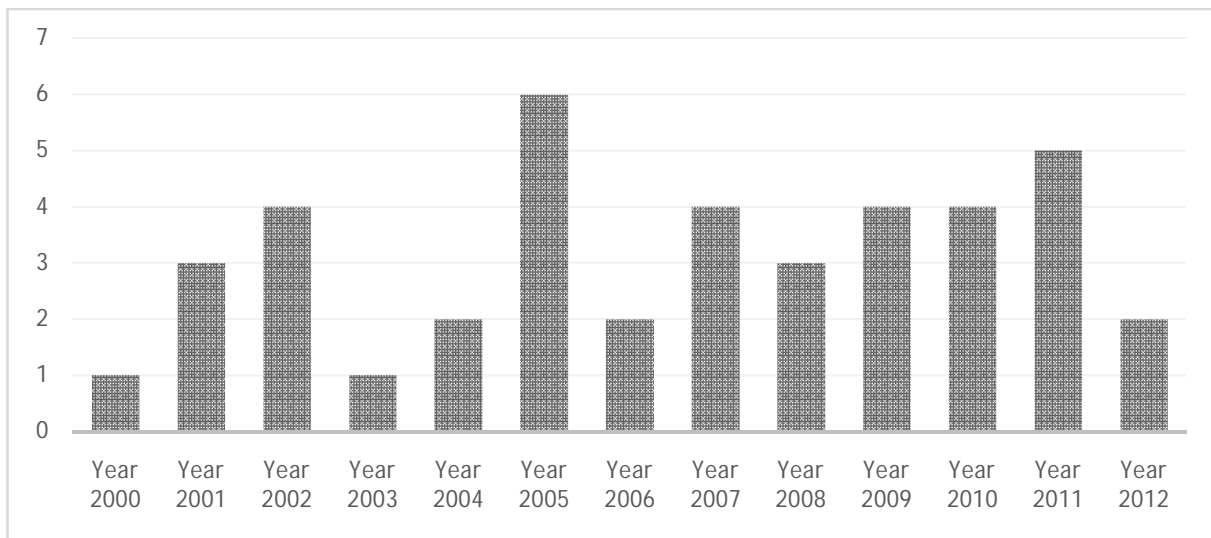
In Sweden there are two forms of dissertations: compilation theses and monographs. At SIDR a majority of the theses are written in English and most are compilation theses, as is common in the academic traditions of psychology and medicine. One-fourth of the theses are monographs and written in Swedish, as is customary within the fields of arts and social sciences. In two cases the framework is written in Swedish while the papers are in English (table 1). Each form of dissertation has particular advantages; a monograph, for example, can go deeper into analysis and theory than a compilation thesis, which is made up of articles to be published in scientific journals and therefore has to conform to length limits.

**Table 1. Presentation of thesis within SIDR, type of thesis and language**

Type of thesis	English	Swedish	English/Swedish	N
Compilation thesis in English	28		2	30
Monographs in Swedish		9		9
Licentiate thesis, compilation	1			1
Licentiate thesis, monograph		1		1
N	29	10	2	41

The middle age at disputation was 42,2 years; the youngest of the candidates was 31 years old and the oldest was 61 at the time of the examination or during disputation (i.e. the public defense of a doctoral thesis). Out of 41 doctoral candidates, 28 were women and 13 were men. Thus two-thirds (68%) were women. Figure 1 shows the distribution of theses between 2000 and 2012. The first thesis in 2000 comes from the post-graduate course of the forerunner of SIDR. There are peaks in 2005, with six dissertations, and 2011, with five.

**Figure1. Number of theses per year, 2000-2012**



## 2.2 Procedure

The dissertations within SIDR were identified and all abstracts were read. Then a matrix was designed where significant data was noted, including author, title, year of dissertation, methods, type of impairment that the research dealt with. The scheme, criteria for analysis, was then made based upon Bhaskar & Danermark's (2006) and Rowe's (2008) definition of interdisciplinary. All dissertations were divided between the reviewers, read and analyzed with support from the scheme. The reviewers met regularly and discussed the theses they had read, the results from the analysis and the points that had been given. Seven criteria for analyze is constructed based on the definition of interdisciplinary from a critical realistic perspective (Bhaskar & Danermark, 2006) and from Rowe's (2008) description.

### The criteria for analysis:

1. Is the phenomenon described and problematized as multi-dimensional? This criterion deals with the introductory part of the dissertation, where the author can describe the context of the research problem based on different theories on, for example, bio-psycho-social levels.
2. Do the aim and research question reflect an interdisciplinary approach; that is, do the aim and research question in the dissertation cover two or more levels?
3. Are the studies non-reductionist? This criterion deals with whether the sum of the studies in the dissertation focuses on several levels of reality or just one.
4. Have multiple methods (e.g. method triangulation) been used in the dissertation? The purpose with this criterion is to analyze whether a multi-method approach had been used in order to analyze different levels of the research problem.
5. Is the knowledge integrated and complex? This criterion concerns the discussion part of the dissertation, where the author has the opportunity to combine the results from the studies (which focus on different levels of reality) and thereby provide a new and 'broader' picture.
6. Are the results discussed in relation to a greater whole? The focus of this criterion is to analyze whether the author discussed his/her results in relation to a broader context based on several theories from different

disciplines or areas of knowledge, which represents different levels of reality, for example, a bio-psycho-social perspective.

7. Does the author explicitly show knowledge about interdisciplinary in the dissertation? In this criterion the theses were 'scanned' for the word 'interdisciplinary' and argumentations in the text related to that (e.g. reasoning based on a bio-psycho-social perspective).

All dissertations were read and evaluated based on the criteria for analysis. If a thesis met the criterion, one point (1p) was given, and if not, the zero points were given (0p). At the end, all points were calculated and all dissertations were categorized into different degrees of interdisciplinary (see table 2).

**Table2. Degree of interdisciplinary**

Points	Description
0-1 points	Theses without interdisciplinary
2-3 points	Theses with minor occurrence of interdisciplinary
4-5 points	Theses with moderate occurrence of interdisciplinary
6-7 points	Theses with strong occurrence of interdisciplinary

### 2.3 Analysis of data and reliability

The data was analyzed with support of the scheme, criteria for analysis, by using a quantitative content analysis with the overall intention of objectivity and systematic during the process described by Bryman (2012). A quantitative content analysis focuses on the manifest substance of the data material, in this case the theses, and quantifies the material into numbers. As described above, during the procedure the theses were divided and read by the authors of this article and were examined by each of them and later discussed in the group. According to Bryman (ibid.), that can be described as a latent form of interpretation, where the content needs to be understood within a context, in this case interdisciplinary. In order to be objective and systematic we also used a scheme for this process.

In order to ensure the reliability of the study, inter-rater reliability was used. If one of the reviewers had a problem with the analysis of a dissertation, the reviewers discussed the dissertation together and then made an interpretation of the degree of interdisciplinary. If a decision could not be made based on the discussion at the meeting, an additional reader was selected to provide a second opinion. Statistically, we use descriptive figures in order to illustrate the results. We have used Excel software to create the tables and figures.

### 2.4 Ethical considerations

There are two ethical issues connected to the present study: How ethics were handled in the study, and how ethics were taken into consideration in the theses. First, many of the ethical aspects that are mentioned in the guidelines of the Swedish Research Council (2002) on the principles of research ethics are not relevant for this study since it is a literature review. One ethical aspect of this study has been the confidentiality of the authors and supervisors in relation to our evaluation of the theses. It is important to emphasize that the study does not evaluate the quality of the theses, just the degree of interdisciplinary. Second, most of the research projects studied did apply to an ethics committee and received approval to carry out the study. In such cases the theses mentioned and described how the principles of research ethics were handled. According to principles of research ethics in Sweden (ibid.), for research that includes personal data on individuals, ethical considerations are of great importance.

## 3 Results and analysis

All of the theses could be classified into four main scientific disciplines (table 3). The most common scientific discipline is social science and it can be exemplified within theories as the social model of disability, empowerment, social recognition, and normalization. Cognitive psychology and rehabilitation medicine are almost similar in frequency, and use theories regarding, for example, cognition, memory, theory of mind and behavior; or perspectives regarding, for example, coping, ICF, Quality of Life and Acceptance and Commitment Therapy. 'Combined disciplines' was used as a label for those that used theories from two or more disciplines, for example, social, cognitive and medical theories.

**Table3. Classification of dissertations into scientific disciplines**

Scientific disciplines	Frequency	Percent
Social science	18	43,9
Cognitive psychology	10	24,4
Rehabilitation medicine	9	22,0
Combined disciplines	4	9,8
N	41	100

As shown in table 4, most (61%) of the theses focus on people 19-64 years of age, defined as working-age adults. Only 7 percent of the theses focus on older adults with disabilities, and approximately 30 percent focus on children. A few studies (2,4%) are not age specific. A conclusion is that research focusing on older adults (65 or older) within SIDR is rare.

**Table4. Overview of age groups that are studied in the theses**

Age group	Frequency	Percent
Children, 0-18 years	12	29,3
Adults of working age, 19-64 years	25	61
Older adults, 65 years or older	3	7,3
No specific age	1	2,4
N	41	100

The distributions of impairments are classified according to ICF and are outlined in table 5. It was not possible to classify the impairment type in 6 (14,6%) of the 41 theses, since they did not deal with specific impairment. The type of impairment studied was identified in the thesis title or in the abstract. Most frequent was mental impairments (34,1%). There were studies about intellectual impairments (or disabilities) as well as those about acquired brain injuries and psychiatric illnesses. There were 12 theses (29,3%) regarding persons with sensory function and pain (e.g. hearing impairment). Two theses (4,9%) were about speech function. Seven theses (17,1%) dealt with different types of mobility impairment (e.g. muscular dystrophy). Based on table 5 it can be concluded that the most studied areas within SIDR are mental impairment and hearing impairment. The result also shows that there are impairments that not have been studied.

**Table5. Type of impairment according to body function in ICF**

Impairment	Frequency	Percent
Mental functions	14	34,1
Sensory functions and pain	12	29,3
Voice and speech functions	2	4,9
Functions of the cardiovascular, haematological, immunological and respiratory systems	0	0
Functions of the digestive, metabolic and endocrine systems	0	0
Genitourinary and reproductive functions	0	0
Neuromuscular skeletal and movement-related functions	7	17,1
Functions of the skin and related structures	0	0
Impairment type was not possible to classify	6	14,6
N	41	100

Table 6 presents an overview of methods used for analysis in the studies presented in the dissertations. First, some dissertations used only quantitative methods through all studies in the compilation thesis. Second, some dissertations used only qualitative data analysis for all studies.

Third, the largest number of dissertations used mixed method design, for example, combining qualitative and quantitative methods in different studies or using triangulation in the same study to confirm quantitative results with qualitative data, or vice versa. The mixed method design might be an indication of interdisciplinary, since different levels of a phenomenon can be studied by different methods.

**Table6. Methods within the theses**

Methods	Frequency	Percent
Quantitative methods, e.g. questionnaire, statistical analysis, scales or measurement	9	22
Qualitative methods, e.g. interviews, observations, diary notes. Grounded theory or hermeneutics	10	24,4
Mixed methods	22	53,7
N	41	100

Table 7 presents the seven criteria for analysis based on the scheme of interdisciplinary. Most dissertations (90,2%) received one point on the first criterion. Most likely this criterion is generally applicable to most dissertations even though they are not specifically interdisciplinary. The second most frequently met criterion is that the results were discussed in relation to a greater whole (78%). This criterion deals with whether the author discussed the results in relation to a broader context based on several theories from different disciplines, which also represents a bio-psycho-social perspective. The third strongest criterion is that the study is characterized as non-reductionist, which means that the sum of the studies in one dissertation focus on several levels of reality or explanations of the phenomenon (70,7%). This criterion is also linked to the choice of methods, where more than half (53,7%) of the dissertations within SIDR have a mixed method approach.

**Table7. Result of data based on the scheme, criteria for analysis**

Questions	Frequency	Percent
1, Is the phenomenon described and problematized multi-dimensional? No Yes	4 37	9,8 90,2
2, Do the aim and research question reflect an interdisciplinary approach? No Yes	21 20	51,2 48,8
3, Is the method multi-dimensional? No Yes	19 22	46,3 53,7
4, Is the study non-reductionist? No Yes	12 29	29,3 70,7
5, Is the knowledge integrated and complex? No Yes	23 18	56,1 43,9
6, Are the results discussed in relation to a greater whole? No Yes	9 32	22 78
7, Does the author show knowledge about interdisciplinary in the thesis? No Yes	24 17	58,5 41,5

Table 8 presents an overview of occurrence of interdisciplinary that was found in the dissertations based on the seven criteria for analysis mentioned above. According to the result, most of the theses (63,4%) showed moderate to strong occurrence of interdict capillarity. However, three of the theses (7,3%) showed occurrence of interdisciplinary.

**Table 8. Occurrence of interdisciplinary**

Degree of interdisciplinary	Frequency	Percent
Theses <b>without</b> interdisciplinary, (0-1p)	3	7,3
Theses with <b>minor</b> occurrence of interdisciplinary, (2-3p)	12	29,3
Theses with <b>moderate</b> occurrence of interdisciplinary, (4-5p)	15	36,6
Theses with <b>strong</b> occurrence of interdisciplinary, (6-7p)	11	26,8
Total	41	100

Table 9 presents scientific disciplines represented within SIDR and the degree of interdisciplinary. The most frequent disciplines are social sciences, followed by cognitive psychology and rehabilitation medicine. However, if we focus on the degree of interdisciplinary, we can conclude that combined disciplines (even though they are few) will enhance stronger interdisciplinary.

**Table 9. Scientific disciplines and interdisciplinary**

Scientific disciplines	Without	Minor	Moderate	Strong	Total
Social science	1	8	7	2	18
Cognitive psychology	0	3	4	3	10
Rehabilitation medicine	2	1	3	3	9
Combined disciplines	0	0	1	3	4
N	3	12	15	11	41

## 4 Discussion

The aim of this study was to describe the content of doctoral theses presented within the SIDR, and in addition, to analyze the occurrence of interdisciplinary within the theses published between 2000 and 2012. In this section the results are discussed in the following order: content and interdisciplinary, followed by a discussion of methodology, suggestions for further research, and finally, a conclusion.

### 4.1 Content

The study shows that SIDR has a high level of productivity. In 2000, the year when the institute was newly established, one thesis was already produced. The reason for early production was that the PhD student had attended the forerunner, the Centre for Disability Research. By the end of 2015, a total of 76 theses had been presented at SIDR, five of which are licentiate theses. The results indicate that social science was a strong scientific discipline during the period 2000-2012, followed by cognitive psychology. The results also reflect a multidisciplinary approach to disability research, for example, within combined disciplines, but there is still room for growth in that respect. Significantly more theses are written in English, and that is more common with compilation theses than monographs.

A variety of methods and analytical tools were used in the theses. The most common method design was mixed methods, where both quantitative and qualitative methods were used. Eight out of nine monographs used qualitative methods. A mixed-method approach might be an indication of interdisciplinary research since different methods deal with different types of research questions on different levels of reality (e.g. a bio-psycho-social perspective). It can be concluded that the theses in SIDR have a strong tendency to take a mixed method approach in the case of compilation theses. In this study we have classified the impairments studied according to body function in ICF. A reason for this is, first, that ICF is endorsed by WHO, and second, that ICF is accepted as a bio-psycho-social model within SIDR. Persons with different impairments are studied, mostly those with mental and sensory impairments, but impairments related to neuromuscular and movement-related functions and voice and speech functions were also studied. However, several other body functions/impairments had not yet been covered by research in SIDR during the period 2000-2012. Based on the results it can also be concluded that there is an interest in children and working-age adults. Research on elderly persons with disabilities was rare. This is also the case for studies with a life-course perspective, longitudinal studies or studies with an intersectional perspective, for example, those combining disability and gender.



With respect to the PhD students, more women than men were attending the research institute, and the mean age indicates that they did not come directly from the undergraduate level. Some of the PhD students came from earlier professions as clinicians in the health care sector, or as teachers or junior lecturers in higher education.

## 4.2 Occurrence of Interdisciplinary

According to the present study some degree of inters is capillarity was found in more than 90 percent of the theses. Moderate and strong occurrence of interdisciplinary was found in about two-thirds of the theses. This shows that SIDR produced interdisciplinary research within disability science during 2000-2012. The result is proportionately good for a young institute, considering the complexity of this scientific approach. Researchers (see e.g. Gustavsson, 2004; Söder, 2013) have described how disability research lacks a theoretical approach, especially in the early days when the research was just starting to be integrated and established. During recent years, theory-driven disability research has become more common, but Söder (2005; 2013) argues that there is still a need for theoretical development within disability research to unite the discipline. However, according to our experience of disability research and to this study's results, there is not one sole uniting theory. There are many different theories that are fruitful in studying disability. In SIDR, there is an effort to develop a meta-theoretical approach built on critical realism in understanding disability on different levels, for example, on bio-psycho-social levels, similar to ICF. From such a perspective we think that disability research can be more multifaceted.

Only four theses are by combined disciplines (see table 9), but indeed with a strong occurrence of interdisciplinary. It would be interesting to investigate the reason for that, but we can only speculate at this point. According to our experience from SIDR we assume that such theses are created within a research group that is multidisciplinary by nature, such as the deaf-blind research group at SIDR. Another aspect of interdisciplinary that hasn't been explicitly addressed in this study is horizontal knowledge integration in disability research. Horizontal integration is an understanding across varying disabilities in order to get a broader and generic understanding between different impairments at the same level (Strandberg, 2015).

## 4.2 Methodological discussion

The scheme, criteria for analysis, was developed by the authors of this study with theoretical support from the literature, above all, from Bhaskar & Danermark (2006) and Rowe (2008). The scheme was built on the main concepts that we identified as relevant for this study, and the criteria were defined and examined by analysing the theses. After that, a follow-up discussion took place that finally settled the scheme. The structure of the scheme, criteria 1-7, follows the structure of a thesis, with an introduction, aim, method, results, analysis and discussion. During the evaluation process we encountered some difficulties that we would like to address next. The first criterion, about whether the phenomenon is described and problematized as multi-dimensional, is often described in the thesis introduction. An introduction is by nature all-embracing, placing the research into a context. According to that, we found that the first criterion might be too blunting in that respect. Furthermore, during the process of analysis, criteria 5 and 6, about whether the knowledge is integrated and complex and whether the results are discussed in relation to a greater whole, became similar in interpretation. An important mark on the fourth criterion, on multi-methods, is that the methods that are combined collect data from different levels of the phenomenon being studied, according to a critical realist perspective on interdisciplinary research. As an example, combining an MRI (magnetic resonance imaging) with a cognitive test would qualify as an interdisciplinary mixed method since the methods used are appropriate at different levels (biological and psychological), and the methods are used to get a broader picture of the phenomenon being studied, even though they are analyzed by means of statistical analysis. However, if the methods that are used collect data from the same level of reality, they do not qualify as a mixed method design. We also find that the scheme should include a criterion on ethical issues. For example, have ethical considerations been taken into account?

## 4.3 Further research

In recent years, from 2013 to 2016, an additional 38 theses were produced within SIDR. The present study has captured the first 41 theses, which is the first step of analysis.

The next step would be to examine the others in order to grasp the whole picture of research produced within SIDR and the occurrence of interdisciplinary at the institute. That would give us a picture of the development of disability research in Sweden and be of great interest in the scientific community, as an indication of the direction of disability researching Sweden.

#### 4.4 Conclusions

Having analyzed the first 41 theses at SIDR and with all respect for the doctoral candidates' work and effort and the supervisors' engagement during the research process, we summarize the results as follows. Our main finding is that most theses in SIDR have a moderate to strong occurrence of interdisciplinary. Different disability groups are studied, but mostly those with mental and sensory disabilities. There has been particular interest in studying children and working-age adults with disabilities, whereas few studies on elderly persons with disabilities have been conducted. Compilation theses in English are more common than monographs in Swedish. A variety of theories, methodologies and analytical methods were found within the theses. However, research with a longitudinal approach and intersectional's is rare. These are potential areas of development.

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