

'THROUGH THE READING WEB' – ACADEMIC READING IN DOCTORAL STUDIES

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Research into doctoral supervision in constructivist research has increased over the last decades, yet studies on academic reading and how doctoral students' understand and make sense of their reading are fewer in the area. This paper explores the role of academic reading during one PhD student's doctoral studies and it highlights the learning process and transformation from being a student reader to becoming a critical researcher reader. Using the specific interview technique within personal construct psychology, known as the river interview, in connection with document analysis of supervision notes and email conversations, it shows the processes during the PhD journey when changes occur in the way the student understands, explores and reviews his/her reading of the literature. Three particular areas of development and change are found in relation to academic reading: independence, iteration and foci. These changes suggest that reading processes challenge a person's current constructs and stimulate new ways of construing the world.

Keywords: academic reading; doctoral supervision; personal construct psychology; transformative learning

INTRODUCTION

For a doctoral student, completing a literature review is with the words of Bruce “a significant intellectual achievement in its own right” (2001:158). Not only is it an intellectual achievement, but it constitutes also a personal stance based on the person's construing of the research and the research process. In recent years, numerous studies on PhD students' progress, have explored different aspects of the doctoral process. Several of those studies focus on academic writing (Aitchison & Lee, 2006; Kamler & Thompson, 2008; Lee & Murray, 2013; Wisker, 2015). Likewise, other common aspects of PhD studies, such as practical and personal considerations, problems or conflicts during the supervision and between the doctoral student and the supervisor(s) have been well researched in constructivist research (Denicolo, 2004; Elton & Pope, 1989; Salmon, 1992; Walker, 2009). However, neither of those areas will be dealt with here, in spite of the fact that this doctoral student, just like most doctoral students, encountered both personal and professional difficulties and troubles at times. Instead, this paper concerns the phenomenon in which a

doctoral student identifies research areas through critical reading and literature reviews. As such, it is *academic reading* that is at the core, i.e. literature reviewing and critical reading. I will discuss the phenomenon of transformation from student reader towards researcher reader through the example of one PhD student's progress and decisions in defining his research area through academic reading and literature review. Extracts from mail conversations and notes from supervision sessions during his first year will be provided in addition to interview data three years later, using the constructivist elicitation tool of a river interview (Apelgren, 2001; Burnard, 1999; Cabaroglu & Denicolo, 2008; Pope & Denicolo, 2001).

ACADEMIC READING

The most common starting point in a PhD research project is the literature review. Yet, academic reading is rarely addressed in depth in research on doctoral level and the interconnection between reading, writing and researching is scarce, as is research in doctoral students' conceptions of literature review. Undergraduate

reading, however, has been more researched (e.g. du Boulay, 1999; Mann, 2000). It is notable that doctoral reading is researched less than writing, despite it being more necessary during the initial part of their studies and it occurring for a variety of purposes throughout the PhD period. The matter is of utmost importance for the doctoral student, because it is through reading and writing processes that he or she can recognise, for example, when and how to reformulate research questions, refocus investigations and analyses and address possible limitations. McAlpine (2012:354) notes that doctoral students in her studies developed an almost tacit literacy process through their reading, which she describes as an “intertextual network – historical, epistemological and methodological webs – among texts which ‘spoke’ to each other and which would serve later in writing and other forms of academic communication”. Similar processes on writing literature reviews have been reported (e.g. Lee & Murray, 2013; Wisker, 2015).

‘Coverage’ and ‘scope’ (both entwined with research relevance) are significant and complex areas in reading for a literature review. In an interdisciplinary study on doctoral students’ understanding of scope in the early stages of their literature review, Bruce (2001) found a variation of foci which could be divided into two main groups: a subjective approach and an objective approach to scope. The subjective approach to academic reading involves personal engagement and relevance leading to reconstrual and reorientation in order to develop and make sense of the chosen research area. The personal aspect of literature reviewing is also taken up by Salmon (1992:24) as she refers to: “[reviewing literature] means establishing a unique personal standpoint from which previous work is considered”.

Reading is often regarded as a solitary, private process, but the results of this process in the academy are brought into public view through writing. Consequently, our own processes of reading and our construing of texts is part of the way in which we define ourselves as researchers. It is the intricate transformative aspect of reading in relation to researching and writing that makes these processes so significant. For example, realising that published texts arise out of a particular research tradition or objectives, which may be

challenged, transforms our view of knowledge. Those texts may no longer appear as ‘holy scriptures’ or ‘the truth’. Books and other publications are there to acknowledge, challenge and dispute in relation to our own knowledge and understanding (Wisker, 2015). However, although reading must be considered as a private and personal process, doctoral students’ reading must also be viewed as a co-constructed process. In some notable case studies, Kwan (2008 & 2009) found different types of scaffolding from supervisors, for example coaching in the form of reading lists and in situ coaching directed at issues emerging at different stages (for triangulation, for conceptual and methodological issues, for theory and for data analysis). This highlights the important guiding role of the supervisor during doctoral studies, but also the role of ensuring that students are introduced to contradictory texts so that they may be challenged to decide preference and provide supporting evidence for the decision.

TRANSFORMATIVE ASPECTS OF DOCTORAL READING

Construing and organization of doctoral supervision takes on many guises and is context based in several aspects; geographically, disciplinary and personal. There is no generic understanding or definition of ‘doctoral supervision’ yet there are similarities and lessons to be learnt from different contexts. In Sweden for example, the PhD student is employed and is therefore both a colleague and a doctoral student. This implies that the border between collegiality and a supervisor/doctoral student relationship is not as distinct as in some countries. Already in 1989, Elton and Pope refer to a more holistic approach to research supervision, which takes into consideration organizational, personal as well as interpersonal factors. However, for most doctoral students, the very activity of critical reading and reviewing leads to transformative learning. When challenged by new information, they reconsider their own past experiences and beliefs as well as their understanding of other researchers’ theories. In doing so arriving at their own theoretical stance (Mezirow, 1981; Pope & Denicolo, 2001; Salmon, 1992). This conceptual change facilitates the students’ gradual devel-

opment of frames of reference bringing about new ways of defining, for example, theory and methodology.

The supervisor has to undertake many roles in guiding and challenging the students in order for *them* to develop and deepen *their* understanding of the research under progress. At the same time, the doctoral students have to face and consider their own learning strategies and perceptions about themselves as researchers in a particular research culture. In accordance with personal construct psychology, there is an assumption that teachers as well as students have constructs that are related to learning and that those have been influenced and formed by the educational contexts they have experienced and of which they have been part. Aply, Walker discusses supervision as “one of joint experimentation”, where different phases and problematic processes are shared during the PhD (Walker, 2009:391). Her description of how to handle for example “muddled writing” could easily be transferred to ‘unfocused reading’. The professional development to become a researcher is the process of making explicit what is implicit. From the perspective of the supervisor, s/he has to be able to construe the student’s understanding and sometimes share his or her perspective. This involvedness is captured in the sociality corollary: “The person who is to play a constructive role in a social process with another person need not so much construe things as the other person does as he must effectively construe the other person’s outlook” (Kelly, 1963:95). It is indeed complicated to seize the actual individual learning and development. In supervision, it has been pointed out that we need to focus extensively on reasoning around core conceptual issues in our students’ research and ask them to clarify, explain and question expertise claims in order for them to shift their view from an admiring reader to a critical scientific and academic view. Salmon has described this process as: “Research is personally transforming; and the development which it entails has ramifications within personal identity” (Salmon, 1992:17).

In their readings, PhD students need to enquire, pose questions and relate personal and social experiences to theory as well as praxis in their research process. Further, doctoral students will need to be able to map out new territories and link these to other maps, see connections

and add new roads. Arranging the supervision to promote construing and reflection will help the student to identify theories, research questions and themes that will eventually form the structure of their theses so that they themselves can find and identify where and how their research will make a contribution in their field. During his or her course of reading, the research student takes several steps towards more independence and expertise and the supervisor’s role during this journey is to be a critical friend.

The notion of reconstrual suggests that when an individual discovers evidence that challenges his or her constructs, new constructs are formed and the construct system is re-organised accordingly. For some years now, the construct as narrative and the storytelling metaphor have been advocated as tools in helping people to exemplify and validate their construct (e.g. Mair, 1988; Pope & Denicolo, 2001; Procter, 2009). According to Procter (2009) the very telling of a story makes us realise that there might be a conflict between what we are telling and what we had previously construed, which in turn leads to revision and clarification. This transformation is integrative, irreversible, bounded and sometimes uncomfortable since it involves challenging previously held world views (Pope & Denicolo, 2001; Procter, 2009; Salmon, 1992). A critical time in the transformation of the student’s learning comes when the student engages in the reading and reviewing of the literature, which is the theme of this article.

THE STUDY

The aim of this study is to explore processes of doctoral reading and ways of making those processes visible. This article draws on data from a pilot study which documented one full-time PhD student’s reading during three years within the disciplinary area of Education. In this paper, the PhD student is given the pseudonym Bob. Two sets of data were collected: (1) the student’s first year supervision notes and e-mail conversations between the student and one of his supervisors (the author) around critical reading and reviewing the literature, and (2) the student’s elicited ‘river’ and narrative story three years later.

In order to highlight the PhD student’s development and progress in relation to the literature

reading and reviewing during the first year of supervision, around 50 pages of written supervision notes and e-mail conversations were analysed using the different ways of conceptualising literature review found by Bruce (1994): literary review as (1) a list, (2) a search, (3) a survey, (4) a vehicle for learning, (5) a research facilitator and (6) a report.

The river interview, or more often referred to as snake interview, is a constructivist elicitation technique where a flow chart is drawn by the interviewee in order to promote reflection on particular events and experiences in his/her professional life (Denicolo & Pope, 1990; Pope & Denicolo 2001). In this study, the metaphorical term of *a river* is used as it conveys the flow of a doctoral student's experiences over time. It has been proven in several constructive research studies to be an impressive tool for eliciting critical incidents (Apelgren, 2001; Burnard, 1999; Cabaroglu & Denicolo, 2008; Denicolo and Pope, 1990). The Experience Corollary in Personal Construct Psychology states that "a person's construction system varies as he successively construes the replication of events", which indicates that constructs develop and change over time and are influenced by earlier experiences. Cabaroglu & Denicolo (2008:31) describe how the snake interview was designed "as a tool for understanding how critical incidents contribute to the formation of constructs elicited later in life". Equally important is the fact that the technique allows "the participants to use their own words and to indicate issues which are personally important" (Pope & Denicolo, 1993:541). Similarly, the use of a river as an alternative metaphor in that technique helps in bringing forward different memories of past events and it provides a storyline and a plot, which helps to both structure and deepen the interview which follows.

In the present study, the PhD student, Bob, was asked to think back over his PhD period in terms of a meandering river in which each bend represented an experience related to his reading and literature review that had influenced the direction of his PhD study. He was then asked to draw that river and write a few words about the

experiences and influences during those years of study. The student spent around 30 minutes alone before the subsequent story telling, following his river. The term 'story' is used to describe the comments following the river's course. The idea of using the metaphor of 'story' is to further bring forward reflexive awareness in the construing and construction of knowledge related to research experiences. Even though the student set the agenda for the story initiated by the river, it is to some extent an intersubjective encounter between the interviewer and the interviewee. However, it is the student's experiences and construal that are fundamental.

The interview was transcribed verbatim. In the content analysis of the collected material, the following tools were used: (1) *time chronology* in order to track down essential reading during particular stages of the PhD journey, (2) *frequency* of wordings and themes related to the reading, (3) *conceptualisation of readings*, and (4) *consequence*, i.e. if patterns appear in different collected data (e-mail conversations, supervision notes, rivers and story data).

RESULTS

Kelly describes a person's construing as a "network of pathways" which "both facilitates and restricts a person's range of actions" (Kelly, 1963:49). Readings during the PhD period are processes of making sense, of experiences being tested and revised or reinforced. It could also be described as creating something new by "successively loosening the ways we construe, then tightening up to a defined outcome" (Walker & Winter, 2007:454). The findings indicate that changes and development occurred over time in several areas regarding the academic readings, in particular in: (1) independence, (2) iteration and (3) foci. The table below (Table 1) provides an overview of the time chronology relating to type of reading, influences and foci of literature. However, the reading is not linear, but rather circular and hermeneutic in character, where re-reading adds to new experiences and insights.

Table 1: *Time chronology of readings, influences and foci of literature reading*

Year	Type of texts	Area of research	Source of influence	Foci
2007-2008	PhD theses in Language Education	Assessment, culture, curriculum	MA Course literature	Language education overview
2008	Journal article	Language tests	Provided in-service course material	Specific content knowledge, test
Spring 2009	National reports, journal articles, books	Assessment literacy, language tests	Own literature search, mainly web based	Literature review before application for a PhD
Autumn 2009	Books	Educational philosophy	PhD Course literature	Knowledge and competences, 'phronesis' (practical wisdom)
	Books, articles	Educational psychology;	Recommended by the supervisor	Novice (newly qualified) and expertise teachers
	Articles	Curriculum studies, assessment	Recommended by the supervisor	Teaching competences, assessment literacy
Spring 2010	Articles	Curriculum studies	Recommended by the supervisor	Teaching and teacher knowledge and competences
	Book, articles	Educational psychology	Recommended by the supervisor	Learning, personal constructs
	International reports	Curriculum studies	Recommended by the supervisor	Commission, authorization, background material
Autumn 2010	Articles	Language assessment and tests	Recommended by the supervisor Own literature search	Holistic and specific language assessment
Spring 2011	Books, articles	Statistics	PhD Course literature	Tools for analyses
Autumn 2011	Books, articles	Language assessment and tests	His own literature search	Assessment literacy
Spring 2012	Books, articles	Language assessment and tests	His own literature search	Assessment literacy, raters, makers
Autumn 2012	Books, articles	Statistics, language testing	His own literature search	Tools for analyses <i>Validity</i>
Spring 2013	Books, articles	Statistics, language testing	His own literature research	Tools for analyses
	Books, articles	Statistics, language testing	His own literature research PhD Course literature	Tools for analyses <i>Generalization</i>
	PhD thesis	Language assessment	Own literature research	Literature review, background
Autumn 2013	Reports, books	Statistics, language testing	His own literature research	Tools for analyses, <i>Inter-reliability, Reliability</i> , literature review

When asked to think back and draw a river highlighting important bends in his literature reading for his PhD, interestingly, Bob went back and recollected readings two years prior to his PhD studies, which indicates that the reading and thoughts about the topic in question were in his

mind, at least subconsciously, long before he applied and was accepted as a PhD student. Being a verbal person, Bob provided a rich river with 15 bends dating back six years, which he elaborated on in the following interview. The figure below shows Bob's river:

Figure 1: *Bob's river*



From dependence to independence in reading

The progress from dependence to independence is seen by the fact that early in the doctoral study, the source of influences was mainly course literature and literature recommended by the supervisors. In the supervision, supervisor intervention or guidance is often necessary in the development towards autonomy and independ-

ence. The data show evidence of different stages of literature reading and reviewing over time.

'Literature review as a list'

At first, Bob found it strange to be a student again and not a teacher, which is his profession. At the same time, he was eager to listen to ad-

vice and to read what was suggested by his supervisors. As is evident in Table 1 and Figure 1, the reading is centred on course literature and recommended articles. Bob collected and listed articles and books representing the literature of the subject and started to gather a description of items and relevant concepts. Quite often this also included a summary of the main points of important research articles.

The literature review may well start before the student is admitted as a PhD student, as a research plan needs to show some evidence of knowledge about the research area. Even so, the task and the whole endeavour may seem daunting at the beginning. In his notes from the very first session in the beginning of the first year Bob writes: “the project feels ‘amoeba-like’ and I would like to exchange many issues with you. At the moment things are vague”. For Bob, as with most newcomers, too many different things are happening at the same time and he senses that he has no real grasp of the research process and where to start. At the same time, he is eager to begin and recognises the importance of reading: “Have a desk and a computer now, therefore I need to roll up my sleeves and get started with my reading”.

‘Literature review as a search and as a survey’.

During the first year, Bob was acting more and more independently regarding his readings. He was then more actively trying to identify relevant literature that focuses on his particular research area as well as in related areas and trying to connect past and present studies to his own field of research. In his notes, he states that he appreciates the possibility of venturing and discussing different ideas and thoughts about his subject and his reading. In addition, he starts to clarify certain issues to the supervisors and in the notes he writes: “I explained my thoughts about X”. Bob’s thoughts and hypotheses are put forward in the supervision discussions. The supervisor’s role of trying to help structure the reading towards scanning the field and at the same time pushing the student towards starting to write and focus on research questions, is evident in the notes: “My supervisor thinks that it is good if I start to write by describing the different structures, so that I can get a grip on the context and

thereby focus and find concrete research questions”.

Similarly, there is progress from dependence on supervisors’ recommendations towards an independent literature search through the use of search engines and expanded reading. In the interview Bob comments on this:

“I search through Eric and Google Scholar. I test different concepts, looking for words that appear in the titles. It has become more and more narrow. Then I also use the references in articles I read. I continue to delve deeper and deeper. I normally highlight those closest to my study or if there are big names - then I check for new texts, so I don’t miss anything”.

Bob comments: “I was not prepared for the search engines, that it could be *so* infinitely vast, that there could be *so* much literature”.

‘Literature review as a vehicle for learning’

In the next phase of the supervision, the topic, the actual research area and examples of other’s research close to Bob’s study become more and more in focus in readings. Bob comments in his notes that: “this is something I would like to explore”, “I will consider this further, interesting stuff this”, “I will keep my door open and see what more there is to it”. Bob has started to question experts and is reflecting and making connections around what he is reading. He has also begun to define concepts and see patterns more clearly and he wants to check what has not yet been investigated. The focus is on topic knowledge and understanding derived from reading the literature and using it to check ideas or test personal experiences. It is apparent that the literature reading is actively influencing the process and the progress.

In his notes, Bob is very enthusiastic about the supervision and states that those sessions help him to make progress in his research studies as “PhD studies are quite an implicit process and then your supervisors are extremely important to raise my confidence”. When analysing the extracts and notes from supervisions during this period, it is interesting to note a barely visible tension between the supervisor’s urge to push forward and the student’s need for independence: “My supervisor says that my sketch of different studies is good, but wants me to go

back to X”, “My supervisor thinks that I should narrow my scope”. All the ‘says’ and the ‘wants’ of the supervisor are not met and Bob is now acting in a more confident and autonomous manner. He comments in his notes that: “But I said that I didn’t want to exclude important overlapping”. Before meetings he often provided a list of issues that he wanted us to discuss.

‘Literature review as a jumping board for own research’

During this period, it is obvious that Bob is heading towards an awareness of the importance of concept definitions; and the more he reads the more he also starts to question other researchers’ definitions, including those of his supervisors: “So far I think that the literature I have come across has been rather unclear, even though some have tried to make a distinction”. This awareness leads to thoughts about how to tackle this dilemma: “Maybe this is something that I could claim in some texts, in an article maybe? Or investigate and explore how those issues in particular are dealt with”. This indicates that the reading and reviewing of the literature have become important for justifying his research. When preparing for a poster and a paper for the doctoral seminar a real focus on methodology was needed related to the actual research design and the connection to literature reading and reviewing. Bob writes: “I need to write about different concepts and perspectives – to try to capture the tensions, agreements and disagreements within the area”.

Iteration of reading

In the river interview there are several instances of what Bruce names as *‘literature review as a research facilitator’*, where the review has a direct impact on his research project. In fact, this is already obvious when Bob started to search for specific literature using different search engines. He returned to several texts to critically re-analyse them and see them in another light, through the lenses of new constructs, when he “digs deeper into them”. In addition, Bob explains several times in the interview how he returned to specific literature, years after the first

reading, with another more focused reading: “I had read all this before, but it was almost gone and now I had a chance to dig deep into the reading. I started to really understand what it was about”. This iteration of reading, the re-reading with a different understanding relates to the constructivist looking through the new goggles of new constructs. As expected, Bob’s reading became more focused and specialised as his study developed, from a very general, broad, formation reading (German ‘bildung’) on the way to the specialised, detailed, close reading. Bob commented:

“It is like going into different worlds of languages /---/ sweeping through times and getting a lot of new concepts, which makes me look at the world in another way. But when I go into my specific area of research, then it becomes much more focused in a way, on a micro level. /---/ It is like zooming in and out, which I like.”

Along the course of reading the construing is loosened, opening up to new evidence and insight, and at the same time tightened to sharpen the research project. The broad general reading is important for the PhD progress as it challenges Bob’s previously held constructs and thinking and it makes him later go back more in detail to certain issues. For example, reading a book in educational philosophy about Aristotle’s term ‘phronesis’ (i.e. the practical, reflective knowledge gained through experiences over time of how to act in particular circumstances) Bob comments: “It left me with quite a lot of thought about seeing and discerning and being sensitive to wisdom ... it made me think a lot about the person/the teacher who looks at someone and who should be able to distinguish and determine”. The matter of teacher wisdom and ‘novice/new and expert’ teachers is a thread throughout Bob’s PhD study. It is easy to perceive this as essential for Bob, both personally and professionally, and related to his teacher experiences. The iteration is also seen in Bob’s comments to his readings where he tends to use positive acclamations when describing his re-reading: “Enormously beneficial”, “Huge impact”, “An eye opener”.

Different foci in reading

Although the readings and the re-readings move Bob's study forwards and onwards, the readings are not linear or cumulative. Bob talks about "struggle with my concepts" at an early stage and later discusses his research "through the concepts". Hence, the chronologies of Bob's readings indicate that the readings become more and more bounded, structured and specific. This is inconvenient in many ways and, as shown previously, the reading and connecting were found to be much more complex and harder than anticipated.

There is a focus in the reading on central concepts and concept formation throughout the years, but at times, additional literature relating to methodology becomes essential. Literature readings on tools of analysis become the main reading for some periods, especially after the data collection, during the phases of analysis and writing up. Bob refers to these as "core literature, which has to do with reliability and validity and theories of generalizability". He describes how he keeps his readings in different physical "piles" in his study as well as in files on his computer – all related to different chapters in his thesis.

The progress is also obvious when Bob talks about how he previously struggled with concepts and was not always sure how to include them and use them, whereas now "I feel that I can connect them to how I want to discuss my research with the help of the concepts". He is now able to construe the concepts more elaborately as they have become internalised and he notices that "I started to feel that this is my area of research and I feel I have a language for presenting and writing up my results".

DISCUSSION

The aim of this pilot study is twofold: (1) find out more about the very process of doctoral reading, which is an area under-researched, and (2) to discuss ways of making academic reading processes visible to the doctoral student and the supervisor alike. The study was designed in order to elicitate development and progress in relation to academic literature reading and reviewing during one doctoral student's study. Theories of

personal construct psychology and transformative learning have influenced this study and the interpretations of the dialogues, the river and the story telling. Procter (2009:26) states that "the construct generates and selects a narrative", which in turn is open to reconstrual. Bob's comments that: "my notes and summary yet again resulted in lengthy texts. This is an important part of my process, it is something to go back to and it raises so many new questions and ideas", is an example of the power of narratives. It shows that, the central notions of 'critical reading' and 'reflection' are tools to help the student to move forward and develop as a researcher and they are essential for the learning process (Mezirow, 1981; Pope & Denicolo, 2001).

Scope and coverage are two essential issues concerning academic reading in relation to doctoral studies (Bruce, 1994 & 2001). As seen in the results, the 'area of research' and the different 'foci' in readings are neither limited/selective nor cumulative. Rather it shows how the reading process is meandering and reiterating around certain issues and concepts. Close to scope and coverage are the issues of how comprehensive ("all available and relevant literature") or broad ("readings beyond the specific topic") the readings need to be. Early in the doctoral process, Bob comments: "I wish I had a 'delimitation tool', because I tend to go astray. However, those pathways are always educational and fruitful, but tend to take up a lot of time". On reflecting back on his first year, Bob writes in his notes:

"It is good that you push on, so that I put down my foot more and dig where I stand. The gardener in me wants to create harmony in the whole garden; a flowerbed or a border does not give the whole impression."

The quotations above highlight the necessity of supervisory guiding and the co-constructive stance of doctoral students' development towards autonomy and independence, which several researchers on doctoral supervision also emphasize (e.g. Bruce, 1994; Pope & Denicolo, 2001; Salmon, 1992; Wisker, 2015). In this paper I have focused on autonomy and independence in *academic readings*, a limited research area in doctoral supervision. For this reason, the mail conversations and the notes have been one way to allow for revisiting earlier discussions

and elaborations on specific core issues, and Bob notes that: "I have collected and printed all our mail conversations. This is a goldmine. It really is". I would argue that one possible way of helping doctoral students to delimit the scope of readings would be to save documents, such as supervisory notes and email conversation. This will enable the student to go back to both readings and discussions on what readings are important for his/her particular study. It is a matter of finding his/her particular reading webs, that is, a kind of inter-textual network of texts which are constructed during the reading and which can be used later in writings. This will help to retrieve the excitement felt in the beginning of the process and connect this to the present time, or, with the words of Kelly, "the network is both flexible and modified, and yet structured" (Kelly, 1963 Fundamental Postulate). Thus, it is the qualitative change as a network, and not "as additive and incremental" (Salmon, 2003:97), that is captured in the results.

In academic reading, Bruce (2001) talks about both a system-oriented approach to reading and a user-oriented approach to reading and suggests that the user-oriented and subjective approach will be better suited for doctoral students early in their processes. This stance is anticipated by Salmon (1992:13) when she talks about "personal immersion with the area concerned". The results imply that the reading can be understood as both subjective user-oriented and system-oriented, but at the same time it becomes more and more bounded, structured and specific. As the results show, the readings and the re-readings are transformative and irreversible. It is interesting to note how the reading processes are found to be much more complex and troublesome than anticipated and not very linear or cumulative. Talking about some specific literature that has personal relevance for him Bob says: "It [the concepts of novice and expert] haunted me for a long time, well, it still does actually".

CONCLUSION

This paper has attempted to illustrate ways in which to make explicit the personal and internal processes and construing of academic reading during a PhD. Mann (2000) discusses reading

from two perspectives: the historical perspective (drawing on past experiences and future prospects) and the socio-political perspective (within particular social contexts). Both perspectives have relevance for this study. If starting with the latter, this study is situated in a Swedish context where PhD students are employed at the university and thereby could be regarded as both colleagues and students. The less hierarchical environment and the day to day encounter may account for the openness in communication. The narrative perspective is at the centre of this study and, I would say, for Bob as well.

The author acknowledges a number of limitations with this study. First, it focuses on only one PhD student's experiences. However, the main aim of the study has been to pilot techniques to explore processes of doctoral reading and ways of making those processes visible. Second, the study is highly contextually situated. Hence, there is a question as to what can be drawn from the results and transferred to other PhD studies and supervisions. In spite of the above limitations, there are at least two things that can be learnt from the study: (1) the use of the river technique captures the narrative of readings over time, (2) extensive documentation helps in remembering and appreciating the progresses and development in reading over time.

I would argue that the use of the constructive interview structure of a river interview helps participants to see and articulate developments and changes and allows them to identify their agenda. The actual bend (critical and significant readings) helps the interviewee to express himself and elaborate the significance of readings that he had marked; in a participant-centred interview, the interviewer keeps more in the background. This may ensure that the interviewee's reflections and elaborations are in focus. In the reported study, this is obvious in the doctoral student's awareness of the inter-textual network of texts which were constructed and reconstructed during the different readings: the reading web. In addition, the river and the story telling deepened the understanding of the significance of the student's reading processes as a way of shaping and sharpening the research design throughout the PhD study period. It highlights critical incidents or portals in the development of the doctoral student's understanding of his re-

search area, or with the words of Bob: “The reading opens up new doors endlessly”.

Narratives and stories have proven to be good tools to highlight thought processes and key issues in different areas, in this case the doctoral reading process. Through excerpts, voices are heard and we can more clearly understand people’s experiences. As pointed out throughout the article, supervisions are dialogues between a student and supervisors and without documentation these dialogues are easily lost. The agreed ground rules of note taking helped the PhD student and the supervisors to remember and see the development during the years. One pedagogical implication is therefore to arrange the supervision so as to make explicit the very activity of academic reading and to help students to frame the processes of engaging in readings that are vital for their studies. This can be achieved through extensive documentation by the doctoral student and by using of a variety of elicitation methods to explore personal construing in relation to academic reading in supervision.

In future studies the aim is to further elaborate the above techniques and investigate how doctoral students in different disciplines construe their readings. As pointed out, readings are both personal, historical processes and contextually situated and hard to capture. In the current article, the use of documented notes and later the river interview have highlighted a range of experiences during one PhD student’s literature reading; these have made him aware of the journey that he has undertaken during those years. In his reflections, Bob comments that “I have been involved in an amazing journey, an exciting adventure, first tentatively, then more in depth”. It is hoped that the techniques used in this study will continue to be used in other contexts and together with other PhD students in order to show that doing a PhD is indeed both professional and personal, but not a lonely journey.

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