PhD research and change in thinking

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Abstract

This action research aims to explore how my thinking has changed from doing my PhD research. My data consisted of my explicit records of actions between October 2007 and March 2010 (my messages on a web board, my emails to my supervisors, my emails requesting help from experts in the community, and my progress reports) and my conscious realization of changes in my thinking. Analyzing the data from critical and non-critical perspectives, I found that, critically, I had increased my awareness of underlying issues of decision making, and, non-critically, I had increased my independent judgments about my PhD thesis, associative thinking ability about relationships of components in research, and awareness of important external issues related to my PhD thesis. Through conducting this action research, I have a better understanding of significant changes in my thinking and an improvement in my reflection skills.

"What will we get from doing a PhD?"

I posted the message above in December 2008 on a web board of my PhD group. This question had been on my mind since I started doing my PhD thesis in October 2007. What underpins such a recurrent concern was perhaps my subconscious curiosity about the goals of studying for a PhD. This implicit concern was made explicit by one of my PhD supervisors who asked me through an email whether I was interested to write an action research report looking at my development as a researcher. Though not certain of what action research was, I agreed to his suggestion. Then, I began my action research.

Focus

Having decided to do research, from my experience in conducting PhD research, though not yet complete, I was well aware that I first needed to have a research focus and a rationale. To get a focus, I reread that email pondering over 'personal development as a researcher' for a few days. What is it? Something about change in thinking? What indicates such change? Changed cell brain networks as cognitive neuroscience suggests? Changed perceptions? Or, changed behavior? And as a PhD research student, what change would occur?

In studying for a PhD, students are expected to accumulate knowledge of their own interests, and to develop thinking abilities while conducting their own research. Whereas knowledge is specific and useful in a certain context and period, thinking abilities are more applicable in various contexts, and seem to be more useful in the long term when the students graduate and have to conduct their own research without any supervisors. Thus, it seems to be more interesting to investigate the thinking side.

Change in thinking happens every moment and may be influenced by various factors such as perceptions, values, and circumstances. Although these issues are important and worth investigating, they are not the ones I am addressing here. The issue I wanted to focus on was exploring significant changes in my thinking from doing PhD research.

Purpose

I had three main purposes, two for myself and one for the reader. Firstly, I wanted to explore if there was any significant change in my thinking corresponding to my recurrent concern about "What will we get from doing a PhD?" Secondly, it would help me reflect on that change, leading to a better understanding of the significant change of my thinking. These two purposes are in line with one of the goals of action research which aims to understand practice (Craig, 2009; Cresswell, 2005; Kemmis, 2009; Sowa, 2009) and can be done through reflections or examining the taken for granted assumptions that lie beneath them (Burns, 1999). Thirdly, I wanted to share my self-reflected study with others who are developing or may want to develop themselves as researchers.

In search of the methodological approach for my research

Prior to this study, I was not familiar with action research, and questioned whether it would be an appropriate research choice. Having reviewed a few definitions, I found that they were, although quite broad, helpful in my initial understanding of its concept. That is to say, action research is a form of research that can be conducted by people in any context, regardless of their position (McNiff and Whitehead, 2002), and in which the researchers are the practitioners using research as a methodology for identifying the "what" they do and make decisions on doing it better (Parsons and Brown, 2002). Its processes are dynamic and flexible (Creswell, 2005), similar to those of any type of research (Craig, 2009), and can be done in various ways (Wallace, 1998). Regardless of how action research is conducted, one important element is reflection which, Tripp (1993) suggests, is essential to development of professional judgments.

However, before understanding my reflections, I think I need to tell you more about myself.

My background and context

I am now a 3rd year PhD student in a joint program between the School of Liberal Arts of a university in Thailand and the Department of Linguistics of a university in Australia. I started my PhD in October 2007. My PhD research is "Content analysis of Thai and international research articles in ELT". I spent my first and third years in Thailand but my second year in Australia. In my first two years of PhD study, I generally had supervisions with my supervisors once a week. The supervisions were conducted face-to-face and through emails. Every six months I had to write a progress report and make a presentation on my progress. My latest presentation was in March 2010.

In the last two and half years of my PhD life, I spent most of the time on two tasks: creating a framework to code research articles, and using the framework to code 200 research articles. While focusing on those tasks, I also spent some time participating in seminars, attending conferences, and talking with my PhD colleagues in Australia and Thailand both on face-to-face and online bases. The interactions were in flux, and thus difficult to describe in a linear manner.

The relationships I had with my supervisors and my PhD colleagues were good. The feedback I received from my supervisors was helpful, particularly in times of confusion when trying to create the coding framework. This helped me maintain or even enhance my motivation, which was related to my learning goals.

Prior to embarking on my PhD, my goals were simply to learn how to do research with my supervisors and to obtain a PhD. With these goals in mind, I tried to follow my supervisors' advice as I believed it would help me graduate soon.

Nevertheless, my goals have changed. I now have three goals: to produce a thesis and research articles, to know how to conduct content analysis, and to develop myself as a researcher. The first is the outcome, whereas the others are the process. The difference between the second and the third lies in the concept of transforming oneself to be a mechanistic researcher who simply follows ways of a particular research practice or approach without much thinking and/or a liberated researcher who does not restrict him/herself to a particular approach but can always learn and know how to research. Of the three goals, the last one is likely to be the most beneficial for my professional development as a researcher. Clearly, the transformation of thinking about my goals was influenced by my PhD process. This could be considered an example of a big (but not yet significant) change in my thinking.

Significant change in thinking during the PhD process

I considered change in thinking as development, resulting from the interaction of an individual with his or her surroundings (Salkind, 2004). This idea has been influential in education at present such as task-based and problem-based learning, and can provide some theoretical understanding of change in thinking at a PhD level.

In my PhD research process, I mainly came into contacts with four groups: my supervisors, my PhD colleagues, academics in conferences or at my department, and books and research articles. Apart from books and research articles, I mostly interacted with my supervisors who I think played a major role in shaping my thinking. Interacting with these groups made my thinking change. Such change was constant, but not all change was equal. Some were minimal whereas others were significant. The change in thinking was significant when I consciously realized that my thinking changed dramatically, making me see myself or my environment in a new perspective.

Specifying what change is significant is a very personal matter, and therefore cannot be (too) difficult. However, specifying what contributes to a significant change can be far more difficult. For example, it took me more than ten supervisions before I could embrace the concept of subjectivity in research, as in "It took me almost at the end of the semester before I realized and fully accepted the subjectivity of some concepts that can hardly or never be objectivised." (Progress report, 1st year), while a phrase from one of my supervisors during a supervision 'Are you trying to follow my idea?' (Mental record of supervision, 1st year) had a great impact on my thinking, almost immediately. While it is easy to pinpoint what contributed to the change in the second case, it was more highly demanding to trace what caused the change in the first. Also, what the two examples imply is that significant change can happen in both a delayed and immediate manner. Change that happens immediately can be called 'a critical incident', which occurs and makes people think about some aspects that are unanticipated (Richards and Farrell, 2005; Tripp, 1993).

Data

Data was one of my concerns before starting to do this research. I already did some actions before I intended to do this action research. Could I use my actions in the past as data in this action research? Fortunately, McNiff and Whitehead (2009) suggest that the action that counts in action research is the action taken with educational intent in the work place. My worries over this issue subsided.

To fully explore change in thinking which was personal and could be externally or internally revealed, two types of data were used in this study. The first was my explicit records of actions between October 2007 and March 2010 which consisted of my messages on the web board, my emails to my supervisors, my emails requesting help from experts in the community, and my progress reports. The second was my mental records of realization of significant change in my thinking. This type of data provided an insight into the change in my thinking that could be realized internally but was not revealed to others.

Data observation and analysis

In analyzing data in action research, there are generally two methods: unstructured and structured (Wallace, 1998). The first, although more

subjective, is straightforward and more flexible in creating themes from interpretive reading. The second, using pre-specified categories, although less subjective, can be quite limited, particularly when it comes to exploring the subjective dimensions of human experience. Bearing this in mind, I selected the first to see whether there was any significant change in my thinking.

To analyze the data, I first recalled from my memory changes in thinking that occurred during the process of doing my PhD research and listed out those changes. I was cautious of any prejudice that I may have during the recall process. Then I read all of my lists, looking for indicators of significant change, and reflecting on those indicators. I was not certain whether to base the analysis on chronological order, on contexts of interactions, on both, or on something else. I also considered several issues that might be related to change such as time, relationship, or feeling. The analysis process was iterative. Finally, I decided to group the indicators under two main themes: significant change that happened immediately (from the critical incident) and significant change that happened in a delayed manner (from the non-critical incident).

Data reflections

There were many changes in my thinking as I could see from my data. Specifically, there were one significant change from the critical incident and three significant changes from the non-critical incident.

Critical incident 1: Increased awareness of underlying issues of decision making

In my first two years, I was consciously, subconsciously, and probably unconsciously trained to think about alternatives when I wanted to make a decision. I was not aware of what was behind those alternatives until recently when I prepared for my latest progress presentation.
This critical incident happened during my preparation when I thought about what I did in the past semester. I remember my supervisors and I had discussions over the past semester about what reliability measurement method to use. I tried to use the method suggested from my reading while one of my supervisors suggested me to use the method he knew. At that time, I did not think about any underlying issue of each method. I saw only differences regarding how to calculate. When reflecting on this issue during my preparation, I realized that there was an underlying issue that could be more fundamental in deciding what measure to use. It was the differences in viewing reliability as a dichotomy, not simply the differences in the calculations—two different codes given by two coders for the same item are considered an absolute difference, and therefore are marked 0, or if the two codes are the same, they are marked 1; or a continuum—the difference between two codes is not necessarily 0, but can be somewhere between 0 and 1.

If I had not made such a preparation, I would have probably not seen that underlying difference. It seemed like the awareness of underlying issues appeared out of the air. The change was realized immediately. Since then, I have started to think more about underlying issues of my own decisions

regarding my PhD research. This change I believe can be applicable and will be beneficial when I have to make a decision.

Non-critical incident 1: Increased independent judgment about my PhD thesis

In my first year I had to ask for my supervisors' opinions of every decision. I was not certain how much power I had in making decisions regarding my PhD research. I thought that I had to ask for approval on every decision that I would make.

> *"I want to delete ELT J on the ground that most of its articles are not research. So the rest are the selected journals for article selection. What do you think?"* (Email, 1st year)

Similar messages, indicating my dependence in decision making, were explicit and quite prevalent in my emails to my supervisors in the first year of my PhD. I think it is quite common for first year PhD students who just started to do research to ask for comments from their supervisors. In my second year, similar to the first, I still tended to depend on my supervisors' judgments and agree with most of the feedback.

> *"Your latest feedback was right…"* (Email, 2nd year)

However, when I disagreed with my supervisors' feedback, I would not follow it without mentioning explicitly that I disagreed. This is because I was not confident in my accumulated knowledge of the issue and in my judgments. However, in my third year, I became more confident in expressing my ideas, was ready to state what I really thought about my PhD research, even though it may contradict my supervisors' feedback, and seemed more independent in making decisions.

> *"I was not convinced that the method suggested would tell what the cause is."* (Email, 3rd year)

The above quotation, however, does not suggest that I have become an independent thinking student who does not depend on my supervisors' feedback anymore. It merely suggests that I have become more confident in my own judgments.

Non-critical incident 2: Increased associative thinking ability about relationships of components in research articles

Coding research articles was the main task that I did in my second year. In coding the articles, I used the coding scheme that I developed. The coding scheme consists of two main parts: descriptive and evaluative. An example of the descriptive category is 'number of authors'. An example of the evaluative category is 'level of strength of discussion'. Coding the former type of category was easy and straightforward whereas coding the latter was much more difficult and required an understanding of relationships of components in research articles. For instance, in coding 'level of strength of discussion', I had to decide whether the main ideas in the discussions can be logically linked to

the main ideas in the literature review. Or in coding 'level of appropriacy of analytical method', I had to make a judgment whether the analytical method matched the data and the research question.

Coding the evaluative category was initially a daunting task. I spent many months in the first half of my second year trying to equip myself with the knowledge and ability to do the evaluative coding. However, through the processes of my own reading and actually coding the articles in my four coding scheme trials, I started to see how elements of research fitted together.

> *"... let you know that I'm very happy with my coding (This happiness is probably derived from the understanding of and confidence in using the framework)"* (Email, 2nd year)

This change in my thinking was more recognizable when I listened to the latest PhD progress report in March 2010. Some presenters talked about their research projects. I felt that some did not see how a theoretical foundation of 'a thing' being investigated could be related to how to investigate that thing. I saw an image of myself in my first and second years of my PhD research.

Non-critical incident 3: Increased awareness of important external issues related to my PhD thesis

Clearly seen in my progress reports is my increased awareness of important external issues related to my PhD thesis. In my first year, my progress report was all about my PhD thesis, indicating that I was concerned about myself only. As time passed by, I noticed changes of my thinking from considering about the timeliness of feedback given by my supervisors to questioning how the department should improve itself.

> *"...Now I'm planning for data analysis, and start to understand the feedback given to me many months ago. This feedback seemed not useful, but it is now. The question is why some 'flash-forward' feedback was not paid attention to or completely ignored."* (Email, 2nd year)

> *"Adjust the progress report form because it focuses on feeling 'satisfied with'. (Maybe a shift from 'feeling' to 'cognition' or 'emotional feeling' to 'intellectual feeling' can be useful to the department.). Also please give more choices 'not just Yes or No."* (Progress report, 3rd year)

My latest progress report was no longer only about the content in my PhD as it used to be, but concerned with political issues. Commenting on such issues as the impact of the department's policies and practices was possible because of the shift in my thinking from only about my actions to possible repercussions.

Final reflections

I have revealed four significant changes in my thinking which happened in different ways in different times during the past two and a half years of my PhD. These changes in thinking, resulting from the interactions I had with

others in my PhD community, indicate my personal development as a researcher, which highlights the importance of interactions in professional growth. Another essential element is reflection. Without it, I would not realize what development I had from doing a PhD.

Having explored significant changes in my thinking, I have understood much more about my cognitive development. Reflecting on such significant changes has helped me become more aware of my thinking and change in thinking. Doing this action research and writing this paper have fostered my reflection skills. Lastly, I think that this report has changed you, though it is probably not noticeable. (Editor: Is the report not noticeable or the change in the reader not discernible?)

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